

Appendix B: Time Series Comparisons 2002-2011

The eutrophication model was verified to the period 2002-2011. Verification implies the 2002-2011 observations were not considered in the parameter specification based on 1991-2000 data. Data for model calibration was obtained from the data base maintained by the EPA Chesapeake Bay Program (<http://www.chesapeakebay.net/data/index.htm>). Observations were obtained from 40 stations among the larger number in the monitoring program (Figure 1). We selected one station in each major Chesapeake Bay Program Segment (CBPS) as well as stations in multiple smaller segments. Time series comparisons were completed for 19 water quality components, at one to three depth intervals, at each station. Comparisons included physical quantities (salinity, temperature, suspended solids, light attenuation), chlorophyll, dissolved oxygen, and multiple forms of carbon, nitrogen, and phosphorus. We concentrate here on the components which correspond closely to chlorophyll, clarity, and dissolved oxygen.

This appendix presents four pages for each time series station. Description of the presentation for each station follows.

Chlorophyll Surface. Ten-year time series of computed and observed chlorophyll 'a'. The time axis on this and the following plots commences on January 1, 2002, and runs through January 31, 2011. In this and following plots, instantaneous observations from the surface sample (1 m) are plotted along with daily-average model values in the cell which corresponds to the monitoring station.

Light Extinction. Ten-year time series of computed and observed diffuse light attenuation. Attenuation was almost exclusively derived from irradiance observed at multiple depths in the water column.

Dissolved Inorganic Nitrogen Surface. Ten-year time series of computed and observed dissolved inorganic nitrogen. DIN is computed as the sum of ammonium and nitrate nitrogen.

Dissolved Inorganic Phosphorus Surface. Ten-year time series of computed and observed dissolved inorganic phosphorus.

Algal Limits. Ten-year time series of computed nutrient limitations on phytoplankton production in the model surface cell. Nutrient limits are daily average values. The limitations are biomass weighted according to the algal groups present. A limitation of zero indicates complete limitation to growth. A limitation of unity indicates no limitation.

Total Nitrogen Surface. Ten-year time series of computed and observed total nitrogen.

Total Phosphorus Surface. Ten-year time series of computed and observed total phosphorus.

Statistics. The mean difference (MD) and absolute mean difference (AMD) statistics are provided for the computations and observations at this station. These statistics are defined:

$$MD = \frac{\sum(P - O)}{N} \quad (1)$$

$$AMD = \frac{\sum|P - O|}{N} \quad (2)$$

in which:

MD = mean difference

AMD = absolute mean difference

O = observation

P = prediction

N = number of observations

Dissolved Oxygen. Ten-year time series of computed and observed dissolved oxygen. The presentation varies depending on local depth of the monitoring station. Comparisons are always presented for the surface sample. At deeper stations (typically prefixed RET and EE) comparisons are presented at the surface and bottom. At stations deep enough to warrant sampling near the pycnocline (typically prefixed CB and LE) comparisons are presented at the surface, mid-depth, and bottom. Statistics correspond to the number of depths plotted.

Light Extinction. Ten-year time series of computed and observed diffuse light attenuation.

Total Solids Surface. Ten-year time series of computed and observed total suspended solids. Model TSS is the sum of the four fixed solids variables (fine clay, clay, silt, sand) plus particulate organic carbon components (algal carbon, zooplankton carbon, labile and refractory particulate organic carbon). Organic

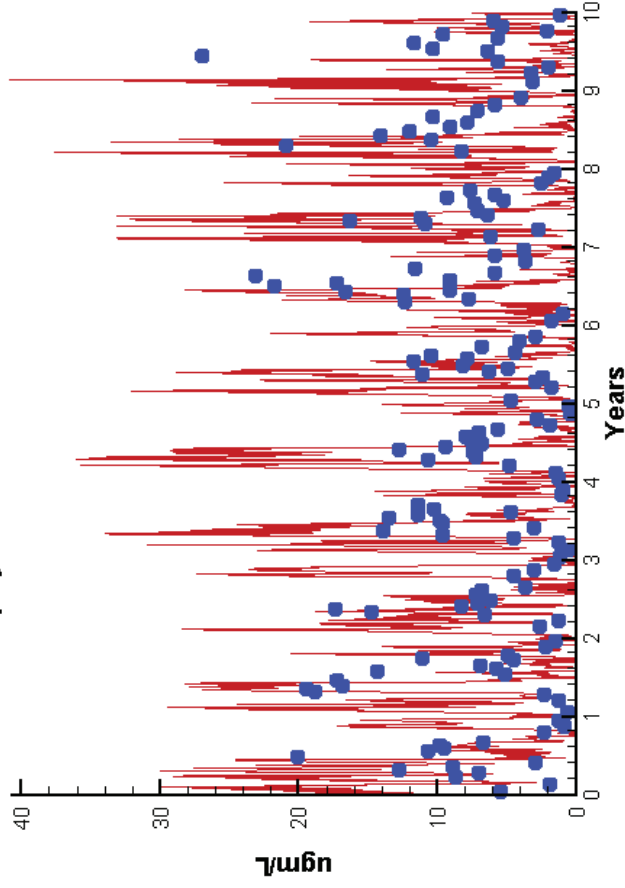
Solids Surface. This graph separates computed fixed (inorganic) and volatile (organic) solids. Volatile solids are obtained from modeled carbon as noted above. No observations are shown since these fractions are not regularly observed in the monitoring program.



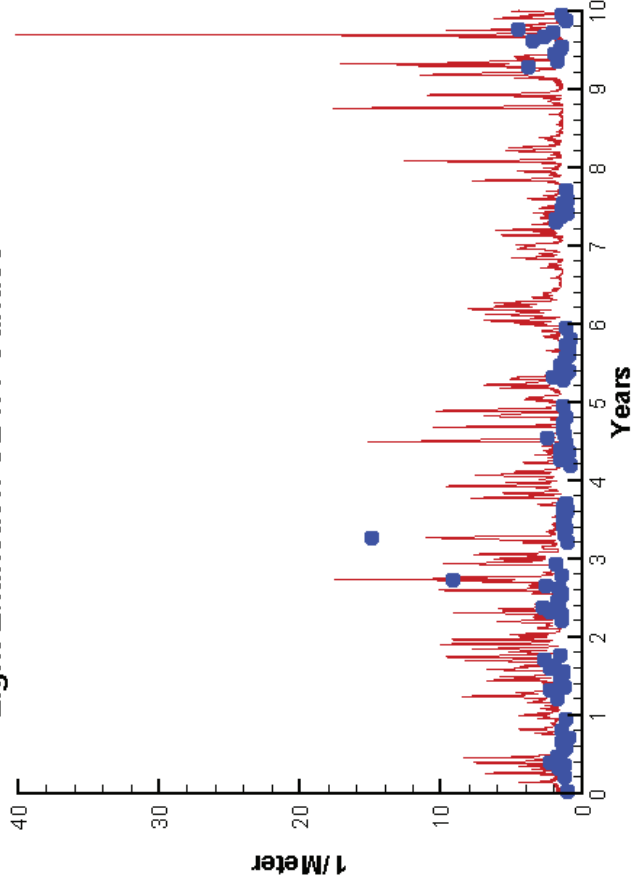
Figure 1. Monitoring stations. Forty stations were selected from this group for time series analysis.

Station CB1.1

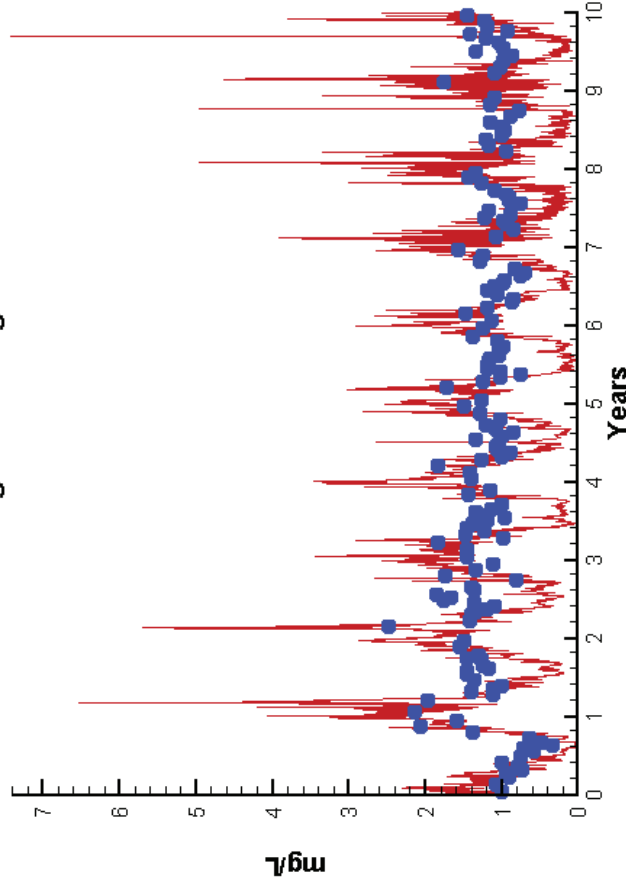
Run185 2002-2011
Chlorophyll CB1.1 Surface



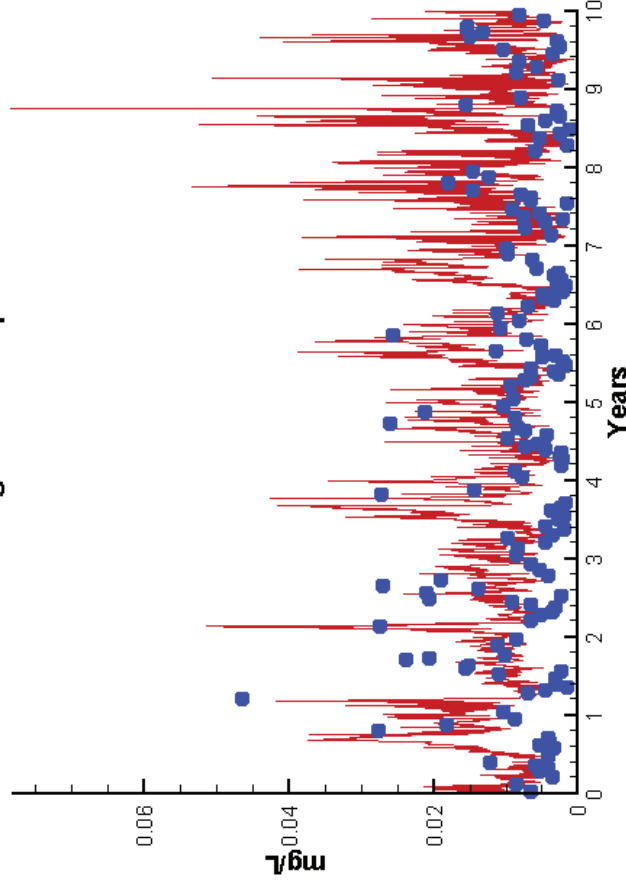
Run185 2002-2011
Light Extinction CB1.1 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen CB1.1 Surface

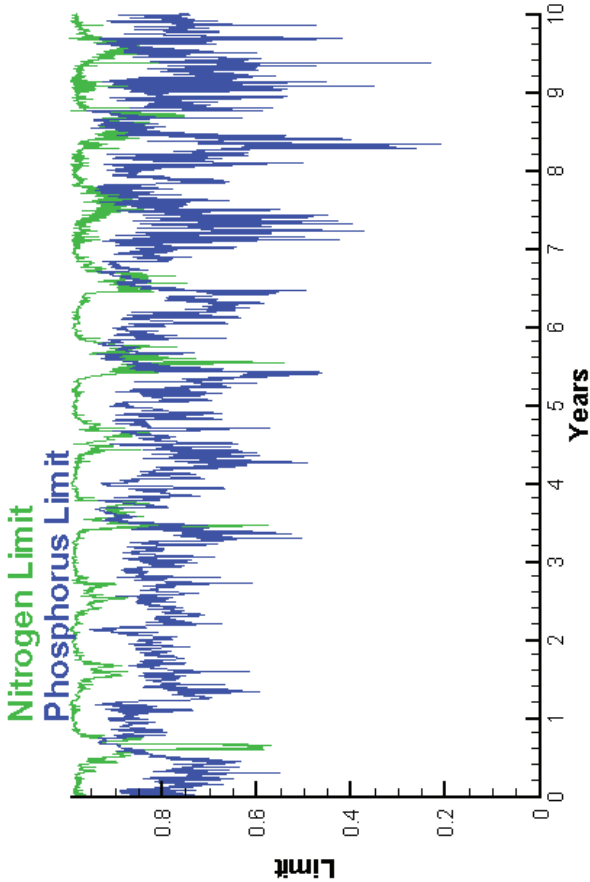


Run185 2002-2011
Dissolved Inorganic Phosphorus CB1.1 Surface

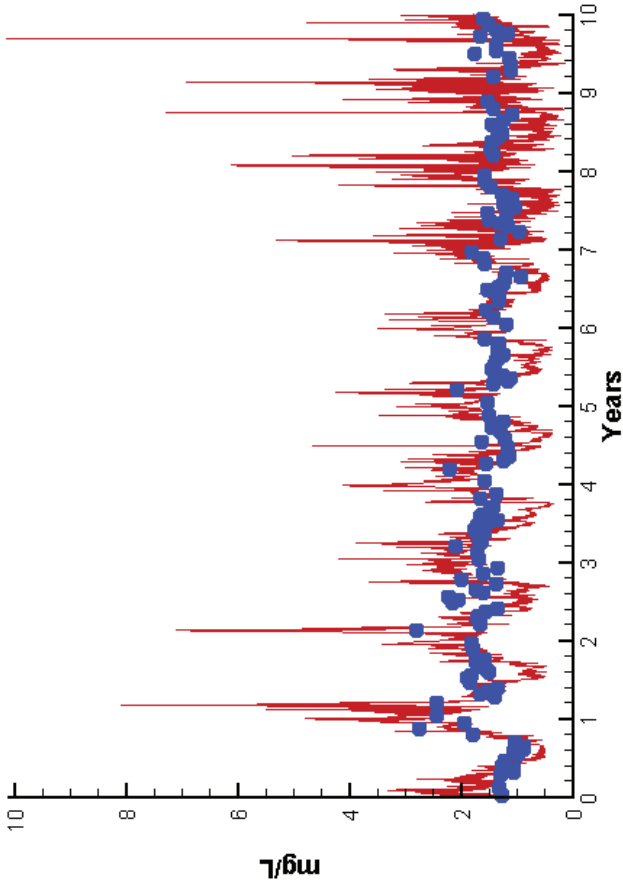


Station CB1.1

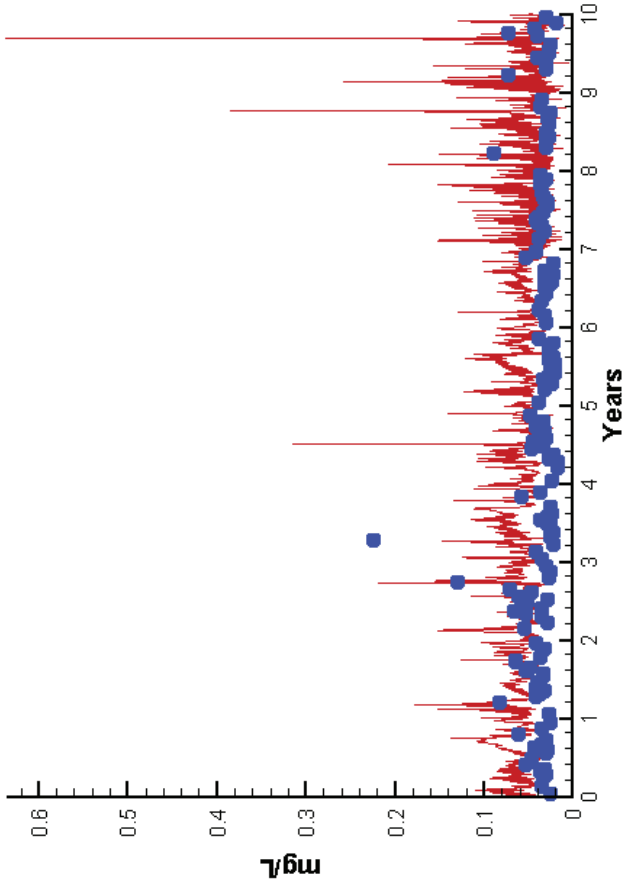
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen CB1.1 Surface



Run185 2002-2011
Total Phosphorus CB1.1 Surface

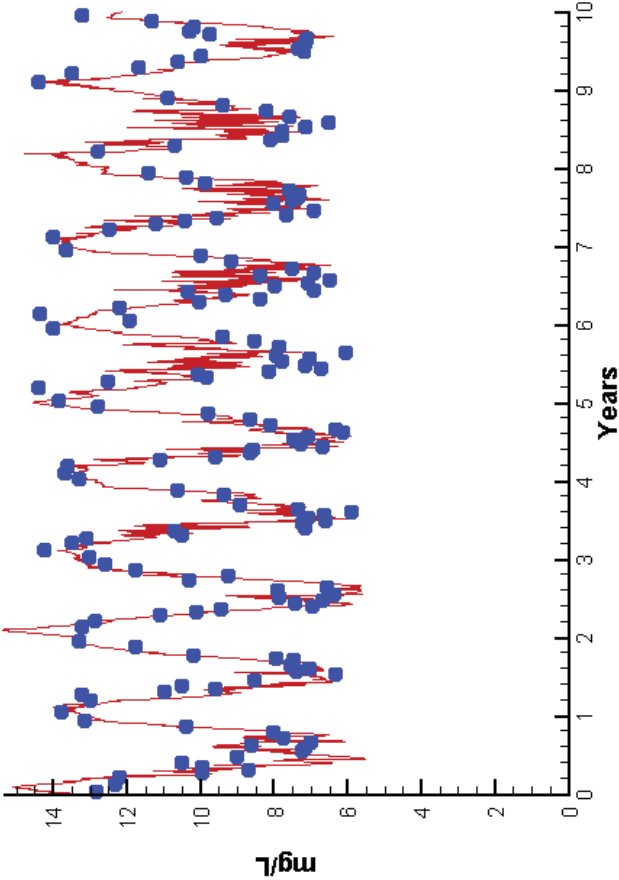


	Mean Difference	Absolute Mean Difference
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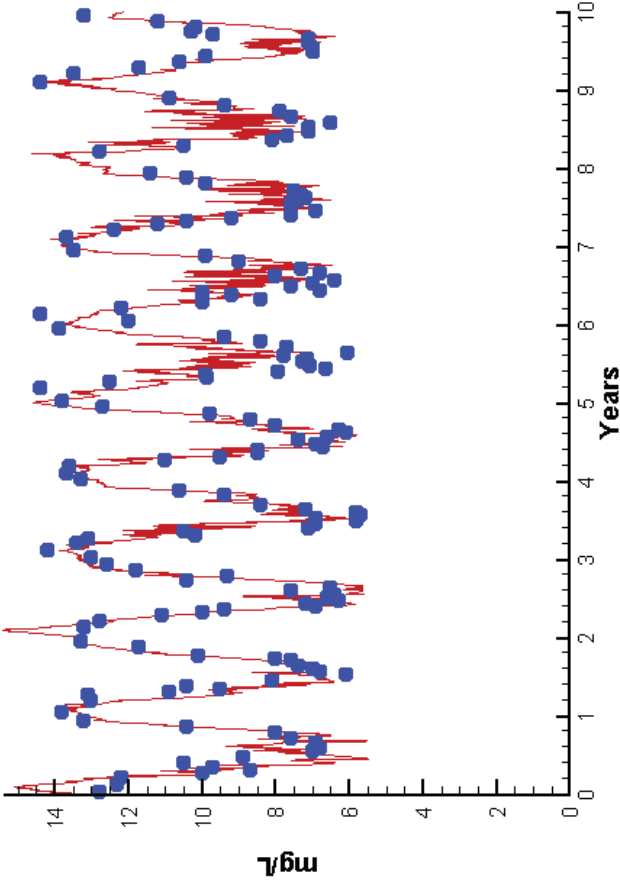
Chl	0.7940	7.3501
DIN	-0.3590	0.5623
KE	0.9067	1.1046
DIP	0.0038	0.0072
TP	0.0205	0.0263
TN	-0.1669	0.5541

Station CB1.1

Run185 2002-2011
Dissolved Oxygen CB1.1 Surface



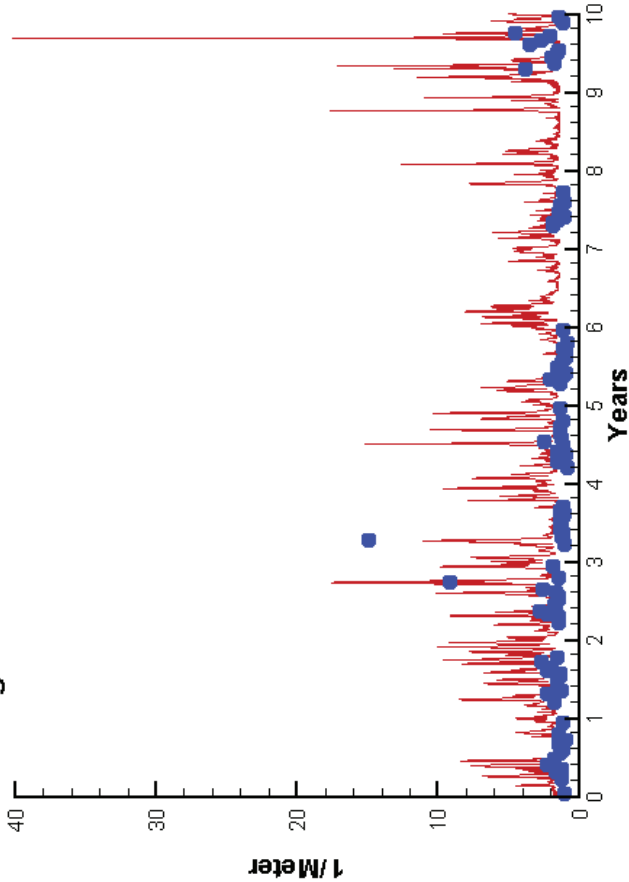
Run185 2002-2011
Dissolved Oxygen CB1.1 Bottom



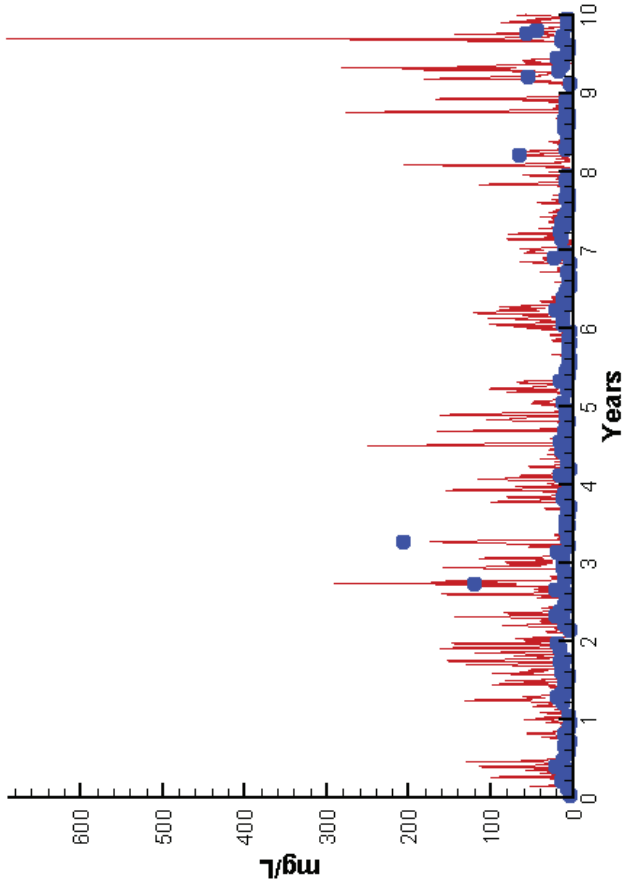
	Mean Difference	Absolute Mean Difference
Top DO	0.2177	1.0974
Bot DO	0.1943	1.0546

Station CB1.1

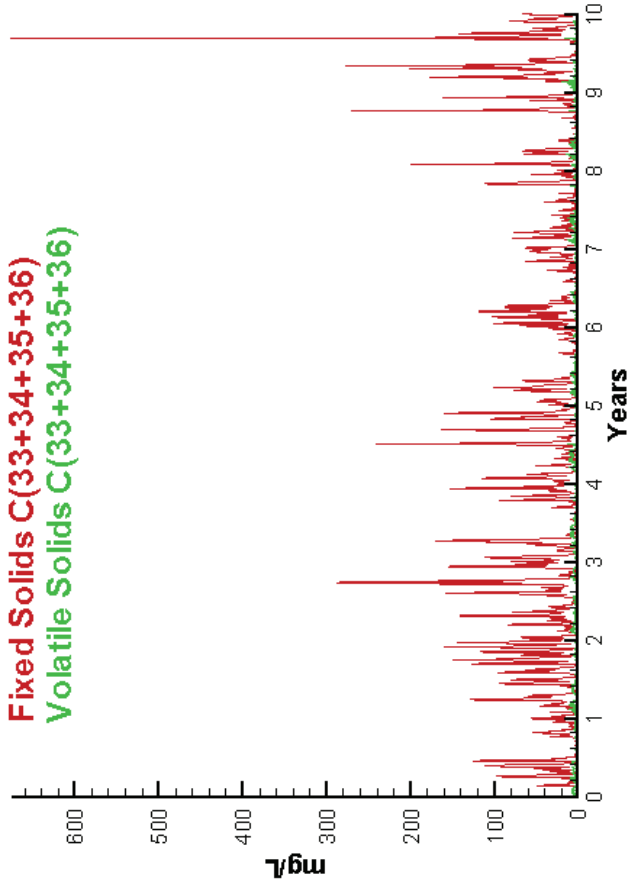
Run185 2002-2011
Light Extinction CB1.1 Surface



Run185 2002-2011
Total Solids CB1.1 Surface



Run185 2002-2011
Solids Surface



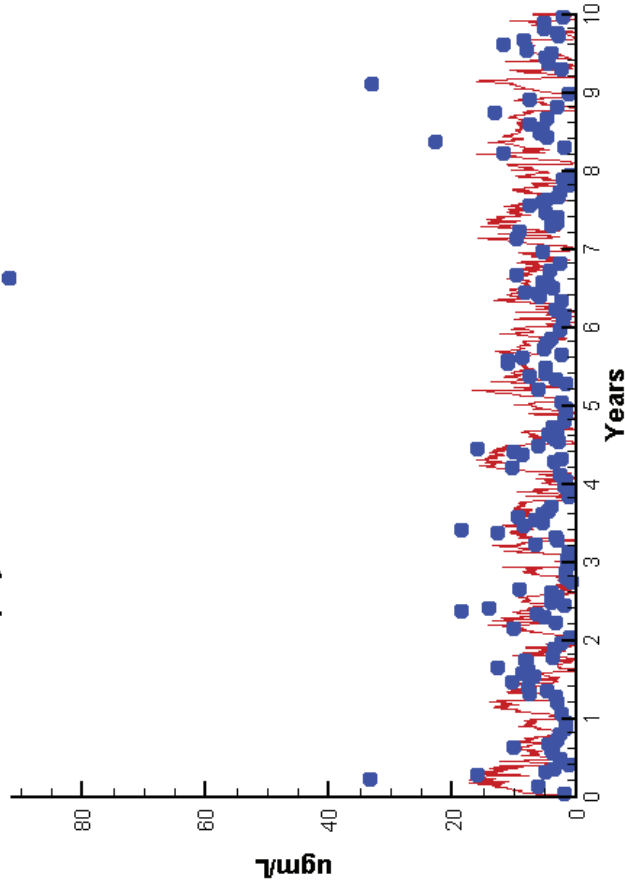
Fixed Solids C(33+34+35+36)
Volatile Solids C(33+34+35+36)

Mean Difference Absolute Mean Difference

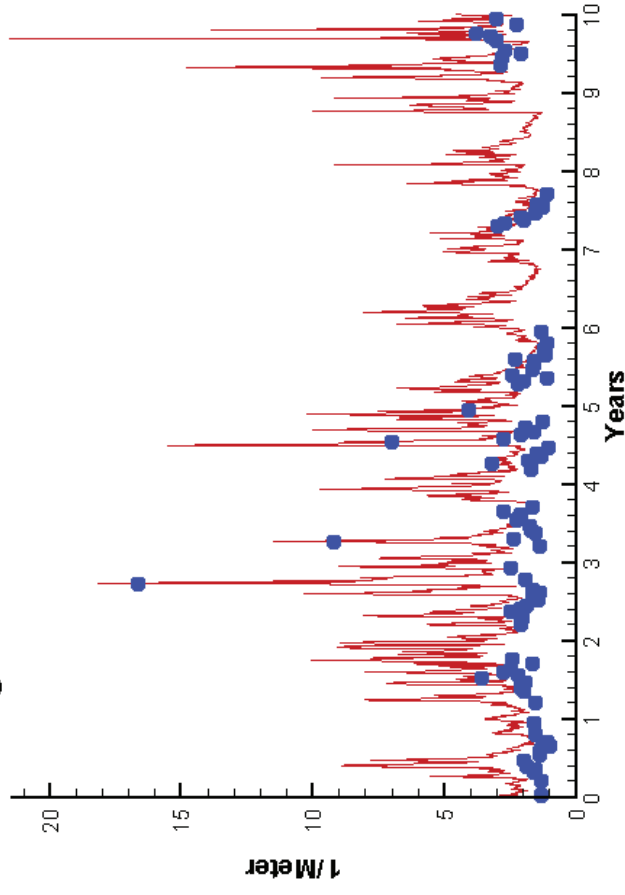
KE 0.9067 1.1046
TSS 13.0704 15.4715

Station CB2.2

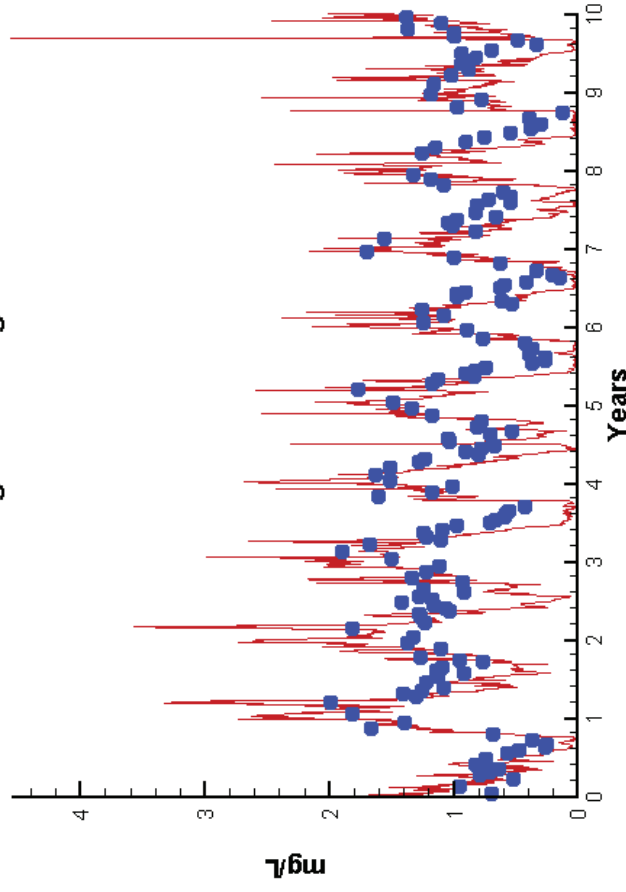
Run185 2002-2011
Chlorophyll CB2.2 Surface



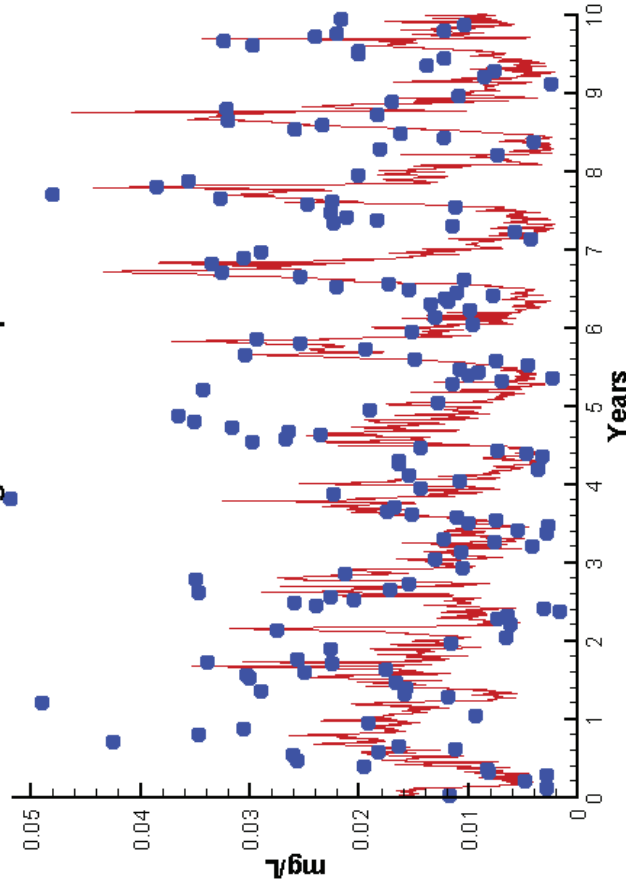
Run185 2002-2011
Light Extinction CB2.2 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen CB2.2 Surface

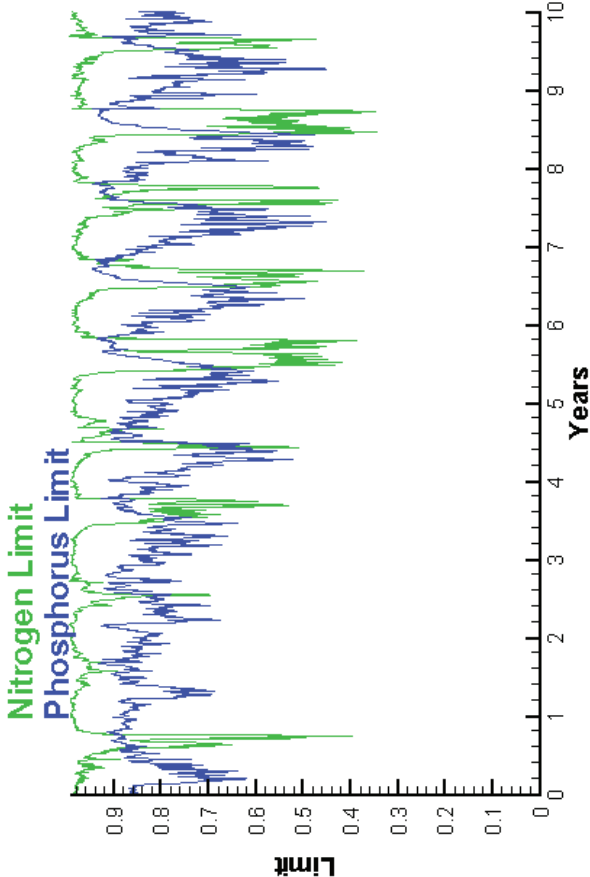


Run185 2002-2011
Dissolved Inorganic Phosphorus CB2.2 Surface

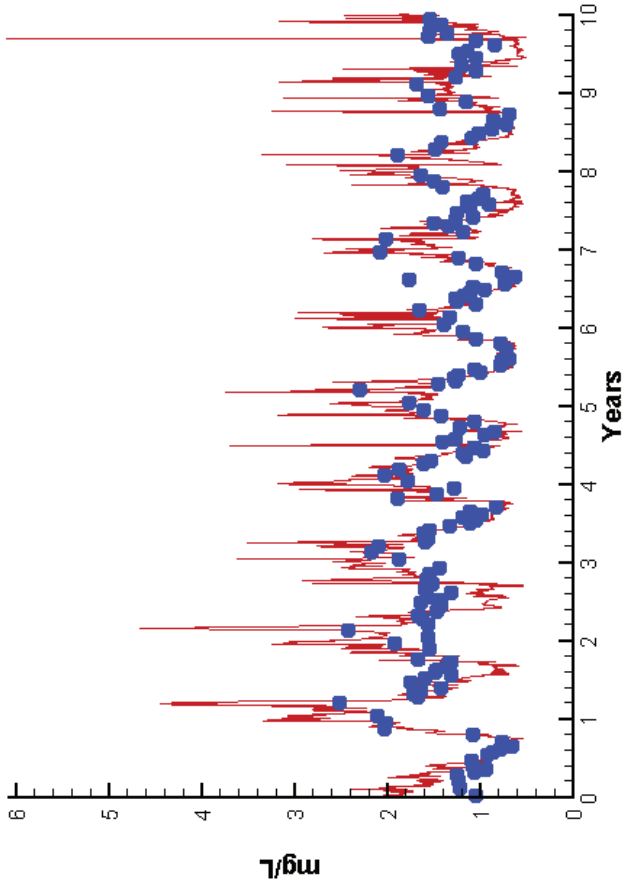


Station CB2.2

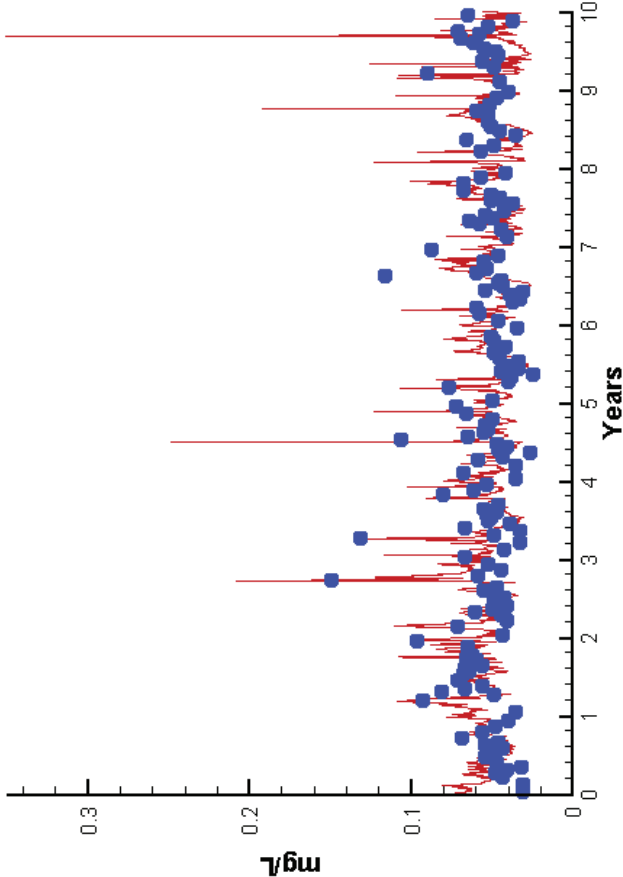
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen CB2.2 Surface



Run185 2002-2011
Total Phosphorus CB2.2 Surface



Mean Difference

Absolute Mean Difference

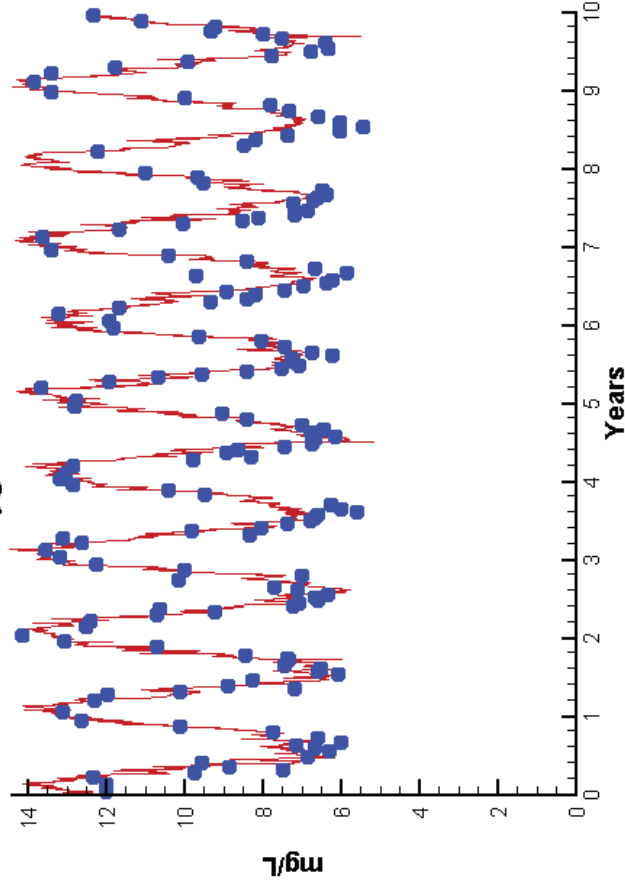
Chl
DIN
KE
DIP
TP
TN

0.5643
-0.2502
1.3096
-0.0047
-0.0028
-0.0601

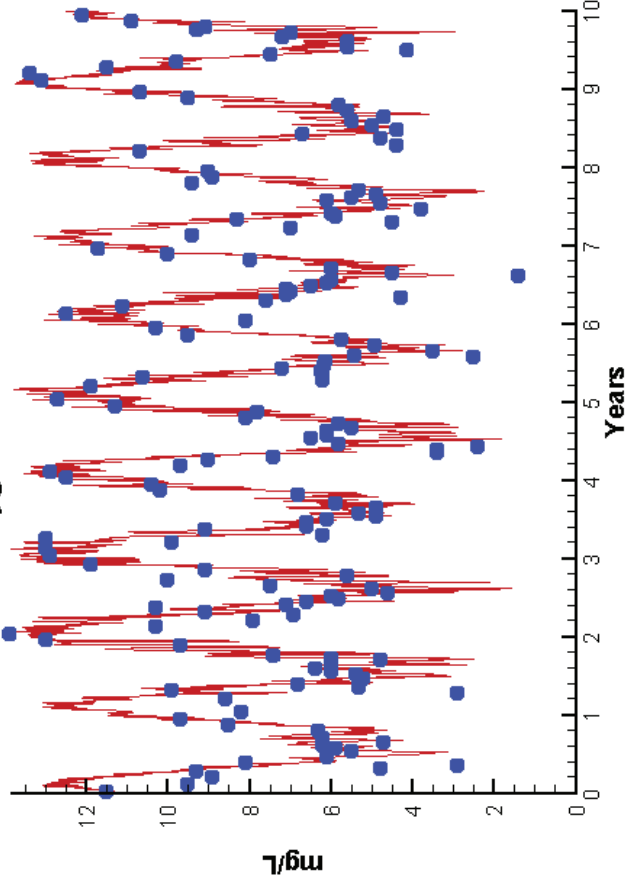
4.5063
0.3975
1.3702
0.0073
0.0132
0.3057

Station CB2.2

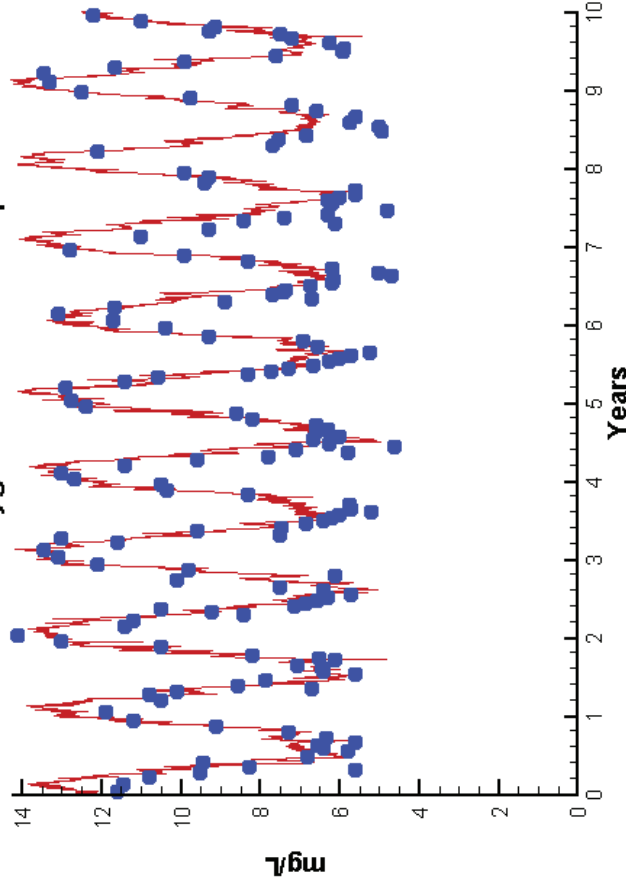
Run185 2002-2011
Dissolved Oxygen CB2.2 Surface



Run185 2002-2011
Dissolved Oxygen CB2.2 Bottom



Run185 2002-2011
Dissolved Oxygen CB2.2 Mid-Depth



Mean Difference

Absolute Mean Difference

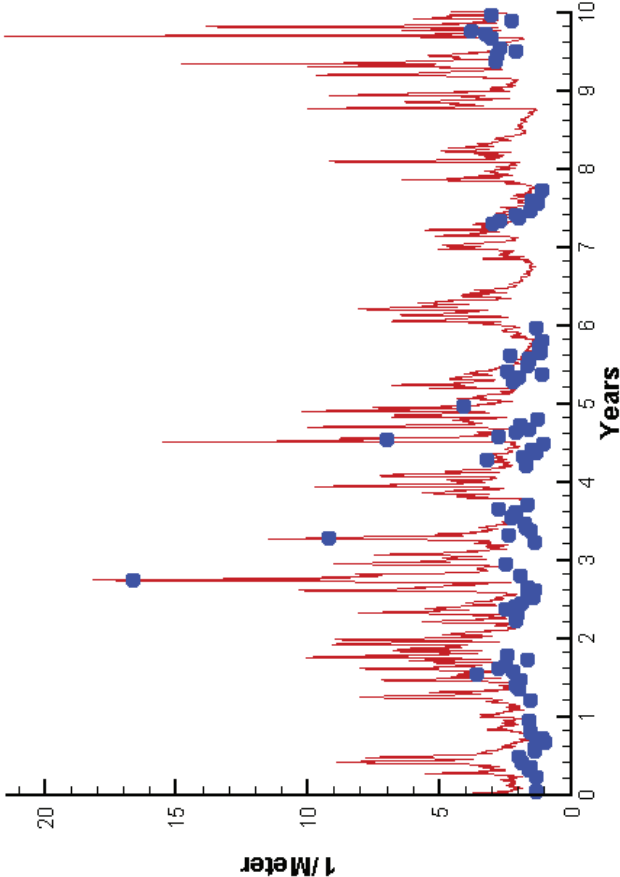
Top DO
Mid DO
Bot DO

0.4306
0.6398
0.1574

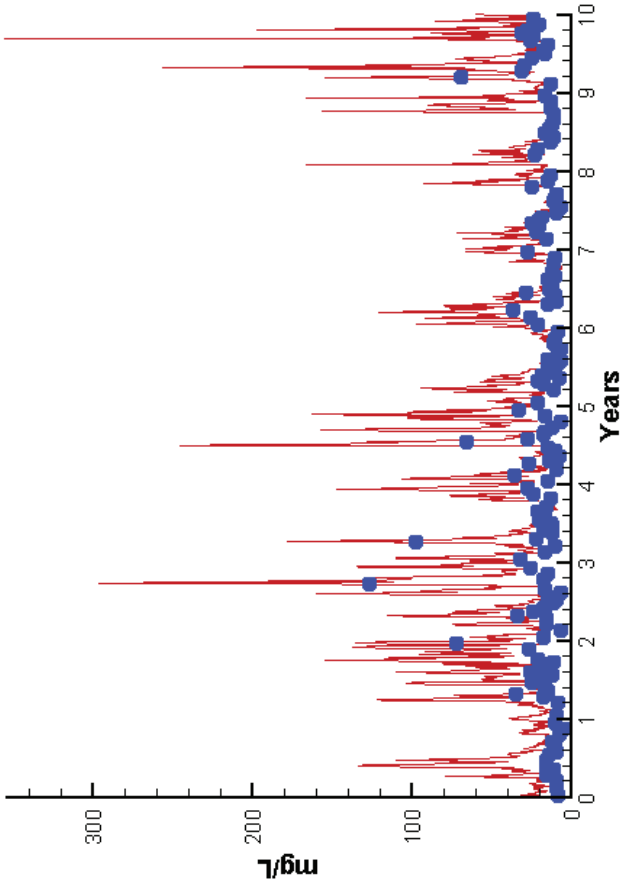
0.8911
1.0681
1.3676

Station CB2.2

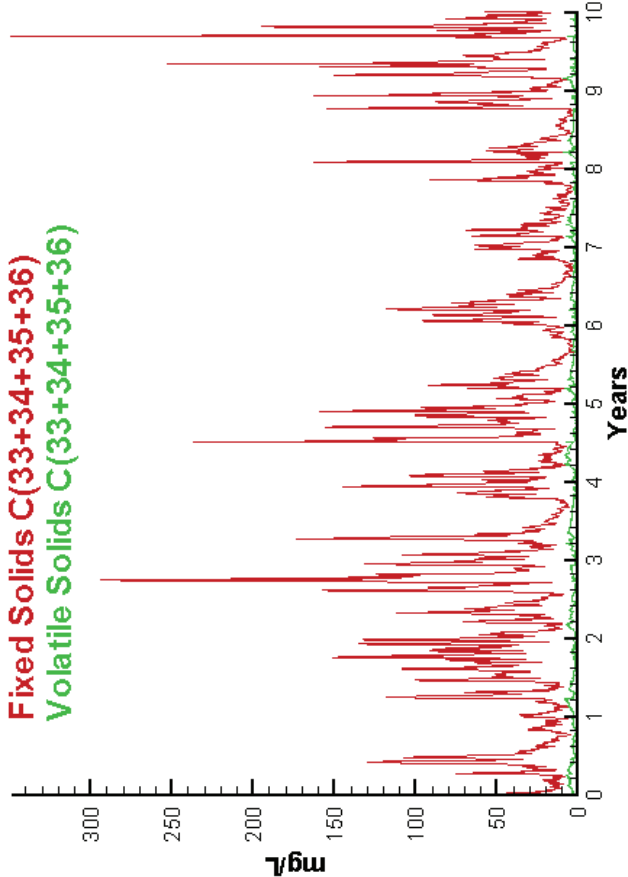
Run185 2002-2011
Light Extinction CB2.2 Surface



Run185 2002-2011
Total Solids CB2.2 Surface



Run185 2002-2011
Solids Surface

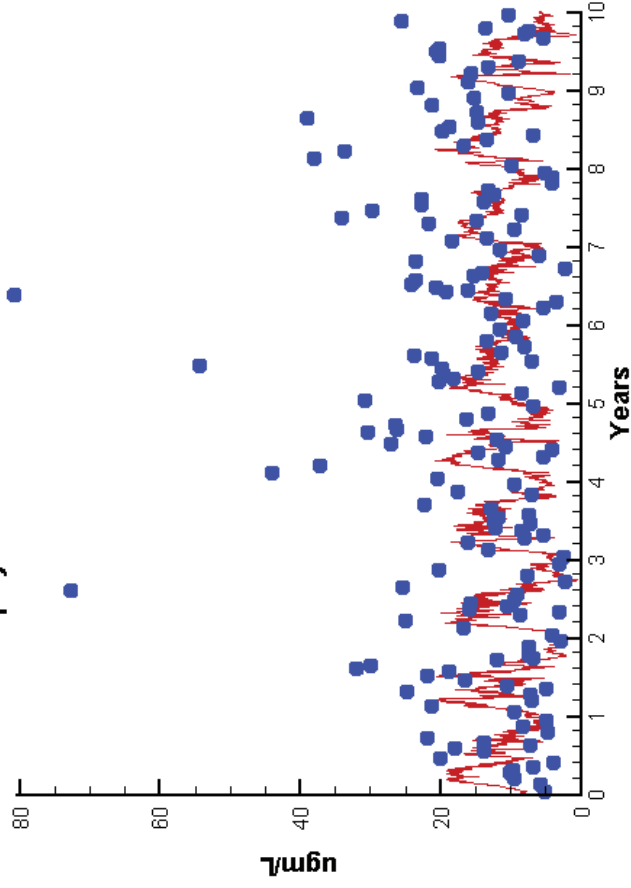


Mean Difference Absolute Mean Difference

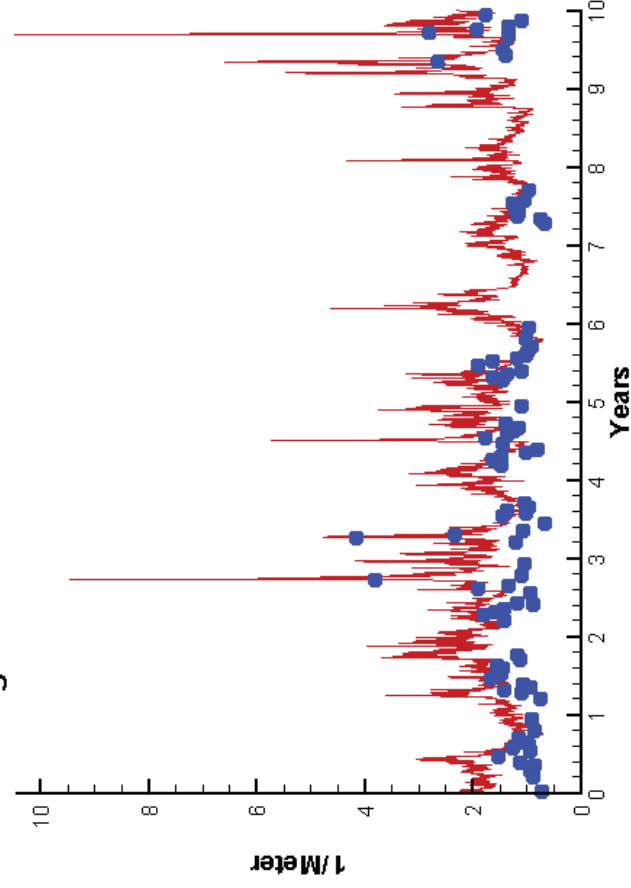
KE	1.3096	1.3702
TSS	21.5525	22.2203

Station CB3.3C

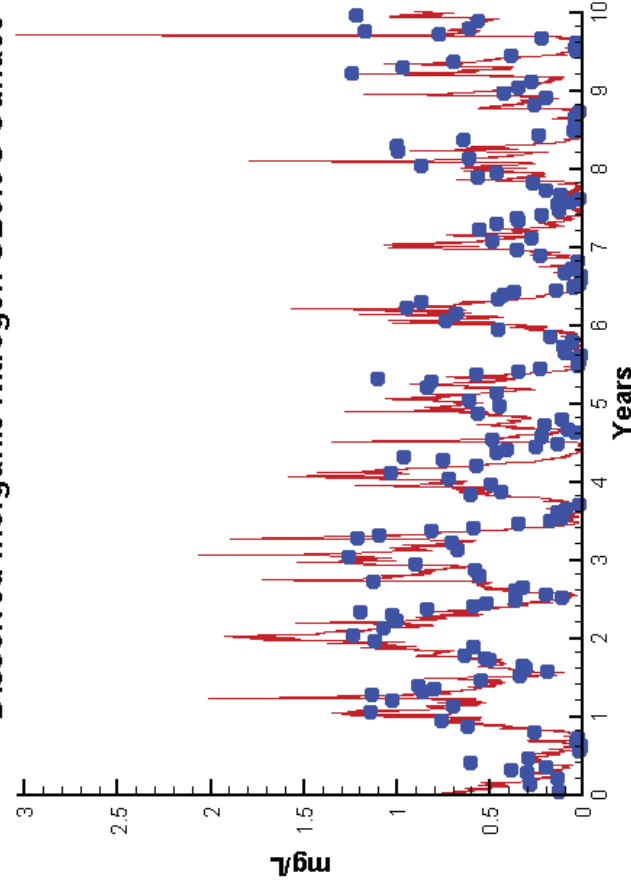
Run185 2002-2011
Chlorophyll CB3.3C Surface



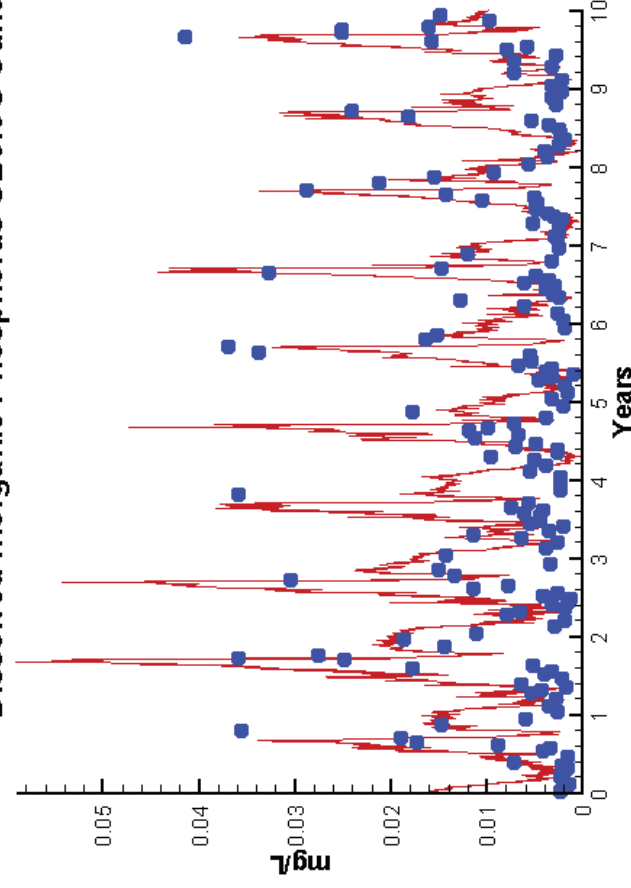
Run185 2002-2011
Light Extinction CB3.3C Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen CB3.3C Surface

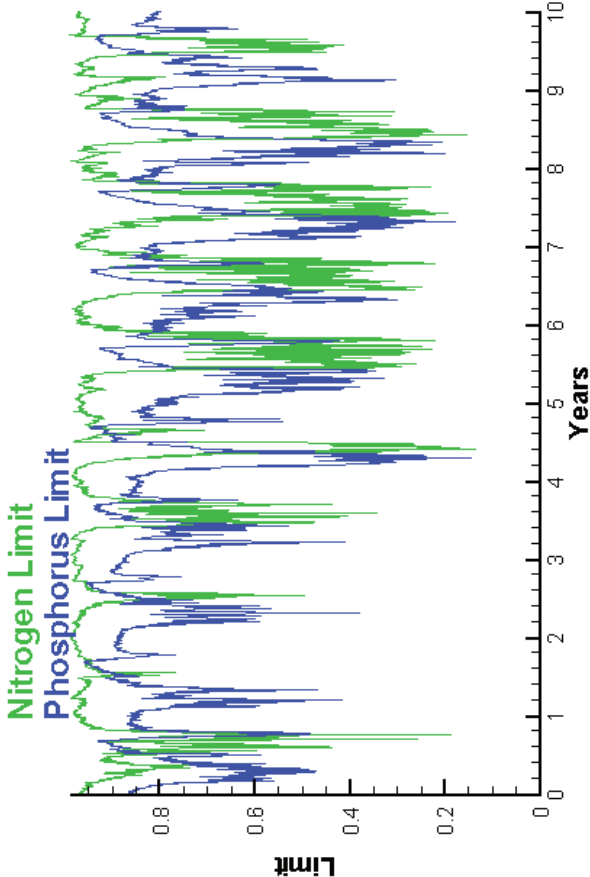


Run185 2002-2011
Dissolved Inorganic Phosphorus CB3.3C Surface

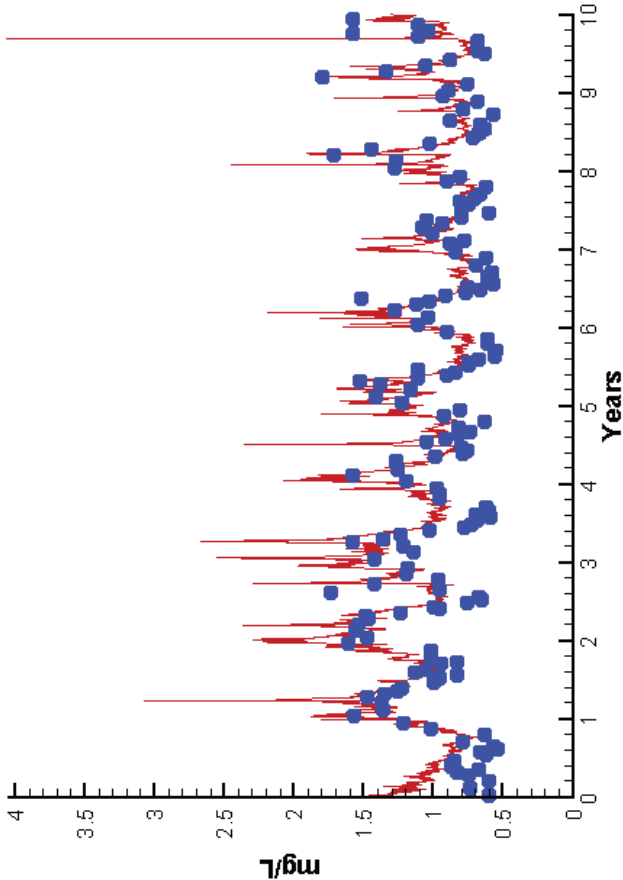


Station CB3.3C

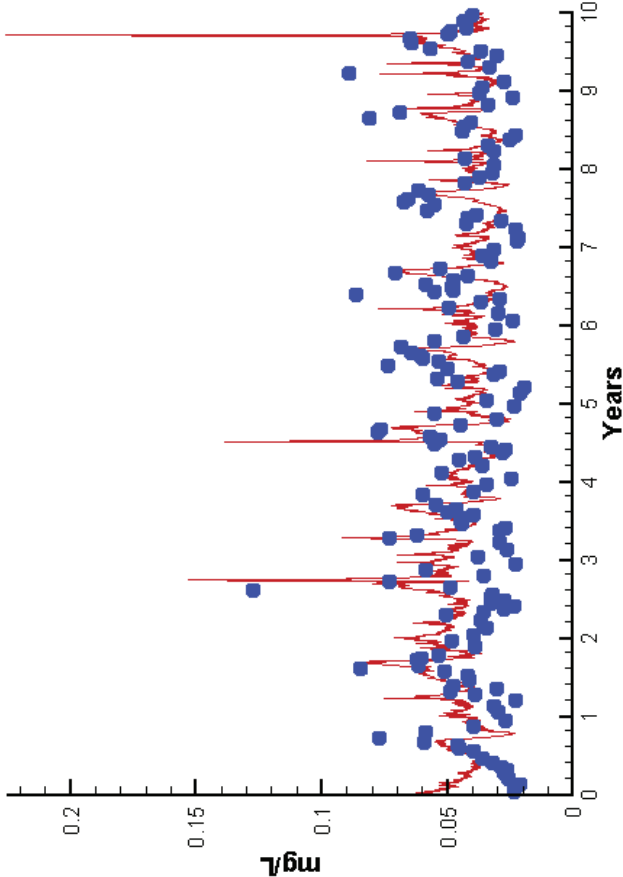
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen CB3.3C Surface



Run185 2002-2011
Total Phosphorus CB3.3C Surface



Mean Difference

Absolute Mean Difference

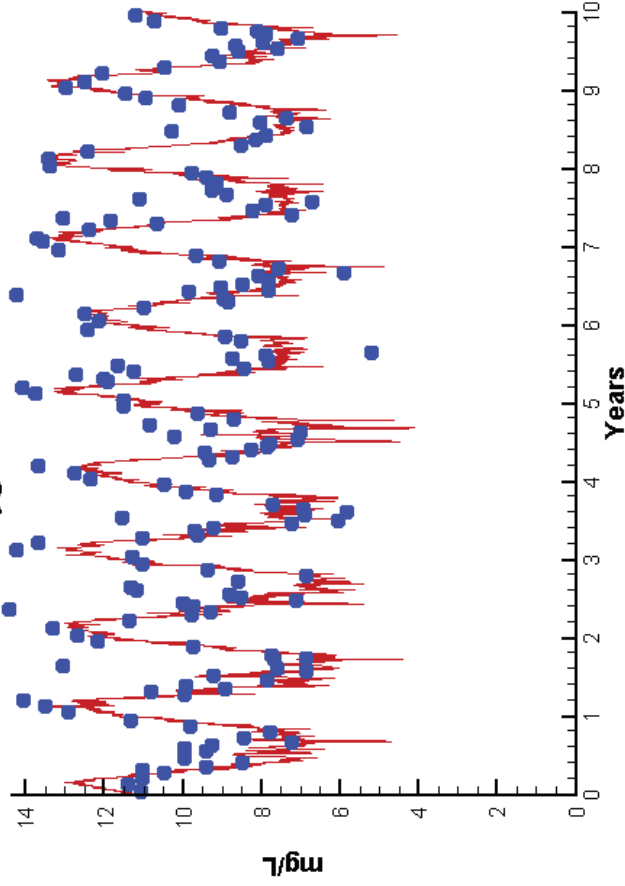
Chl
DIN
KE
DIP
TP
TN

-4.0477
-0.0686
0.4751
0.0041
0.0006
0.1086

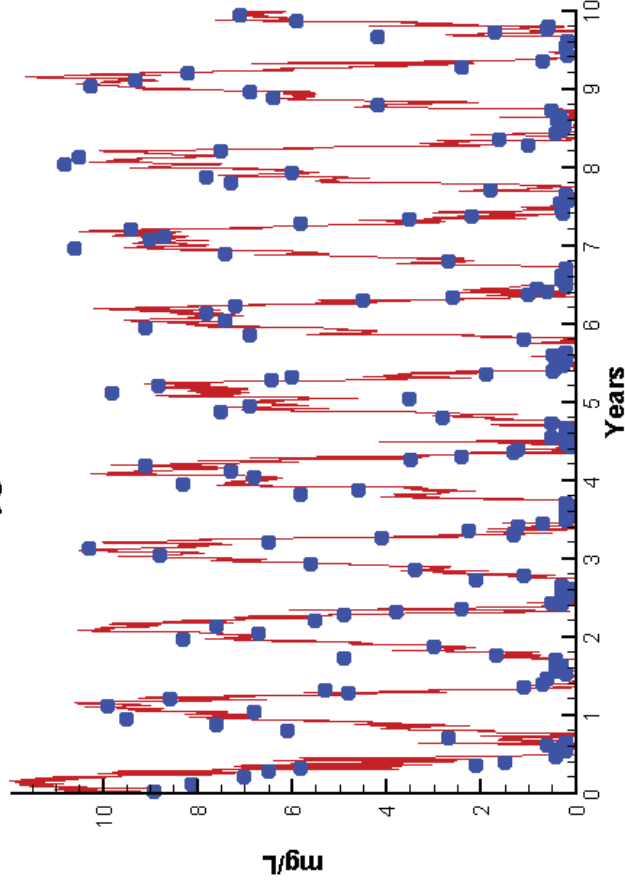
7.8327
0.1789
0.5568
0.0078
0.0128
0.1891

Station CB3.3C

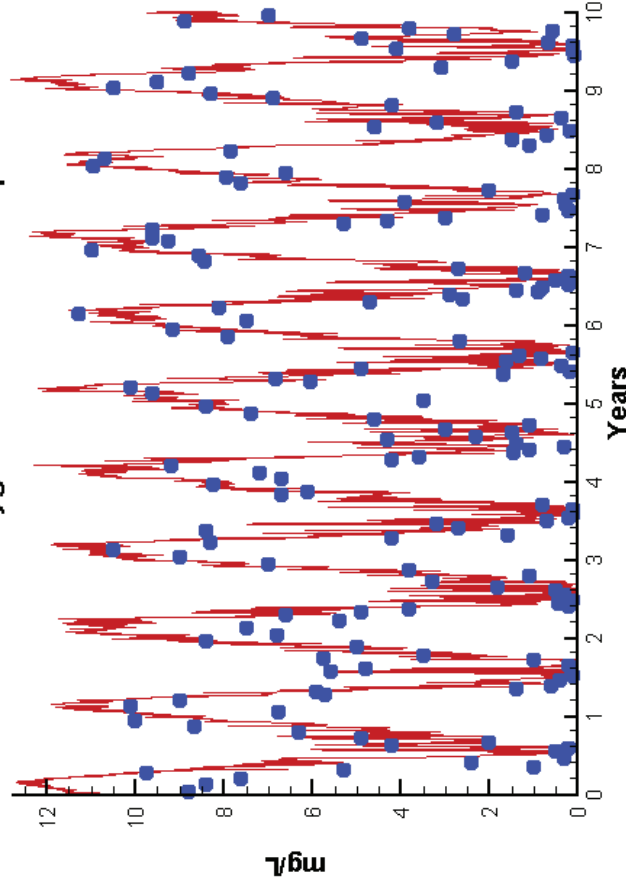
Run185 2002-2011
Dissolved Oxygen CB3.3C Surface



Run185 2002-2011
Dissolved Oxygen CB3.3C Bottom



Run185 2002-2011
Dissolved Oxygen CB3.3C Mid-Depth



Mean Difference

Absolute Mean Difference

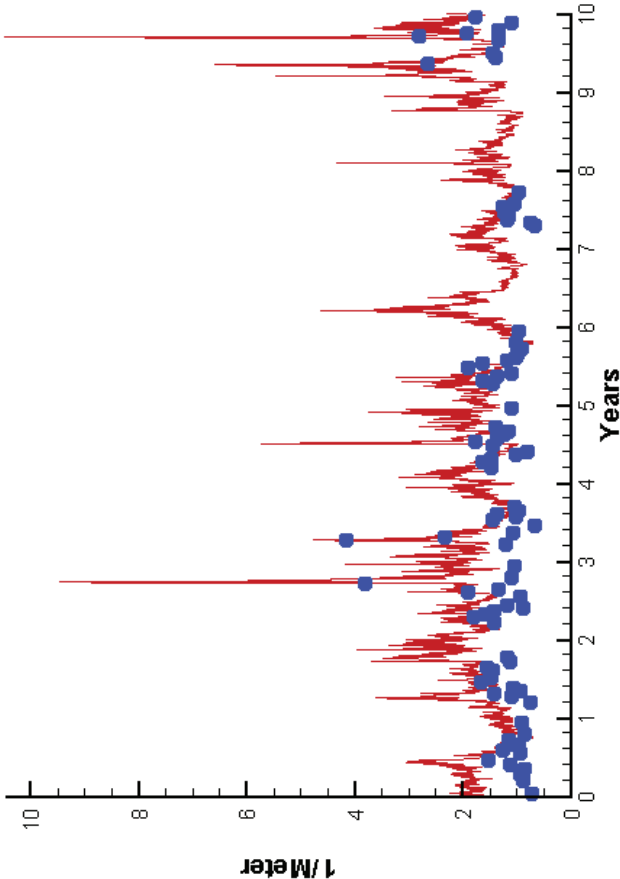
Top DO
Mid DO
Bot DO

-0.7765
1.0582
-0.3637

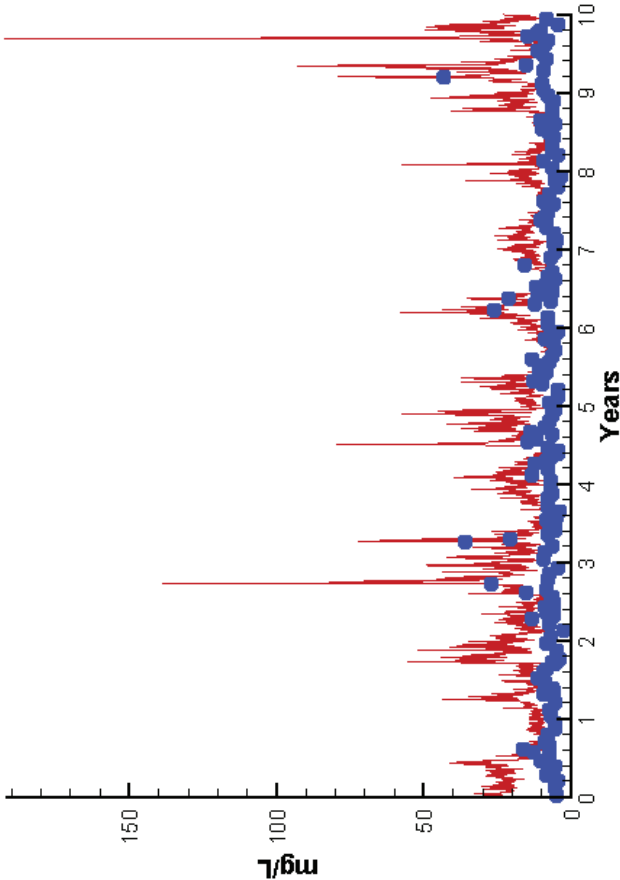
1.1525
1.6698
0.9579

Station CB3.3C

Run185 2002-2011
Light Extinction CB3.3C Surface

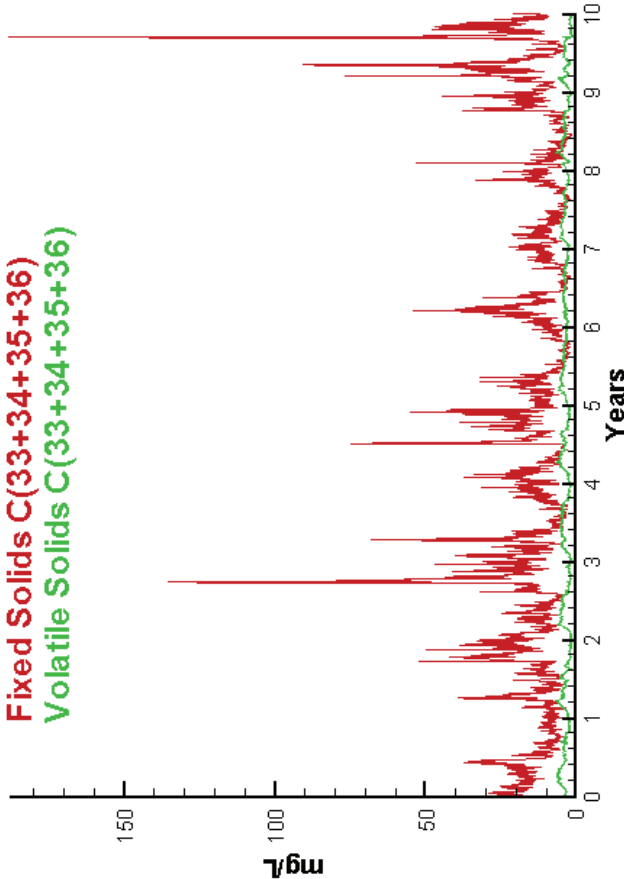


Run185 2002-2011
Total Solids CB3.3C Surface



Run185 2002-2011
Solids Surface

Fixed Solids C(33+34+35+36)
Volatile Solids C(33+34+35+36)



Mean Difference

Absolute Mean Difference

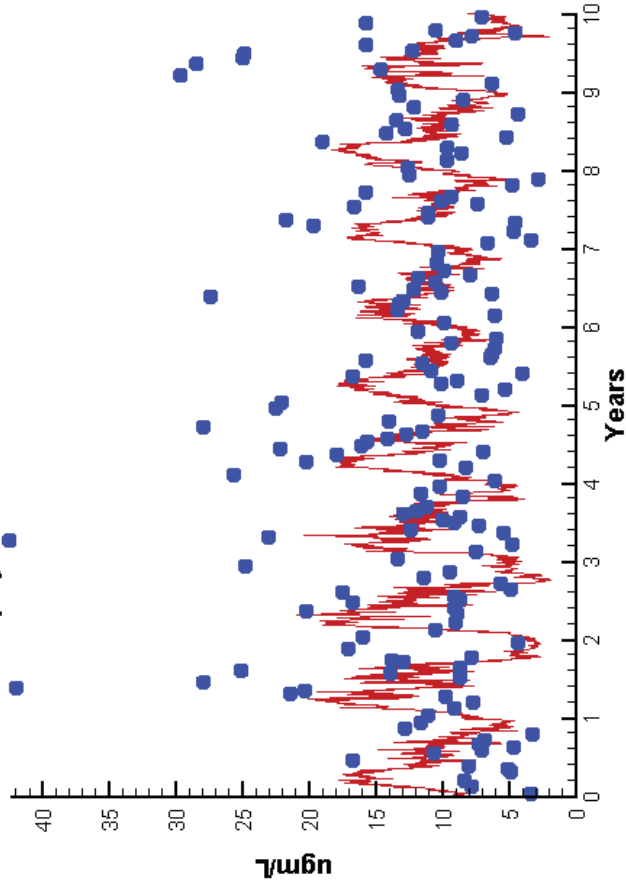
KE
TSS

0.4751
7.8652

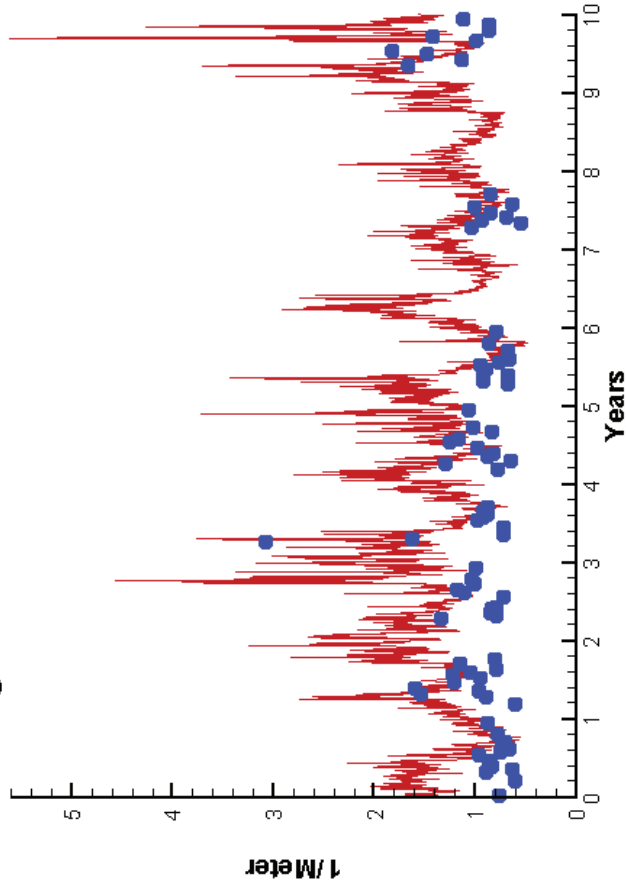
0.5568
8.2521

Station CB4.2C

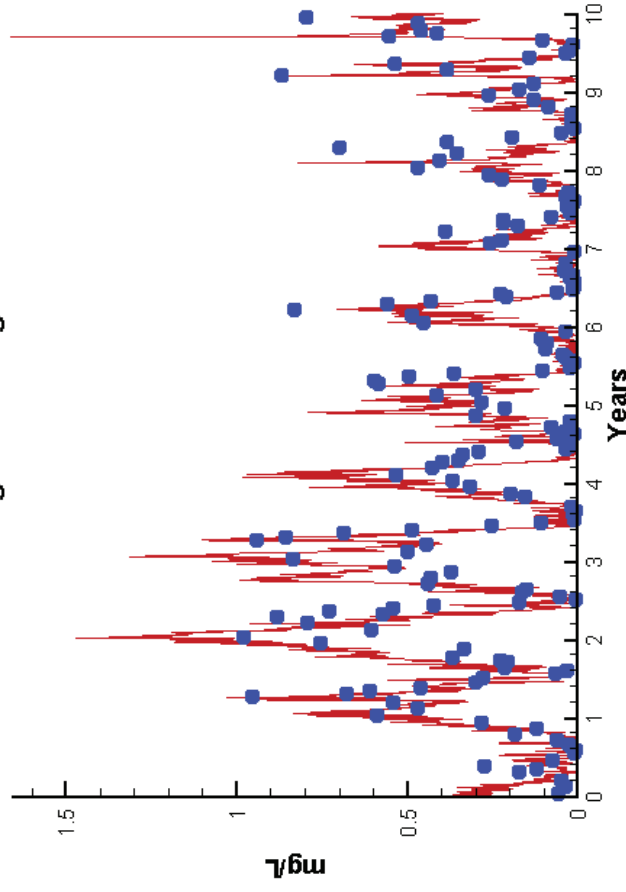
Run185 2002-2011
Chlorophyll CB4.2C Surface



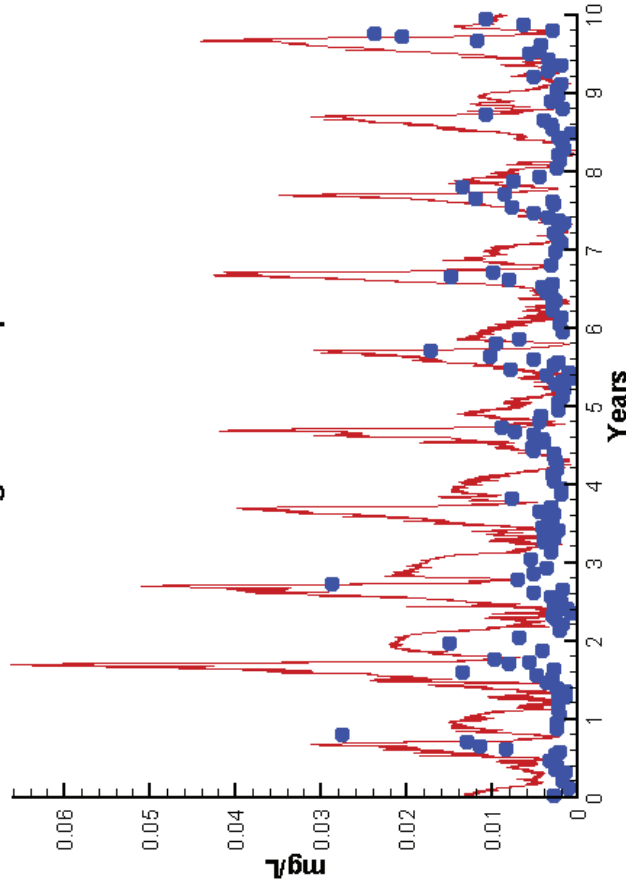
Run185 2002-2011
Light Extinction CB4.2C Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen CB4.2C Surface

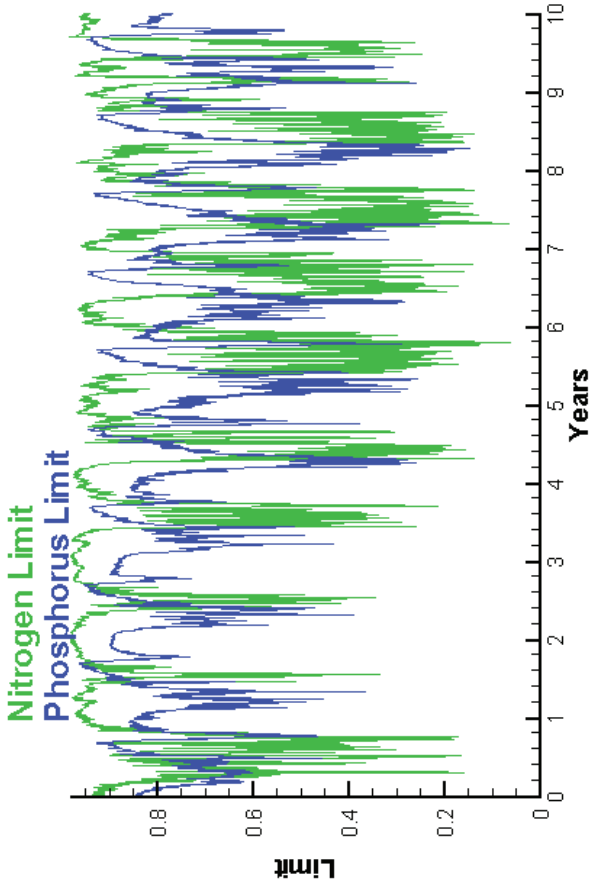


Run185 2002-2011
Dissolved Inorganic Phosphorus CB4.2C Surface

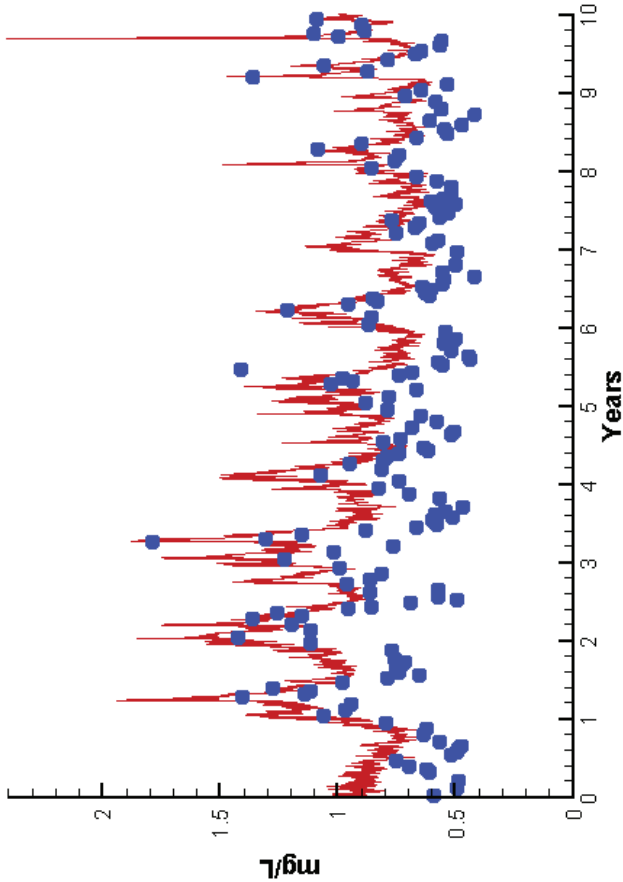


Station CB4.2C

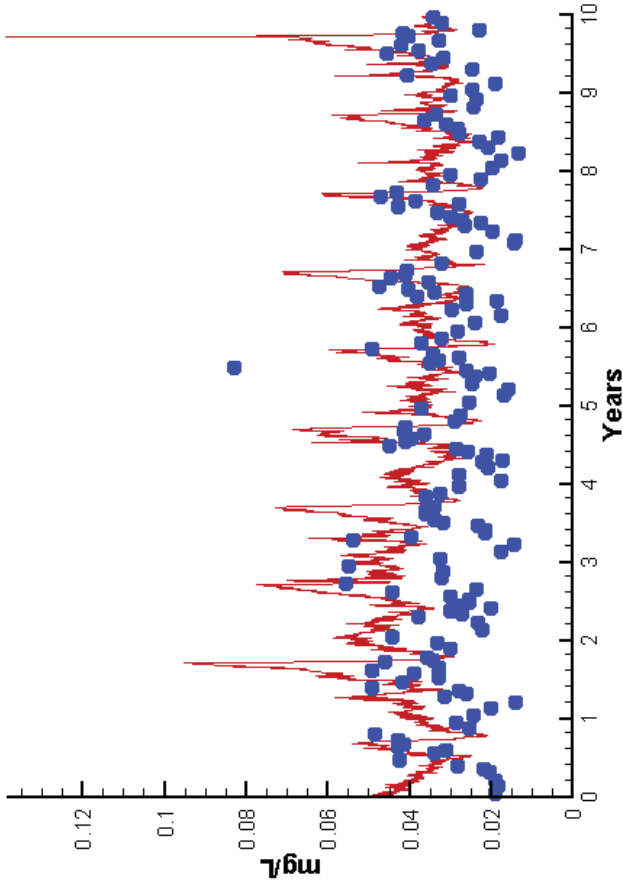
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen CB4.2C Surface



Run185 2002-2011
Total Phosphorus CB4.2C Surface



Mean Difference

Absolute Mean Difference

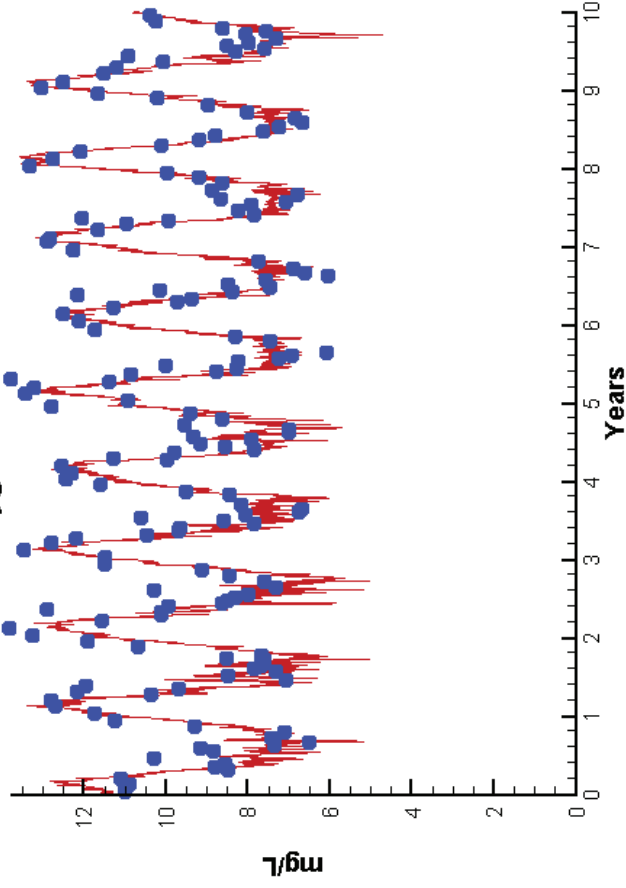
Chl
DIN
KE
DIP
TP
TN

-0.9771
-0.0281
0.3955
0.0070
0.0096
0.1787

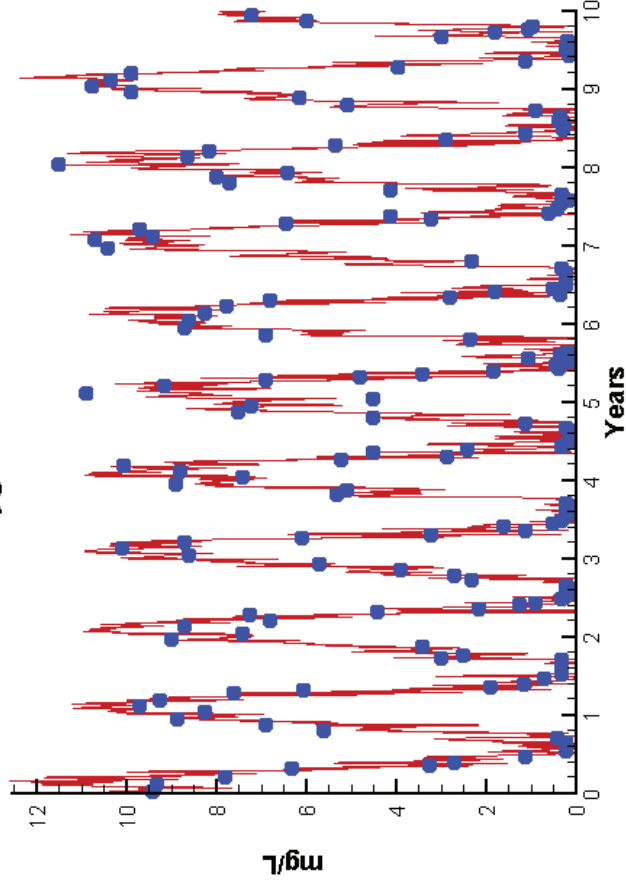
5.7475
0.1273
0.4571
0.0081
0.0128
0.2004

Station CB4.2C

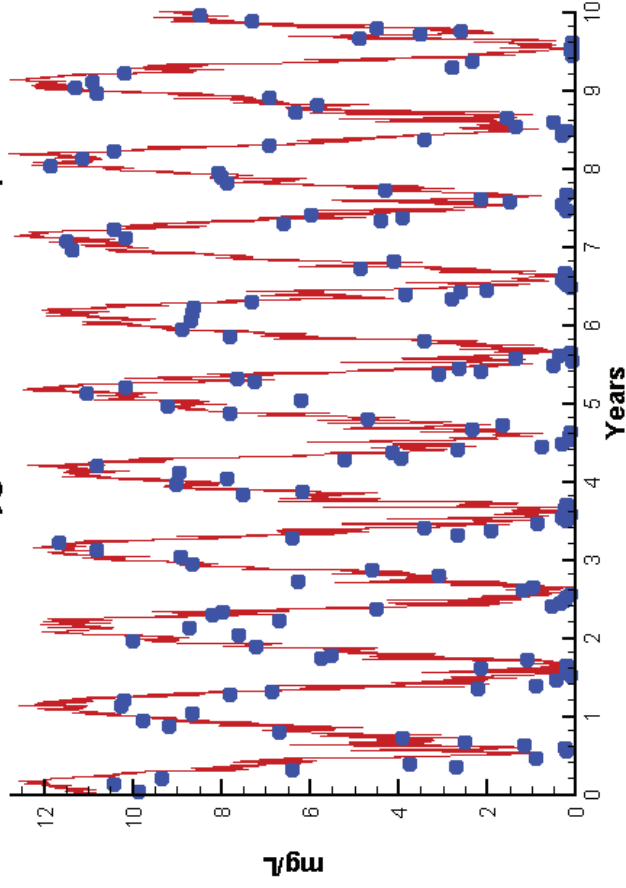
Run185 2002-2011
Dissolved Oxygen CB4.2C Surface



Run185 2002-2011
Dissolved Oxygen CB4.2C Bottom



Run185 2002-2011
Dissolved Oxygen CB4.2C Mid-Depth



Mean Difference

Absolute Mean Difference

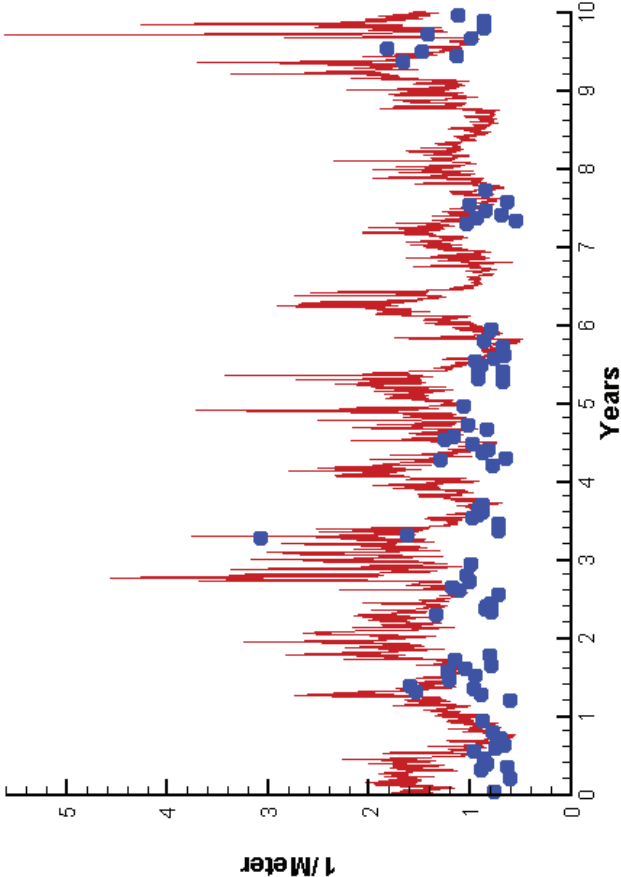
Top DO
Mid DO
Bot DO

-0.5847
1.1654
-0.0977

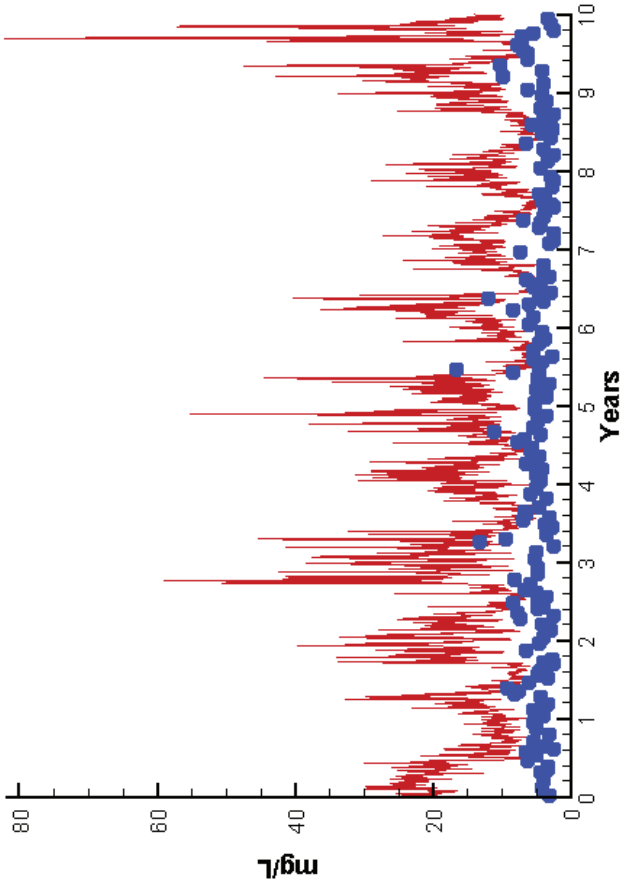
0.8599
1.5393
0.9229

Station CB4.2C

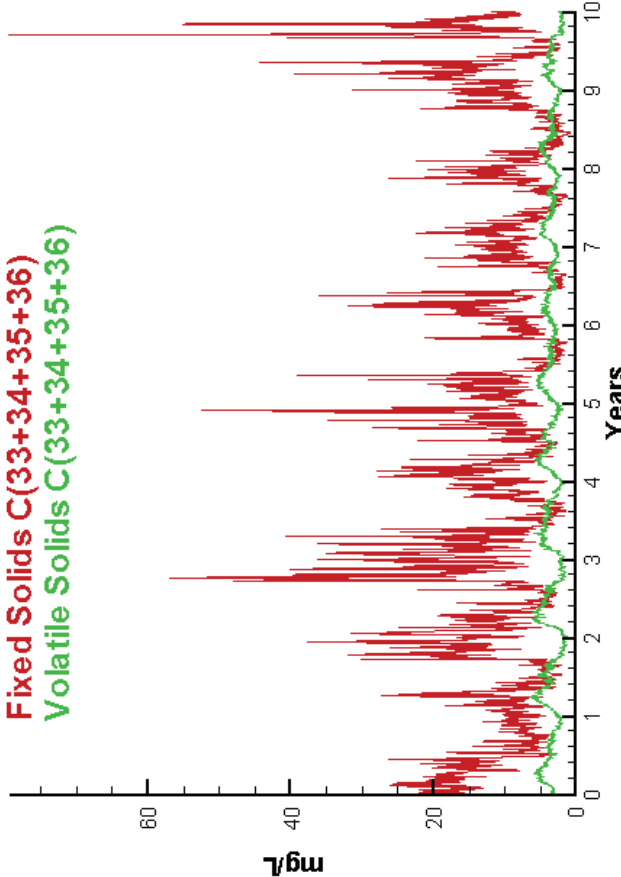
Run185 2002-2011
Light Extinction CB4.2C Surface



Run185 2002-2011
Total Solids CB4.2C Surface



Run185 2002-2011
Solids Surface



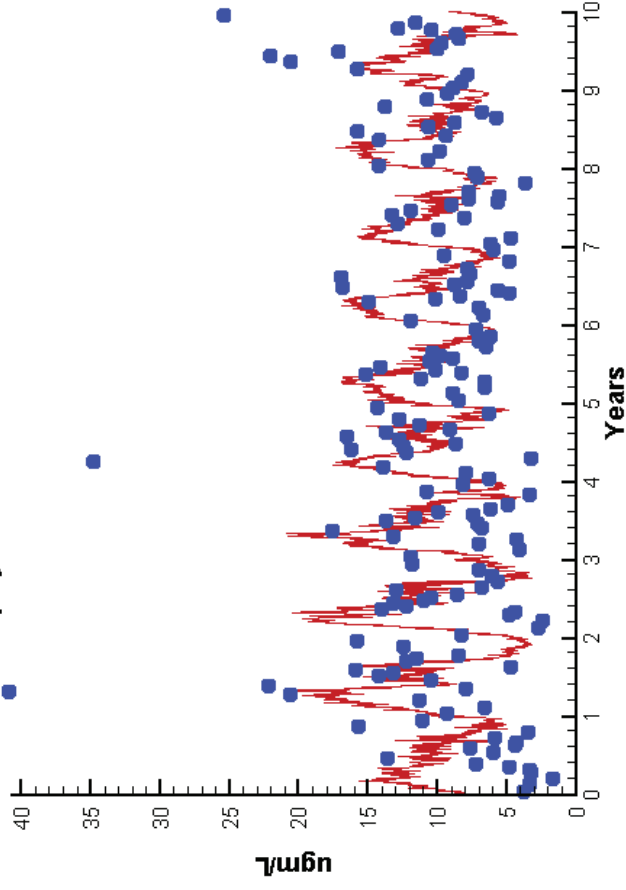
Fixed Solids C(33+34+35+36)
Volatile Solids C(33+34+35+36)

Mean Difference Absolute Mean Difference

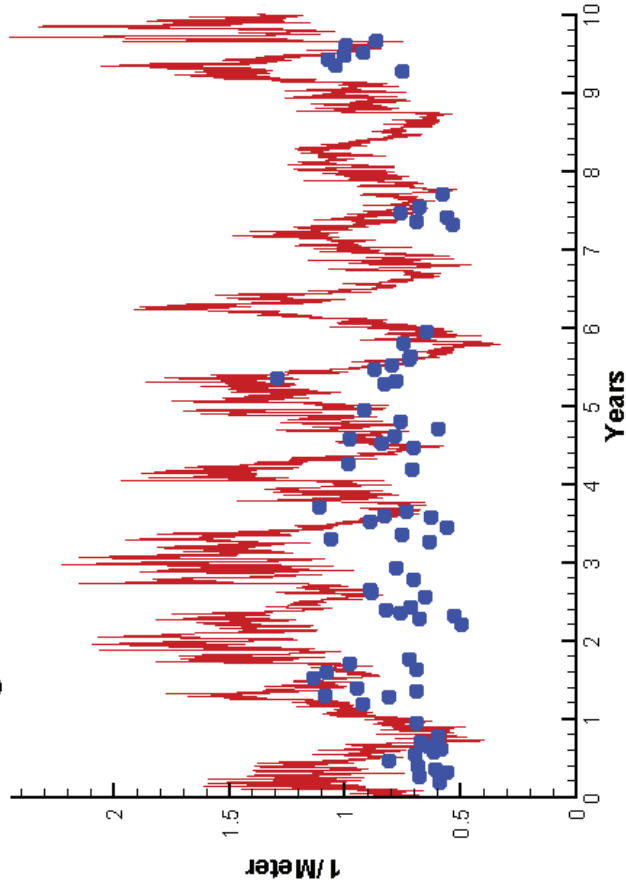
KE 0.3955 0.4571
TSS 7.7778 7.9436

Station CB5.2

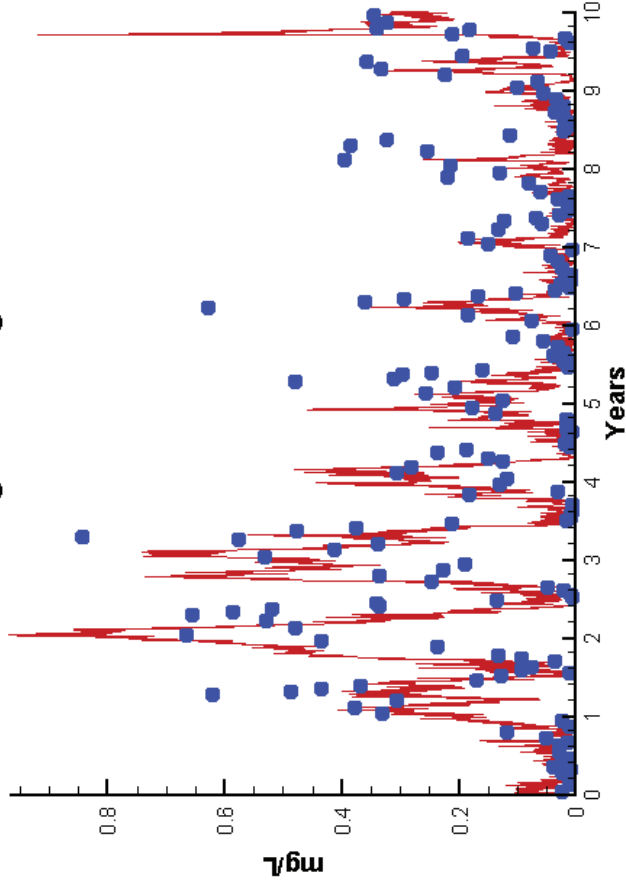
Run185 2002-2011
Chlorophyll CB5.2 Surface



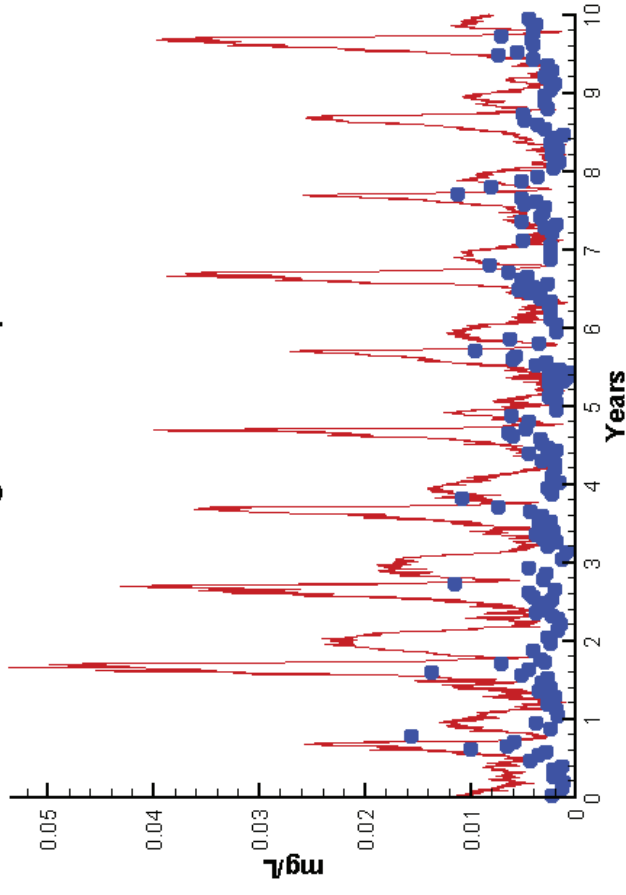
Run185 2002-2011
Light Extinction CB5.2 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen CB5.2 Surface

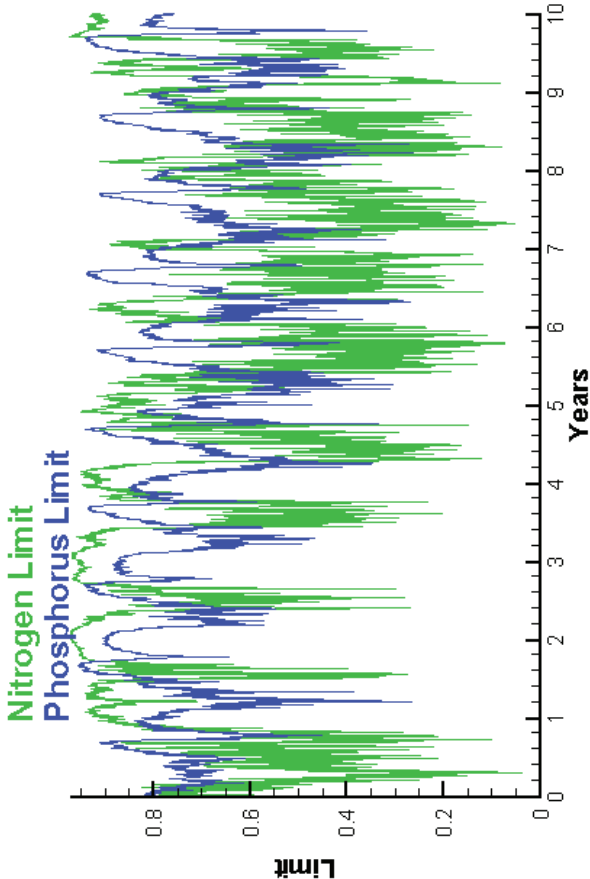


Run185 2002-2011
Dissolved Inorganic Phosphorus CB5.2 Surface

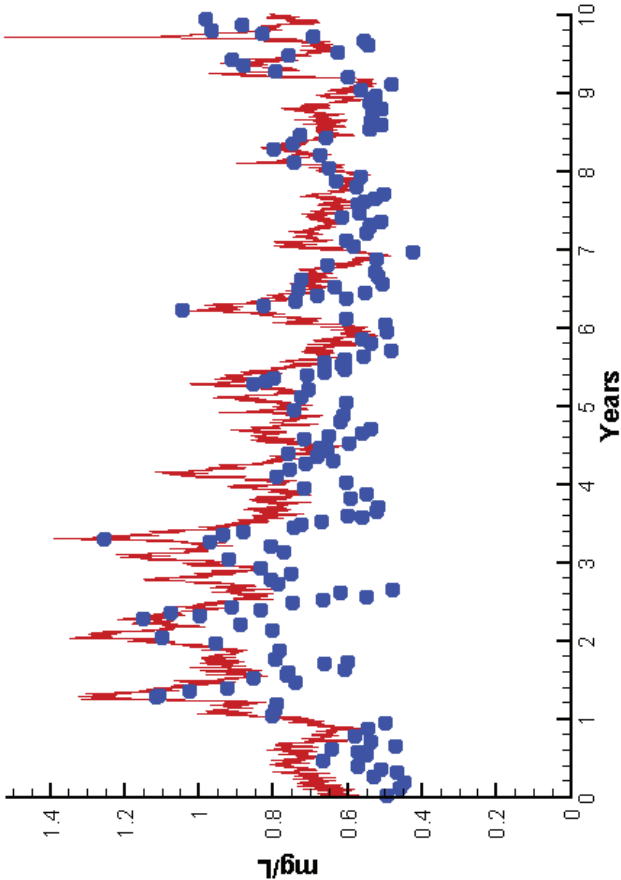


Station CB5.2

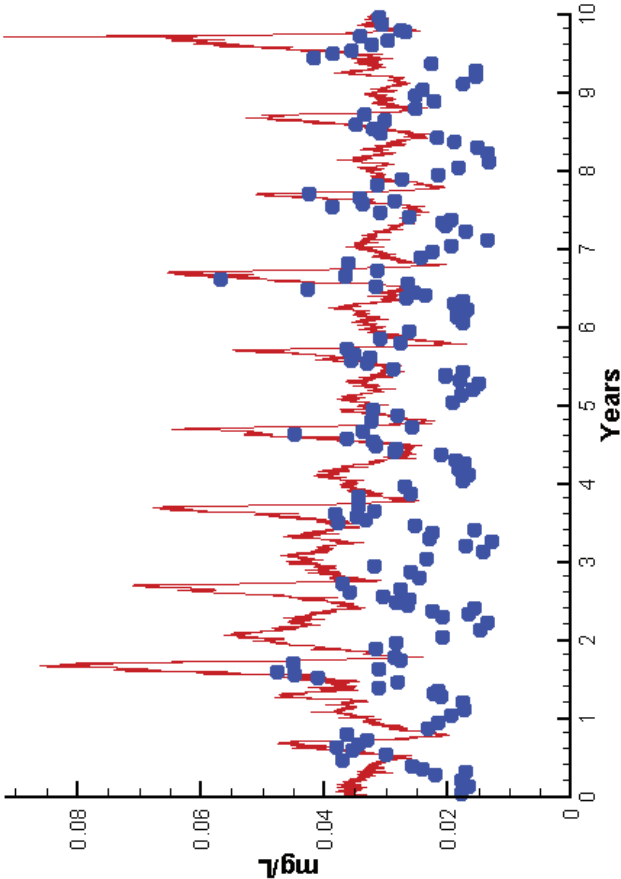
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen CB5.2 Surface



Run185 2002-2011
Total Phosphorus CB5.2 Surface

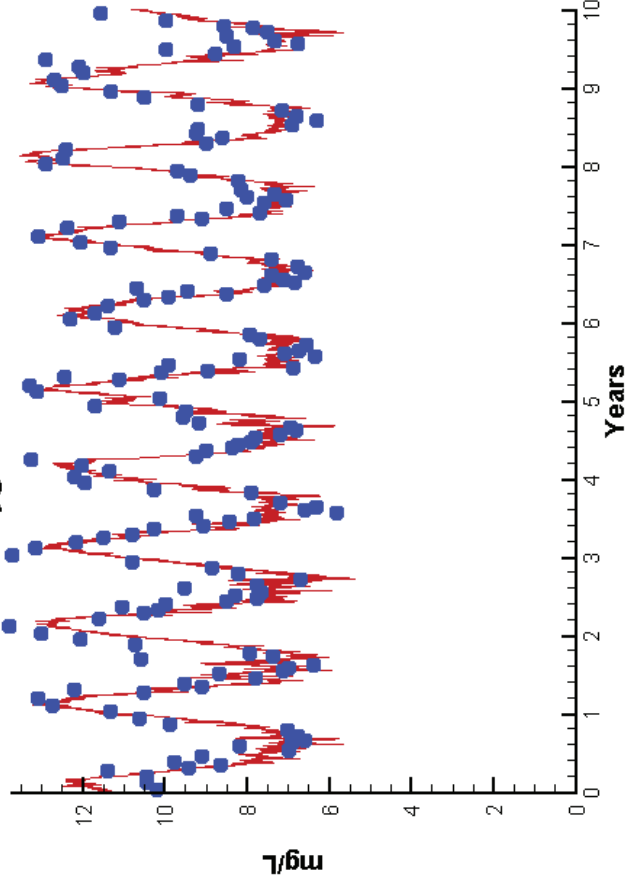


Mean Difference Absolute Mean Difference

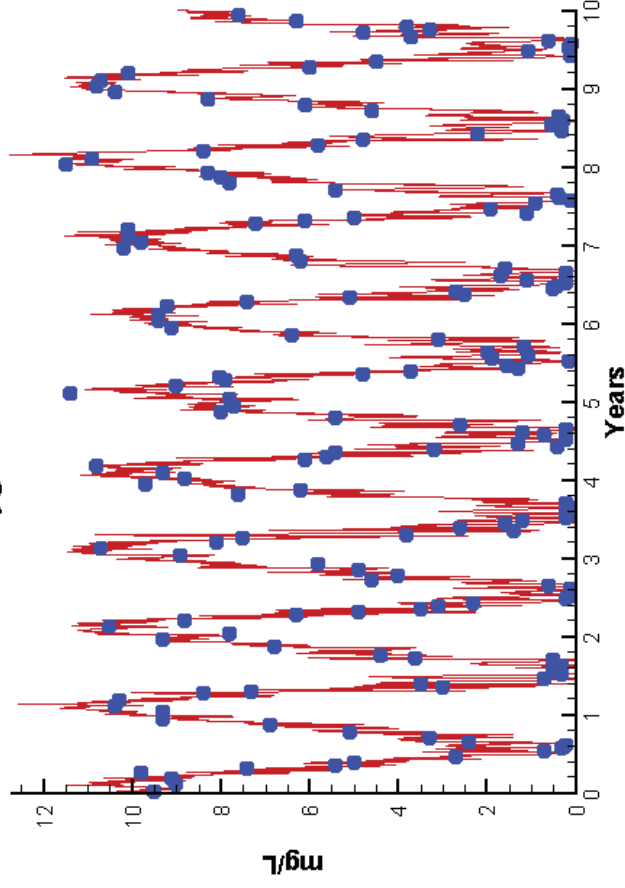
Chl	1.0630	4.5450
DIN	-0.0307	0.1015
KE	0.3105	0.3465
DIP	0.0070	0.0073
TP	0.0105	0.0121
TN	0.1278	0.1422

Station CB5.2

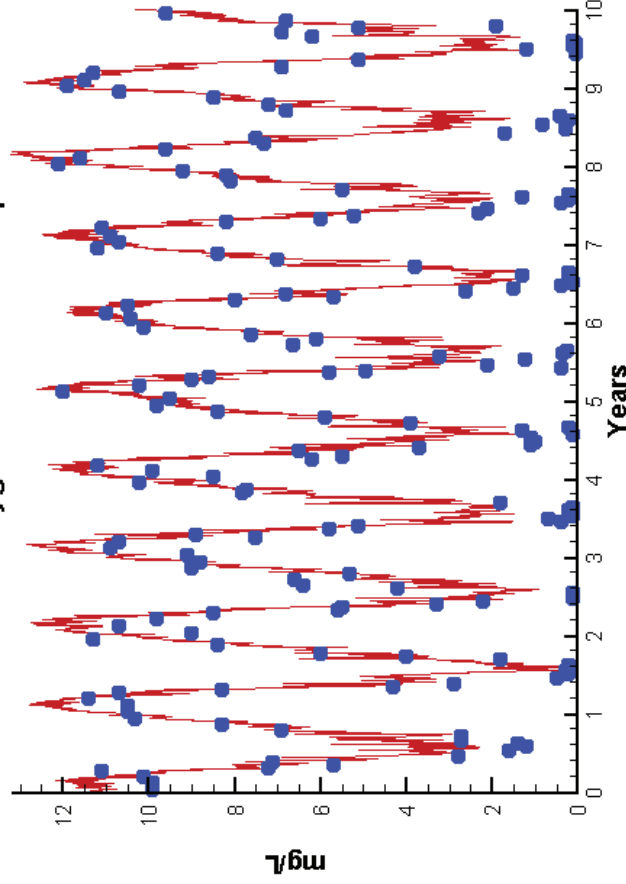
Run185 2002-2011
Dissolved Oxygen CB5.2 Surface



Run185 2002-2011
Dissolved Oxygen CB5.2 Bottom



Run185 2002-2011
Dissolved Oxygen CB5.2 Mid-Depth



Mean Difference

Absolute Mean Difference

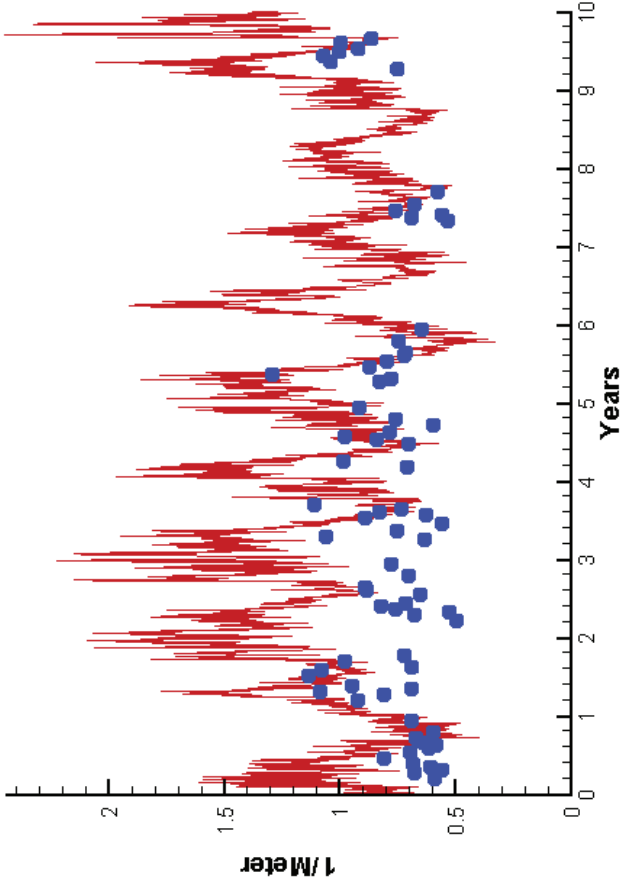
Top DO
Mid DO
Bot DO

-0.4957
0.9937
0.2076

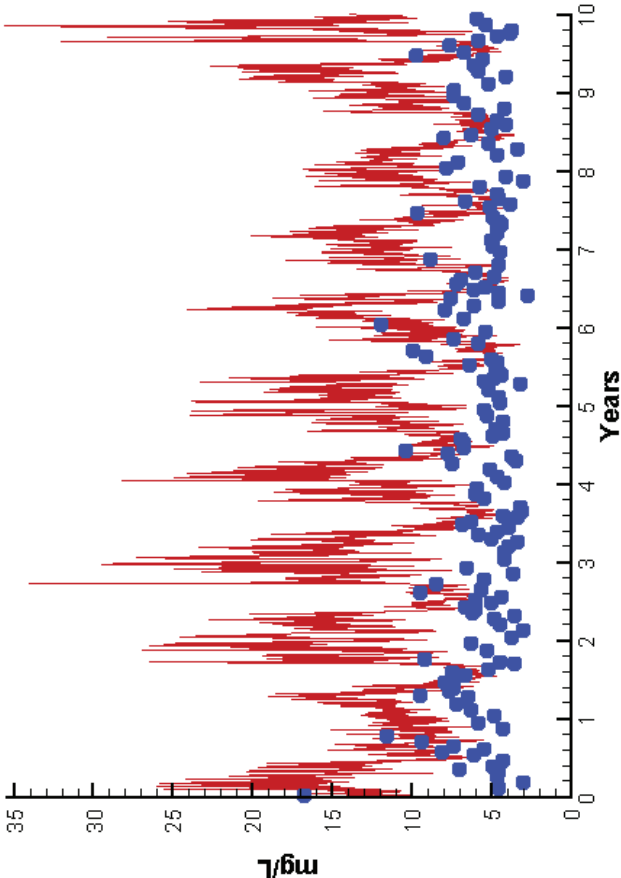
0.8217
1.4417
1.0517

Station CB5.2

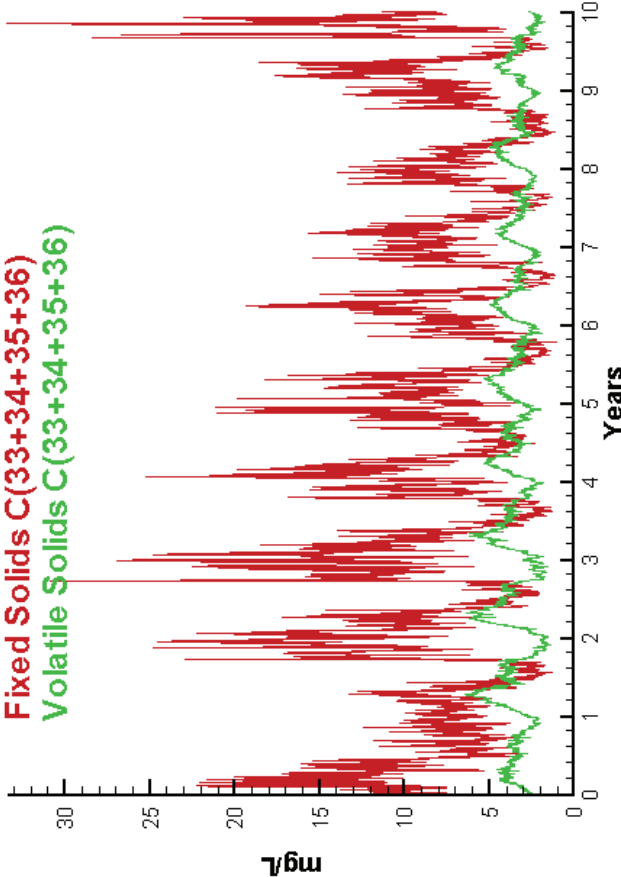
Run185 2002-2011
Light Extinction CB5.2 Surface



Run185 2002-2011
Total Solids CB5.2 Surface



Run185 2002-2011
Solids Surface

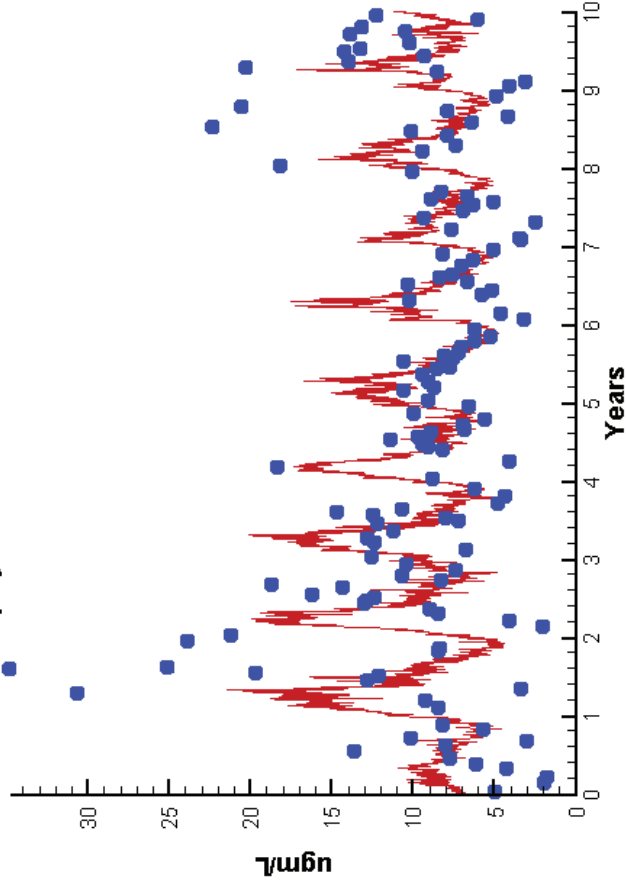


Mean Difference Absolute Mean Difference

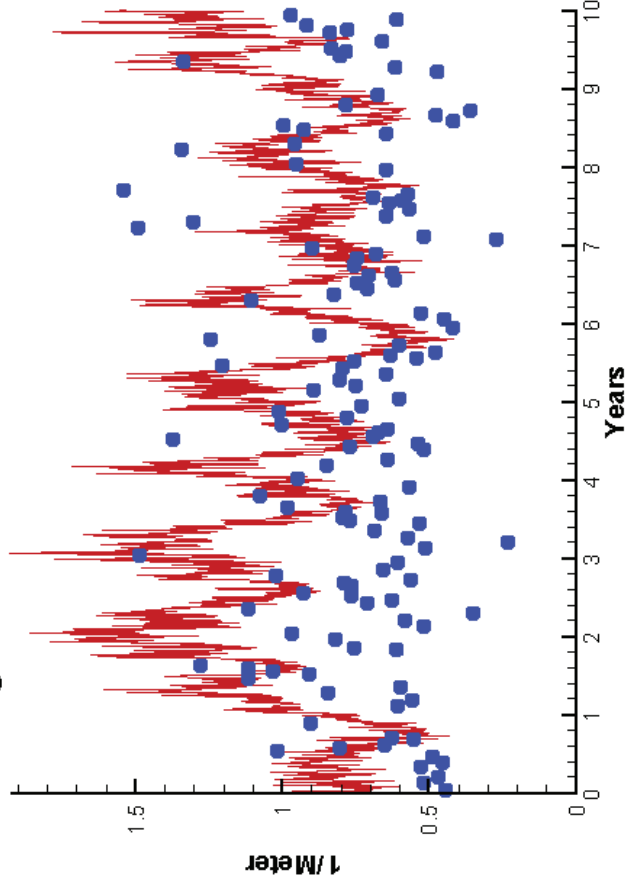
KE	0.3105	0.3465
TSS	5.0781	5.4897

Station CB6.1

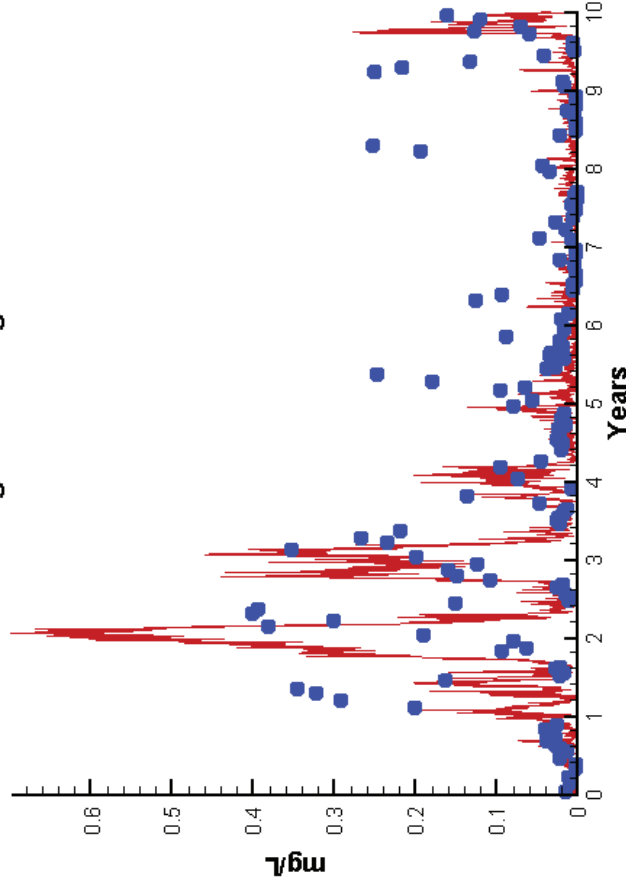
Run185 2002-2011
Chlorophyll CB6.1 Surface



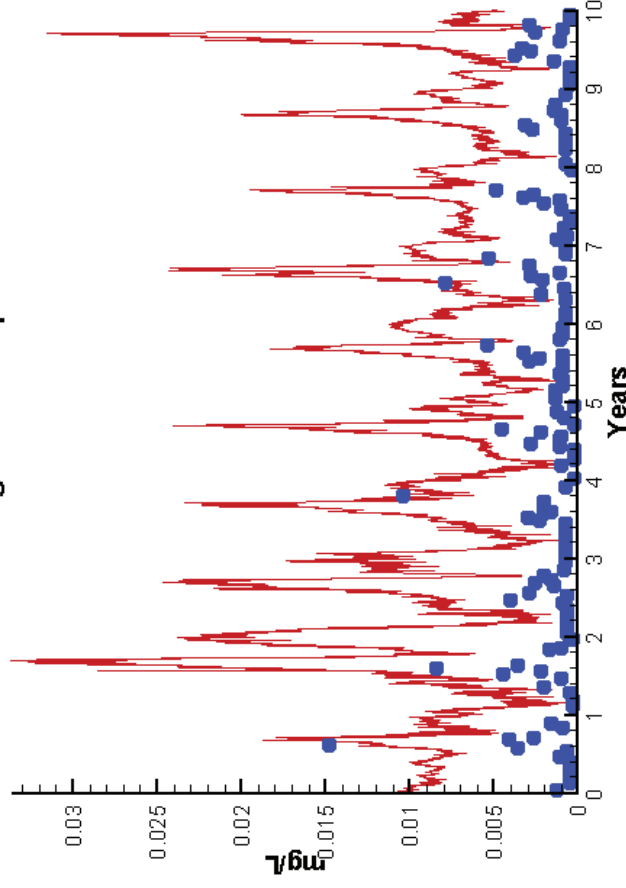
Run185 2002-2011
Light Extinction CB6.1 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen CB6.1 Surface

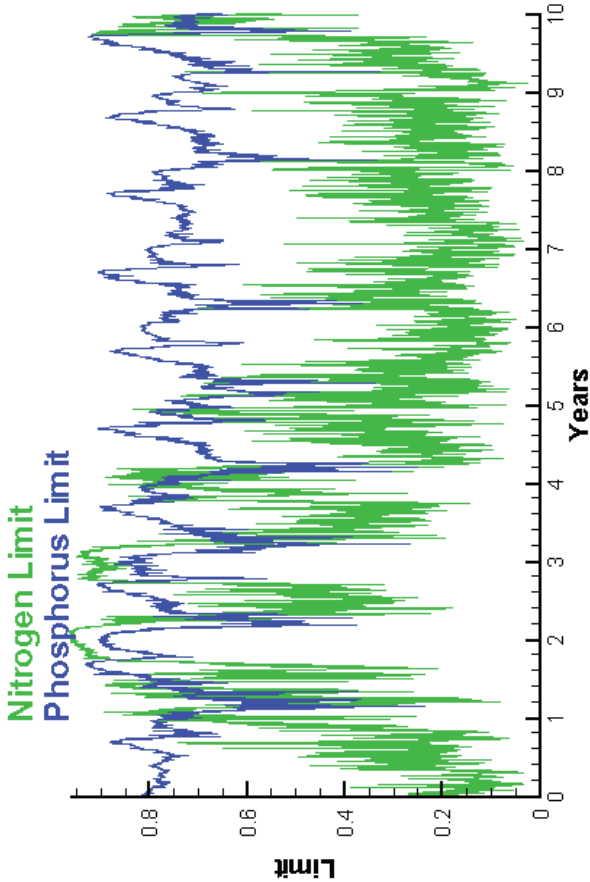


Run185 2002-2011
Dissolved Inorganic Phosphorus CB6.1 Surface

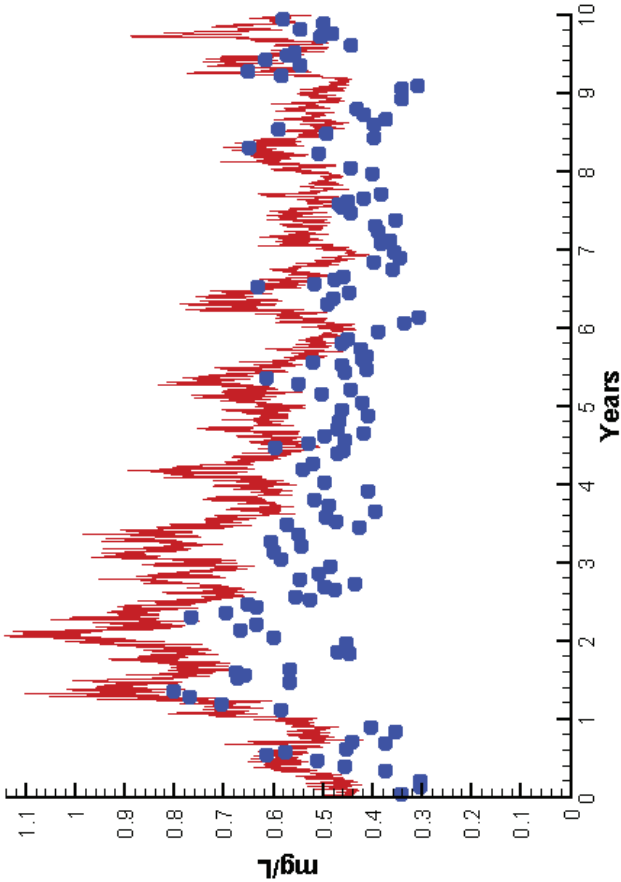


Station CB6.1

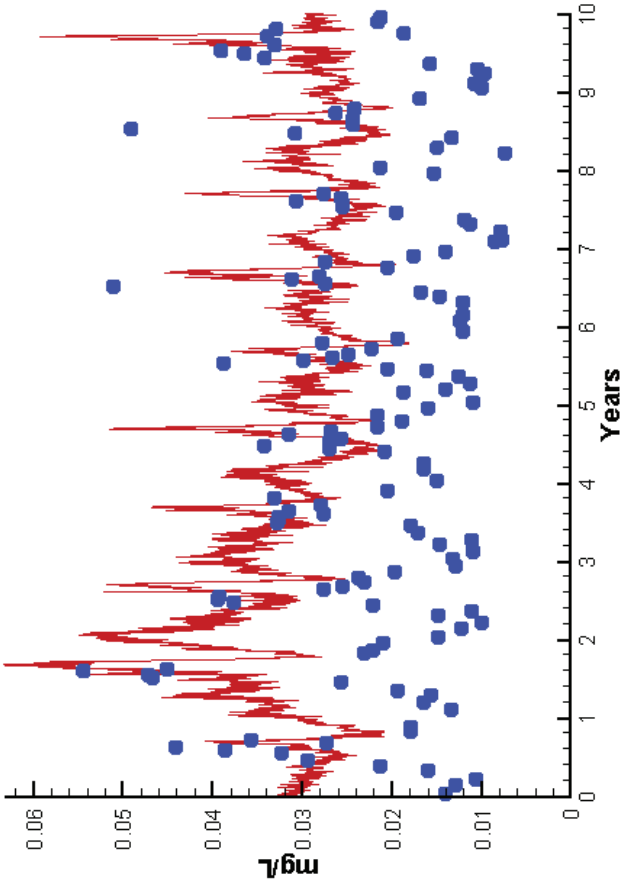
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen CB6.1 Surface



Run185 2002-2011
Total Phosphorus CB6.1 Surface

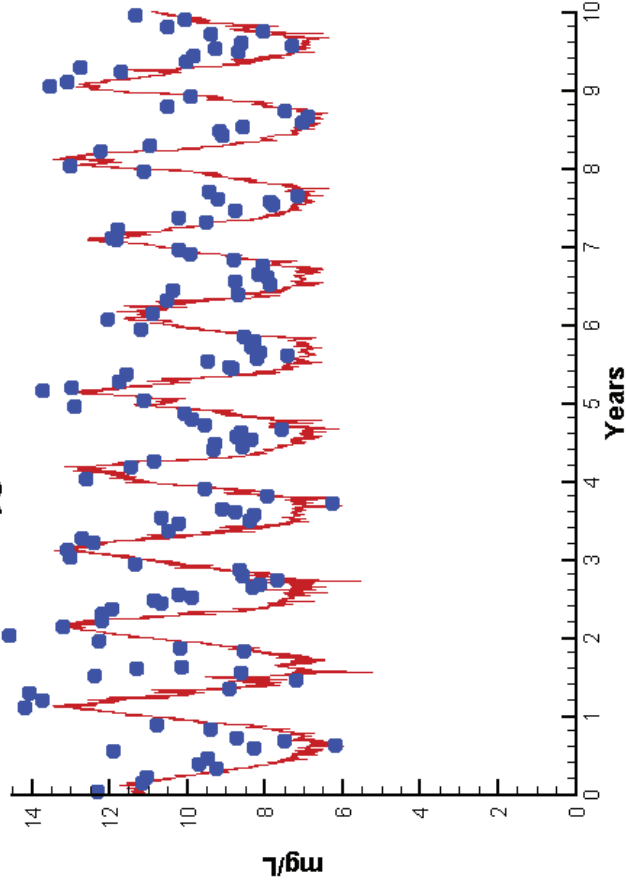


Mean Difference Absolute Mean Difference

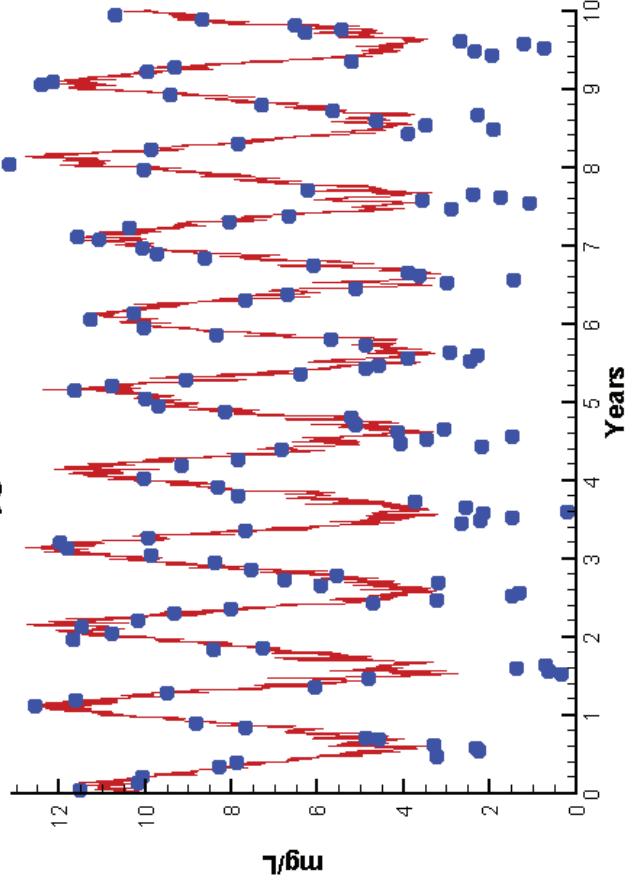
Chl	-0.0356	4.0112
DIN	-0.0241	0.0615
KE	0.2391	0.3206
DIP	0.0074	0.0075
TP	0.0089	0.0121
TN	0.1572	0.1625

Station CB6.1

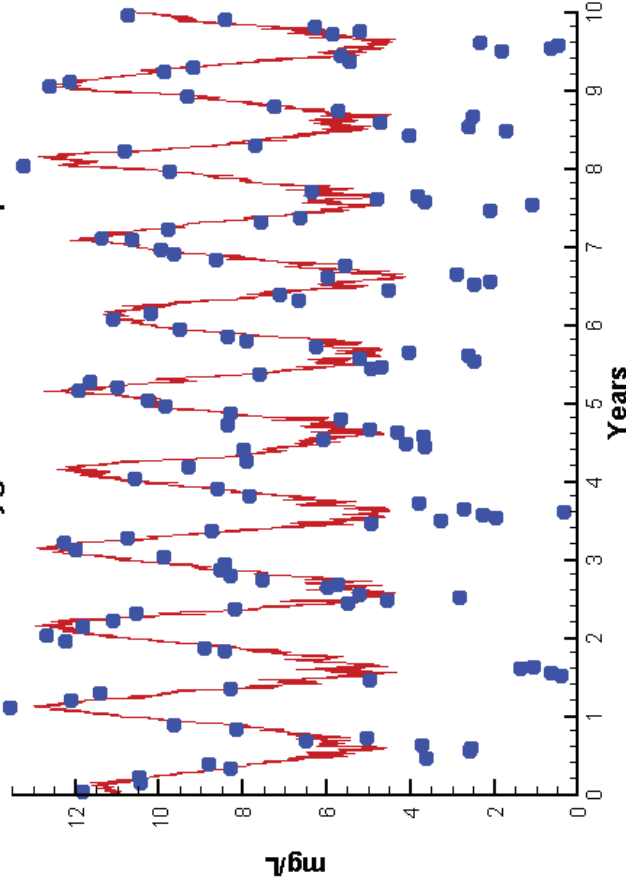
Run185 2002-2011
Dissolved Oxygen CB6.1 Surface



Run185 2002-2011
Dissolved Oxygen CB6.1 Bottom



Run185 2002-2011
Dissolved Oxygen CB6.1 Mid-Depth



Mean Difference

Absolute Mean Difference

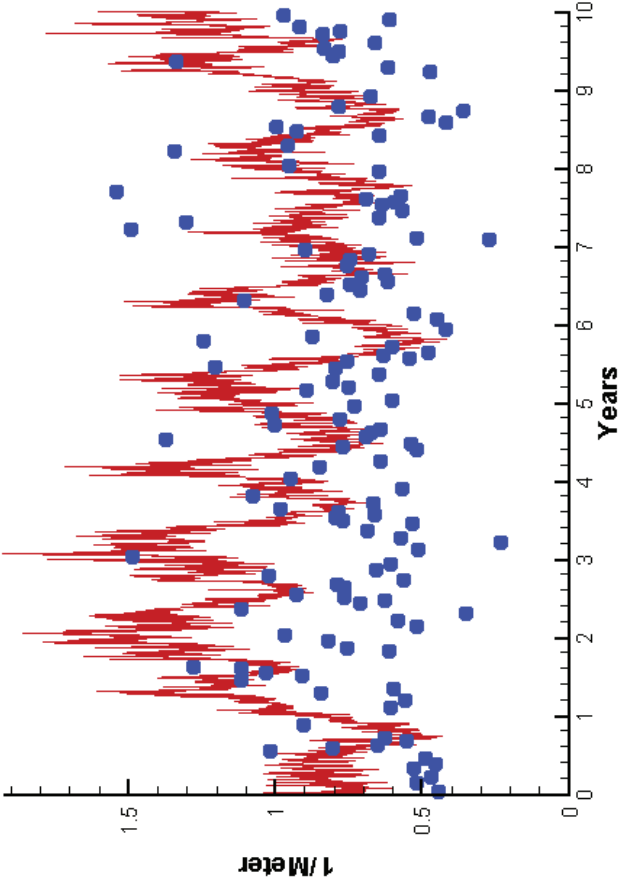
Top DO
Mid DO
Bot DO

-1.2377
0.8870
0.5699

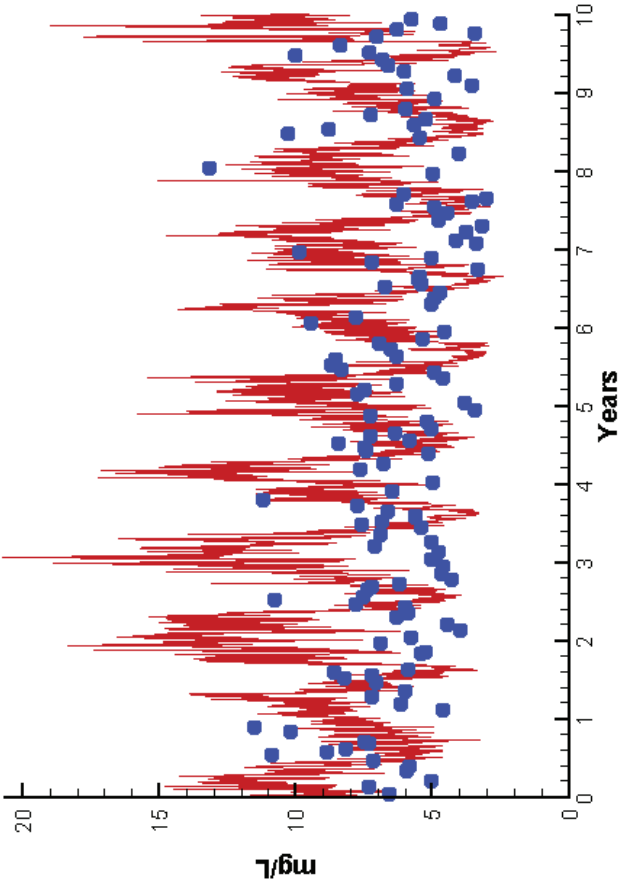
1.3502
1.4135
1.2290

Station CB6.1

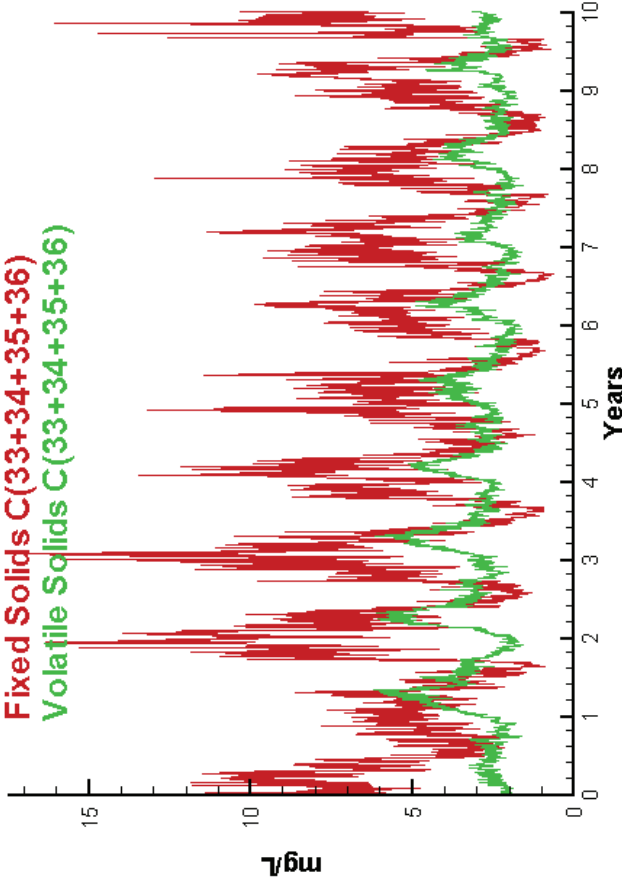
Run185 2002-2011
Light Extinction CB6.1 Surface



Run185 2002-2011
Total Solids CB6.1 Surface



Run185 2002-2011
Solids Surface



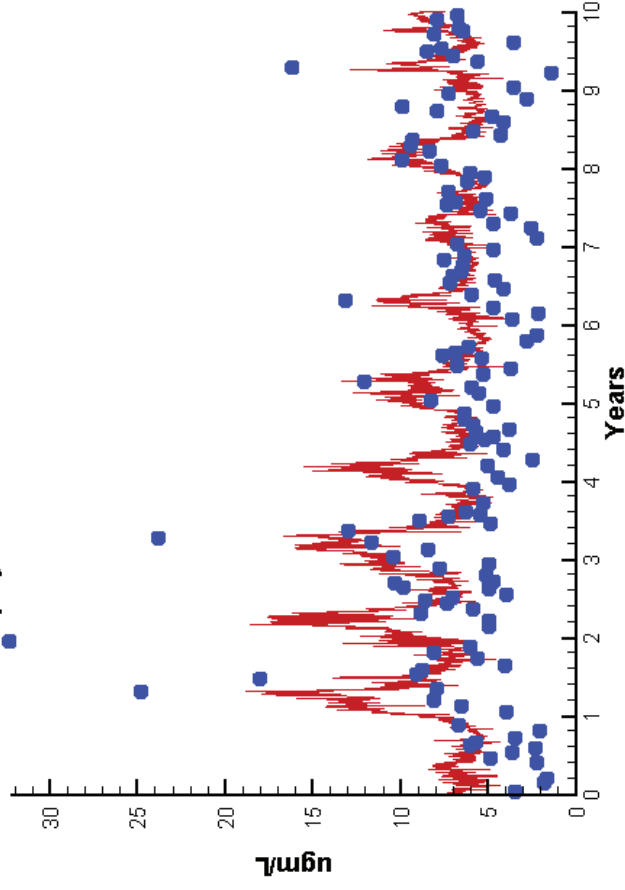
Mean Difference Absolute Mean Difference

KE 0.2391
TSS 0.8555

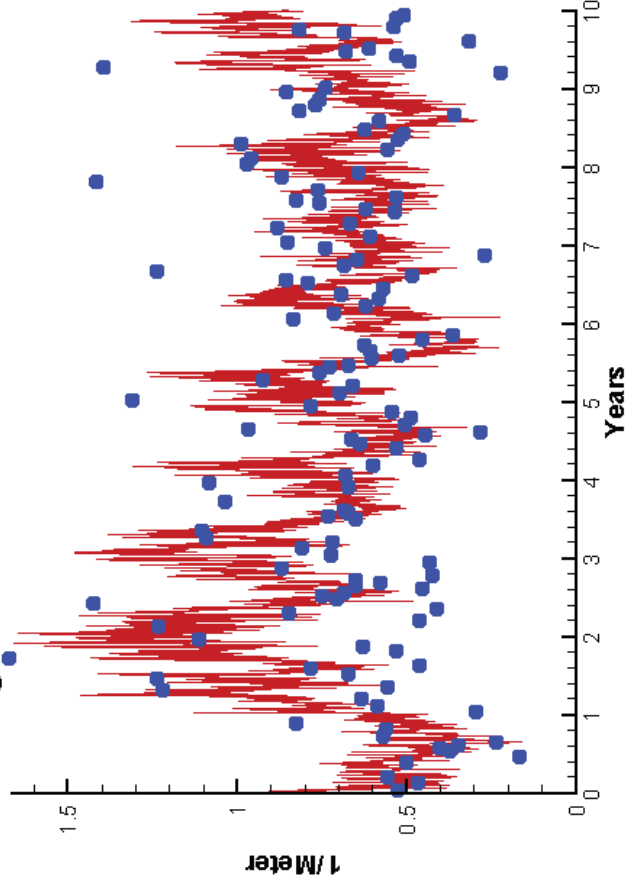
0.3206
2.8918

Station CB7.3

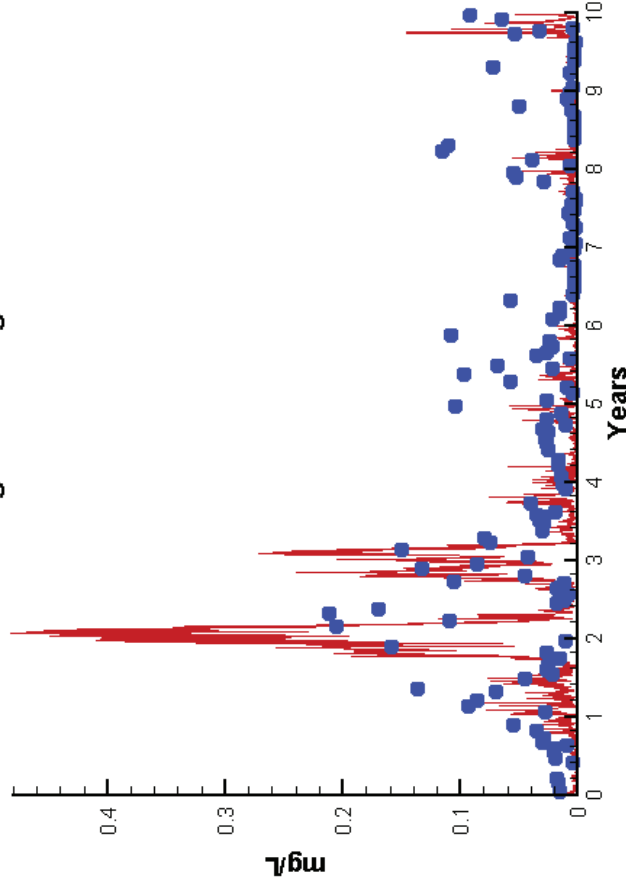
Run185 2002-2011
Chlorophyll CB7.3 Surface



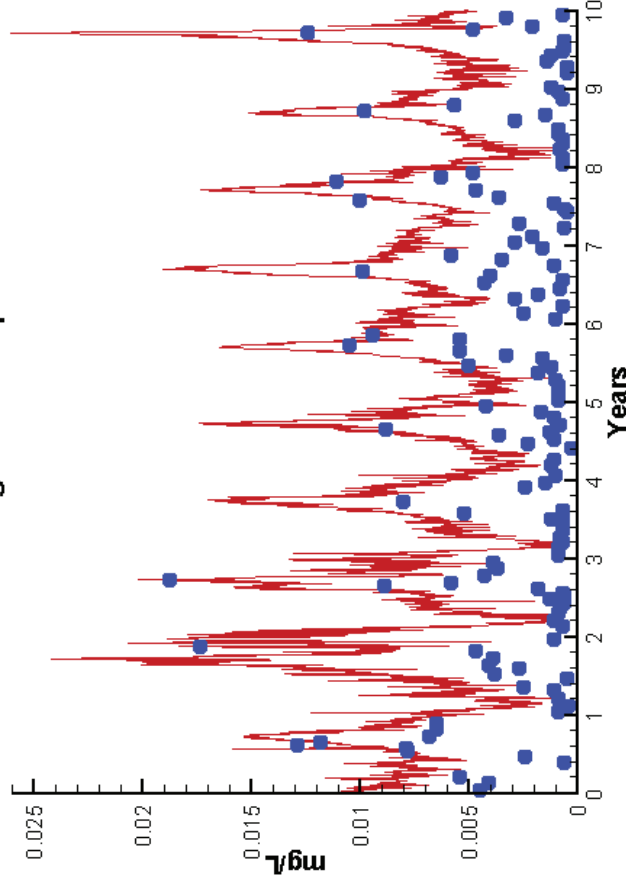
Run185 2002-2011
Light Extinction CB7.3 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen CB7.3 Surface

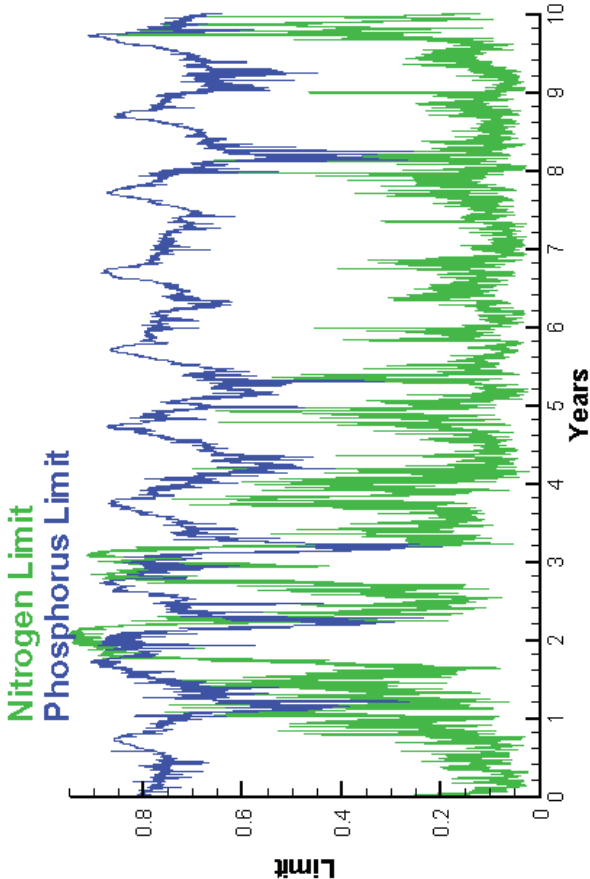


Run185 2002-2011
Dissolved Inorganic Phosphorus CB7.3 Surface

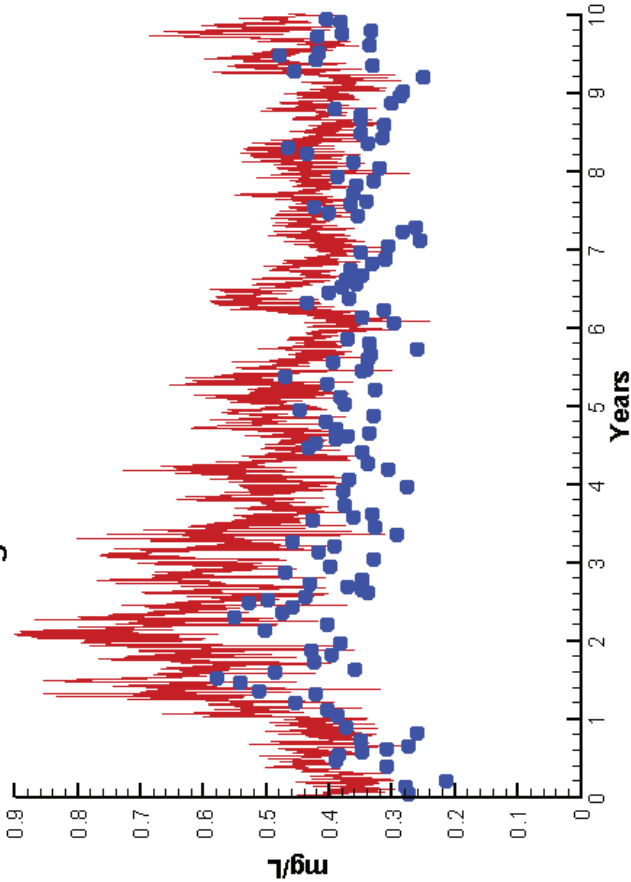


Station CB7.3

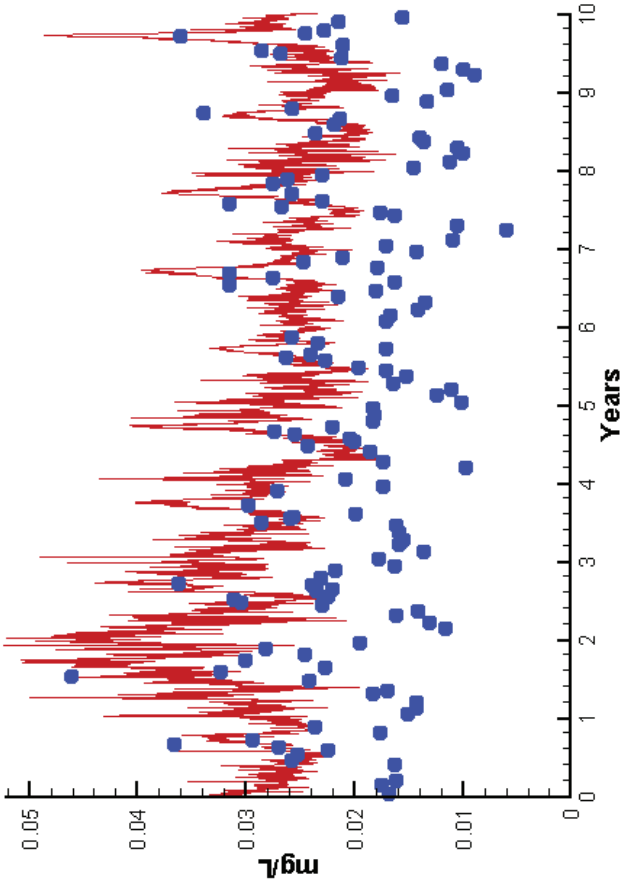
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen CB7.3 Surface



Run185 2002-2011
Total Phosphorus CB7.3 Surface



Mean Difference

Absolute Mean Difference

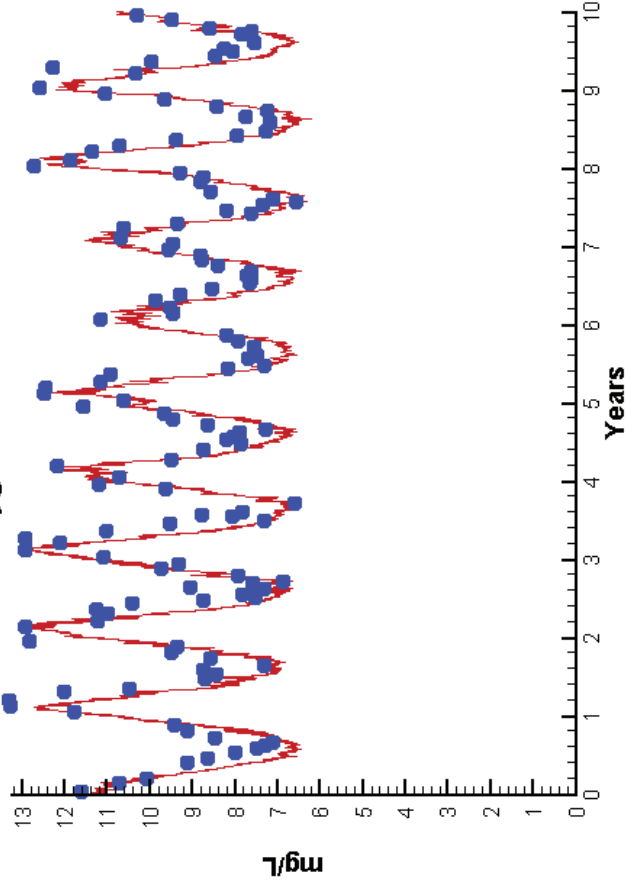
Chl
DIN
KE
DIP
TP
TN

1.3534
-0.0171
0.0516
0.0050
0.0077
0.1238

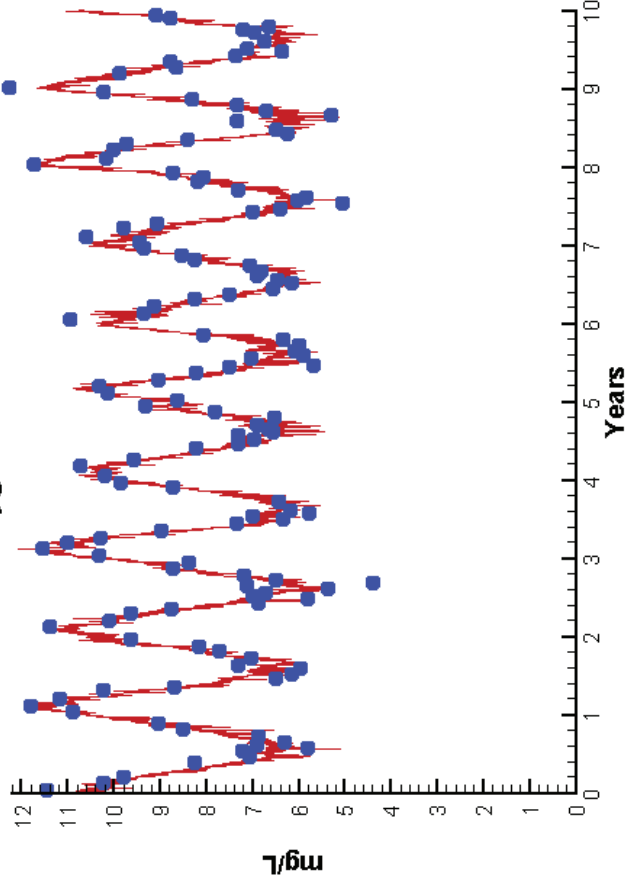
2.8901
0.0298
0.2314
0.0052
0.0088
0.1246

Station CB7.3

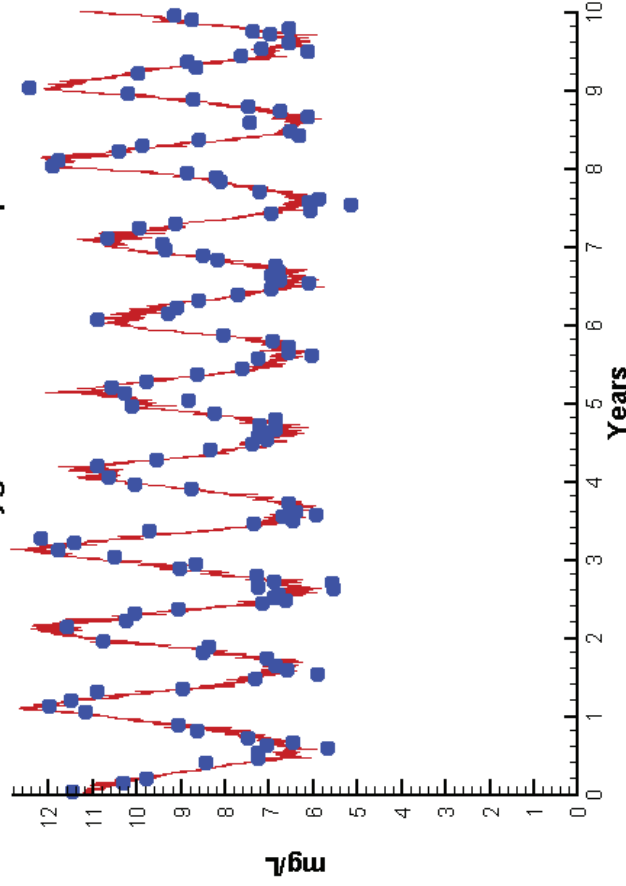
Run185 2002-2011
Dissolved Oxygen CB7.3 Surface



Run185 2002-2011
Dissolved Oxygen CB7.3 Bottom



Run185 2002-2011
Dissolved Oxygen CB7.3 Mid-Depth



Mean Difference

Absolute Mean Difference

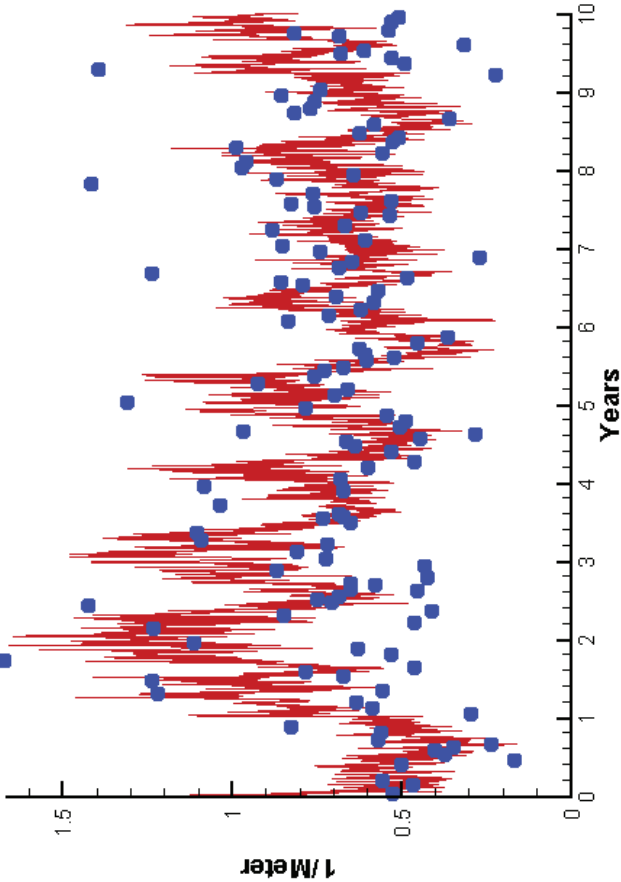
Top DO
Mid DO
Bot DO

-0.7073
0.0301
-0.0539

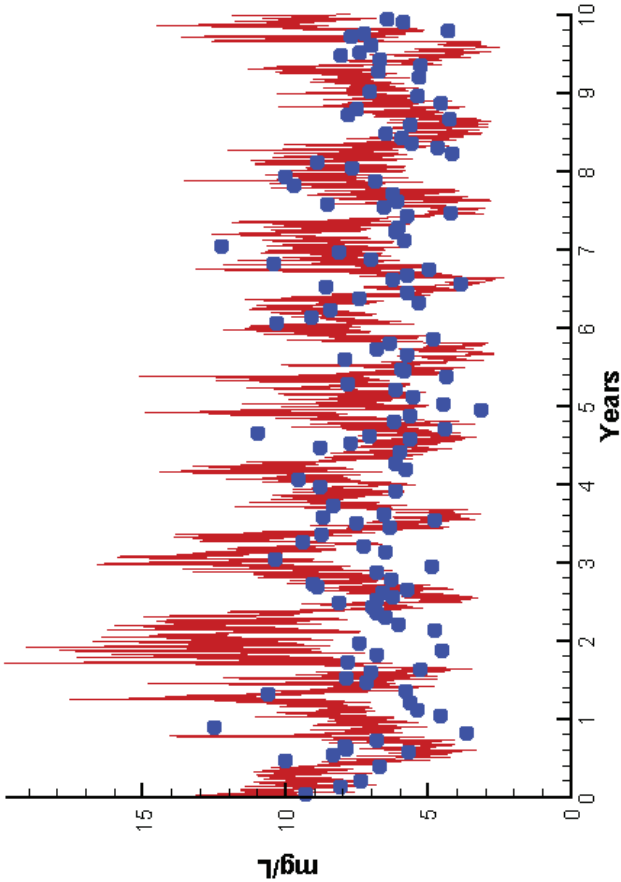
0.8732
0.4848
0.5967

Station CB7.3

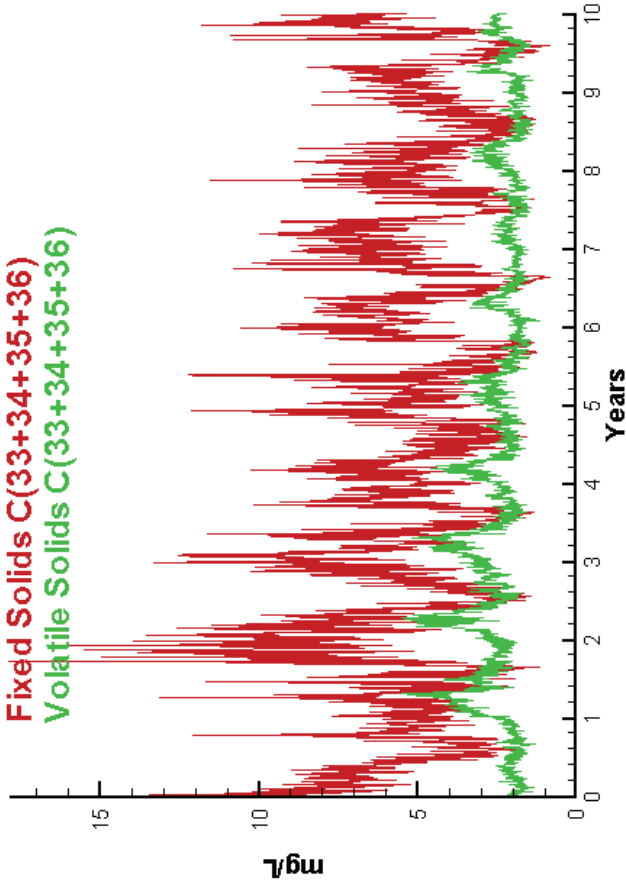
Run185 2002-2011
Light Extinction CB7.3 Surface



Run185 2002-2011
Total Solids CB7.3 Surface



Run185 2002-2011
Solids Surface



Mean Difference Absolute Mean Difference

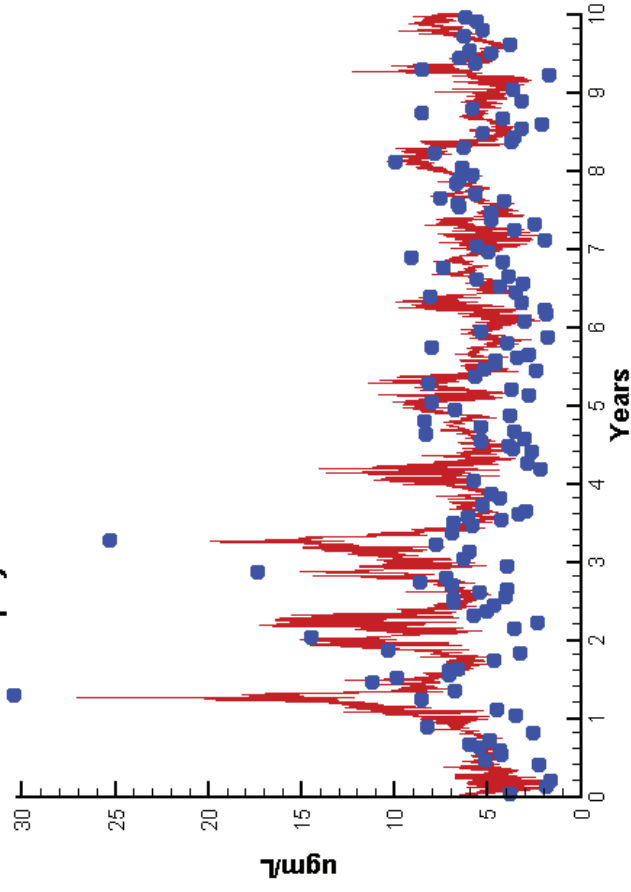
0.0516
0.1581

0.2314
2.1830

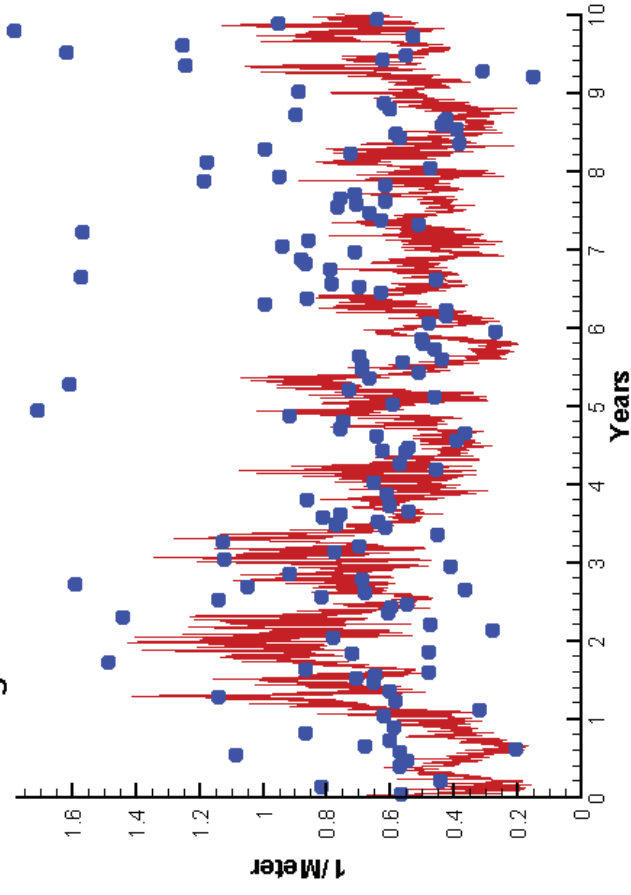
KE
TSS

Station CB7.4

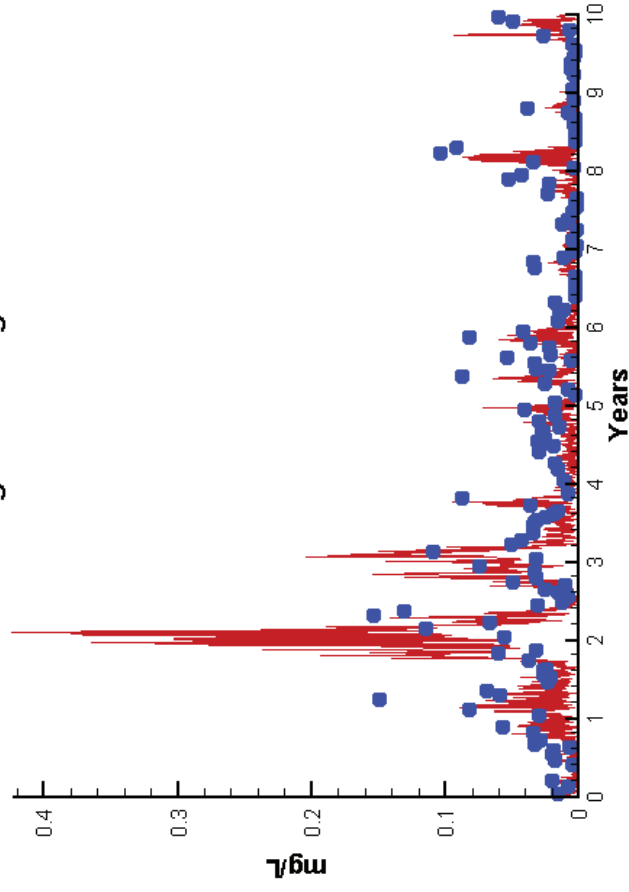
Run185 2002-2011
Chlorophyll CB7.4 Surface



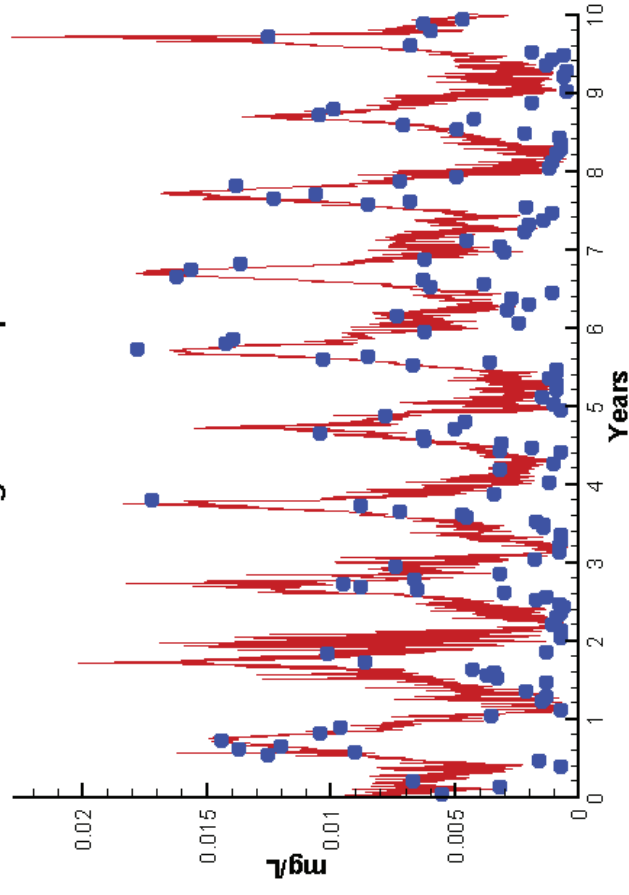
Run185 2002-2011
Light Extinction CB7.4 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen CB7.4 Surface

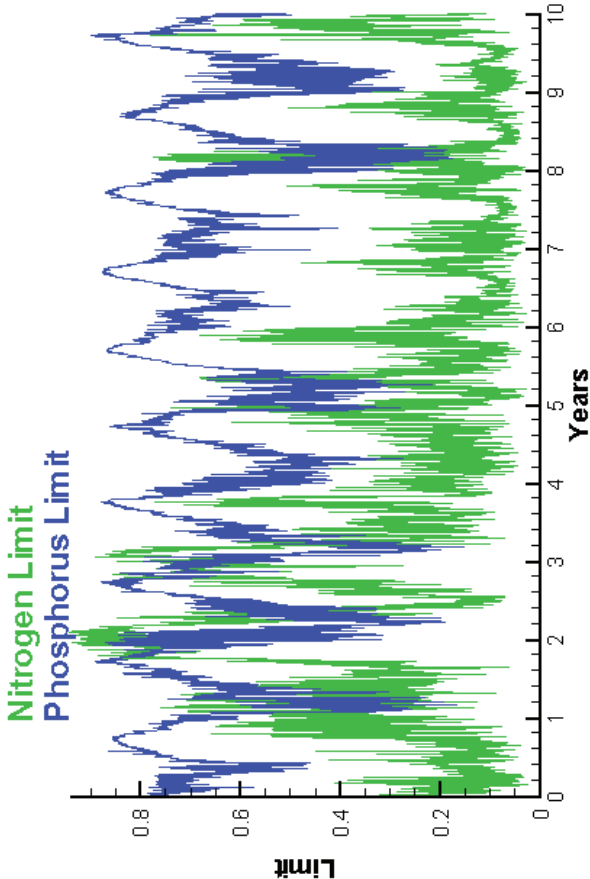


Run185 2002-2011
Dissolved Inorganic Phosphorus CB7.4 Surface

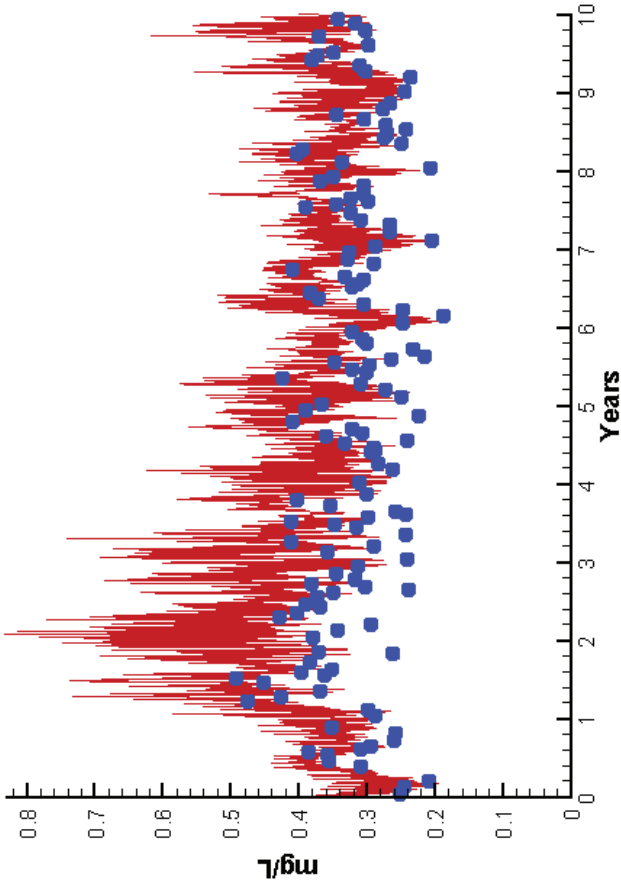


Station CB7.4

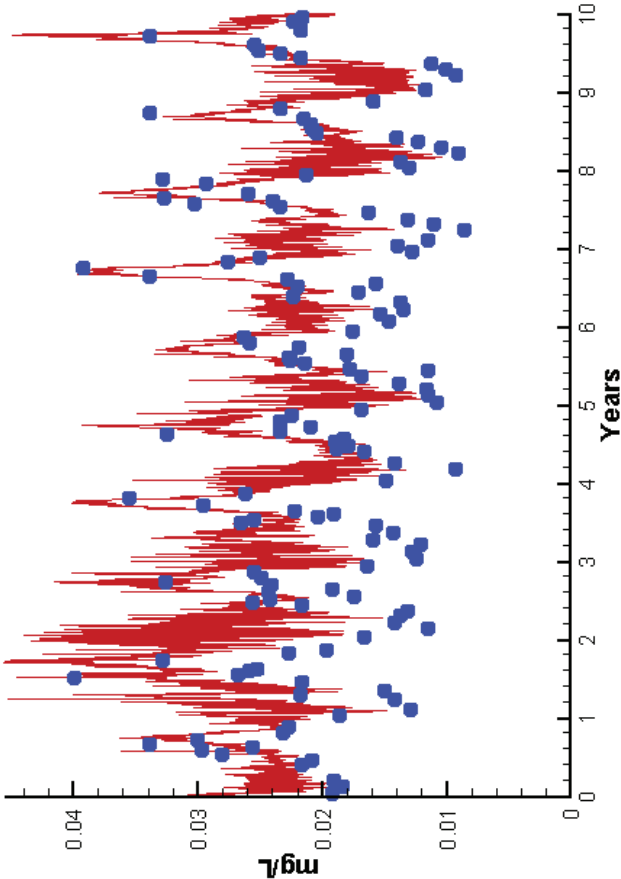
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen CB7.4 Surface



Run185 2002-2011
Total Phosphorus CB7.4 Surface



Mean Difference

Absolute Mean Difference

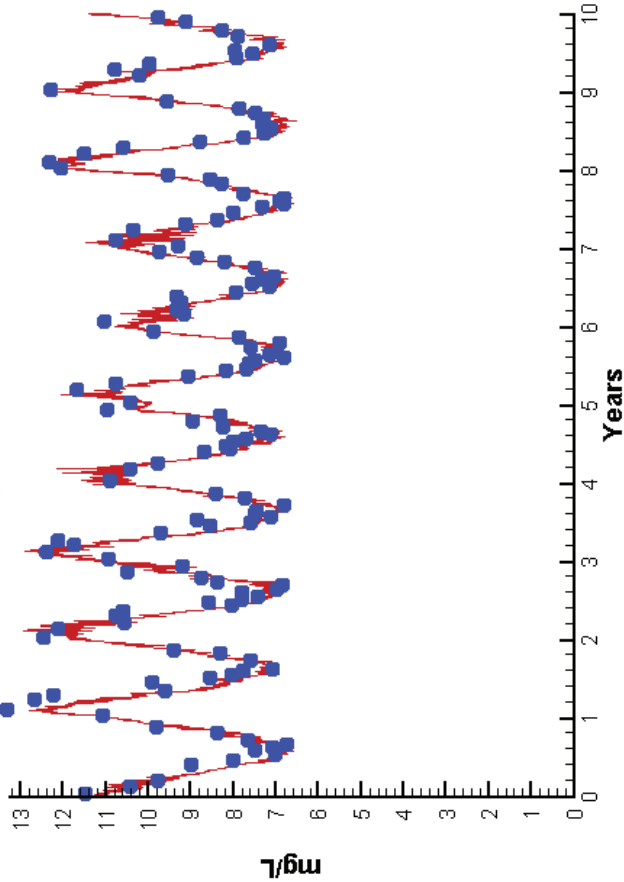
Chl
DIN
KE
DIP
TP
TN

0.9973
-0.0127
-0.1623
0.0023
0.0053
0.0821

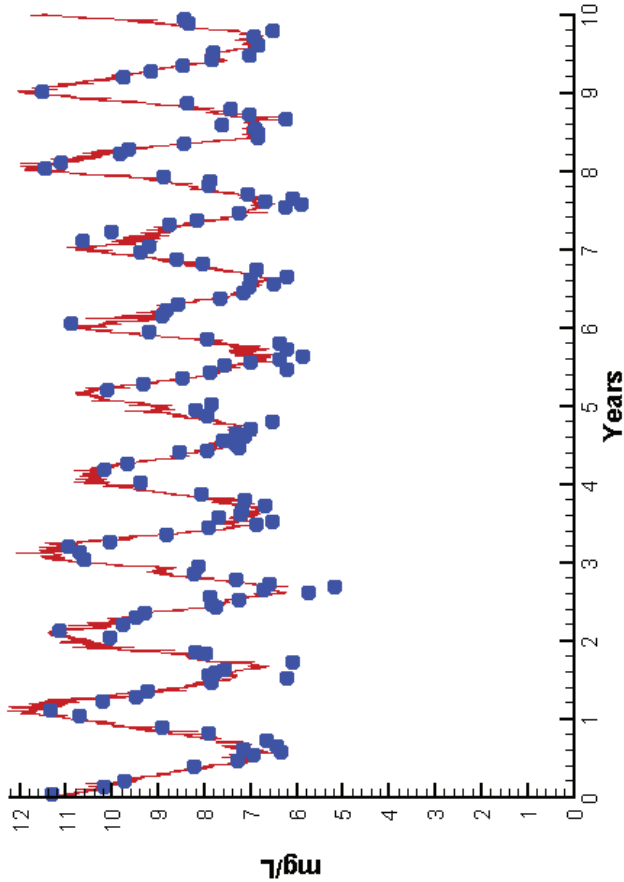
2.1659
0.0196
0.2717
0.0030
0.0063
0.0882

Station CB7.4

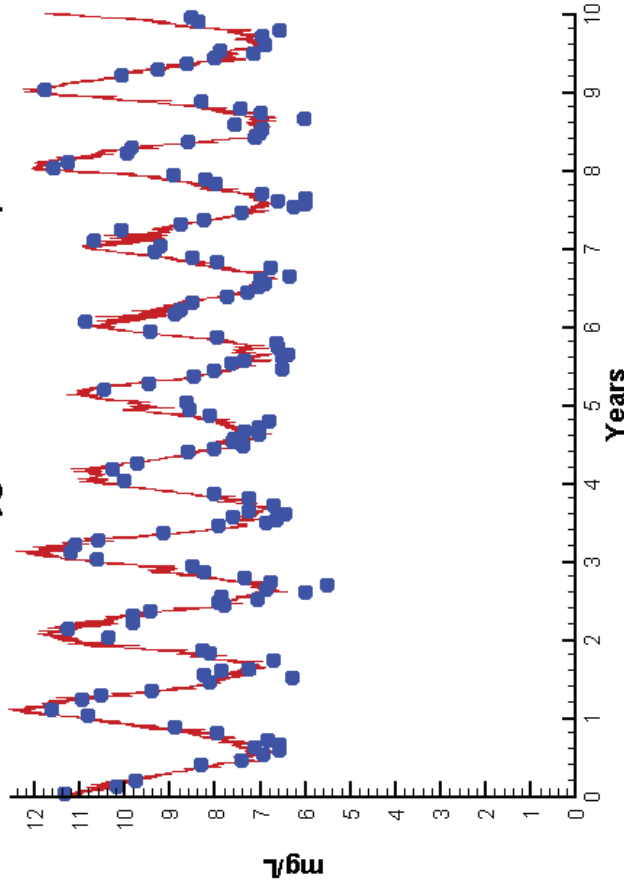
Run185 2002-2011
Dissolved Oxygen CB7.4 Surface



Run185 2002-2011
Dissolved Oxygen CB7.4 Bottom



Run185 2002-2011
Dissolved Oxygen CB7.4 Mid-Depth



Mean Difference

Absolute Mean Difference

Top DO

-0.3434

Mid DO

0.3431

Bot DO

0.3323

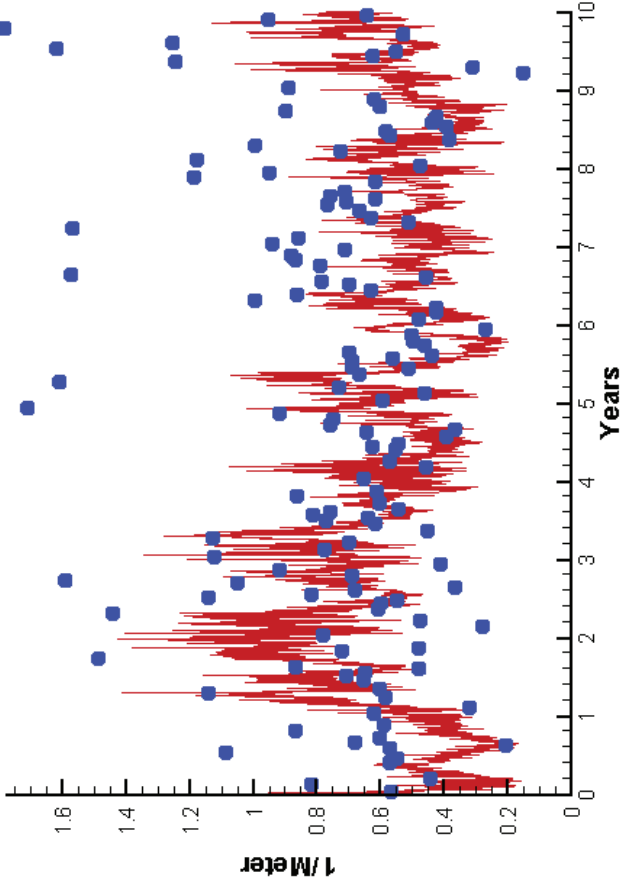
0.5583

0.5555

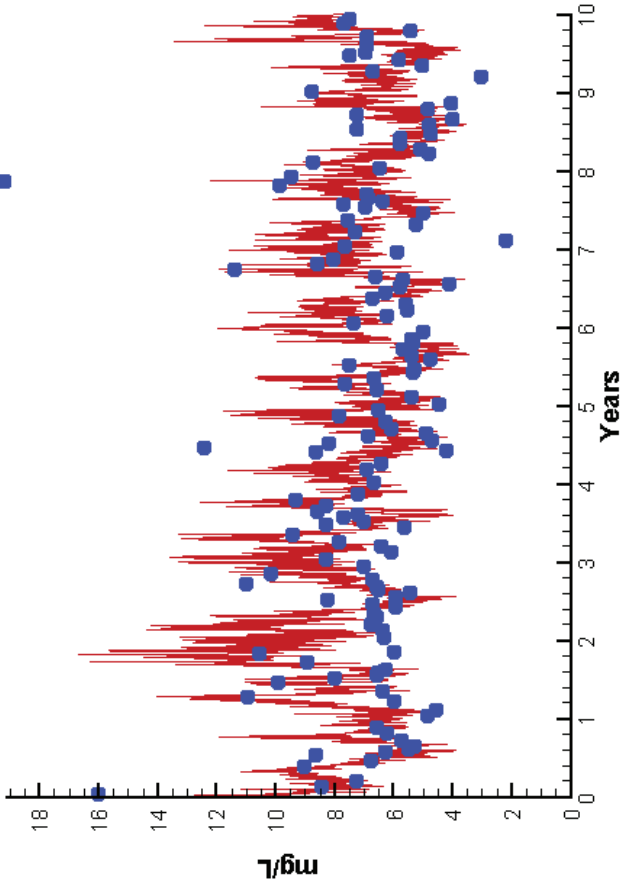
0.5434

Station CB7.4

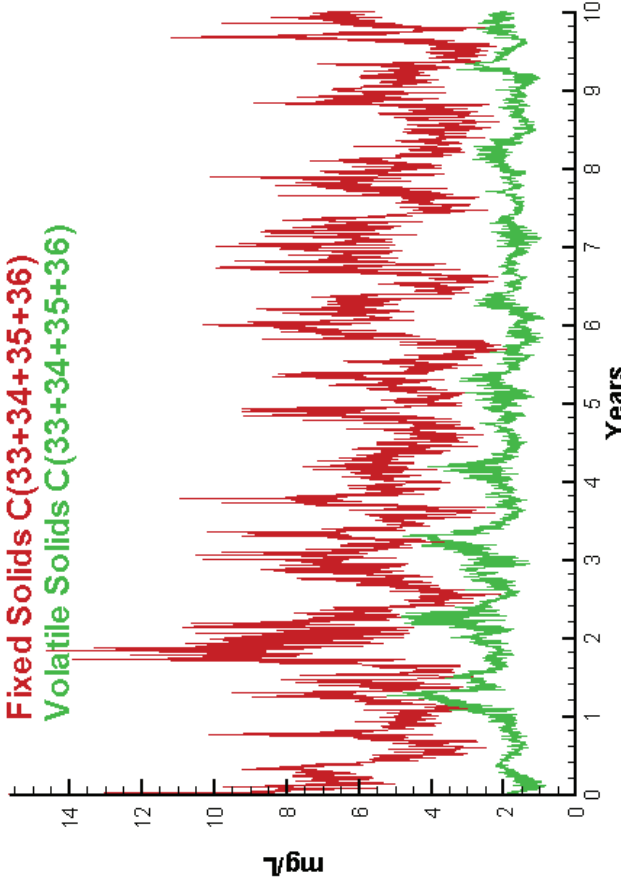
Run185 2002-2011
Light Extinction CB7.4 Surface



Run185 2002-2011
Total Solids CB7.4 Surface



Run185 2002-2011
Solids Surface



Mean Difference

Absolute Mean Difference

KE

-0.1623

0.2717

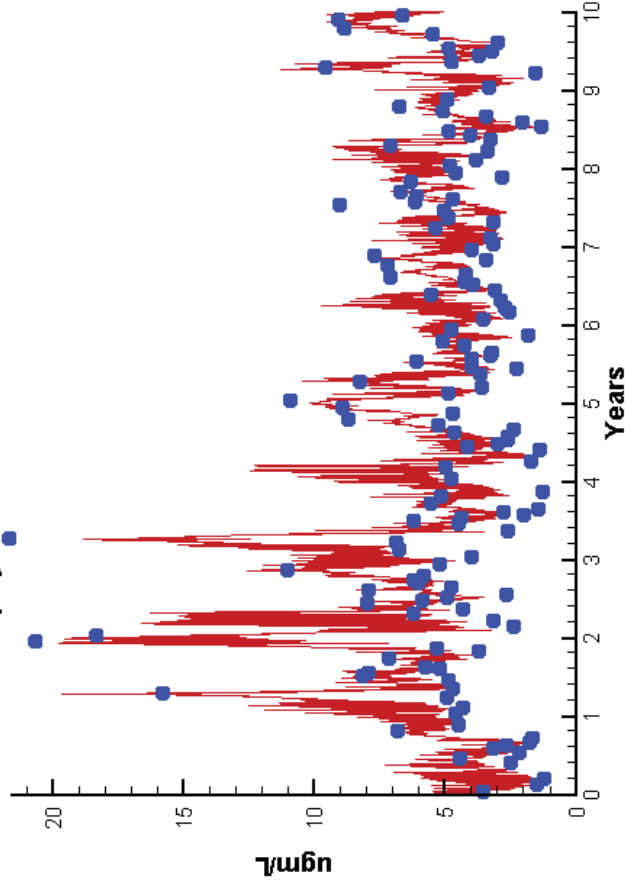
TSS

0.2137

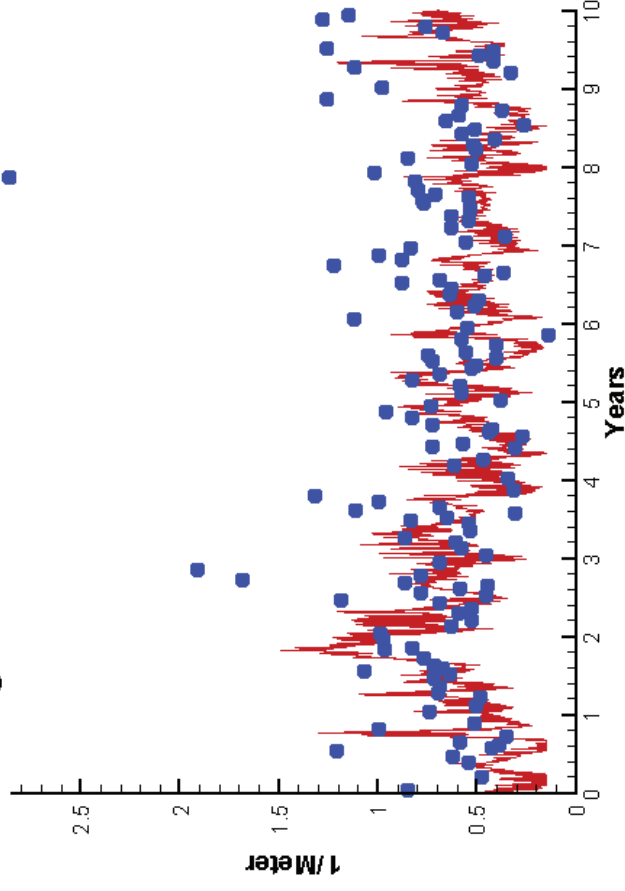
1.5324

Station CB7.4N

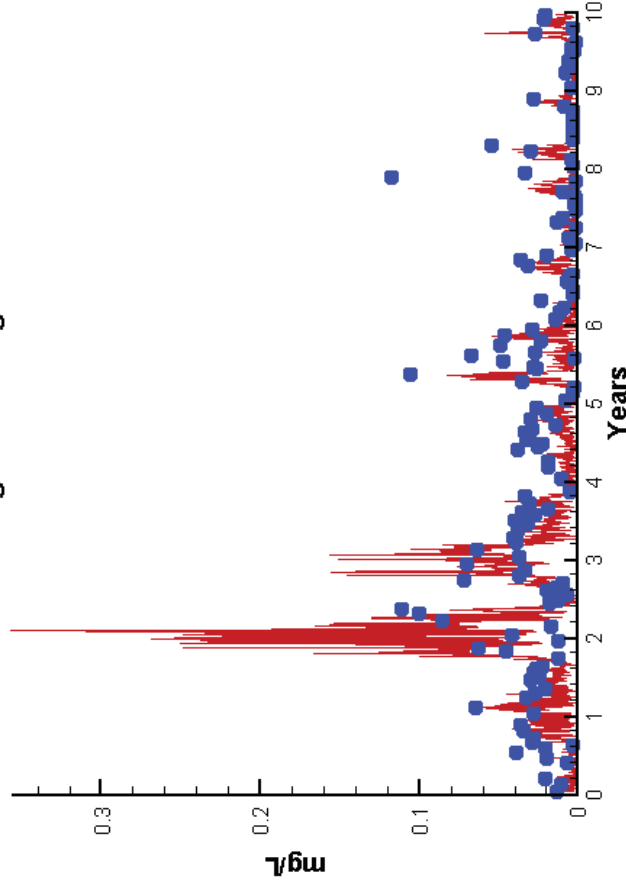
Run185 2002-2011
Chlorophyll CB7.4N Surface



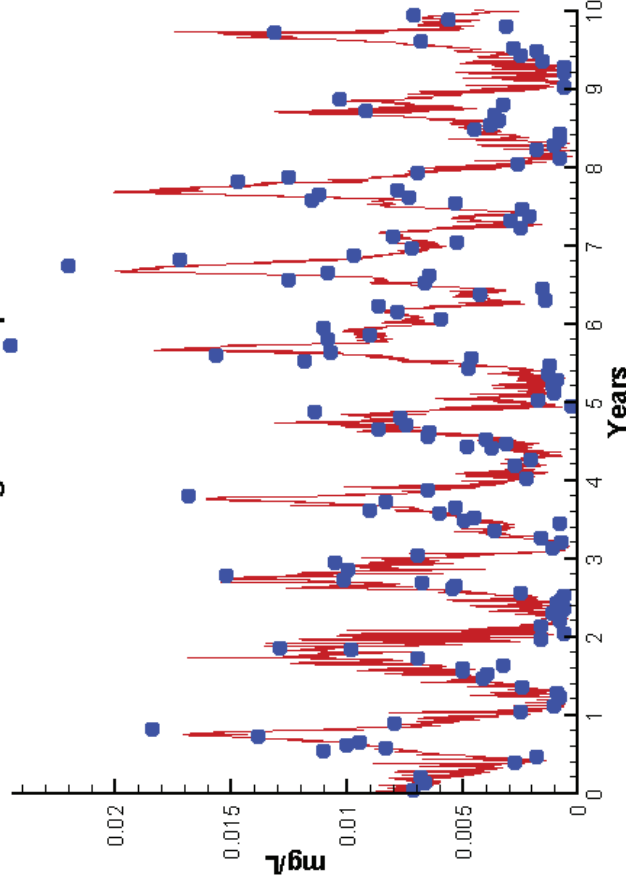
Run185 2002-2011
Light Extinction CB7.4N Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen CB7.4N Surface

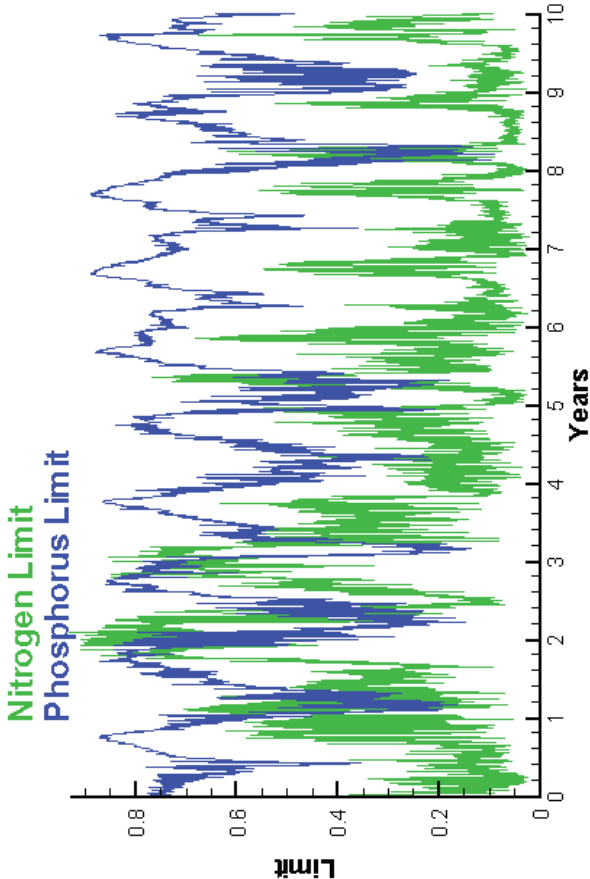


Run185 2002-2011
Dissolved Inorganic Phosphorus CB7.4N Surface

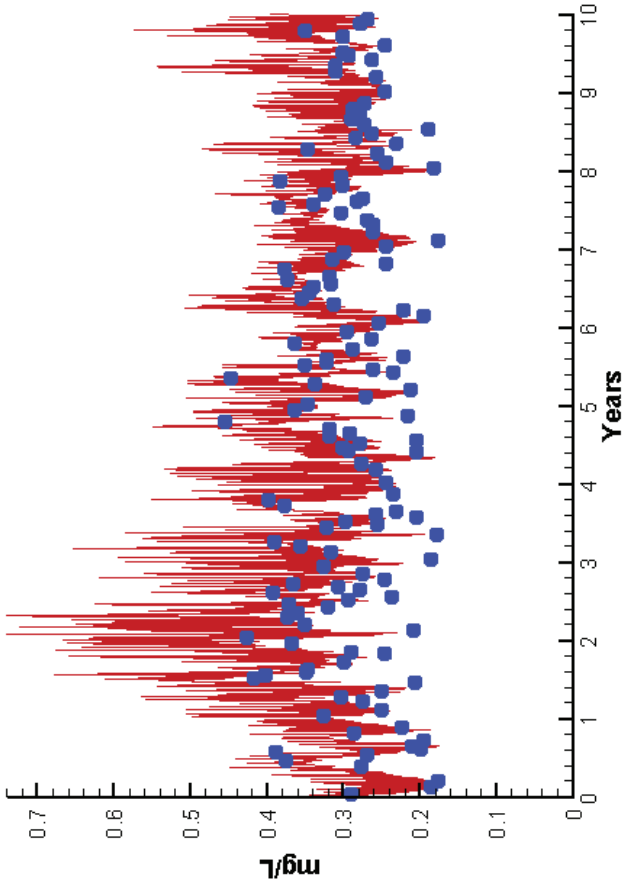


Station CB7.4N

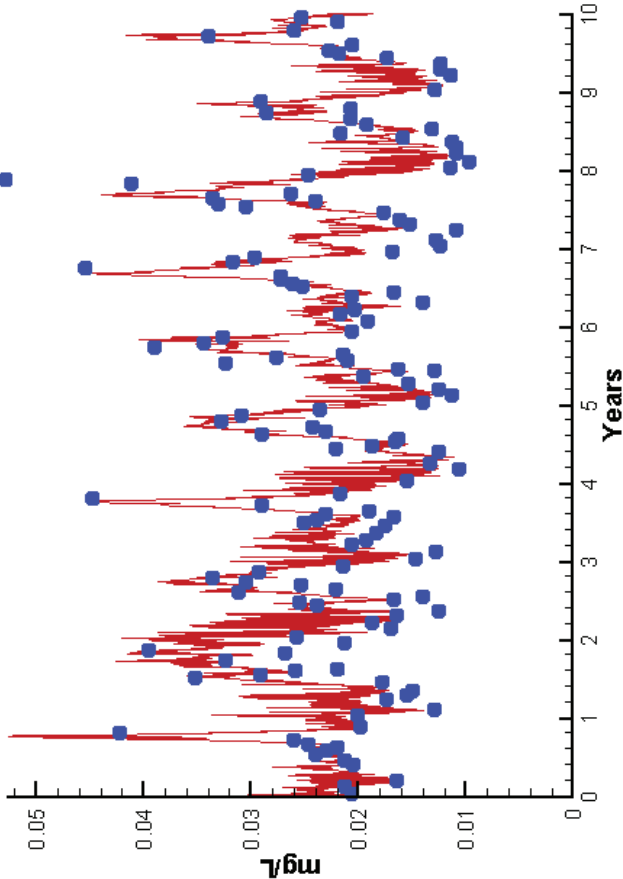
Run185 2002-2011
Algal Limits N



Run185 2002-2011
Total Nitrogen CB7.4N Surface



Run185 2002-2011
Total Phosphorus CB7.4N Surface



Mean Difference

Absolute Mean Difference

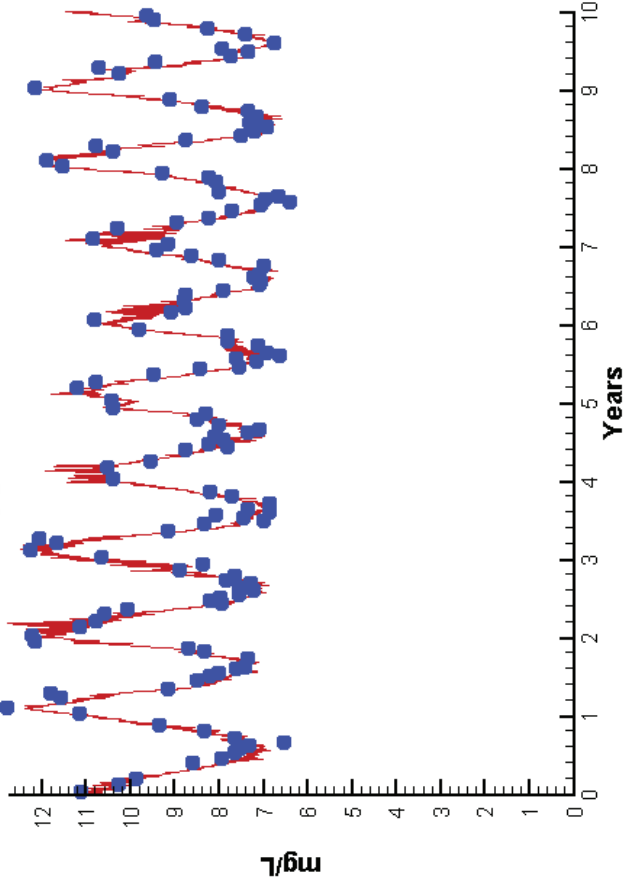
Chl
DIN
KE
DIP
TP
TN

0.8250
-0.0084
-0.1608
0.0007
0.0028
0.0579

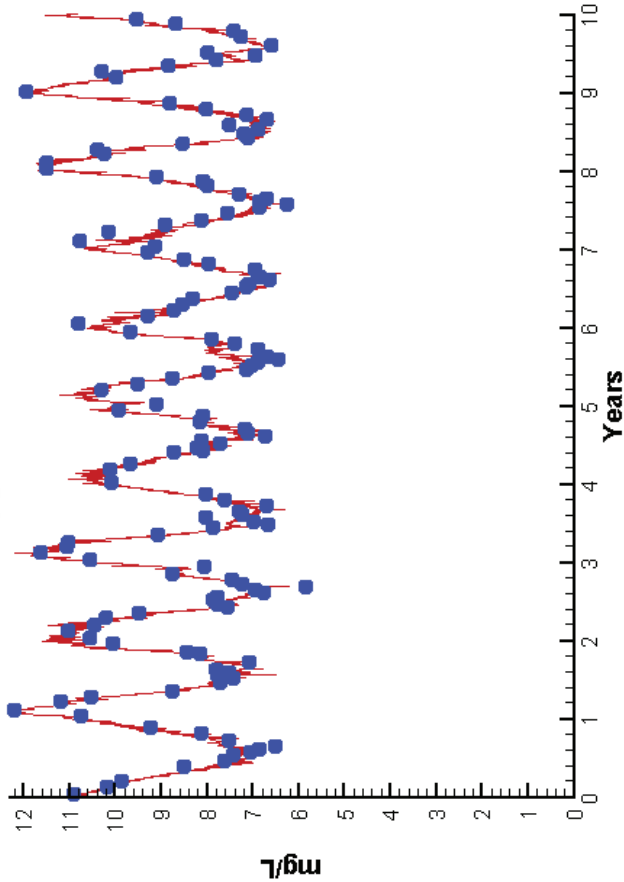
1.8256
0.0157
0.2704
0.0025
0.0051
0.0724

Station CB7.4N

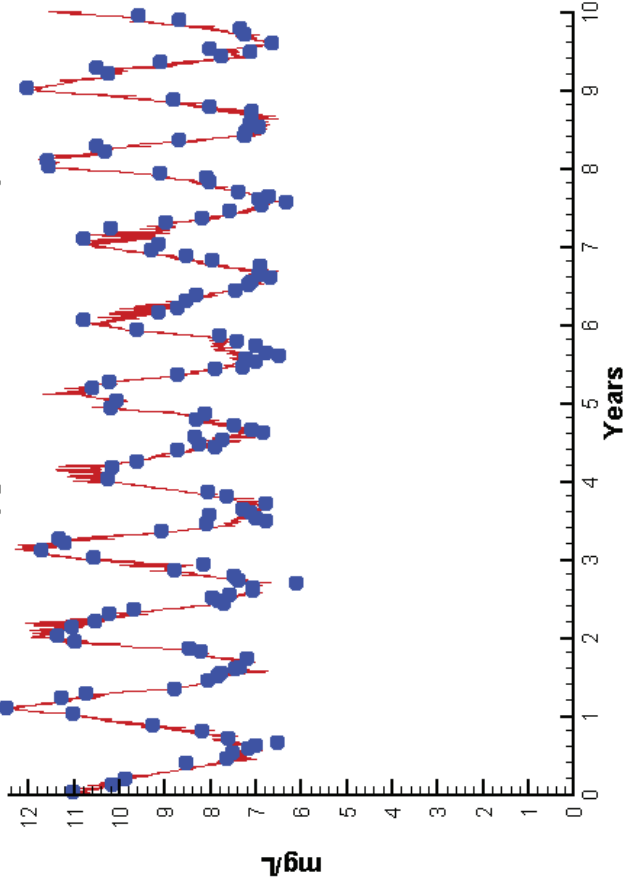
Run185 2002-2011
Dissolved Oxygen CB7.4N Surface



Run185 2002-2011
Dissolved Oxygen CB7.4N Bottom



Run185 2002-2011
Dissolved Oxygen CB7.4N Mid-Depth



Mean Difference

Absolute Mean Difference

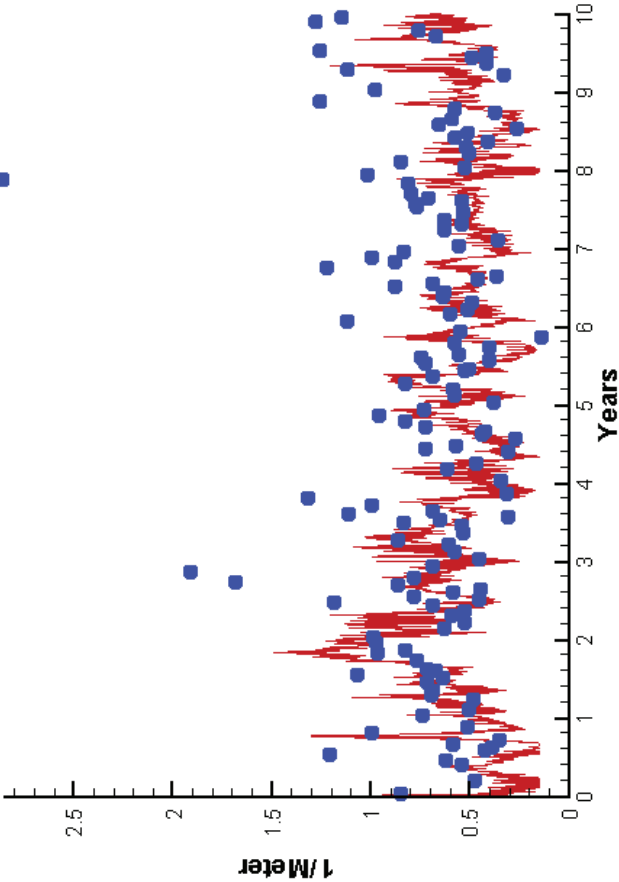
Top DO
Mid DO
Bot DO

-0.1361
0.0669
0.0815

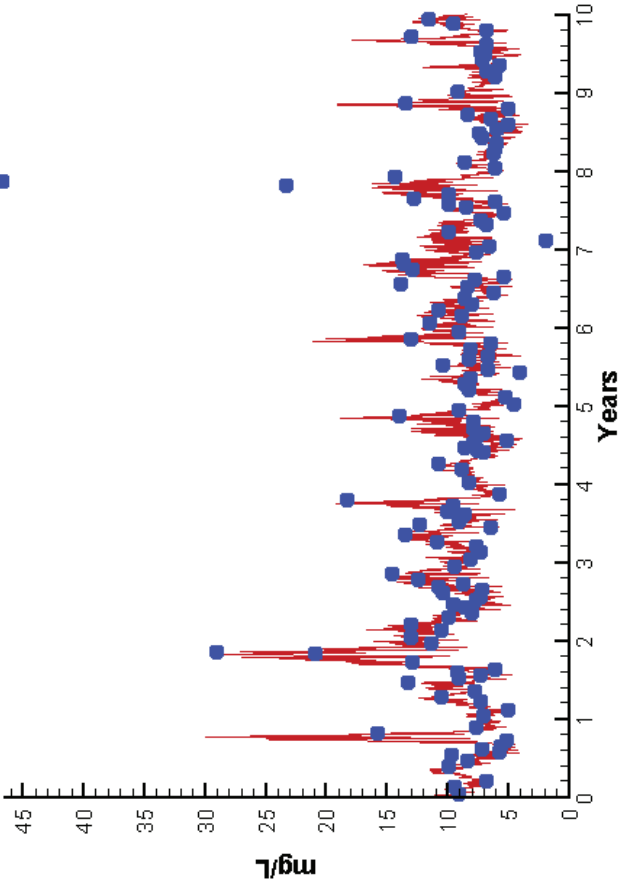
0.4442
0.4116
0.4185

Station CB7.4N

Run185 2002-2011
Light Extinction CB7.4N Surface



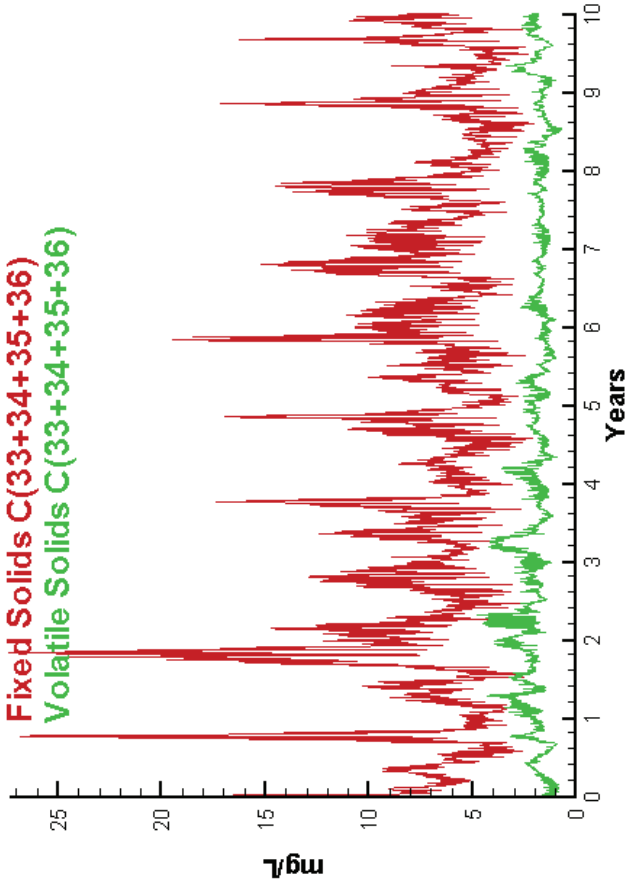
Run185 2002-2011
Total Solids CB7.4N Surface



Run185 2002-2011

Solids N Surface

Fixed Solids C(33+34+35+36)
Volatile Solids C(33+34+35+36)



Mean Difference

Absolute Mean Difference

KE

TSS

-0.1608

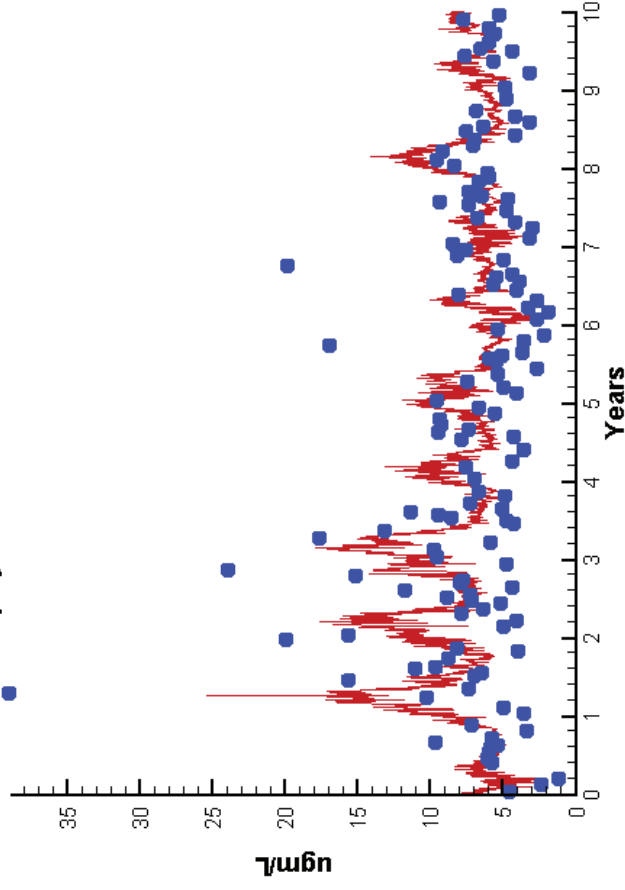
-0.3713

0.2704

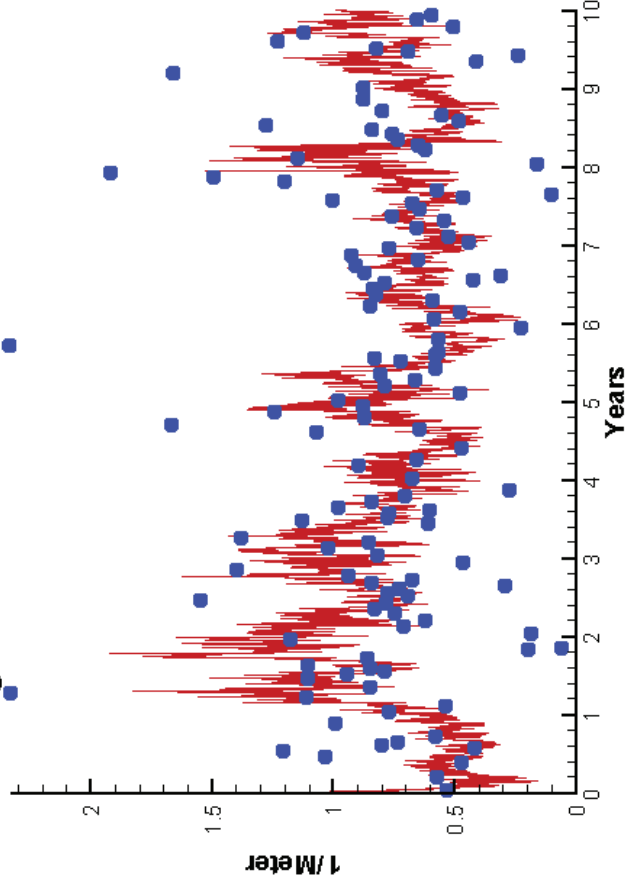
2.2356

Station CB8.1E

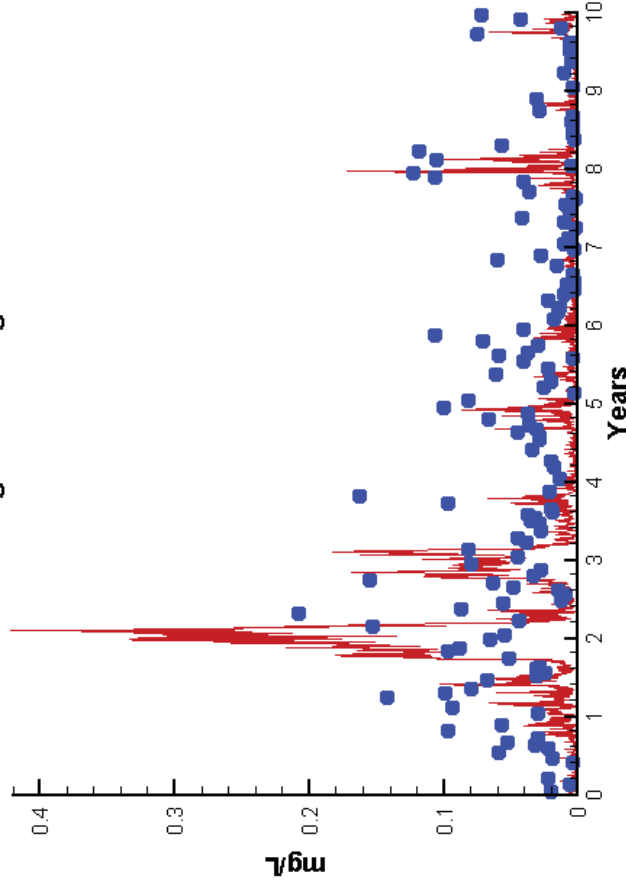
Run185 2002-2011
Chlorophyll CB8.1E Surface



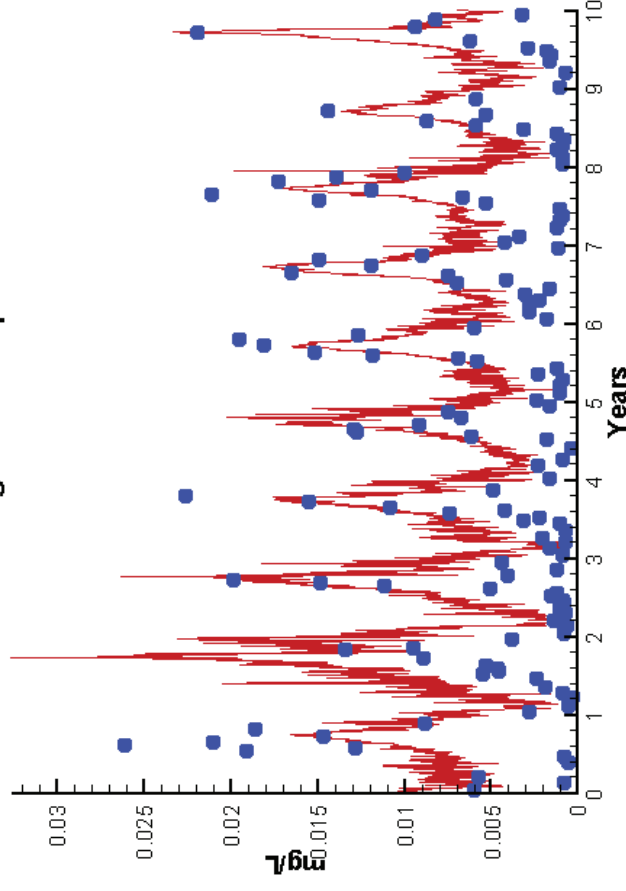
Run185 2002-2011
Light Extinction CB8.1E Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen CB8.1E Surface

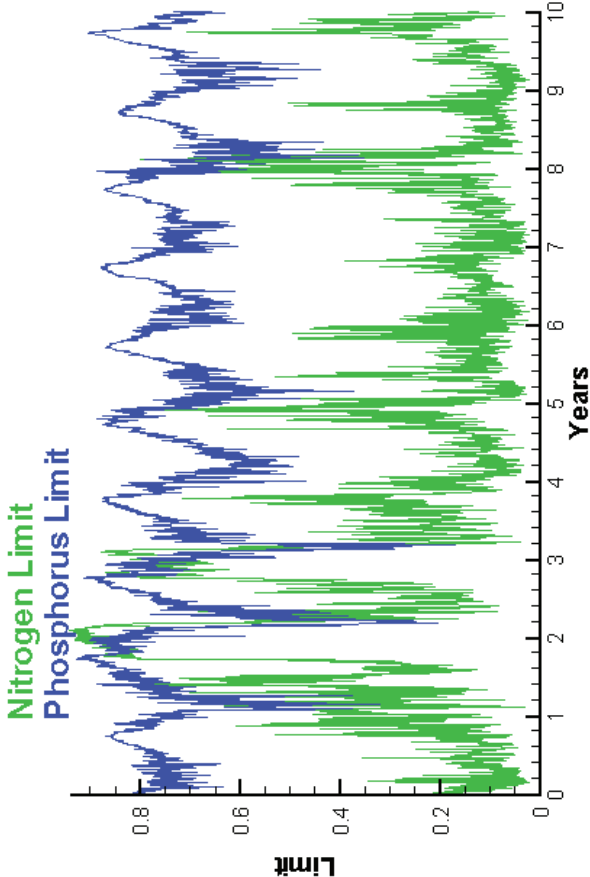


Run185 2002-2011
Dissolved Inorganic Phosphorus CB8.1E Surface

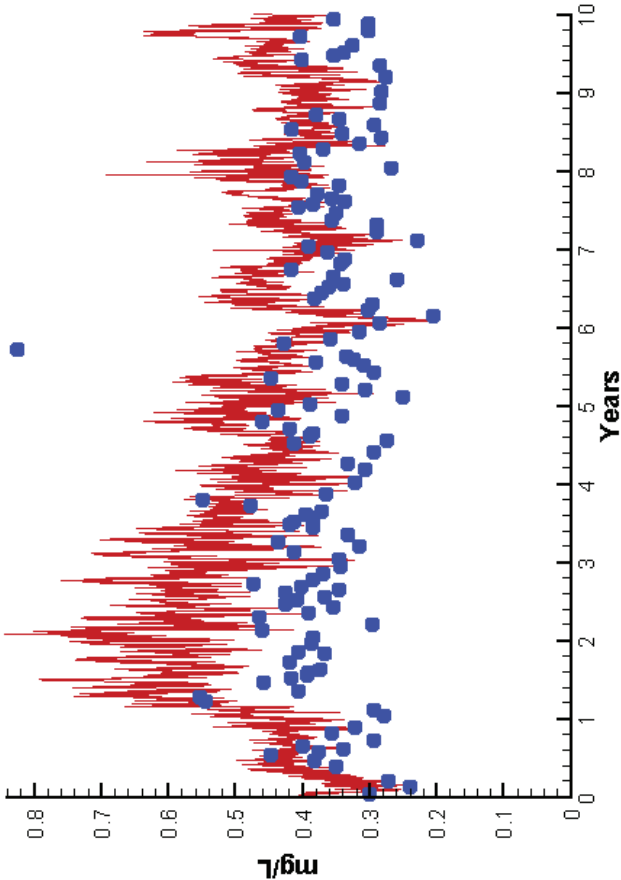


Station CB8.1E

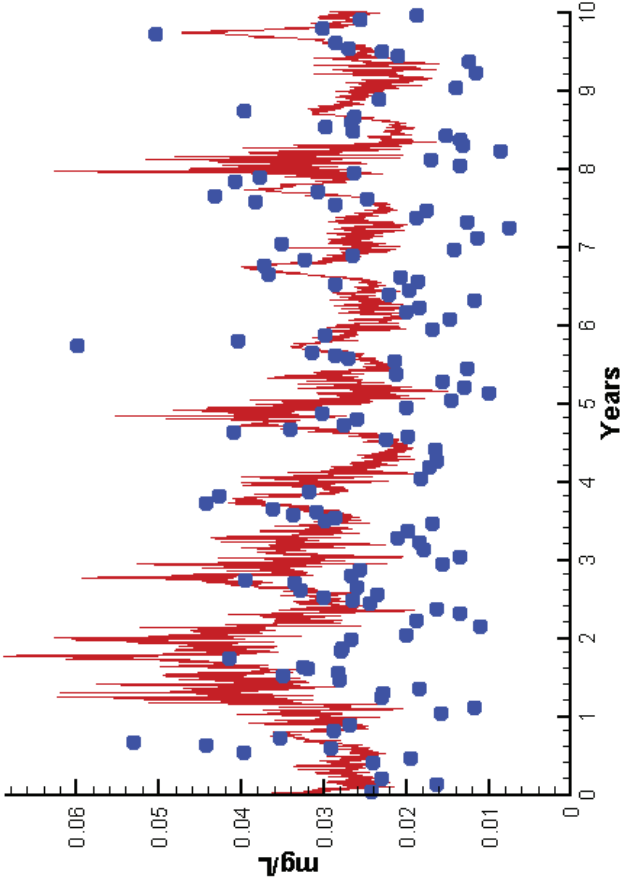
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen CB8.1E Surface



Run185 2002-2011
Total Phosphorus CB8.1E Surface



Mean Difference

Absolute Mean Difference

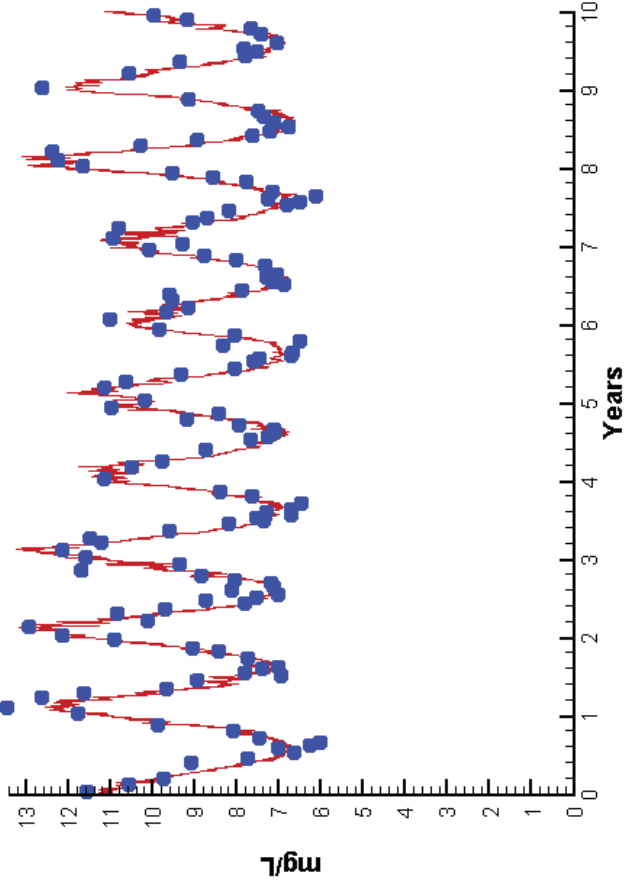
Chl
DIN
KE
DIP
TP
TN

0.6193
-0.0222
0.0113
0.0029
0.0056
0.1225

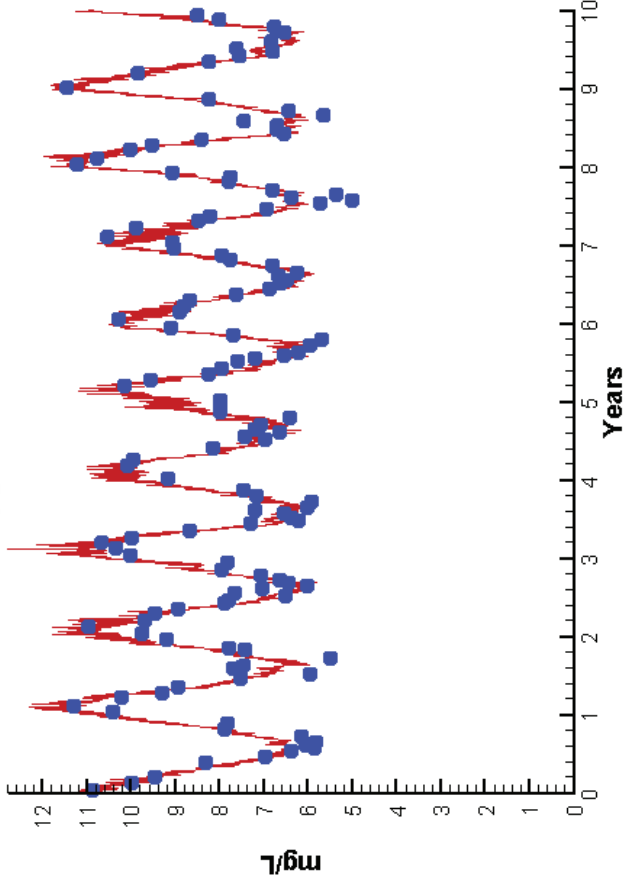
2.8288
0.0328
0.3029
0.0047
0.0097
0.1302

Station CB8.1E

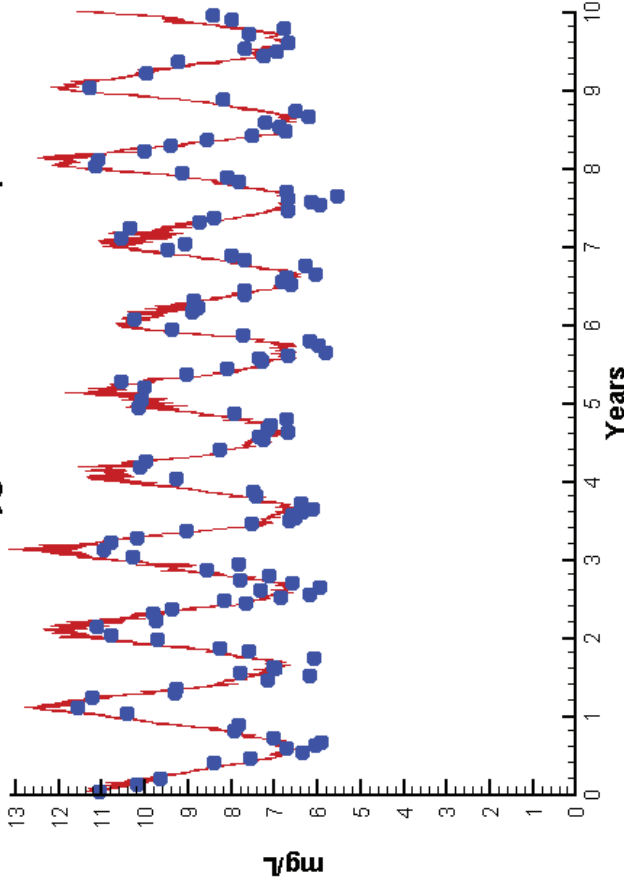
Run185 2002-2011
Dissolved Oxygen CB8.1E Surface



Run185 2002-2011
Dissolved Oxygen CB8.1E Bottom



Run185 2002-2011
Dissolved Oxygen CB8.1E Mid-Depth



Mean Difference

Top DO
Mid DO
Bot DO

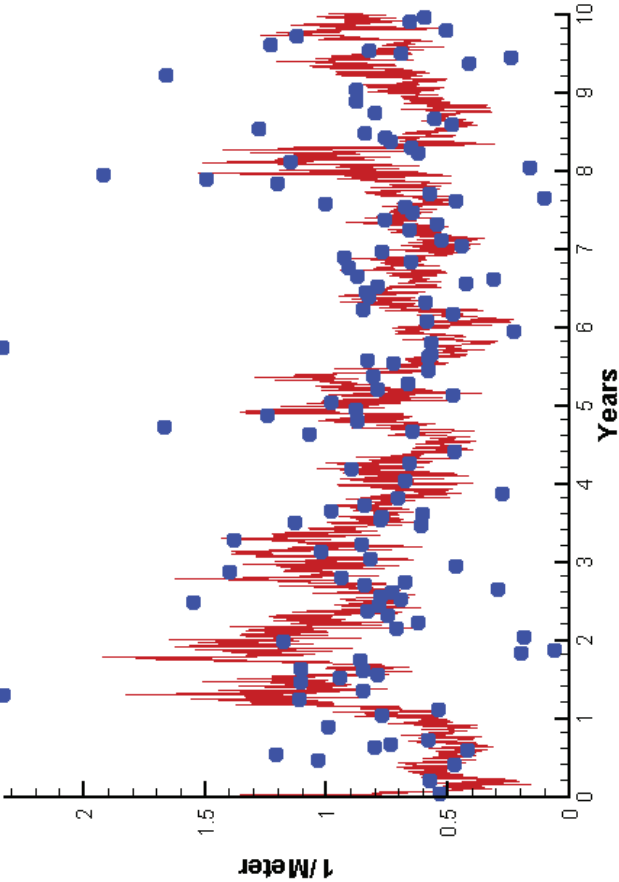
-0.1804
0.3843
0.1285

Absolute Mean Difference

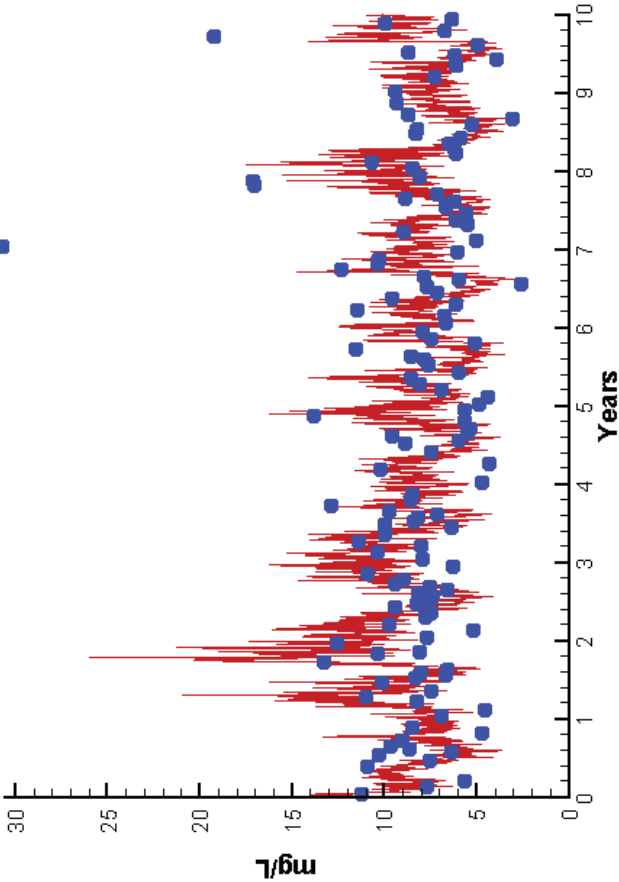
0.5446
0.6097
0.5727

Station CB8.1E

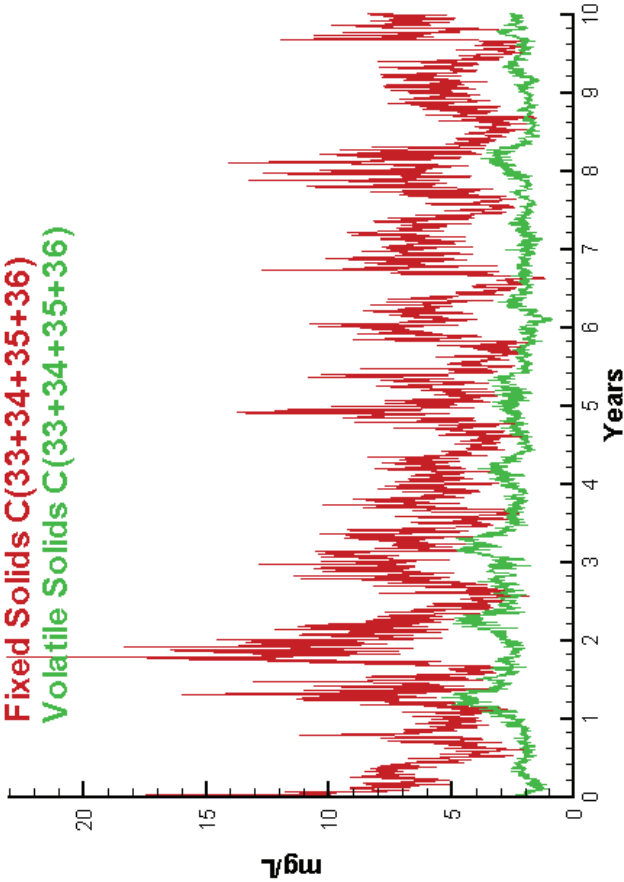
Run185 2002-2011
Light Extinction CB8.1E Surface



Run185 2002-2011
Total Solids CB8.1E Surface



Run185 2002-2011
Solids Surface

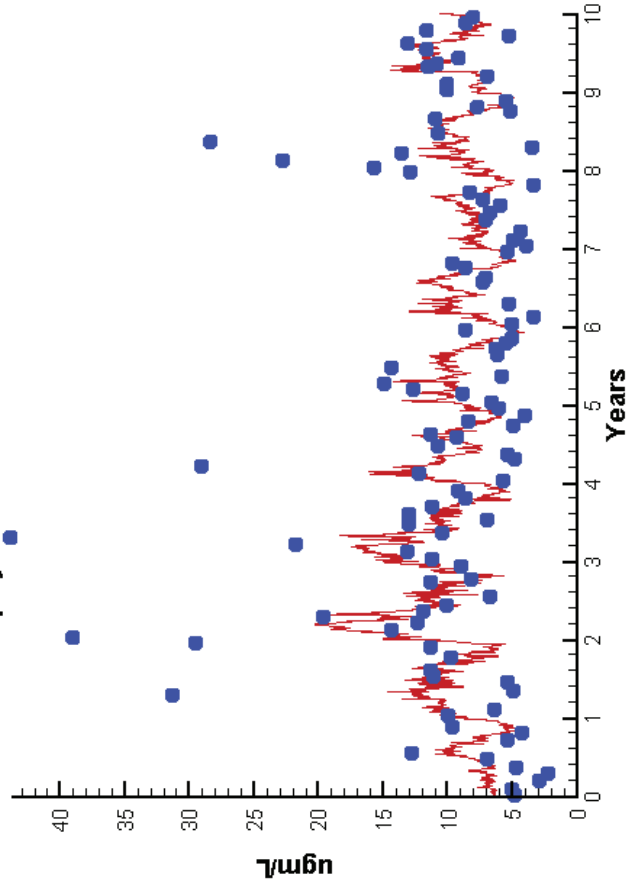


Mean Difference Absolute Mean Difference

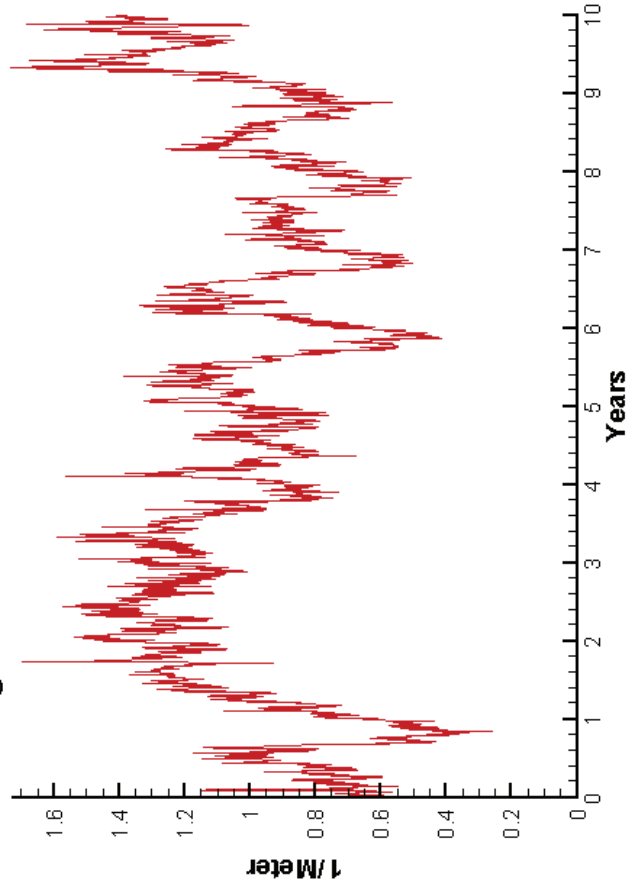
KE 0.0113 0.3029
TSS -0.2186 2.3518

Station EE3.2

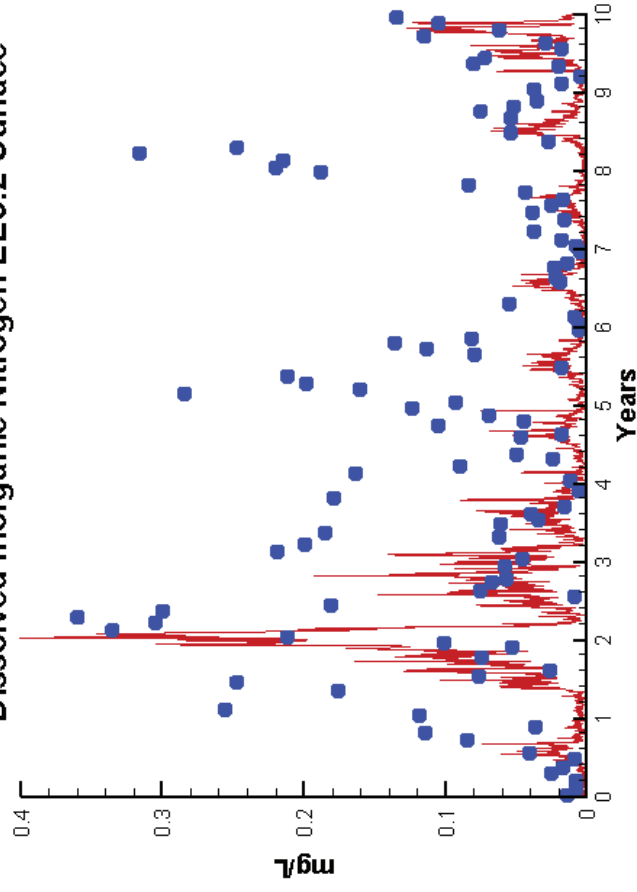
Run185 2002-2011
Chlorophyll EE3.2 Surface



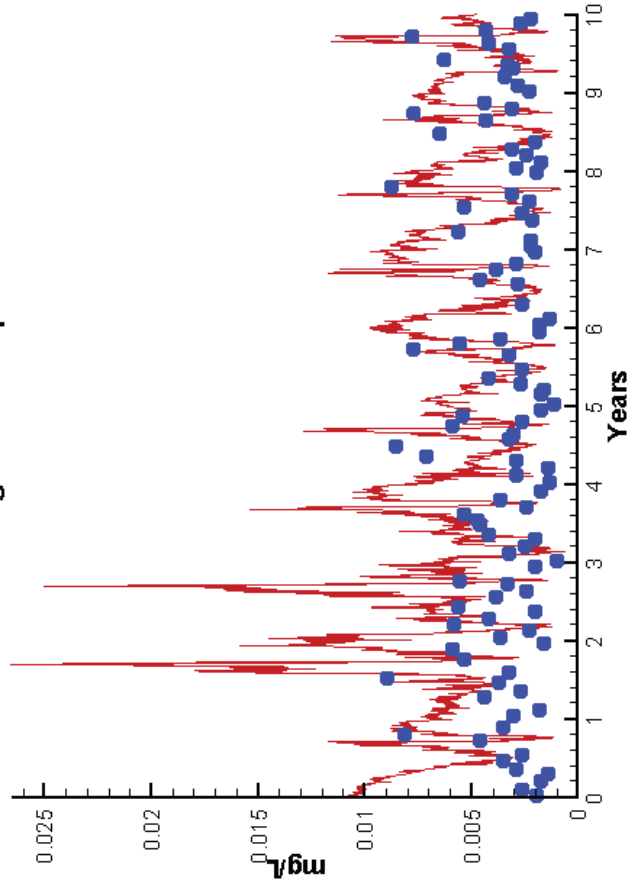
Run185 2002-2011
Light Extinction EE3.2 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen EE3.2 Surface

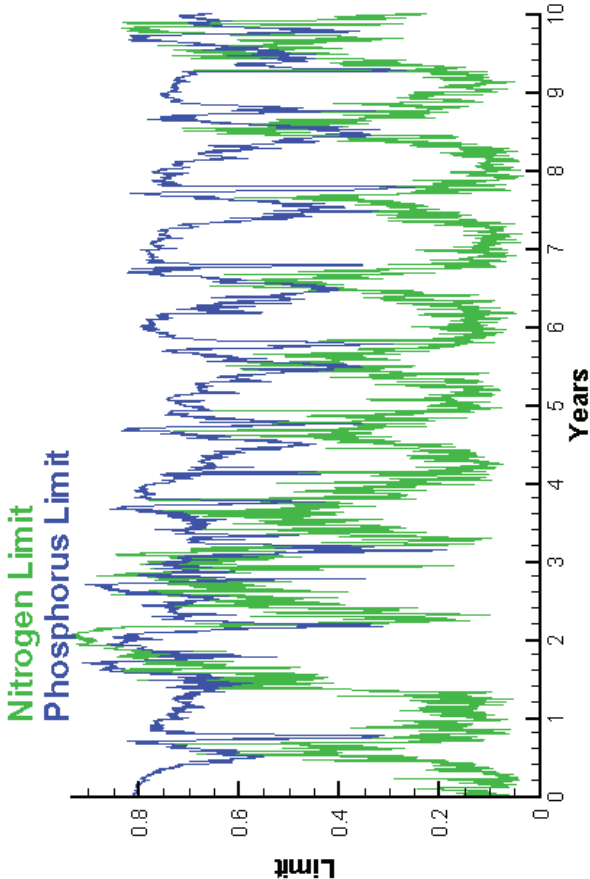


Run185 2002-2011
Dissolved Inorganic Phosphorus EE3.2 Surface

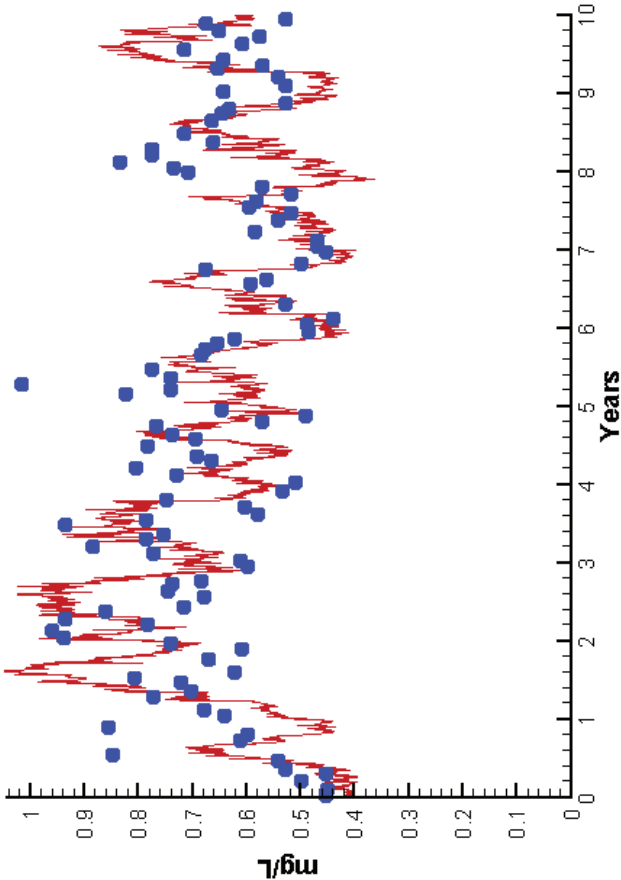


Station EE3.2

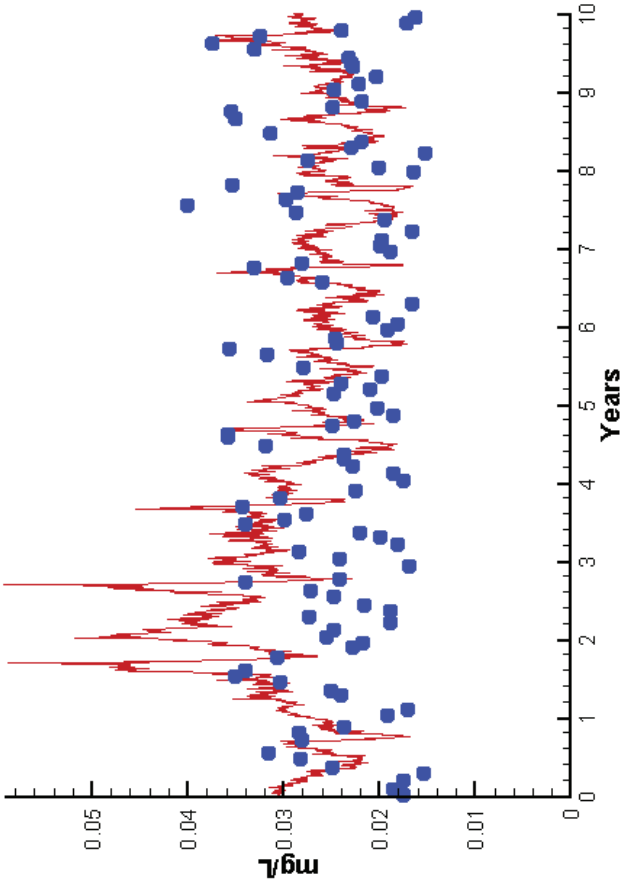
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen EE3.2 Surface



Run185 2002-2011
Total Phosphorus EE3.2 Surface



Mean Difference

Absolute Mean Difference

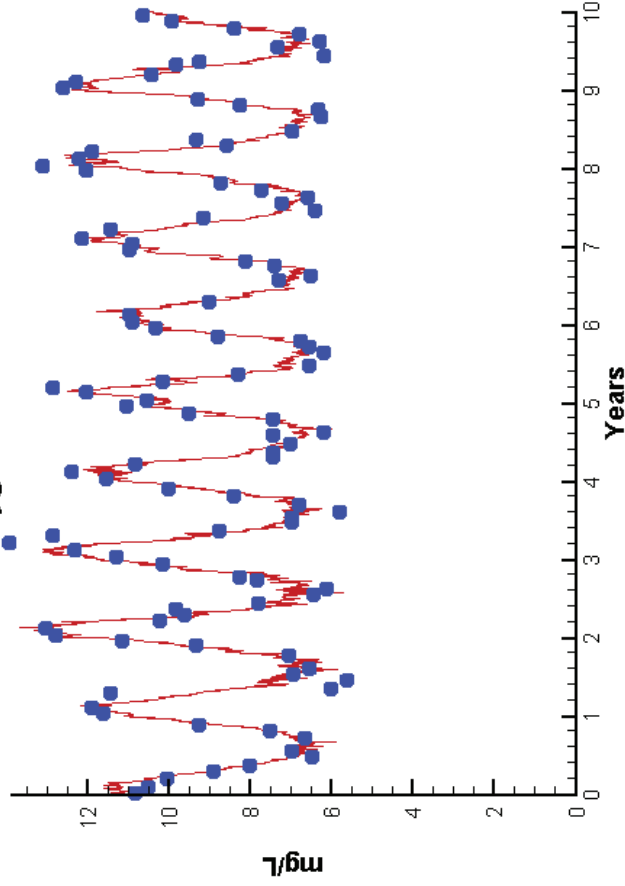
Chl
DIN
KE
DIP
TP
TN

-0.7605
-0.0649
-0.0649
0.0023
0.0031
-0.0251

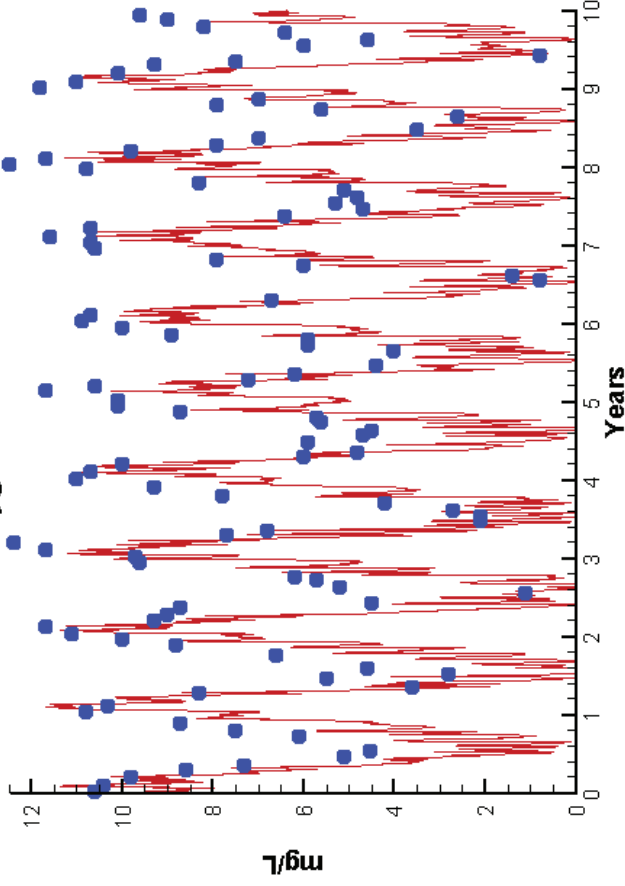
3.9653
0.0744
0.0744
0.0033
0.0072
0.1109

Station EE3.2

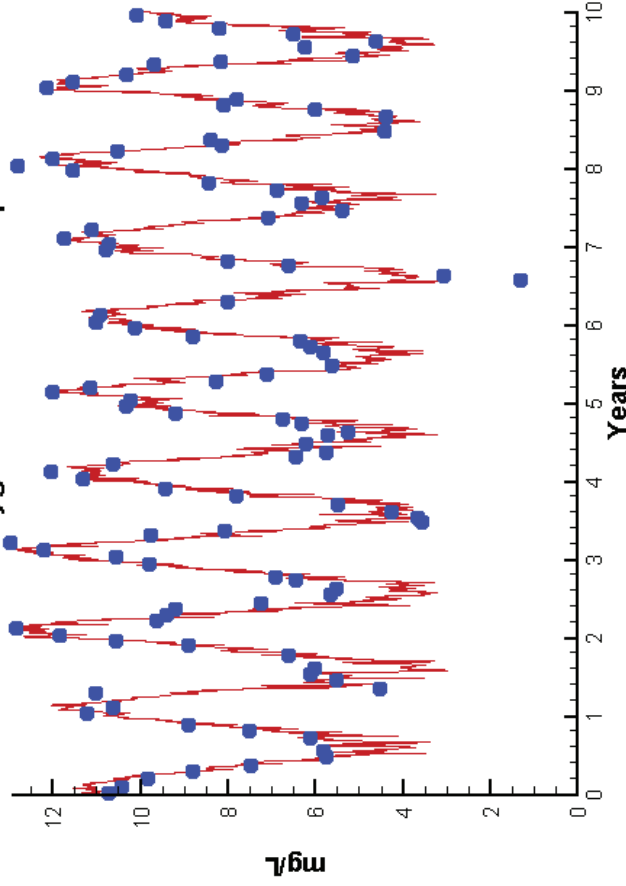
Run185 2002-2011
Dissolved Oxygen EE3.2 Surface



Run185 2002-2011
Dissolved Oxygen EE3.2 Bottom



Run185 2002-2011
Dissolved Oxygen EE3.2 Mid-Depth



Mean Difference Absolute Mean Difference

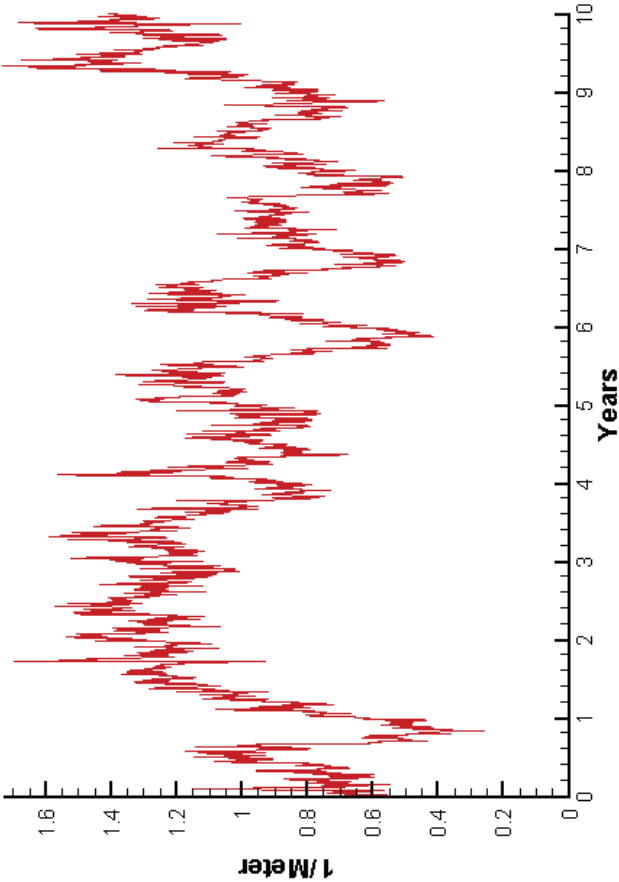
Top DO
Mid DO
Bot DO

-0.1511
-0.3919
-2.7648

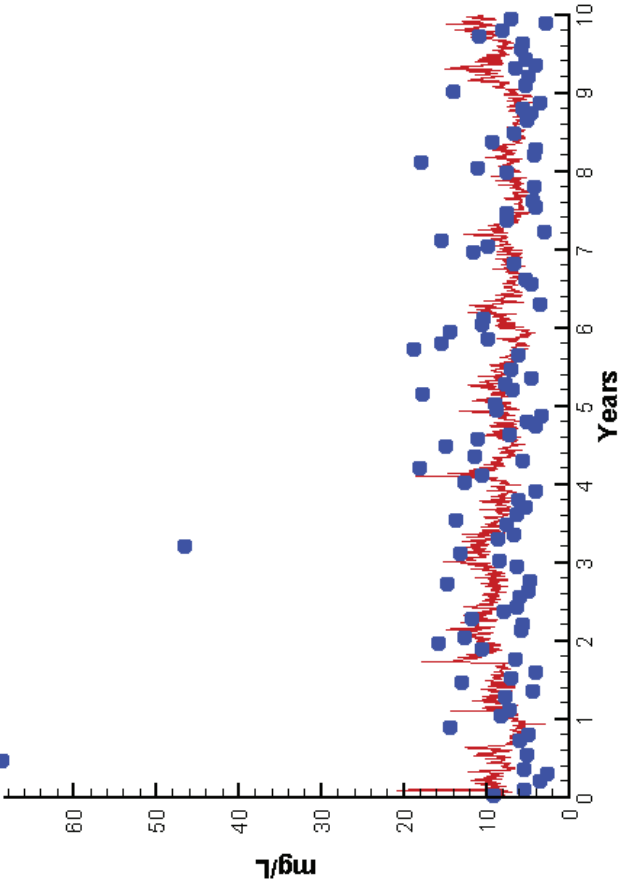
0.6103
0.7984
2.8475

Station EE3.2

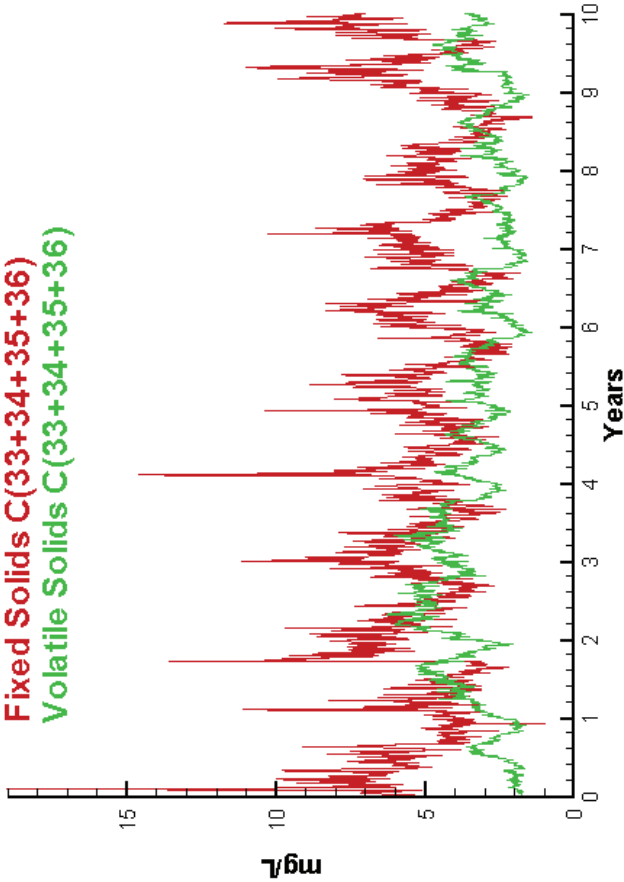
Run185 2002-2011
Light Extinction EE3.2 Surface



Run185 2002-2011
Total Solids EE3.2 Surface



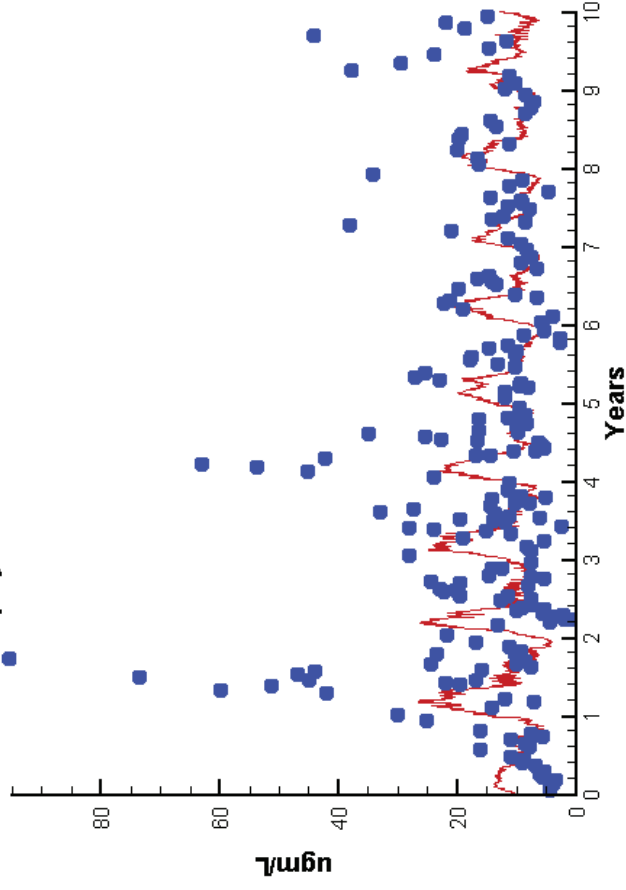
Run185 2002-2011
Solids Surface



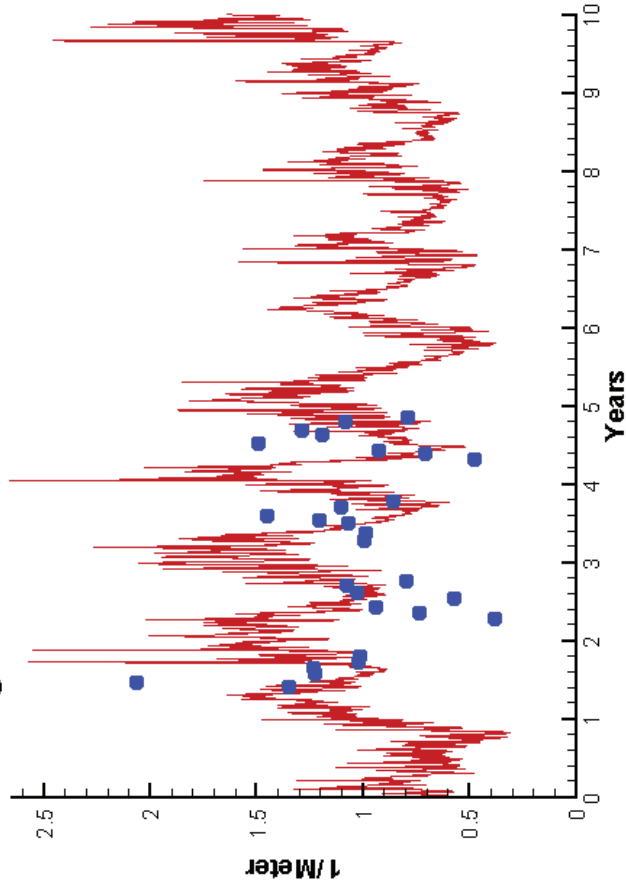
	Mean Difference	Absolute Mean Difference
KE	-0.0251	0.1109
TSS	-0.5868	4.4147

Station LE1.3

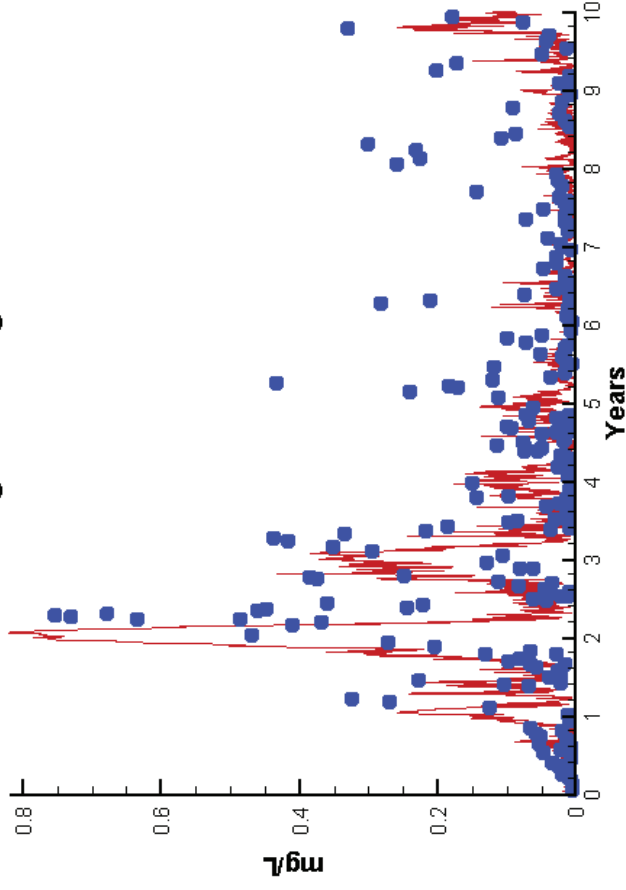
Run185 2002-2011
Chlorophyll LE1.3 Surface



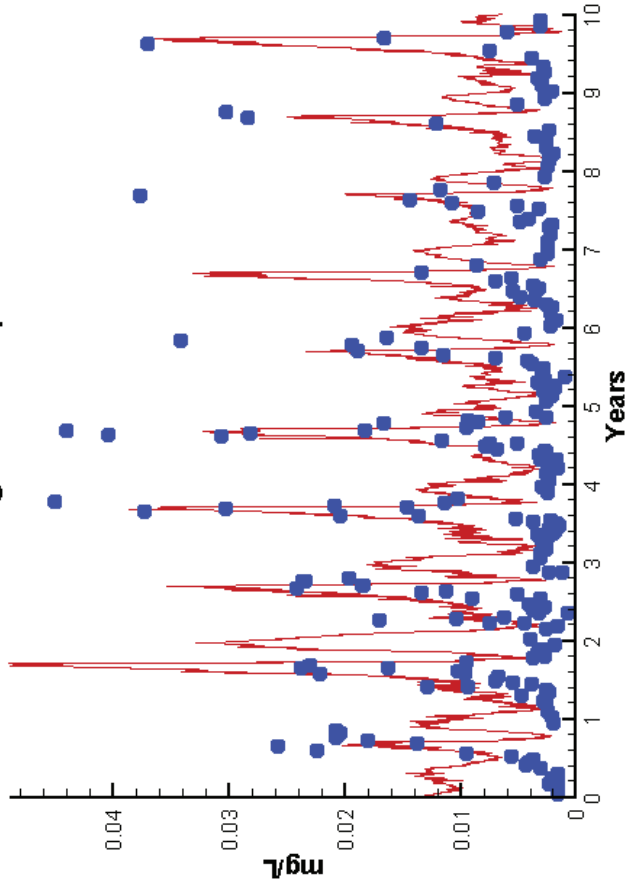
Run185 2002-2011
Light Extinction LE1.3 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen LE1.3 Surface

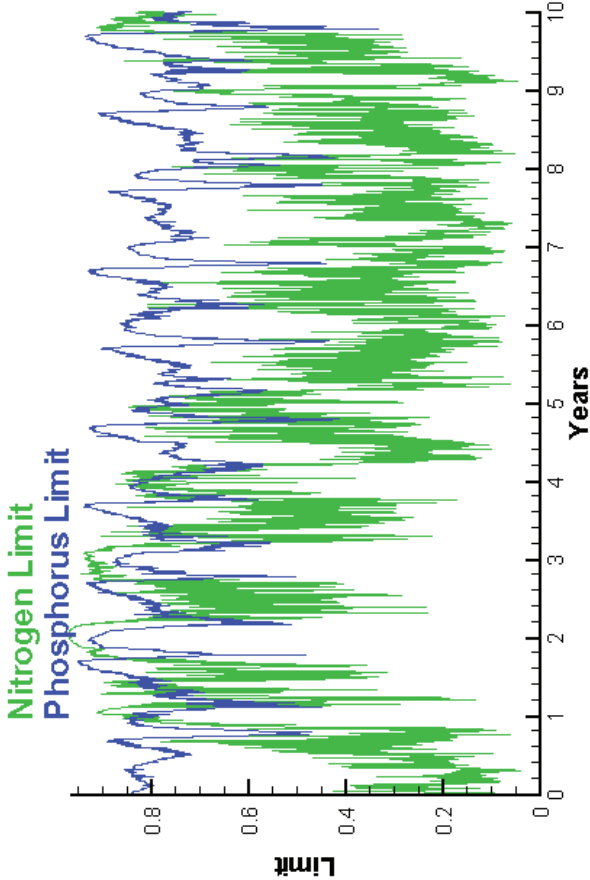


Run185 2002-2011
Dissolved Inorganic Phosphorus LE1.3 Surface

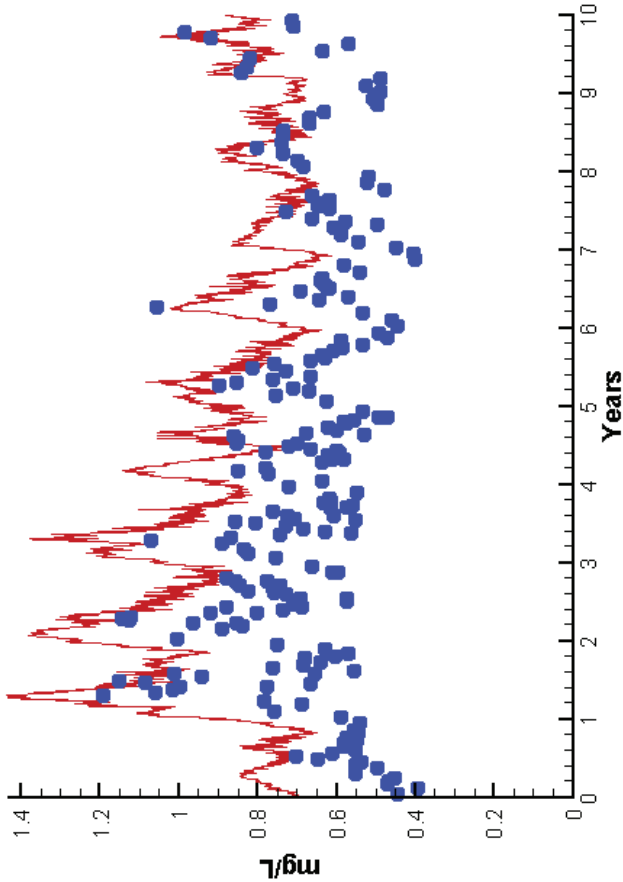


Station LE1.3

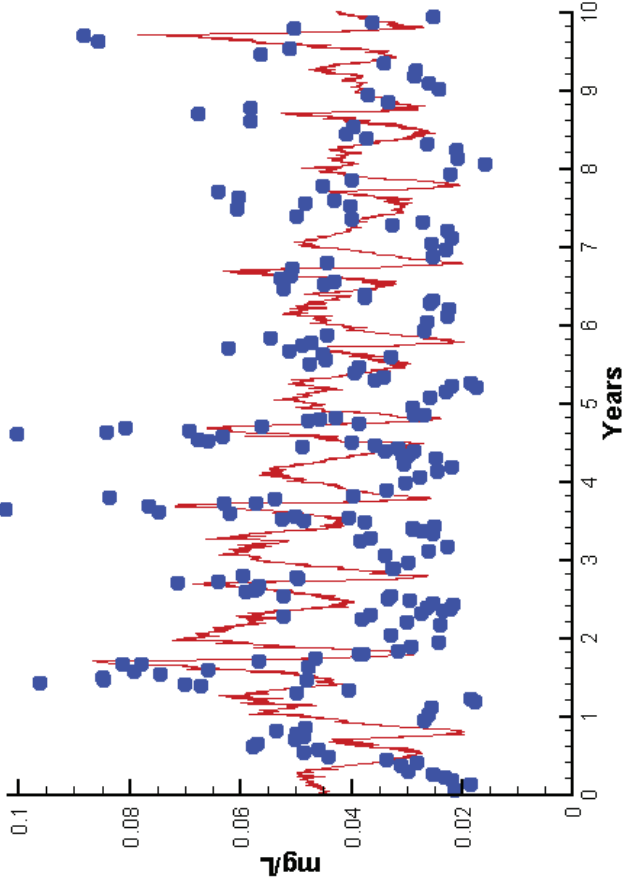
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen LE1.3 Surface



Run185 2002-2011
Total Phosphorus LE1.3 Surface



Mean Difference

Absolute Mean Difference

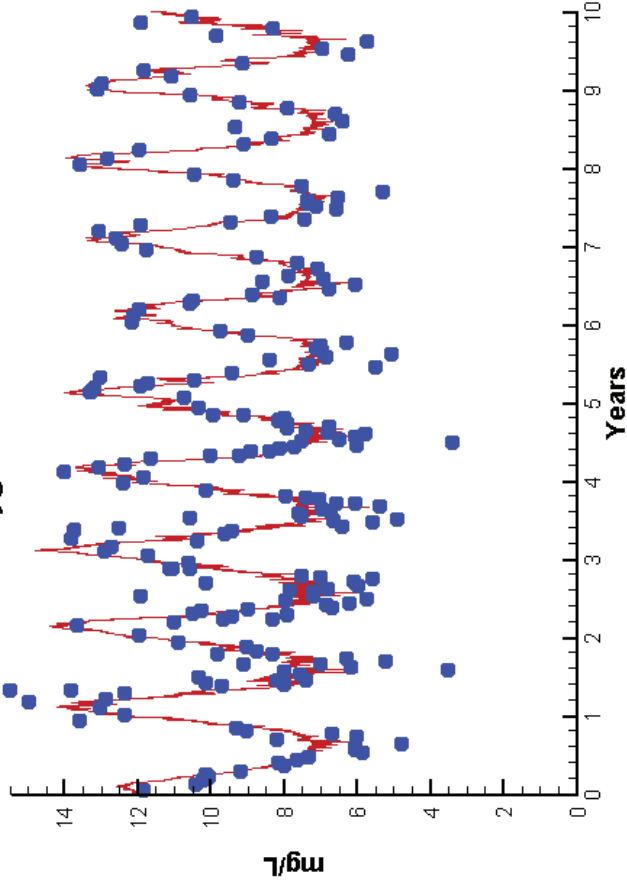
Chl
DIN
KE
DIP
TP
TN

-3.8243
-0.0432
-0.0127
0.0034
0.0015
0.2367

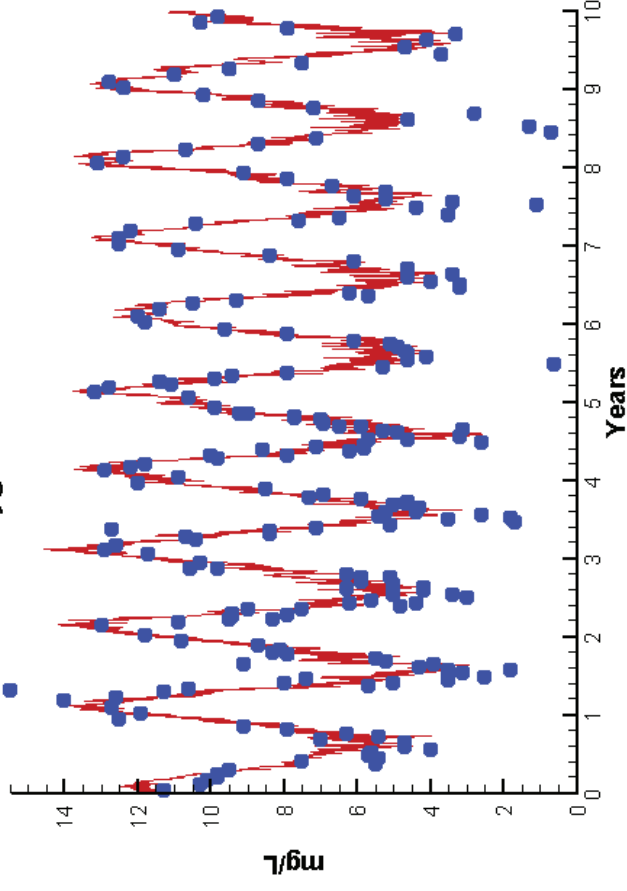
8.4363
0.0841
0.3889
0.0075
0.0170
0.2395

Station LE1.3

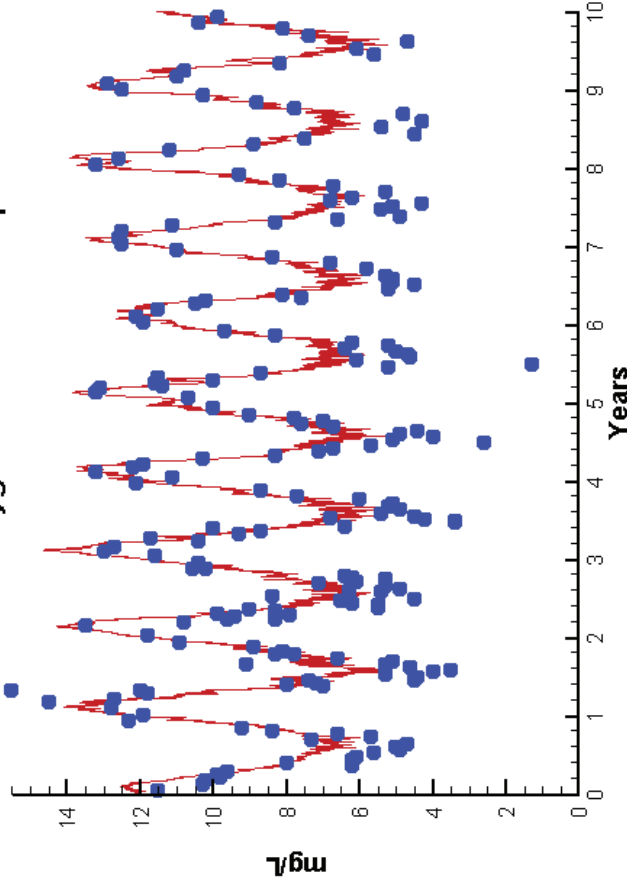
Run185 2002-2011
Dissolved Oxygen LE1.3 Surface



Run185 2002-2011
Dissolved Oxygen LE1.3 Bottom



Run185 2002-2011
Dissolved Oxygen LE1.3 Mid-Depth



Mean Difference

Absolute Mean Difference

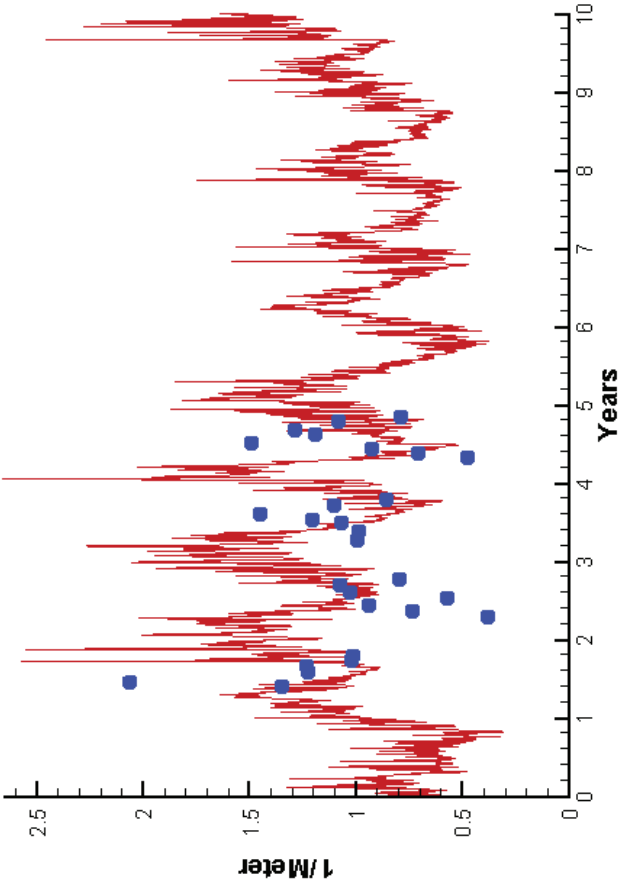
Top DO
Mid DO
Bot DO

0.1149
0.8379
0.5515

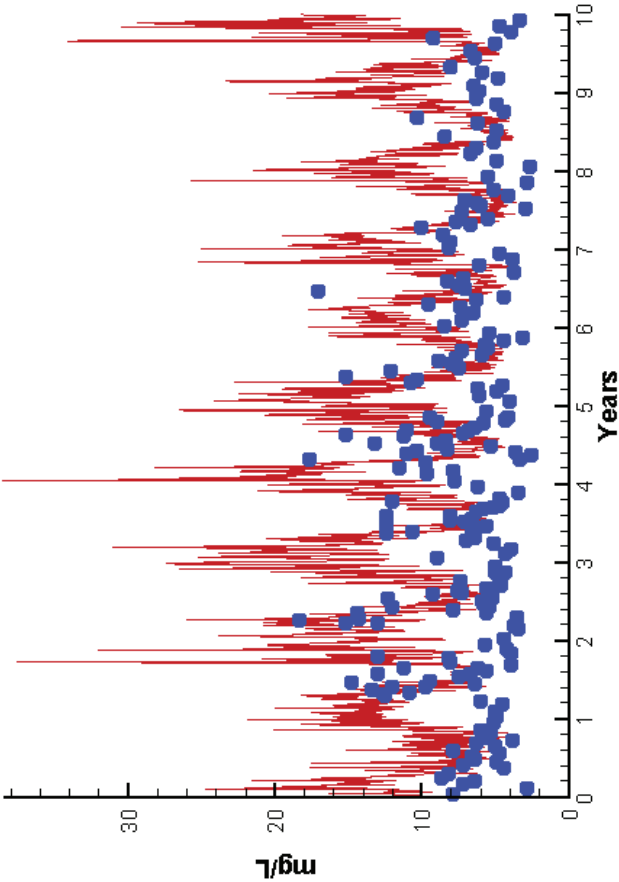
1.0311
1.2320
1.1868

Station LE1.3

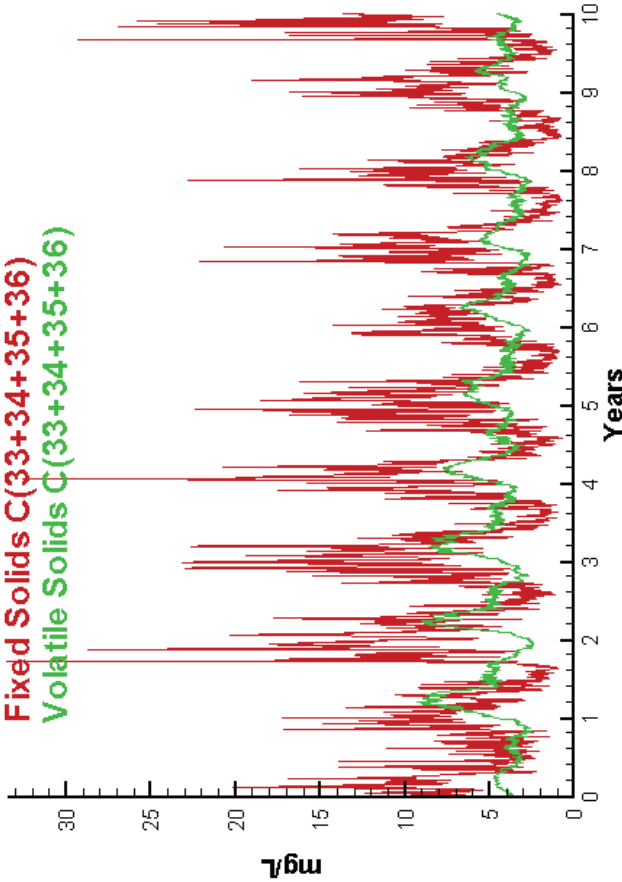
Run185 2002-2011
Light Extinction LE1.3 Surface



Run185 2002-2011
Total Solids LE1.3 Surface



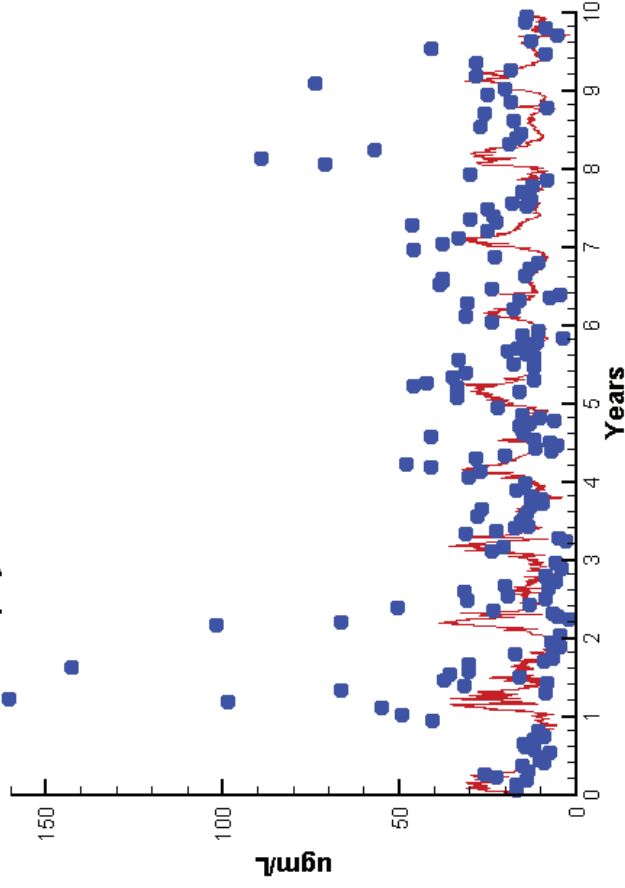
Run185 2002-2011
Solids Surface



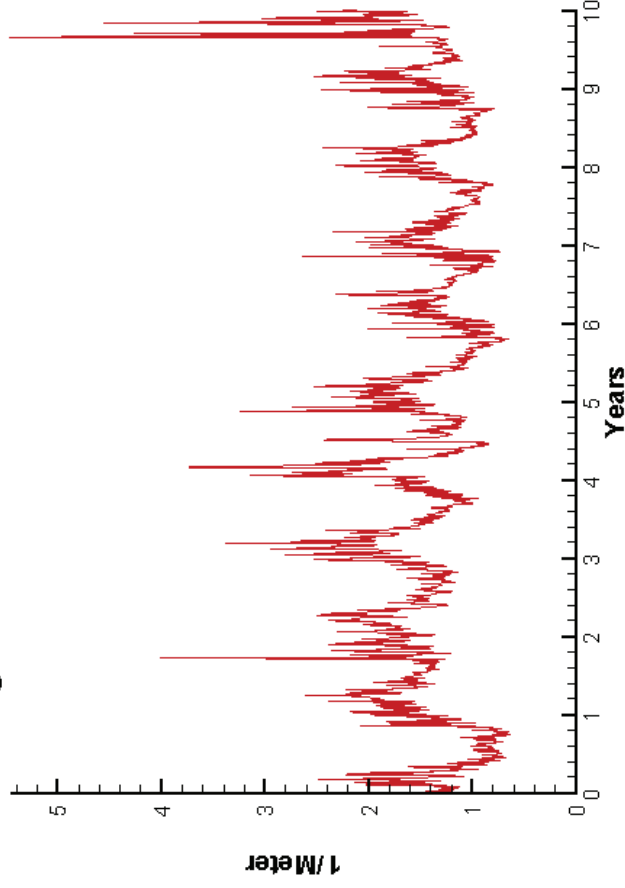
	Mean Difference	Absolute Mean Difference
KE	-0.0127	0.3889
TSS	3.4025	5.0200

Station RET1.1

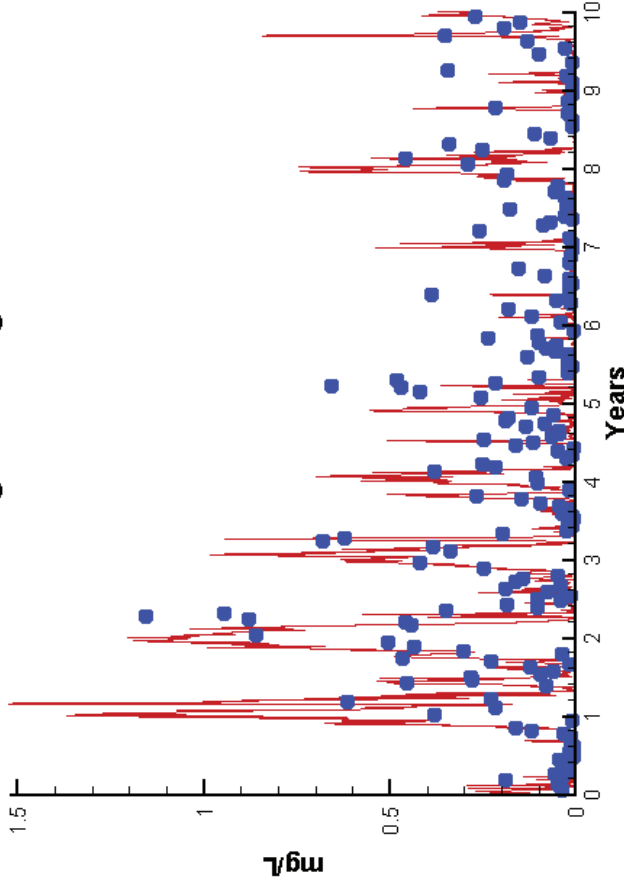
Run185 2002-2011
Chlorophyll RET1.1 Surface



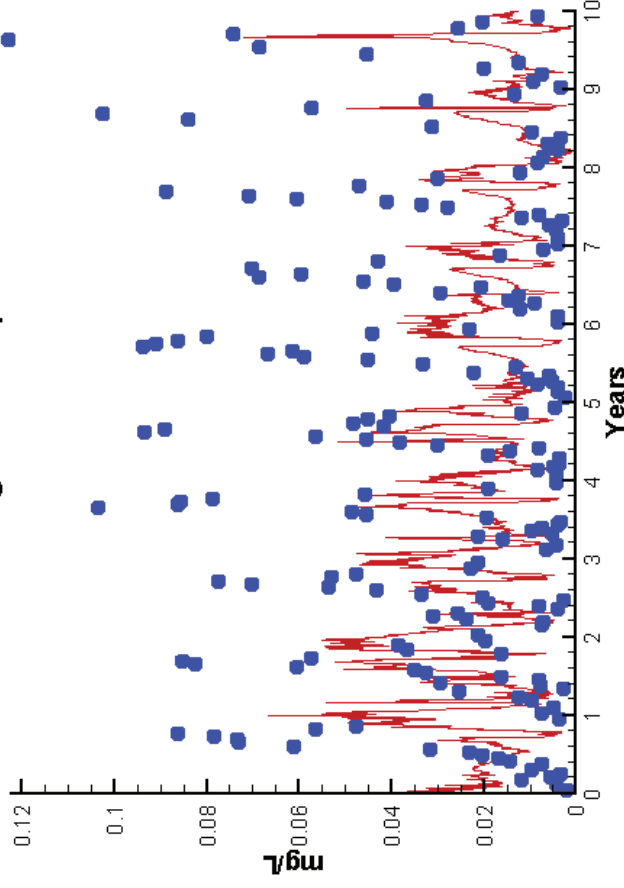
Run185 2002-2011
Light Extinction RET1.1 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen RET1.1 Surface

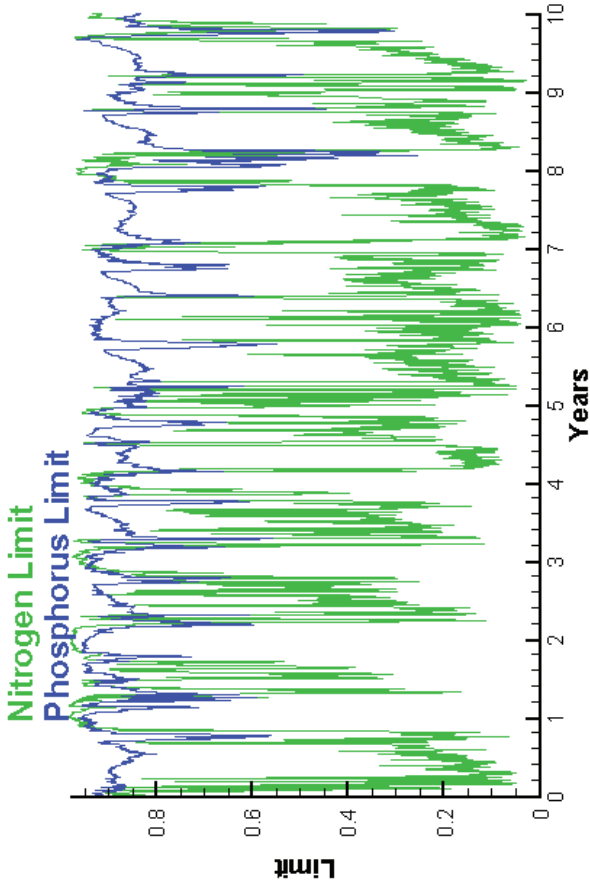


Run185 2002-2011
Dissolved Inorganic Phosphorus RET1.1 Surface

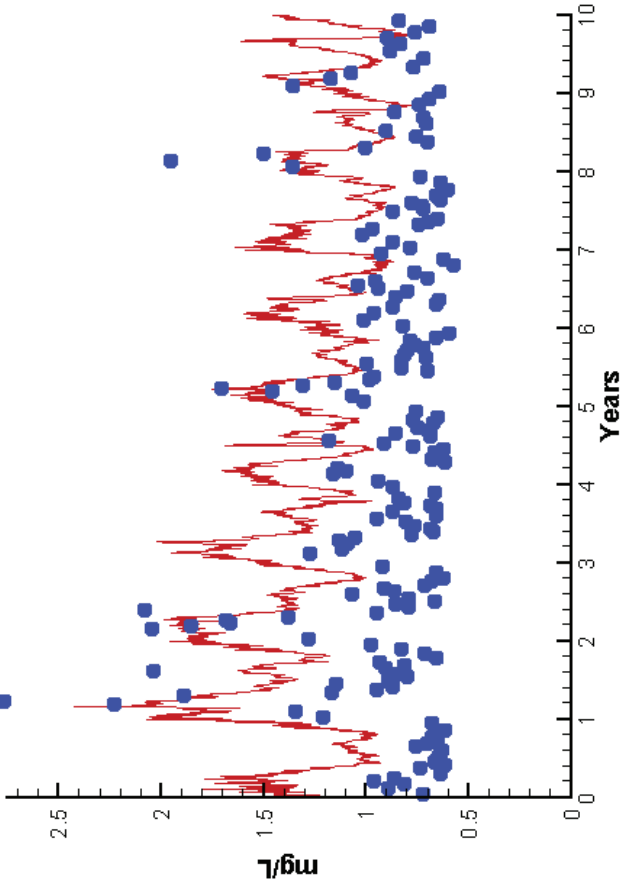


Station RET1.1

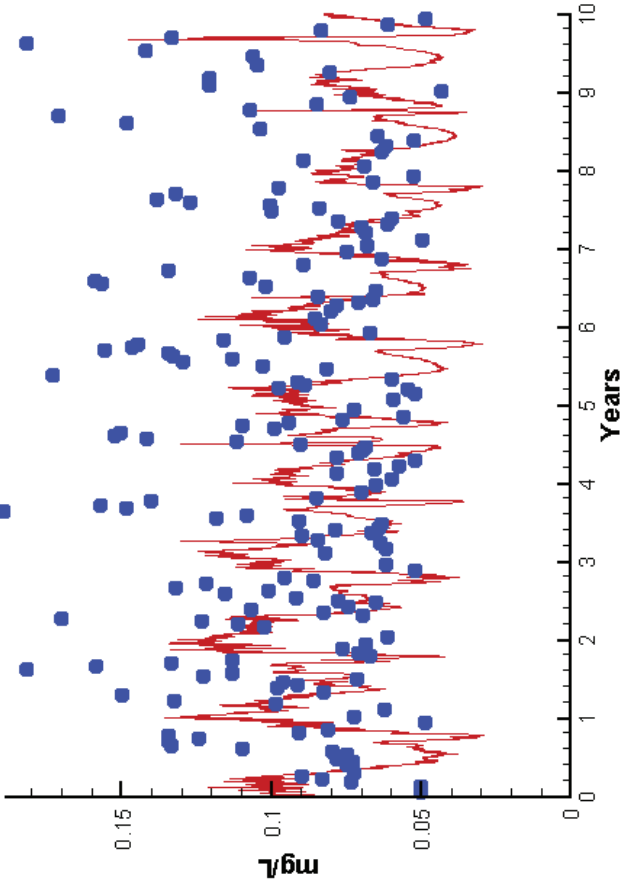
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen RET1.1 Surface



Run185 2002-2011
Total Phosphorus RET1.1 Surface



Mean Difference

Absolute Mean Difference

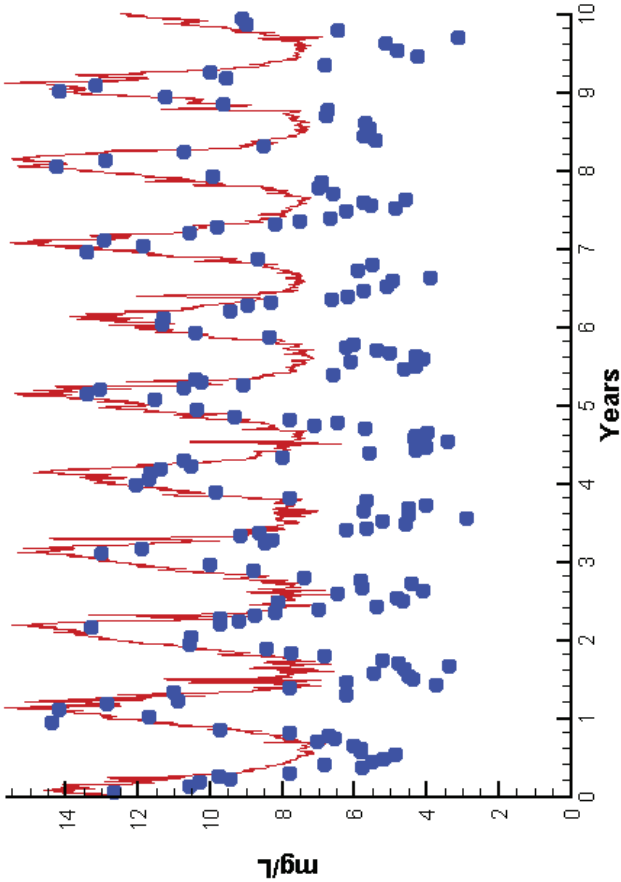
Chl
DIN
KE
DIP
TP
TN

-8.2306
-0.0382
-0.0382
-0.0116
-0.0215
0.3962

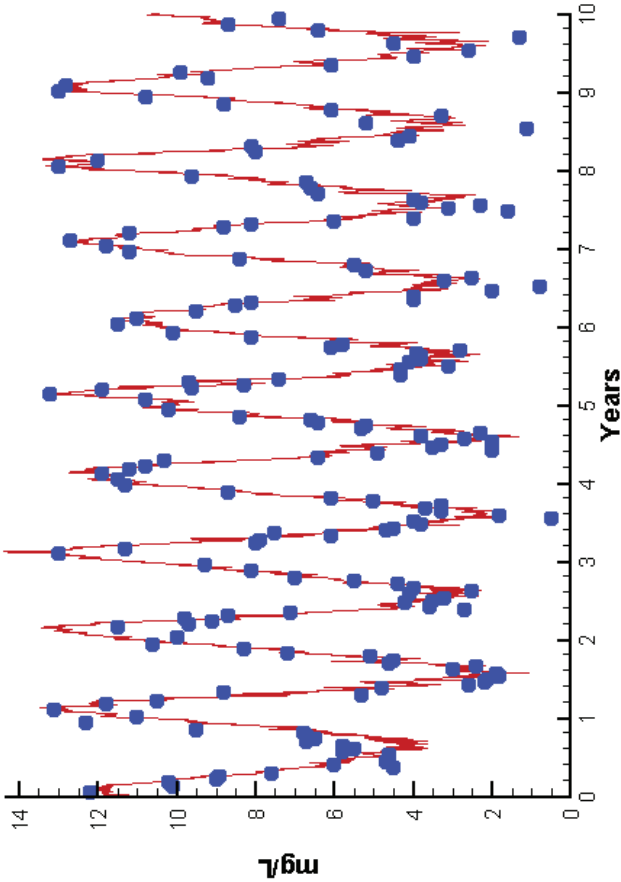
12.2128
0.1259
0.1259
0.0225
0.0383
0.4336

Station RET1.1

Run185 2002-2011
Dissolved Oxygen RET1.1 Surface



Run185 2002-2011
Dissolved Oxygen RET1.1 Bottom



Mean Difference

Top DO
Bot DO

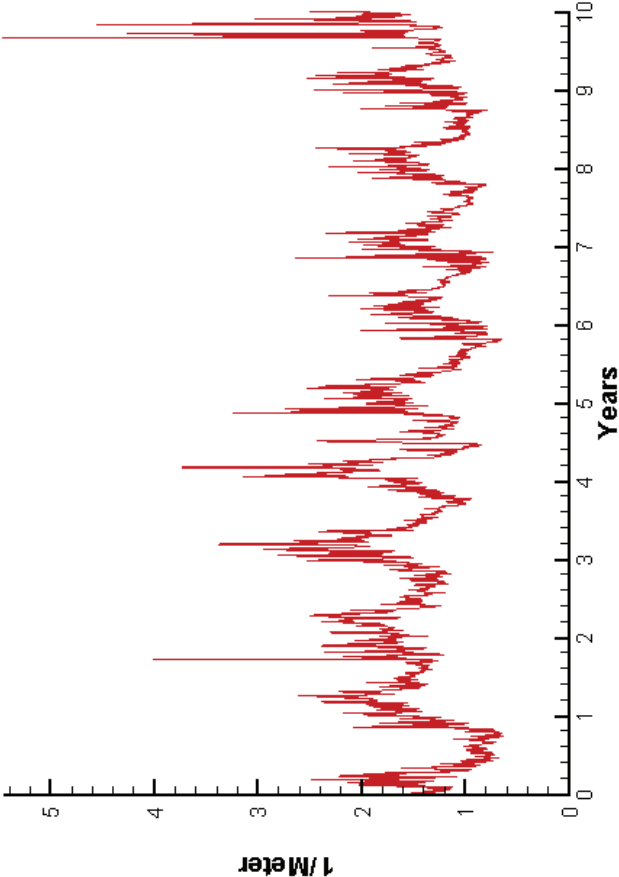
2.0447
0.2438

Absolute Mean Difference

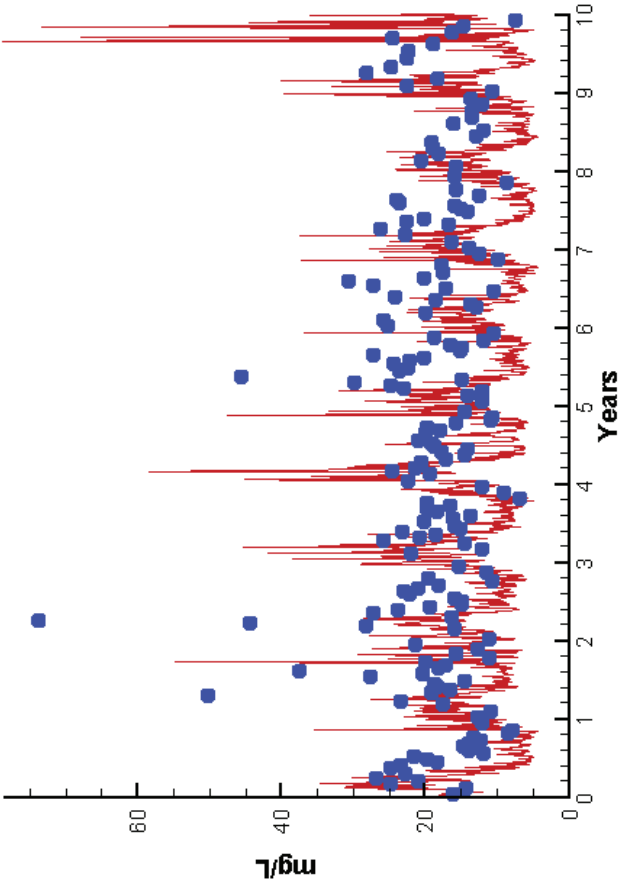
2.1593
0.9146

Station RET1.1

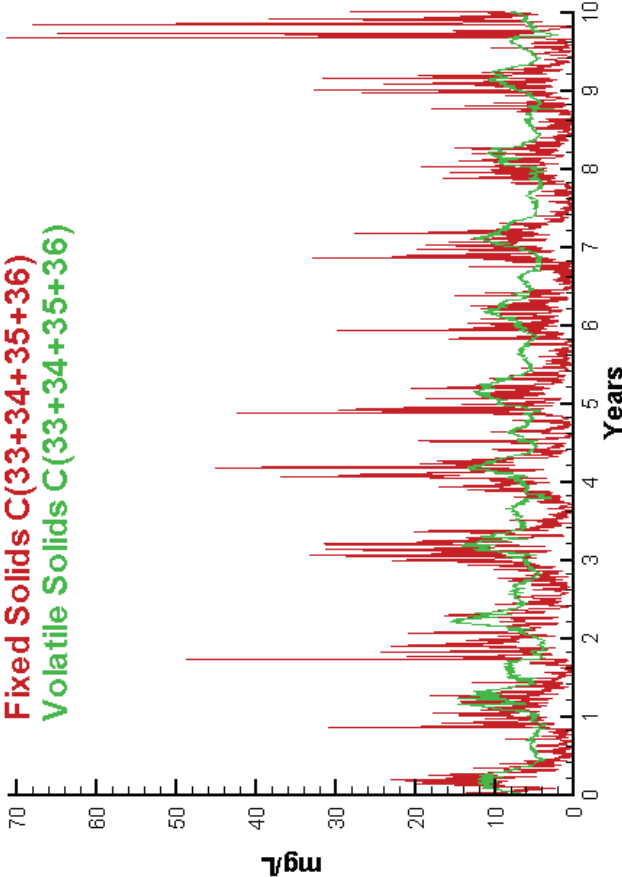
Run185 2002-2011
Light Extinction RET1.1 Surface



Run185 2002-2011
Total Solids RET1.1 Surface



Run185 2002-2011
Solids Surface



Mean Difference

Absolute Mean Difference

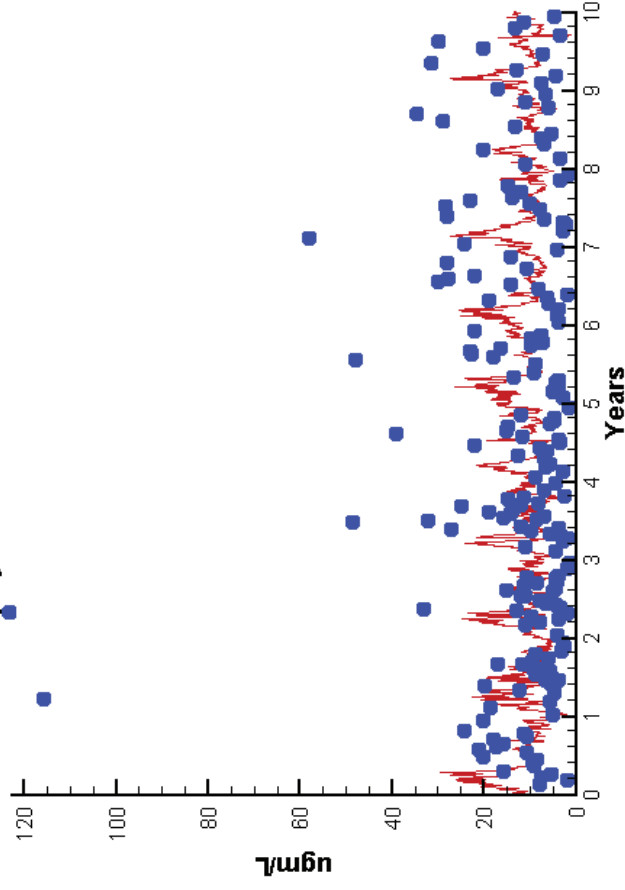
KE
TSS

0.3962
-6.3931

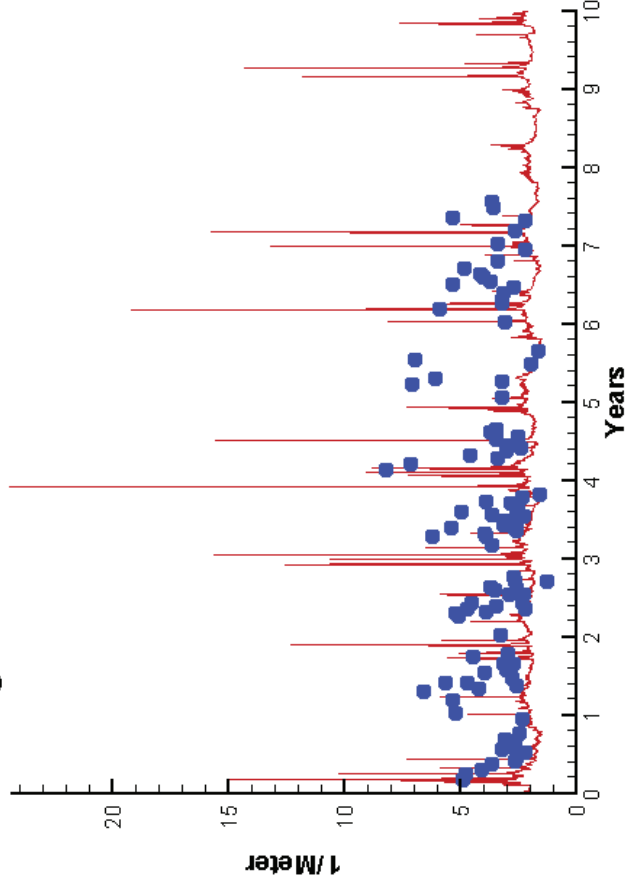
0.4336
8.8450

Station TF1.7

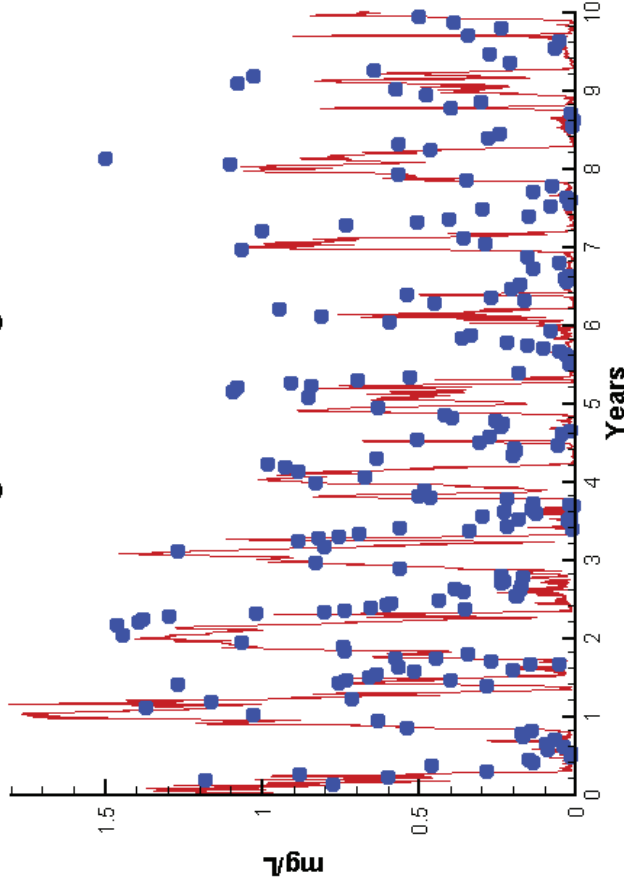
Run185 2002-2011
Chlorophyll TF1.7 Surface



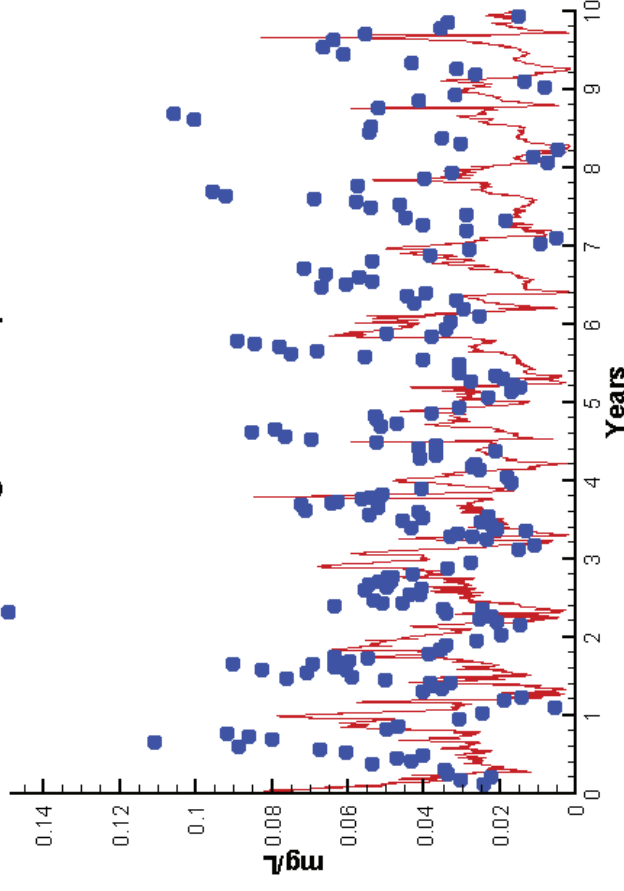
Run185 2002-2011
Light Extinction TF1.7 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen TF1.7 Surface

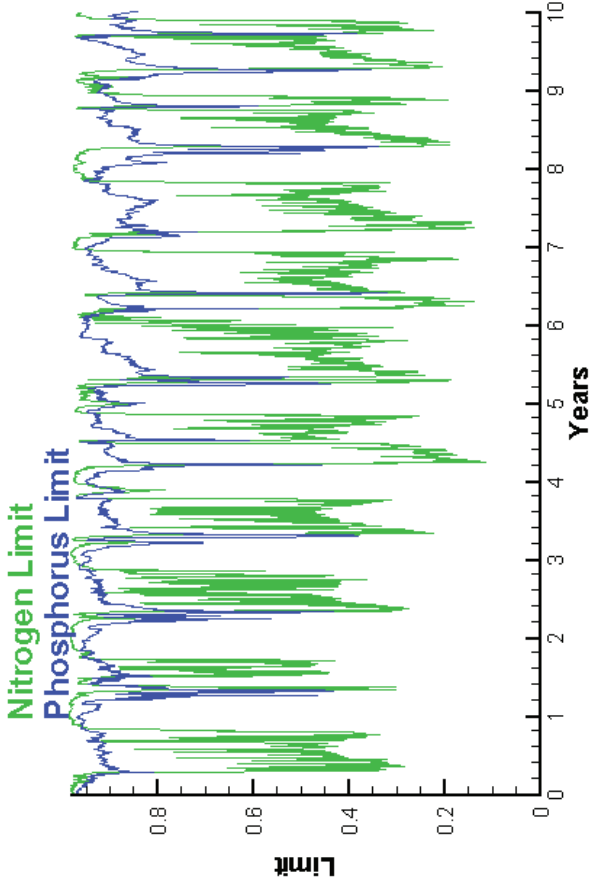


Run185 2002-2011
Dissolved Inorganic Phosphorus TF1.7 Surface

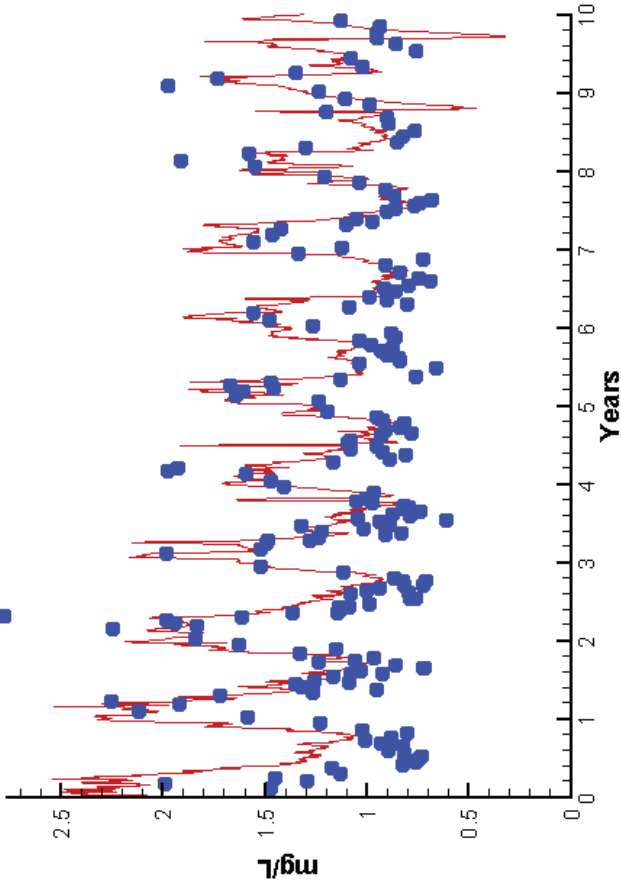


Station TF1.7

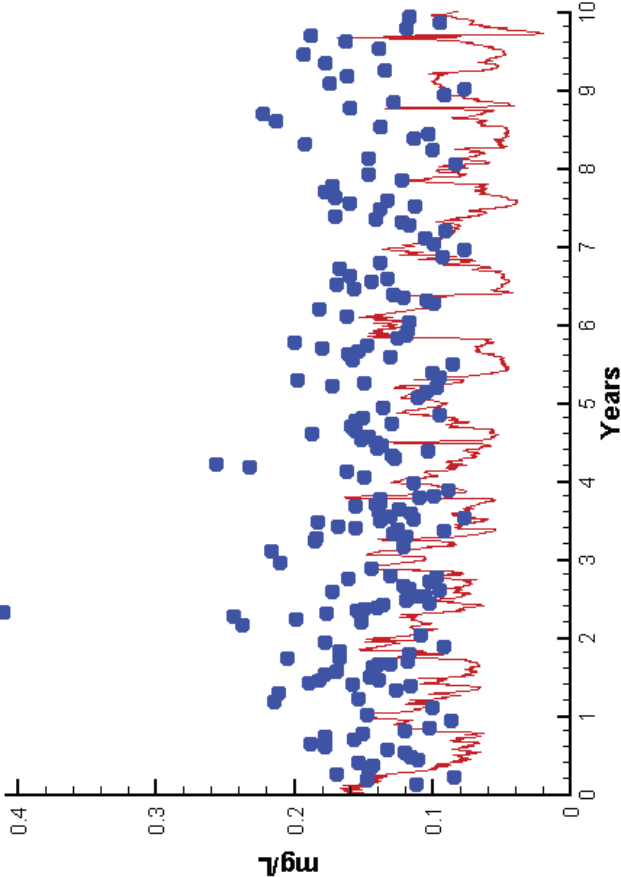
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen TF1.7 Surface



Run185 2002-2011
Total Phosphorus TF1.7 Surface



Mean Difference

Absolute Mean Difference

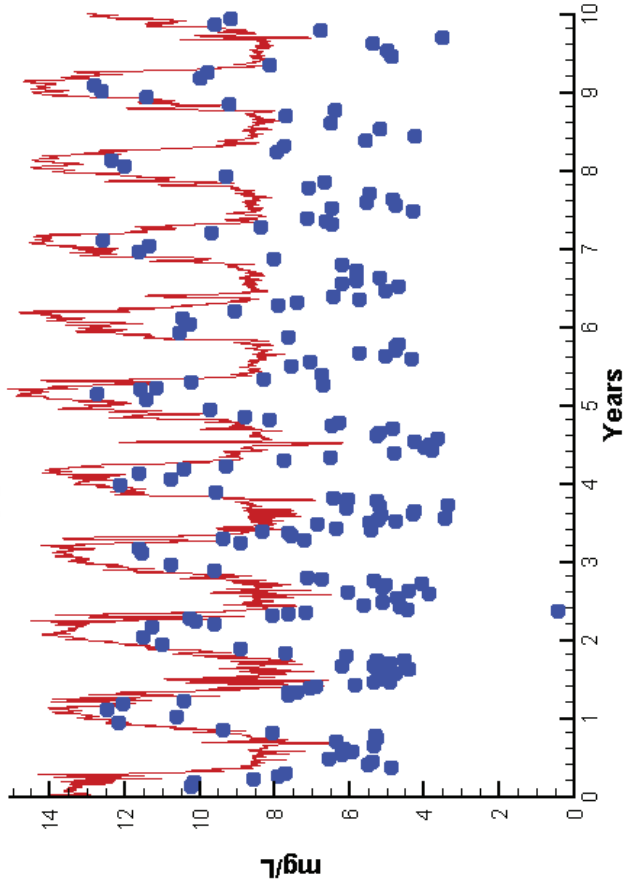
Chl
DIN
KE
DIP
TP
TN

-1.0565
-0.1878
-1.4963
-0.0187
-0.0572
0.1820

8.9718
0.2470
1.5698
0.0262
0.0628
0.2590

Station TF1.7

Run185 2002-2011
Dissolved Oxygen TF1.7 Surface



Mean Difference

Absolute Mean Difference

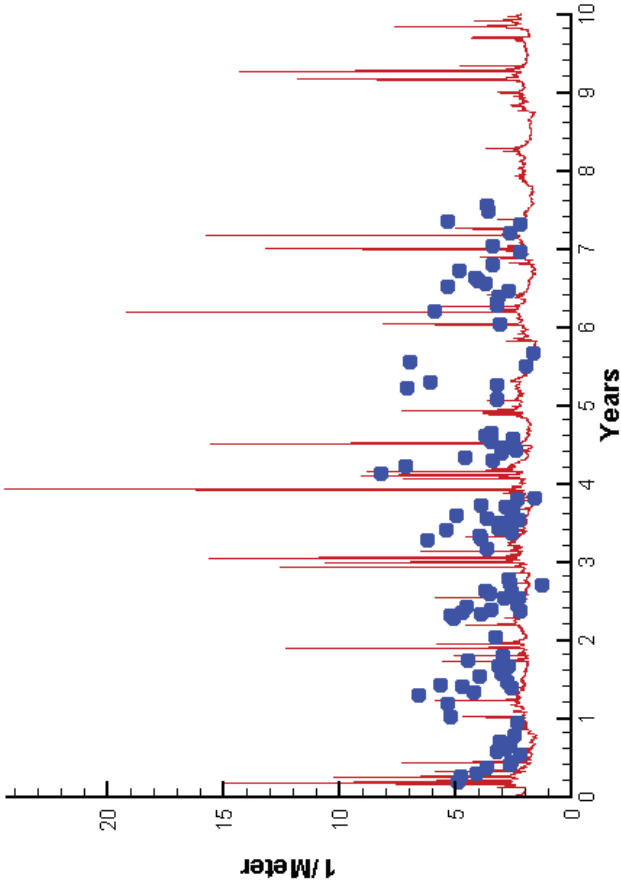
Top DO

2.9379

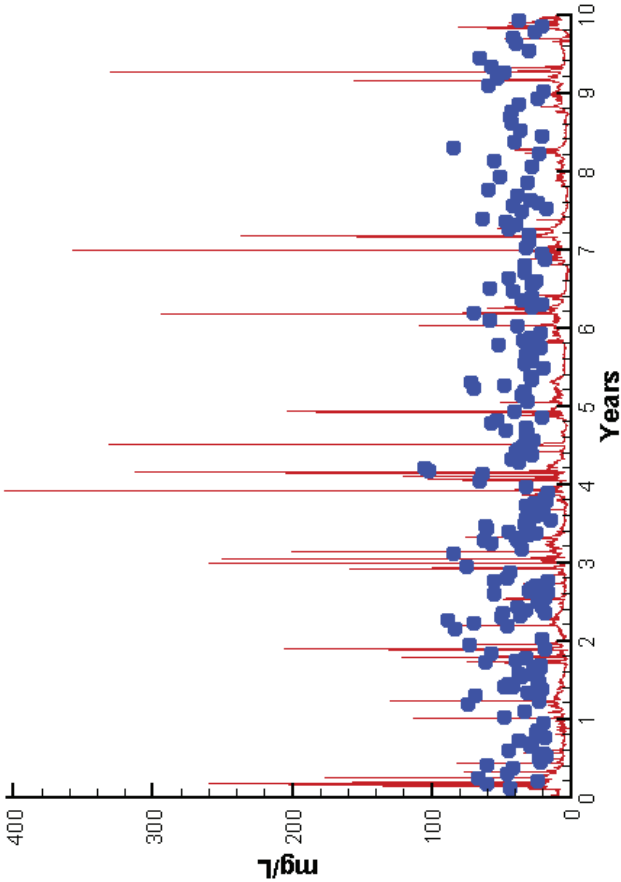
2.9394

Station TF1.7

Run185 2002-2011
Light Extinction TF1.7 Surface

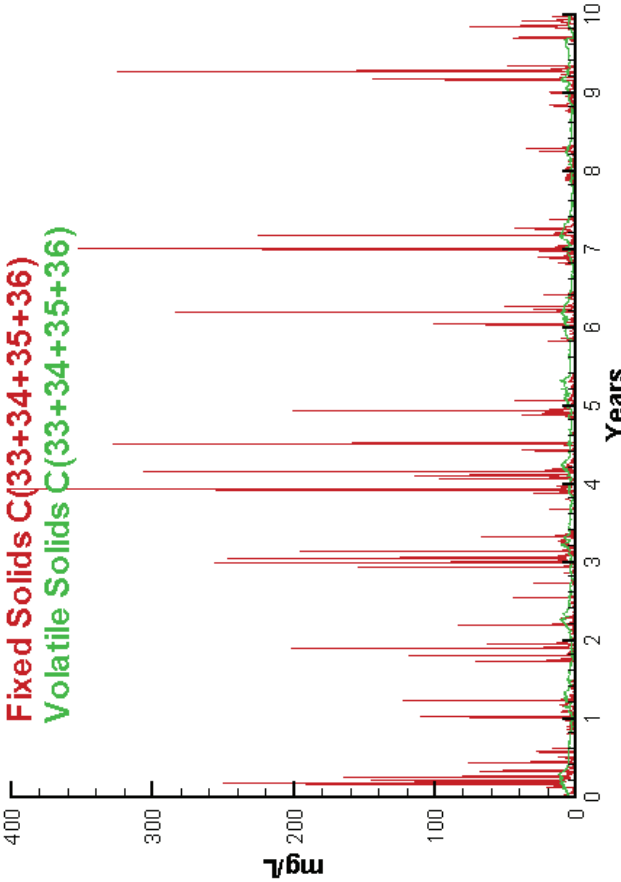


Run185 2002-2011
Total Solids TF1.7 Surface



Run185 2002-2011
Solids Surface

Fixed Solids C(33+34+35+36)
Volatile Solids C(33+34+35+36)



Mean Difference

Absolute Mean Difference

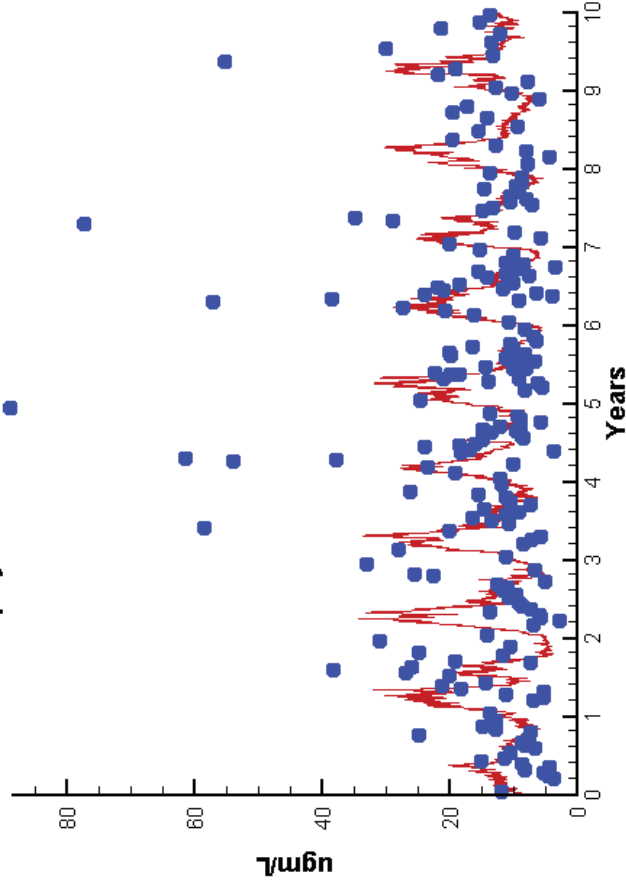
KE
TSS

-1.4963
-28.1208

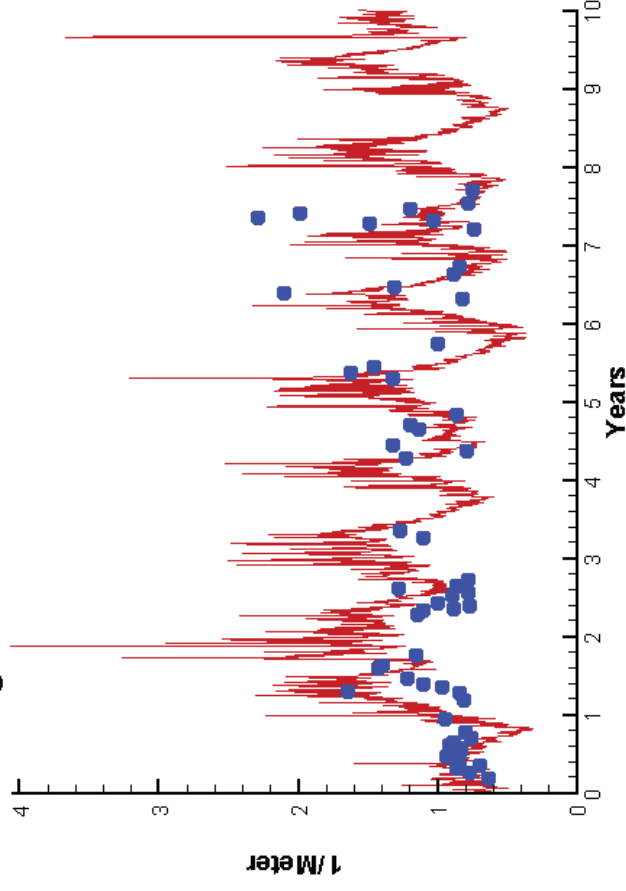
1.5698
30.9684

Station LE2.2

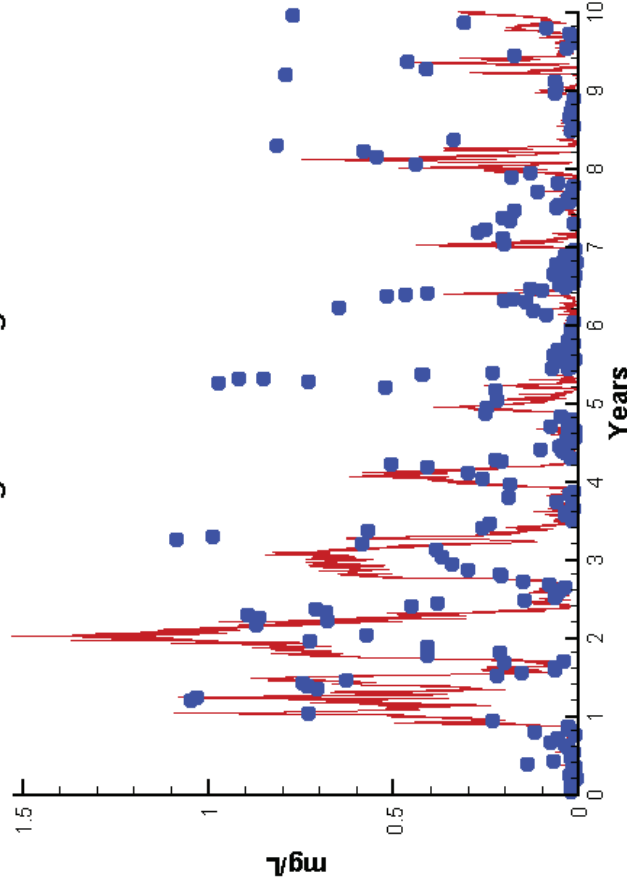
Run185 2002-2011
Chlorophyll LE2.2 Surface



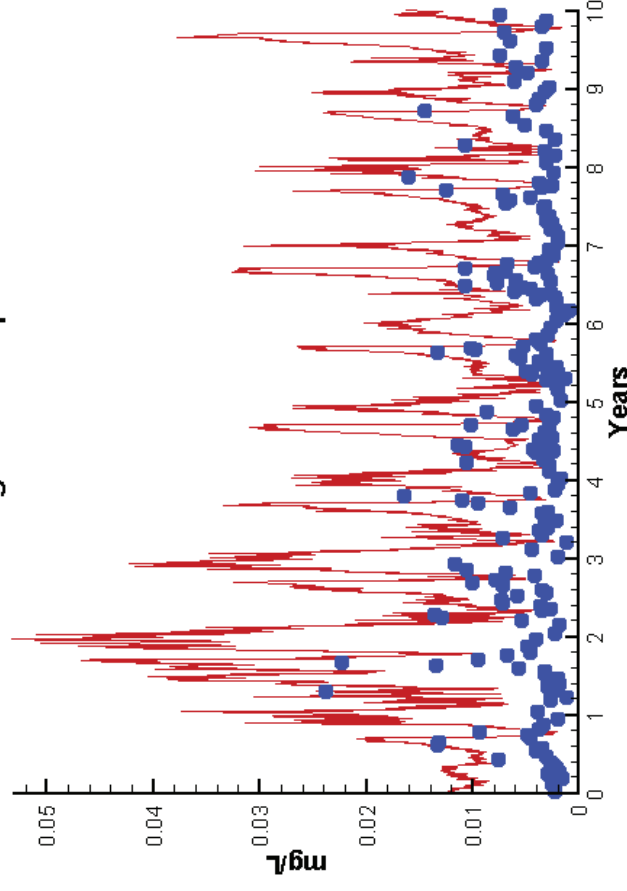
Run185 2002-2011
Light Extinction LE2.2 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen LE2.2 Surface

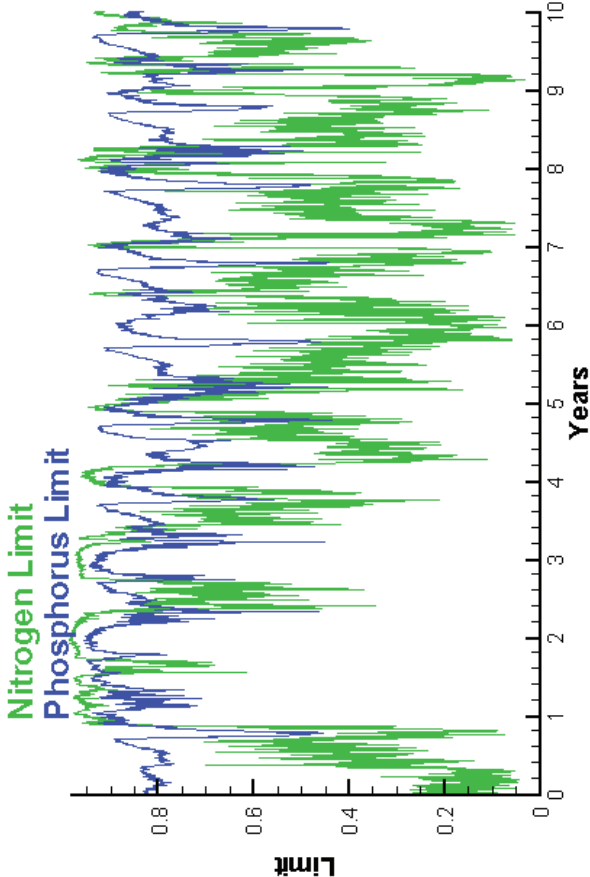


Run185 2002-2011
Dissolved Inorganic Phosphorus LE2.2 Surface

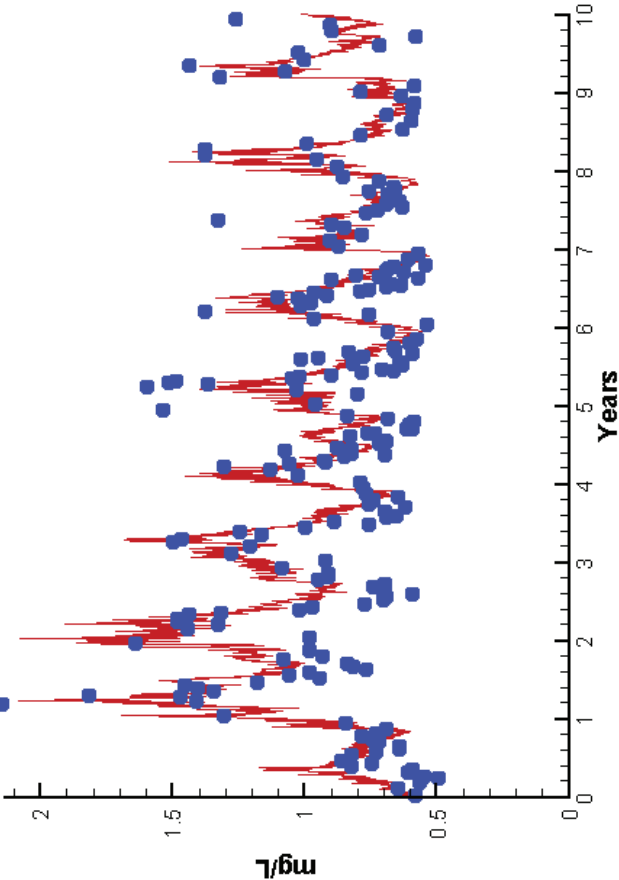


Station LE2.2

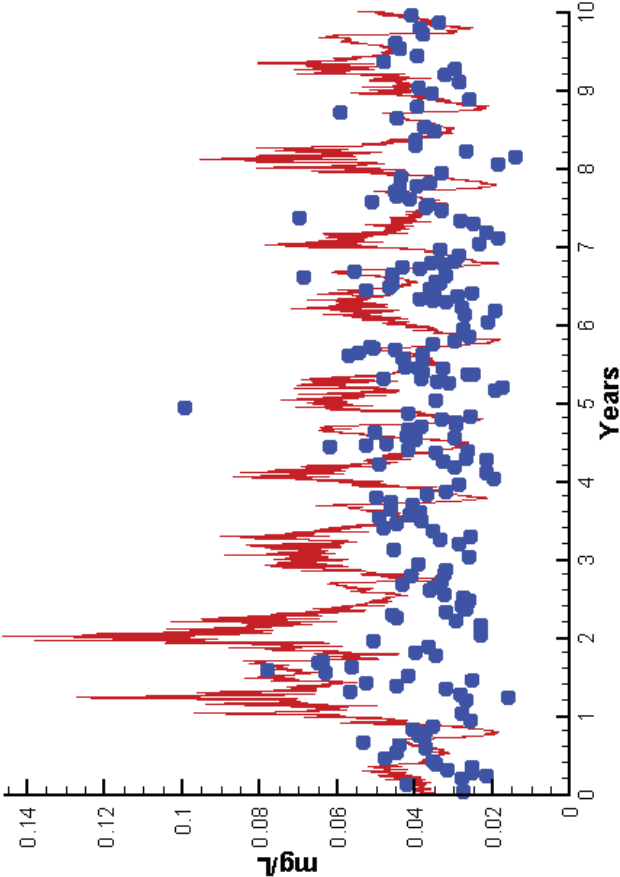
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen LE2.2 Surface



Run185 2002-2011
Total Phosphorus LE2.2 Surface



Mean Difference

Absolute Mean Difference

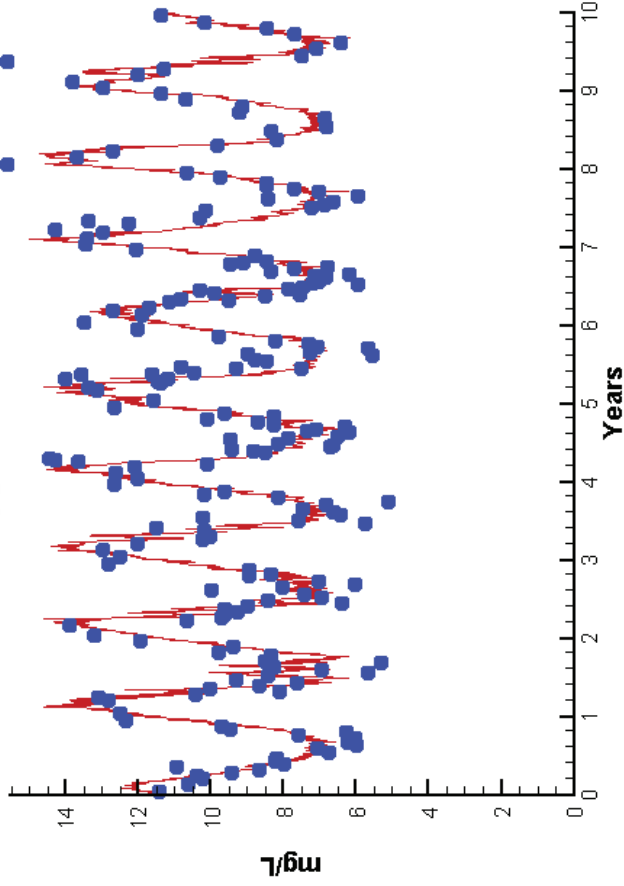
Chl
DIN
KE
DIP
TP
TN

-0.9632
-0.0847
0.0587
0.0091
0.0117
0.0667

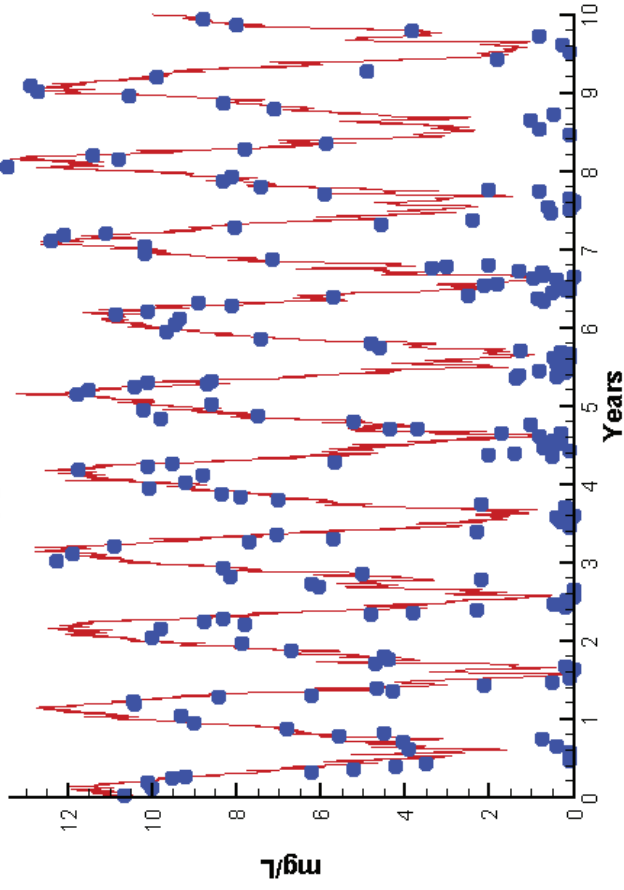
8.2425
0.1468
0.3312
0.0098
0.0183
0.1497

Station LE2.2

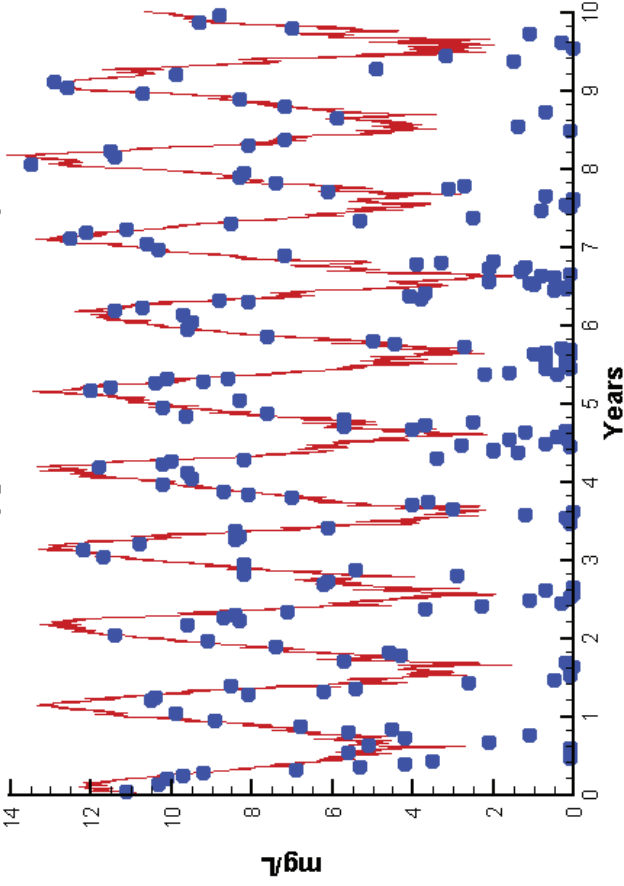
Run185 2002-2011
Dissolved Oxygen LE2.2 Surface



Run185 2002-2011
Dissolved Oxygen LE2.2 Bottom



Run185 2002-2011
Dissolved Oxygen LE2.2 Mid-Depth



Mean Difference

Absolute Mean Difference

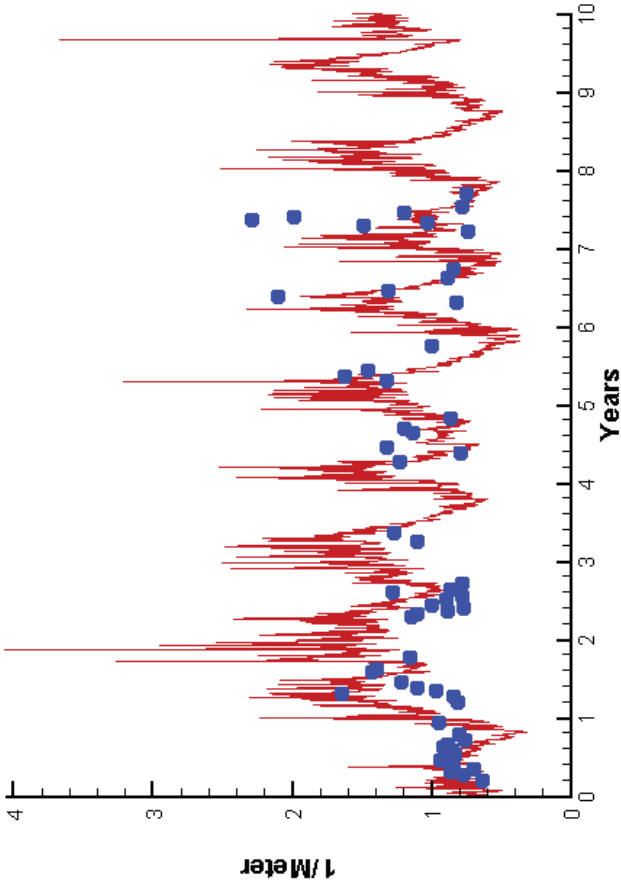
Top DO
Mid DO
Bot DO

-0.1624
2.1136
1.5407

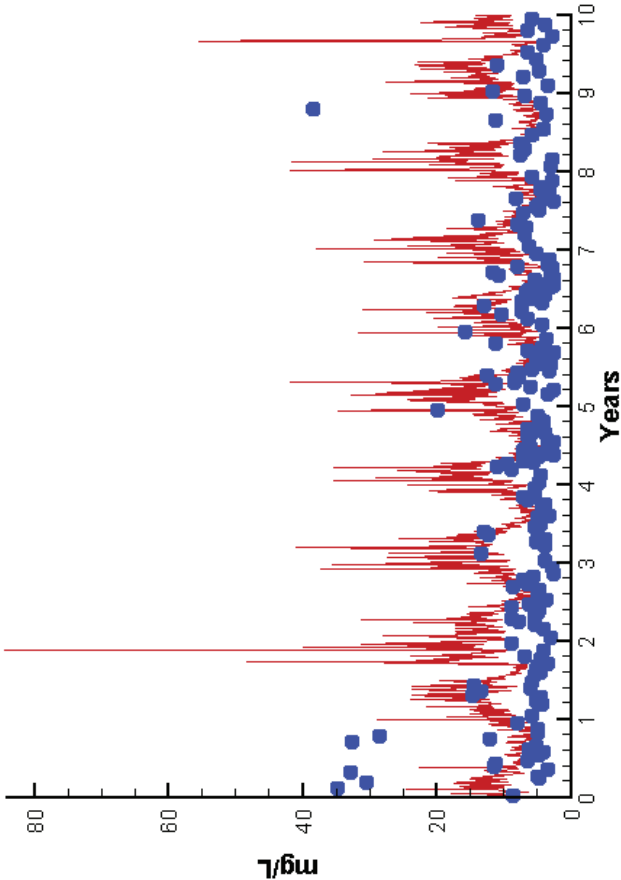
1.0536
2.2666
1.8353

Station LE2.2

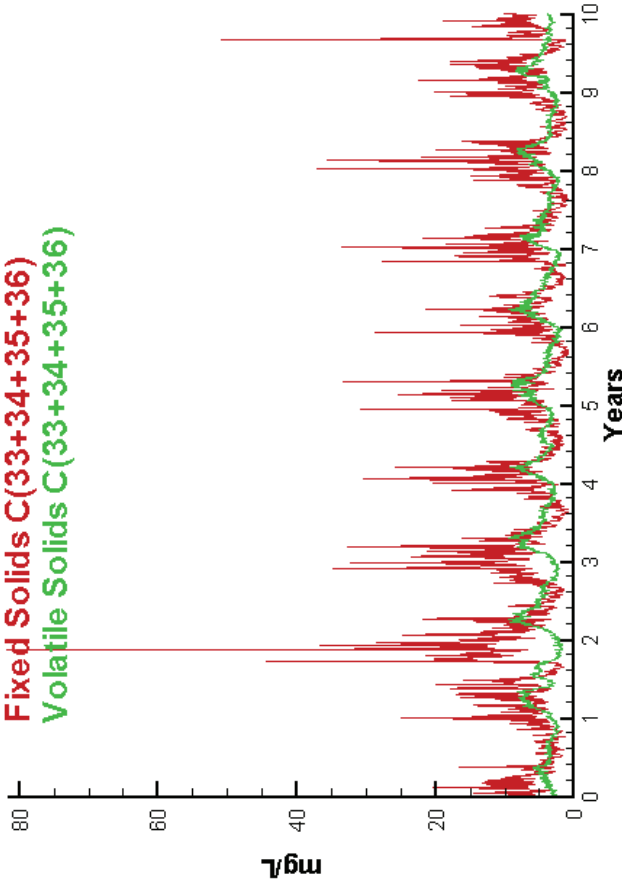
Run185 2002-2011
Light Extinction LE2.2 Surface



Run185 2002-2011
Total Solids LE2.2 Surface



Run185 2002-2011
Solids Surface



Mean Difference Absolute Mean Difference

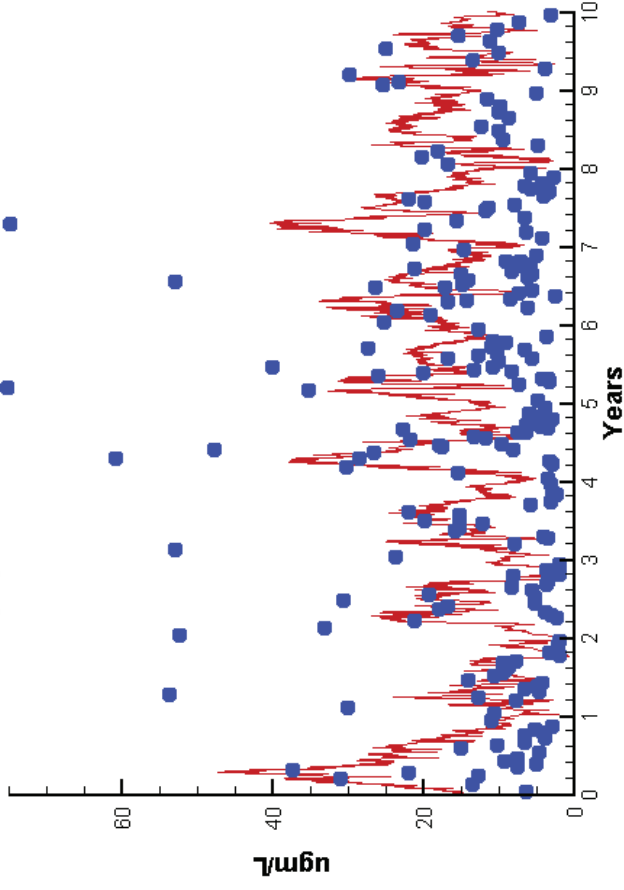
0.0587
3.0495

0.3312
5.1696

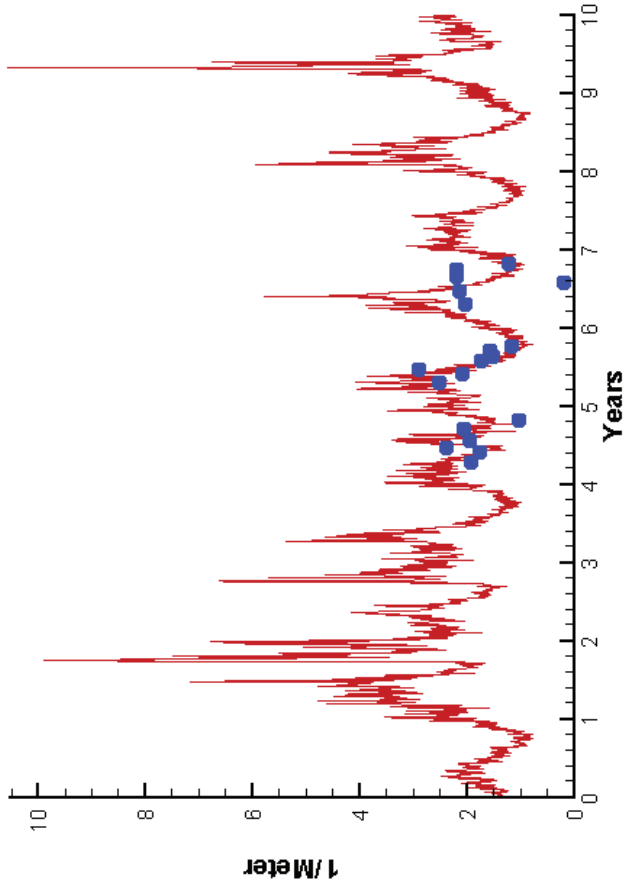
KE
TSS

Station RET2.4

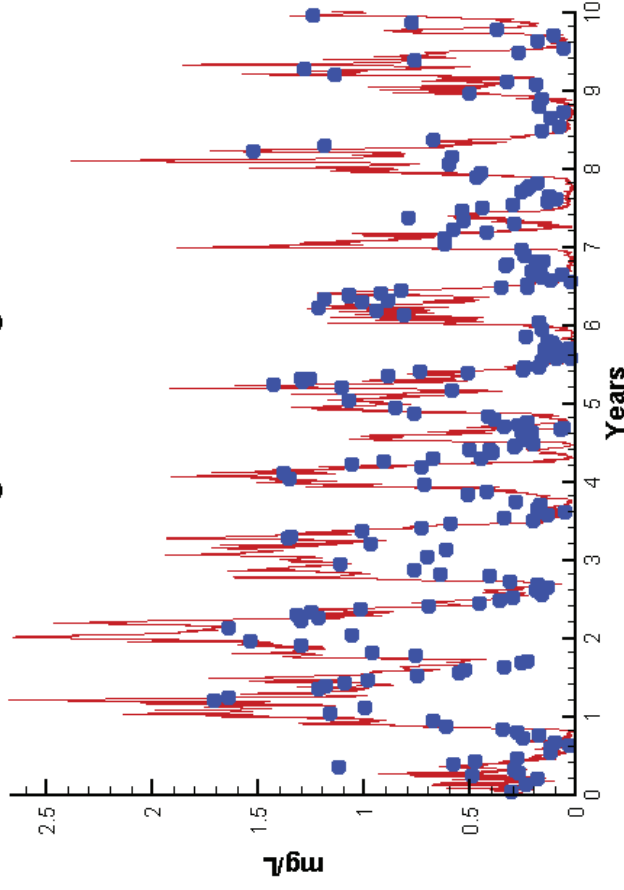
Run185 2002-2011
Chlorophyll RET2.4 Surface



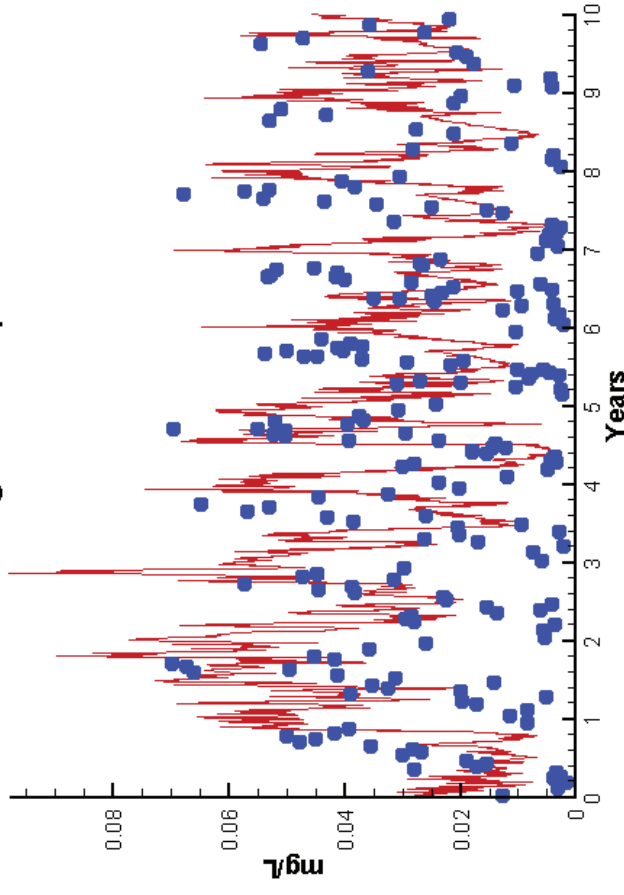
Run185 2002-2011
Light Extinction RET2.4 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen RET2.4 Surface

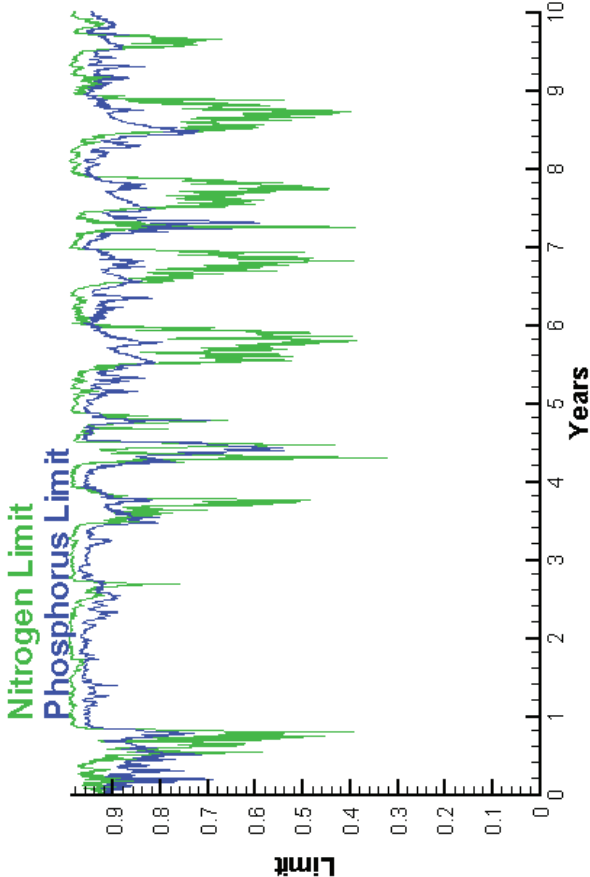


Run185 2002-2011
Dissolved Inorganic Phosphorus RET2.4 Surface

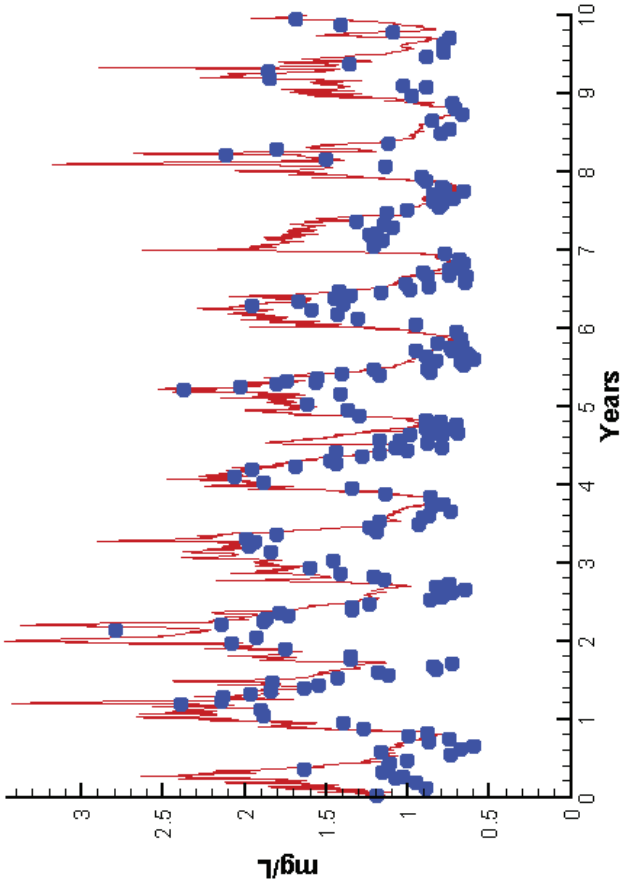


Station RET2.4

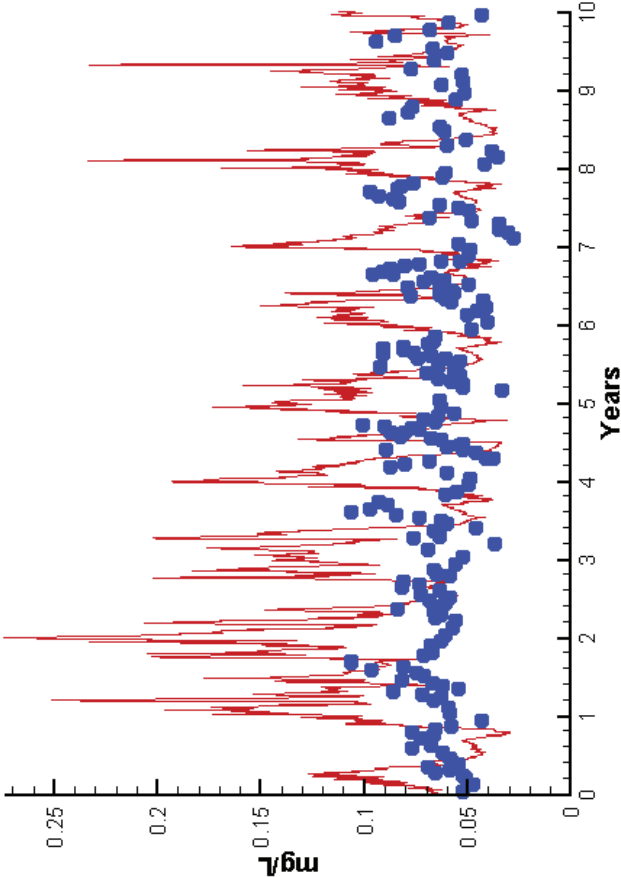
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen RET2.4 Surface



Run185 2002-2011
Total Phosphorus RET2.4 Surface



Mean Difference

Absolute Mean Difference

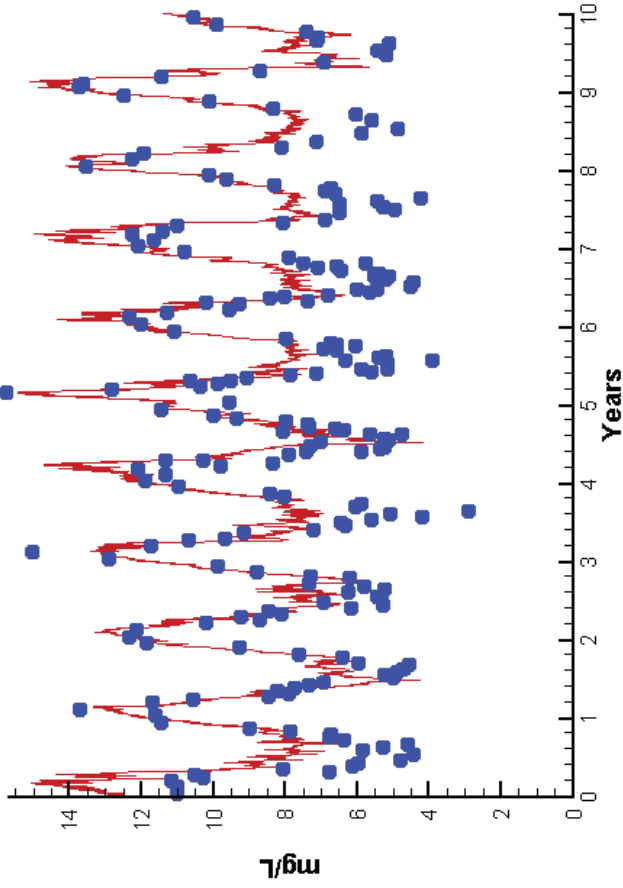
Chl
DIN
KE
DIP
TP
TN

4.7926
-0.0015
0.0979
0.0036
0.0170
0.2525

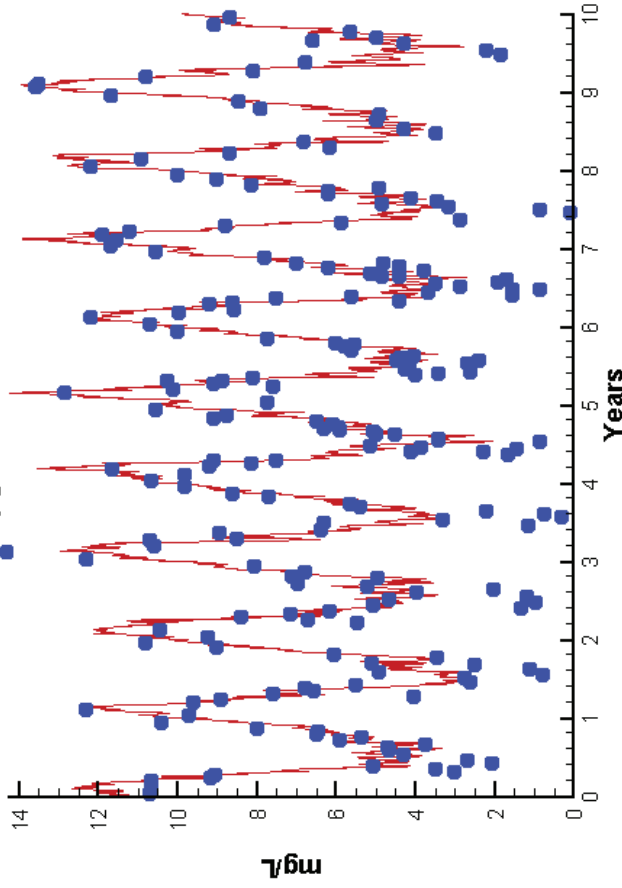
10.6241
0.2418
0.5984
0.0199
0.0370
0.2882

Station RET2.4

Run185 2002-2011
Dissolved Oxygen RET2.4 Surface



Run185 2002-2011
Dissolved Oxygen RET2.4 Bottom

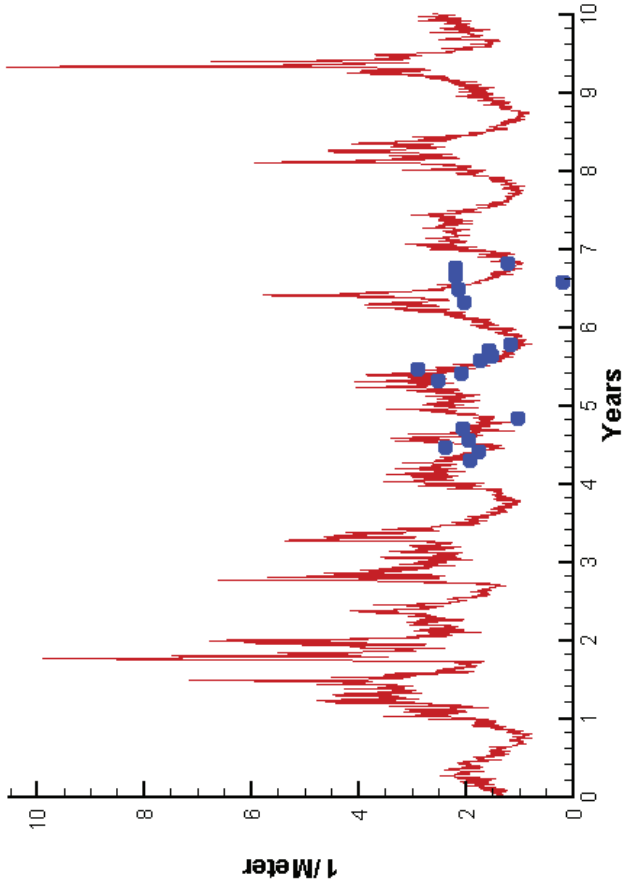


	Mean Difference	Absolute Mean Difference
Top DO	1.2716	1.5008
Bot DO	0.5602	1.2794

Station RET2.4

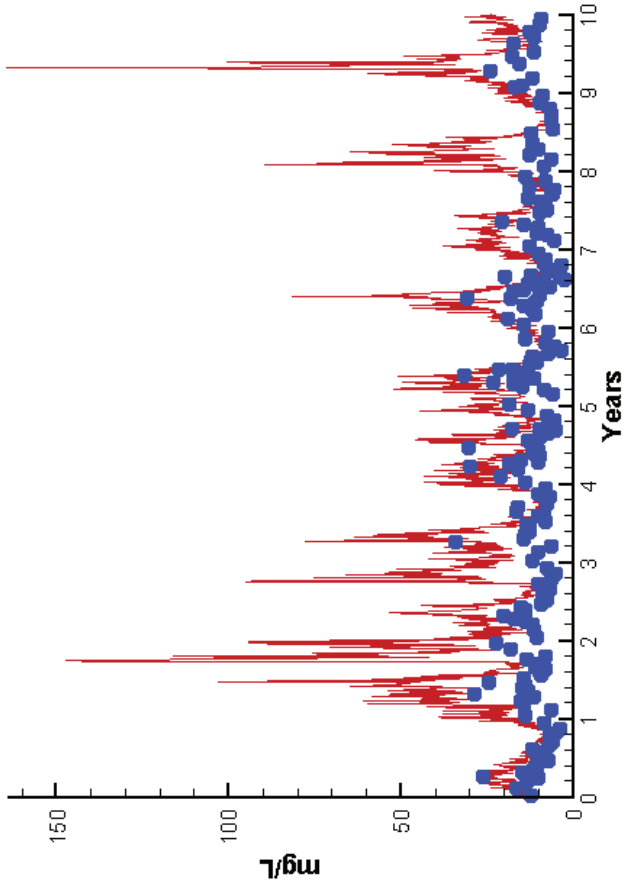
Run185 2002-2011

Light Extinction RET2.4 Surface



Run185 2002-2011

Total Solids RET2.4 Surface

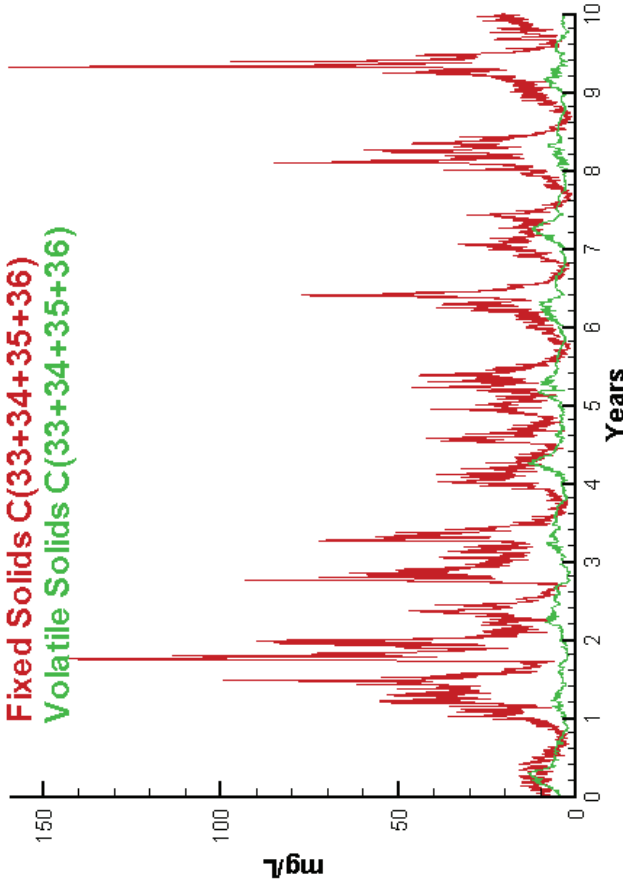


Run185 2002-2011

Solids Surface

Fixed Solids C(33+34+35+36)

Volatile Solids C(33+34+35+36)



Mean Difference

0.0979

10.5533

Absolute Mean Difference

0.5984

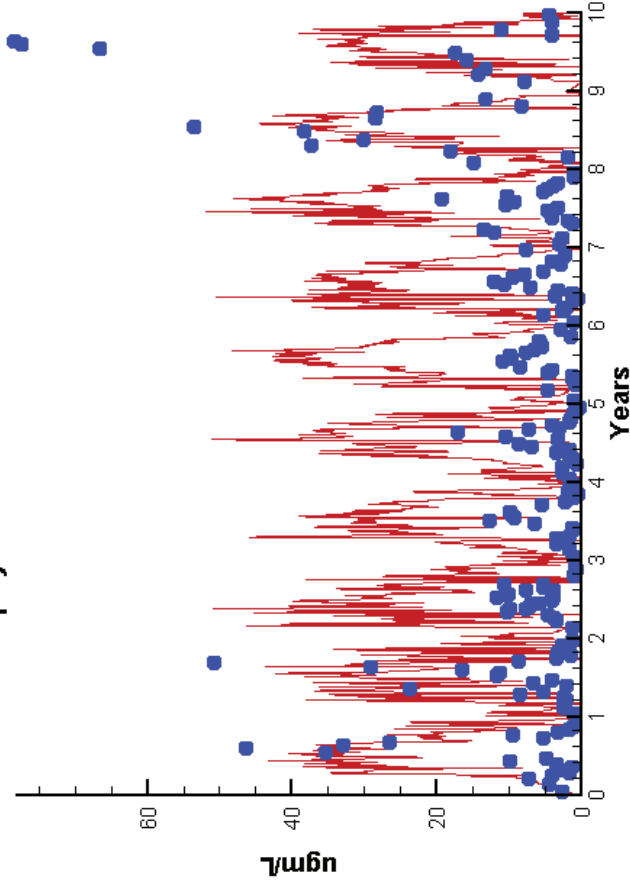
11.3807

KE

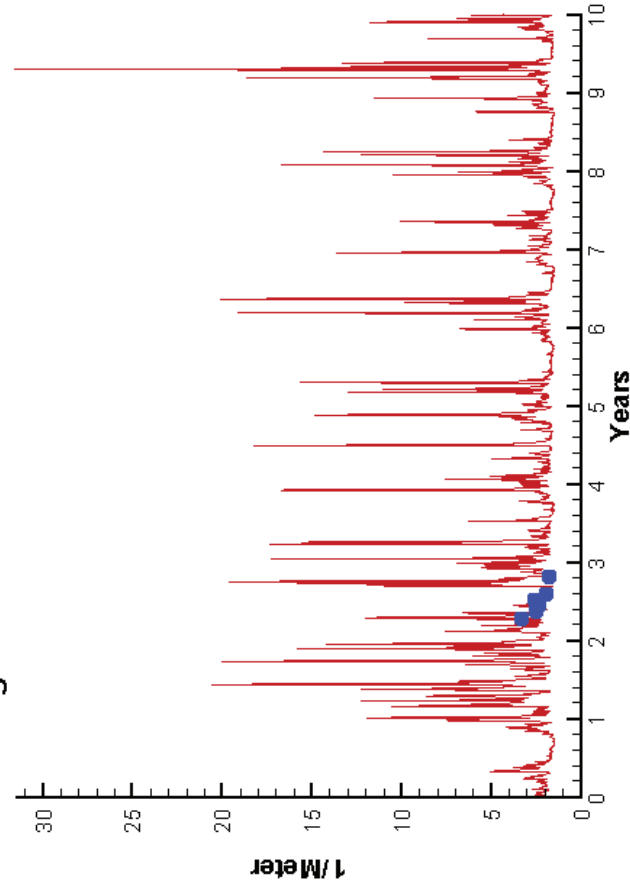
TSS

Station TF2.1

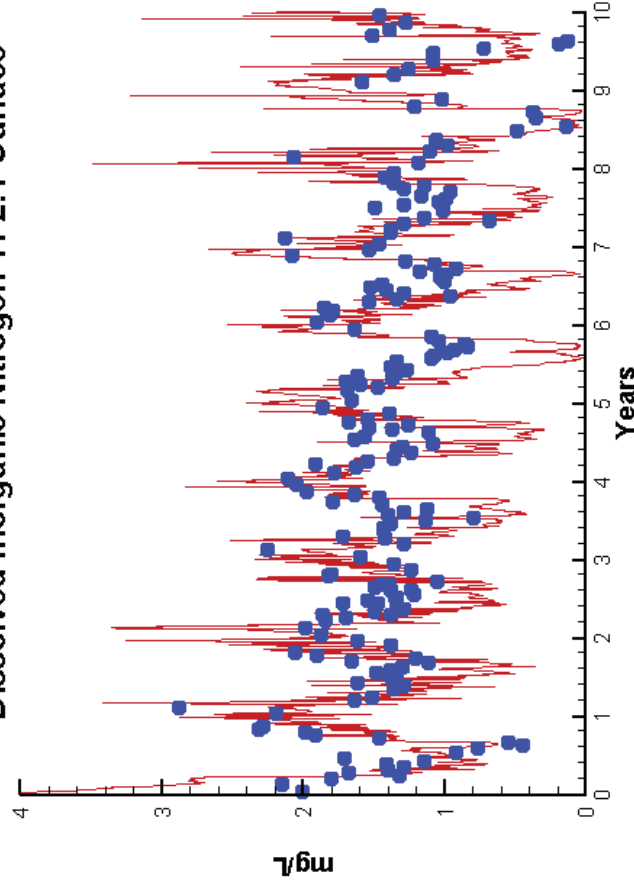
Run185 2002-2011
Chlorophyll TF2.1 Surface



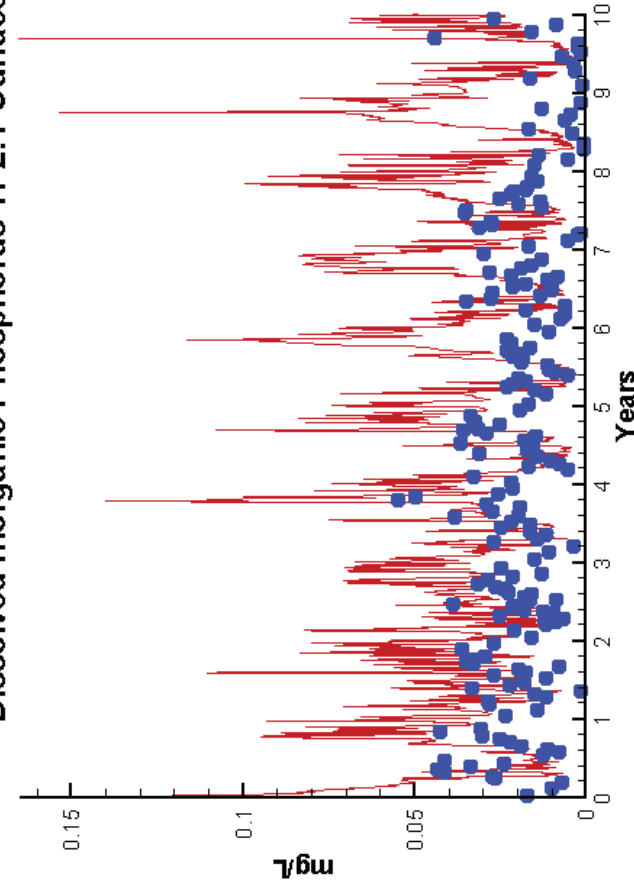
Run185 2002-2011
Light Extinction TF2.1 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen TF2.1 Surface

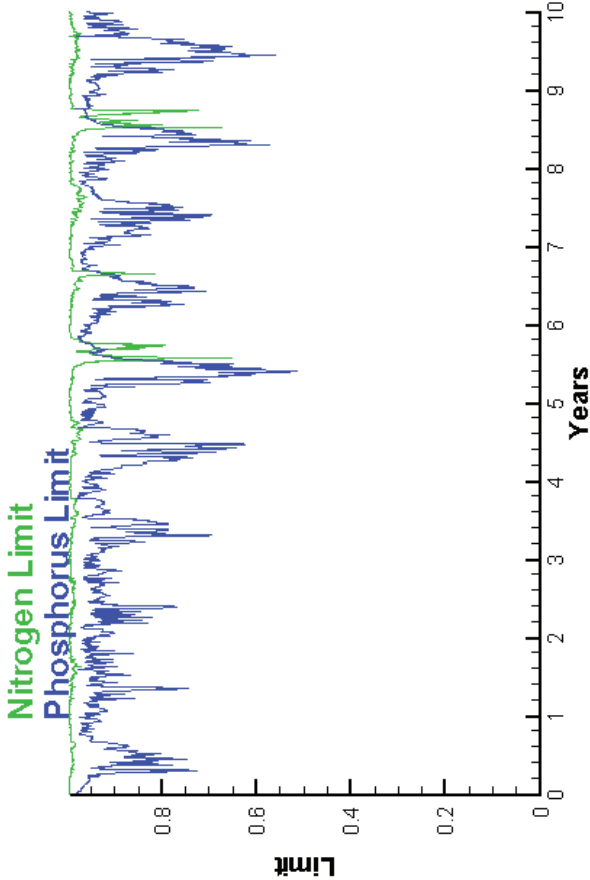


Run185 2002-2011
Dissolved Inorganic Phosphorus TF2.1 Surface

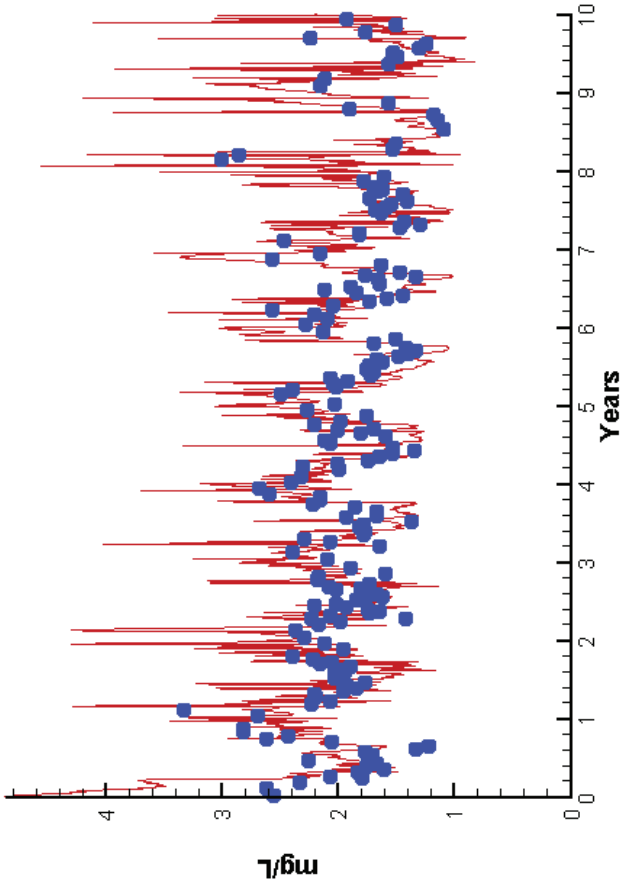


Station TF2.1

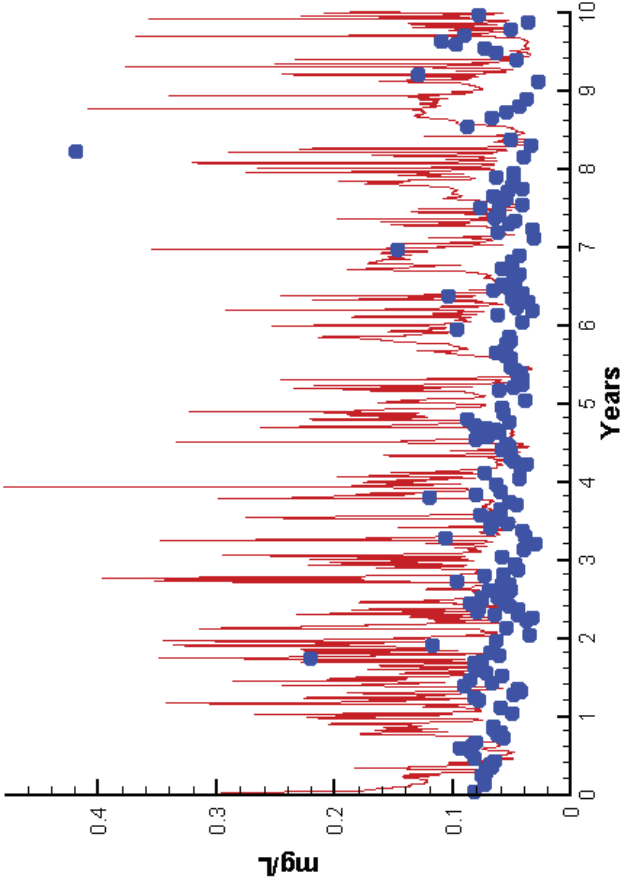
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen TF2.1 Surface



Run185 2002-2011
Total Phosphorus TF2.1 Surface



Mean Difference

Absolute Mean Difference

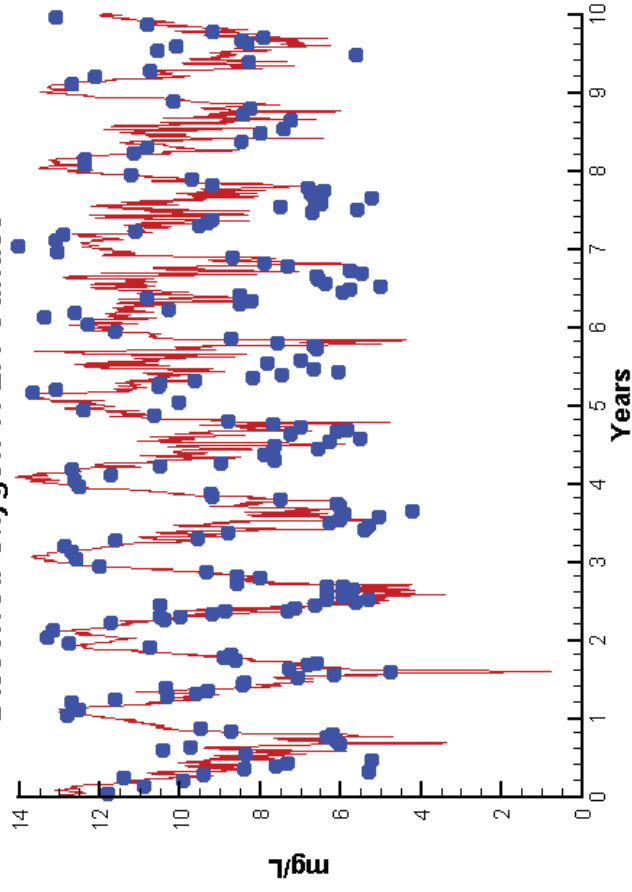
Chl
DIN
KE
DIP
TP
TN

13.5660
-0.2806
1.6425
0.0154
0.0422
0.0074

16.8913
0.5062
1.9452
0.0204
0.0516
0.3968

Station TF2.1

Run185 2002-2011
Dissolved Oxygen TF2.1 Surface



Mean Difference

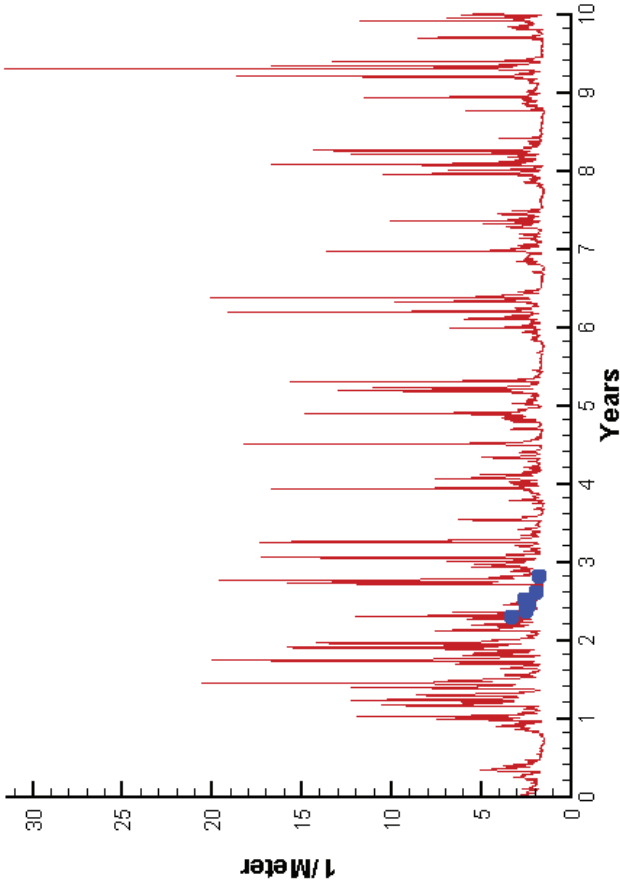
Top DO 0.7524

Absolute Mean Difference

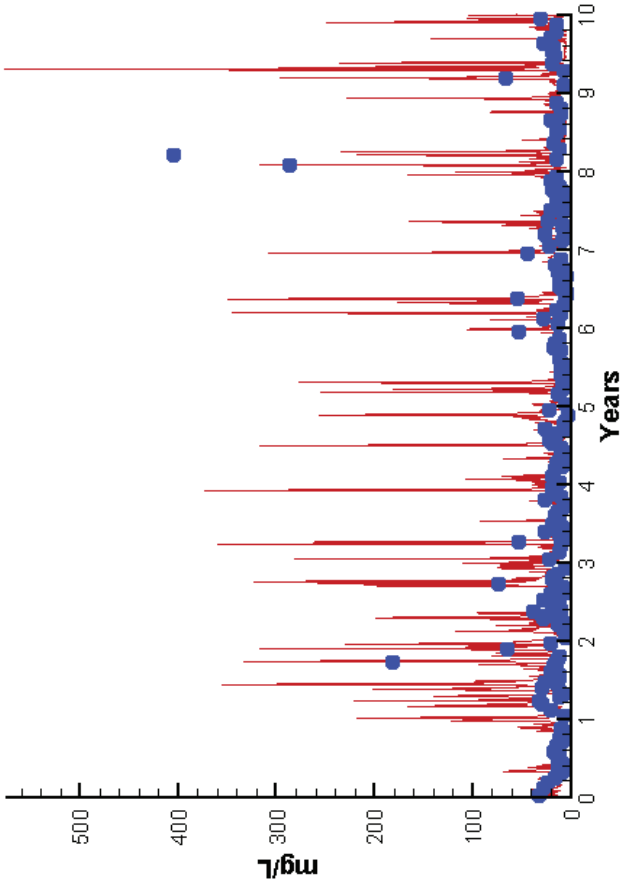
1.6306

Station TF2.1

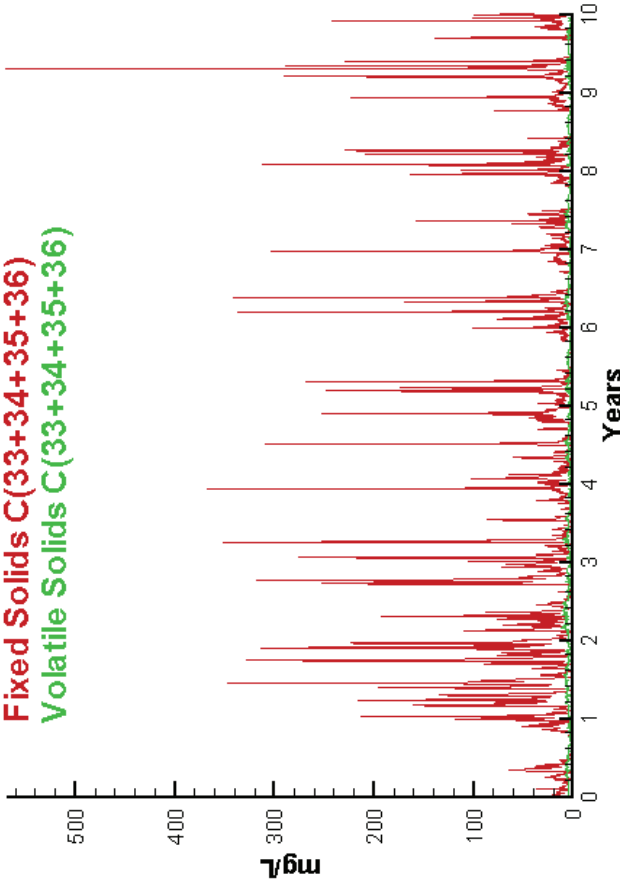
Run185 2002-2011
Light Extinction TF2.1 Surface



Run185 2002-2011
Total Solids TF2.1 Surface



Run185 2002-2011
Solids Surface



Fixed Solids C(33+34+35+36)
Volatile Solids C(33+34+35+36)

Mean Difference

Absolute Mean Difference

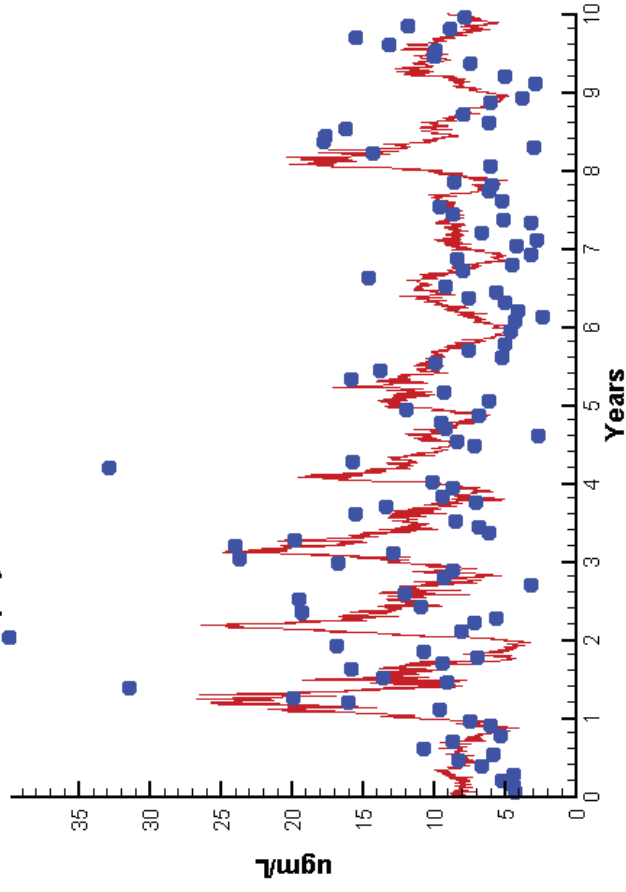
KE
TSS

1.6425
6.9819

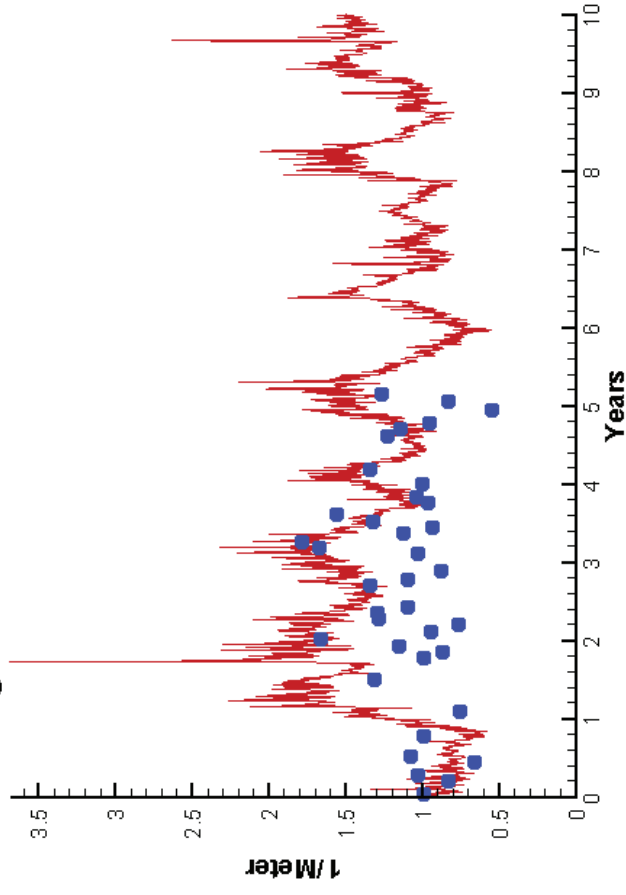
1.9452
18.7226

Station LE3.2

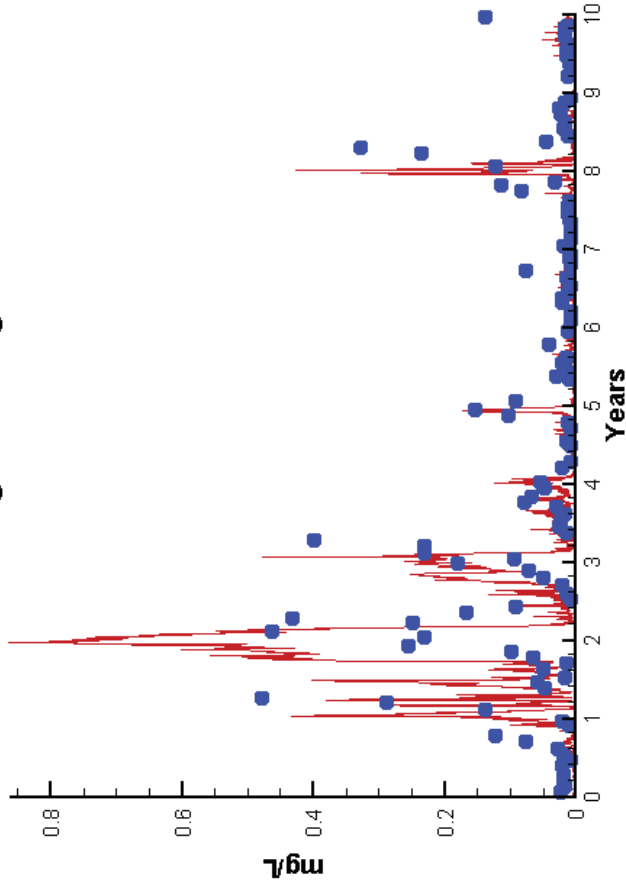
Run185 2002-2011
Chlorophyll LE3.2 Surface



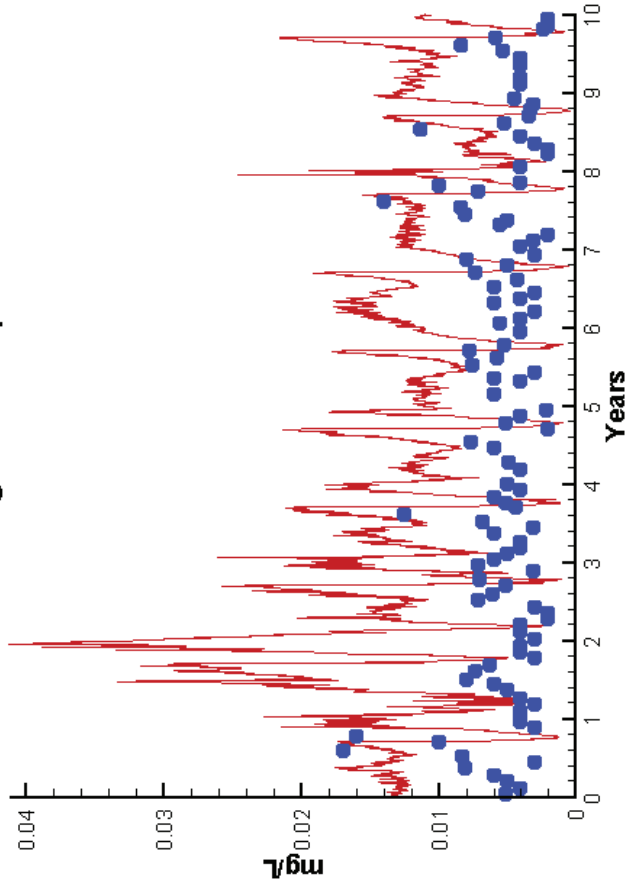
Run185 2002-2011
Light Extinction LE3.2 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen LE3.2 Surface

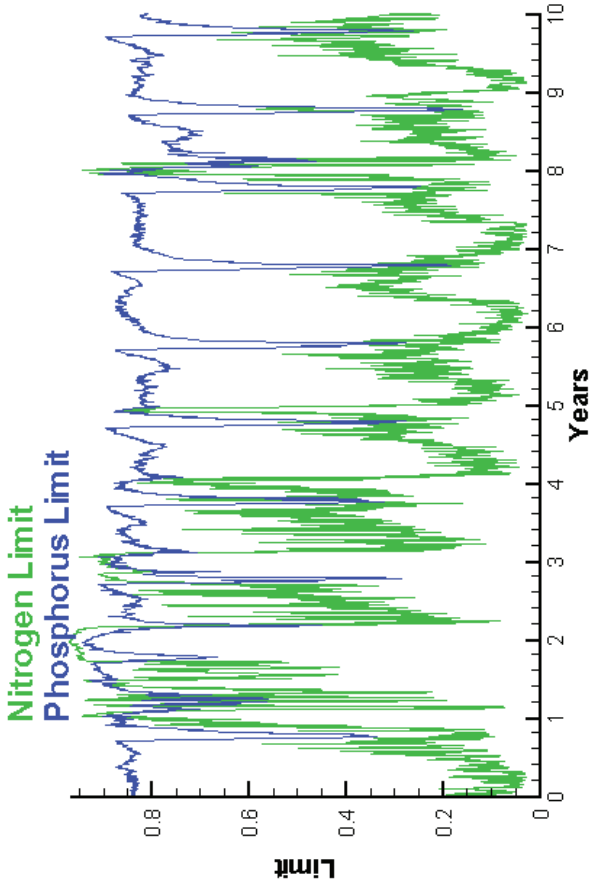


Run185 2002-2011
Dissolved Inorganic Phosphorus LE3.2 Surface

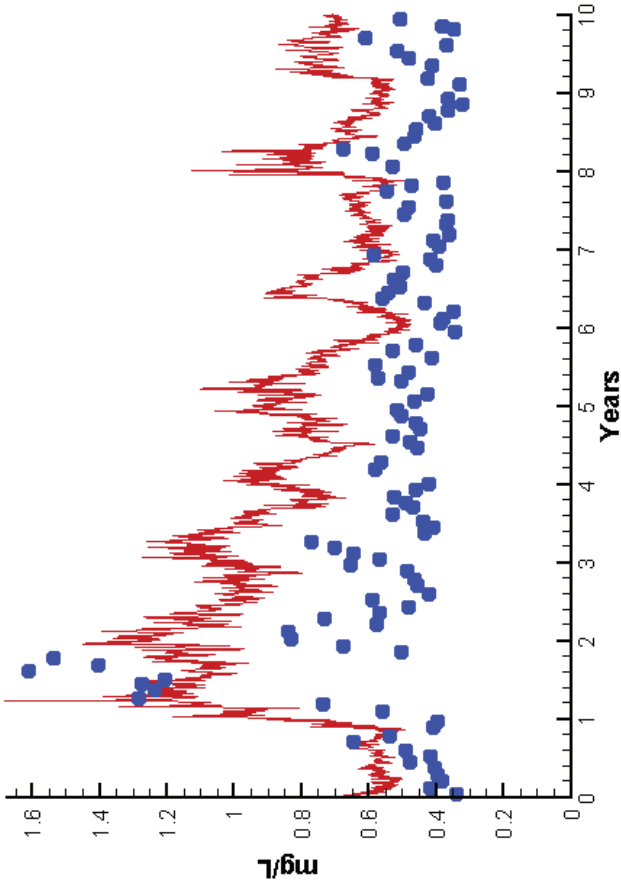


Station LE3.2

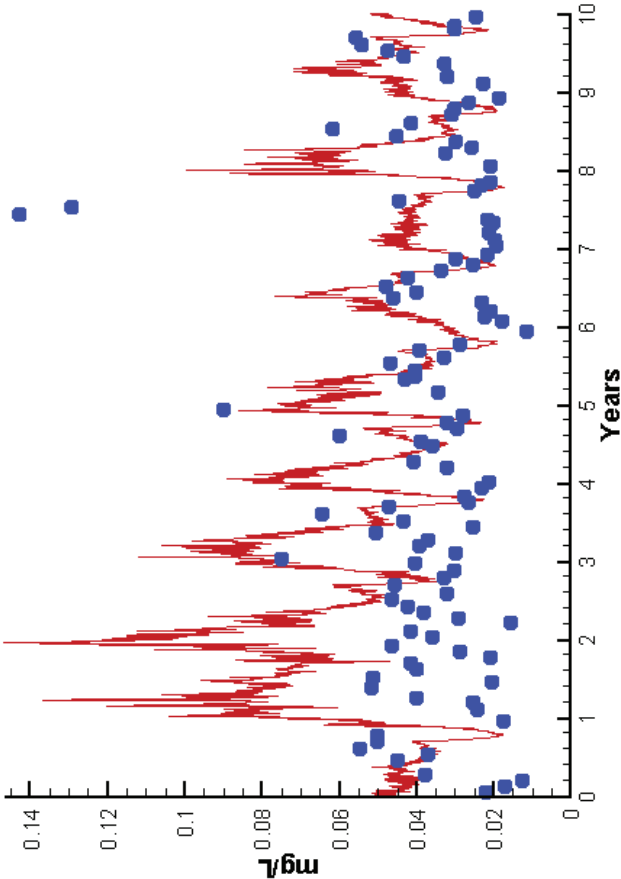
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen LE3.2 Surface



Run185 2002-2011
Total Phosphorus LE3.2 Surface

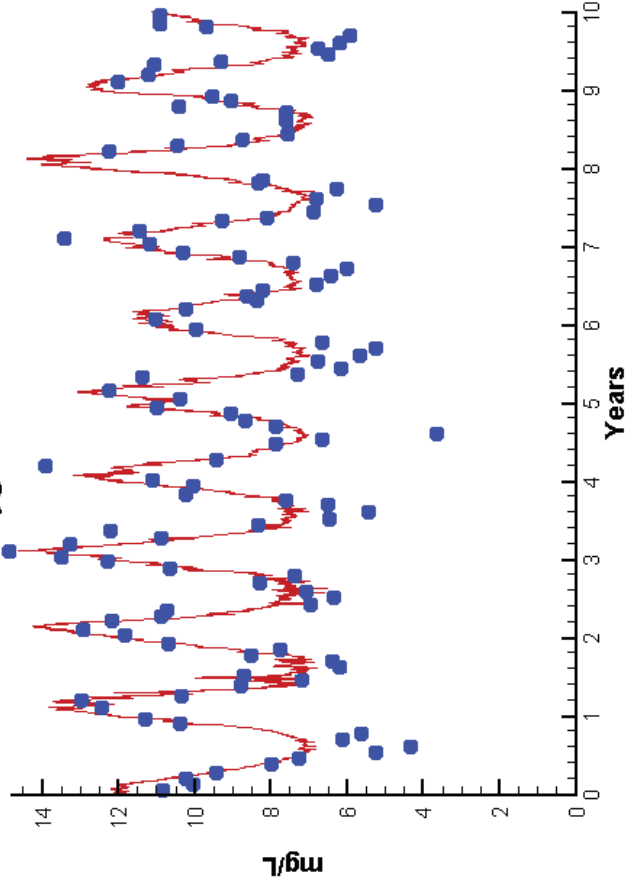


Mean Difference Absolute Mean Difference

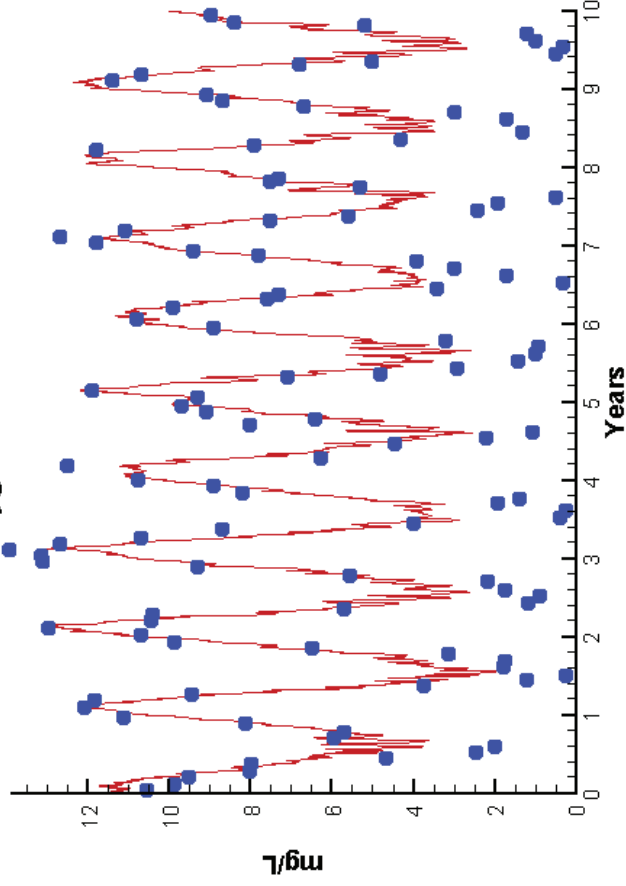
Chl	0.4101	4.2434
DIN	-0.0162	0.0670
KE	0.3002	0.3817
DIP	0.0068	0.0079
TP	0.0147	0.0226
TN	0.2622	0.2890

Station LE3.2

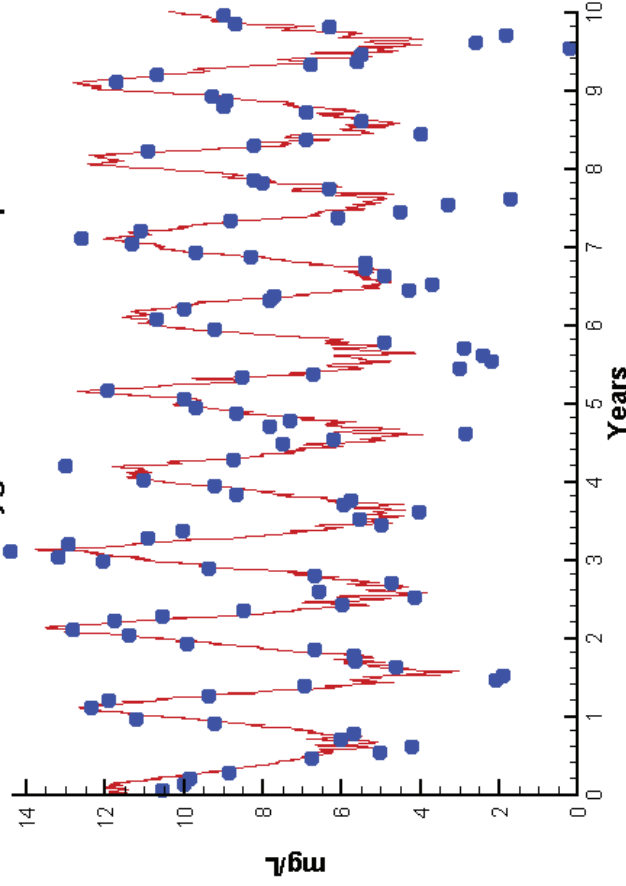
Run185 2002-2011
Dissolved Oxygen LE3.2 Surface



Run185 2002-2011
Dissolved Oxygen LE3.2 Bottom



Run185 2002-2011
Dissolved Oxygen LE3.2 Mid-Depth



Mean Difference

Absolute Mean Difference

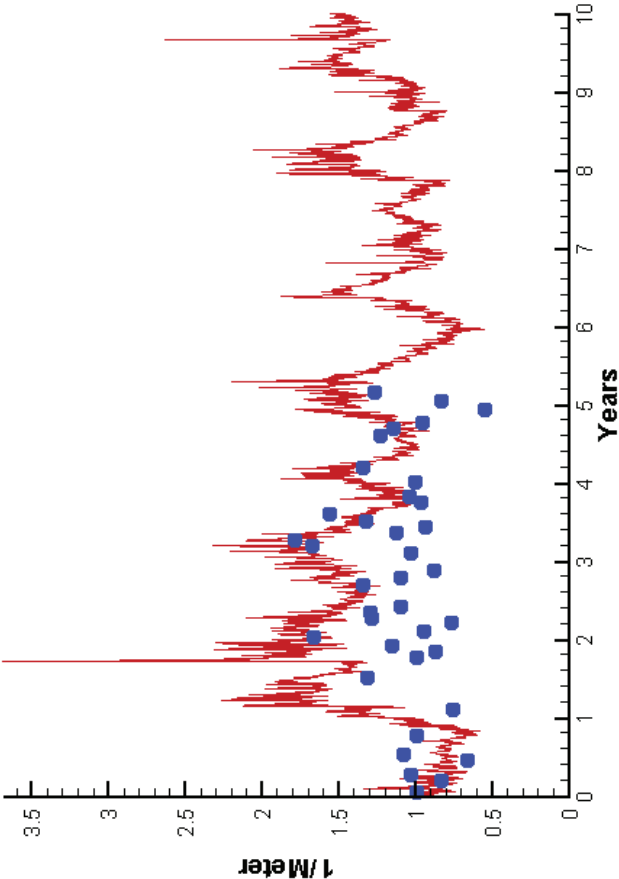
Top DO
Mid DO
Bot DO

0.2386
0.3382
0.7831

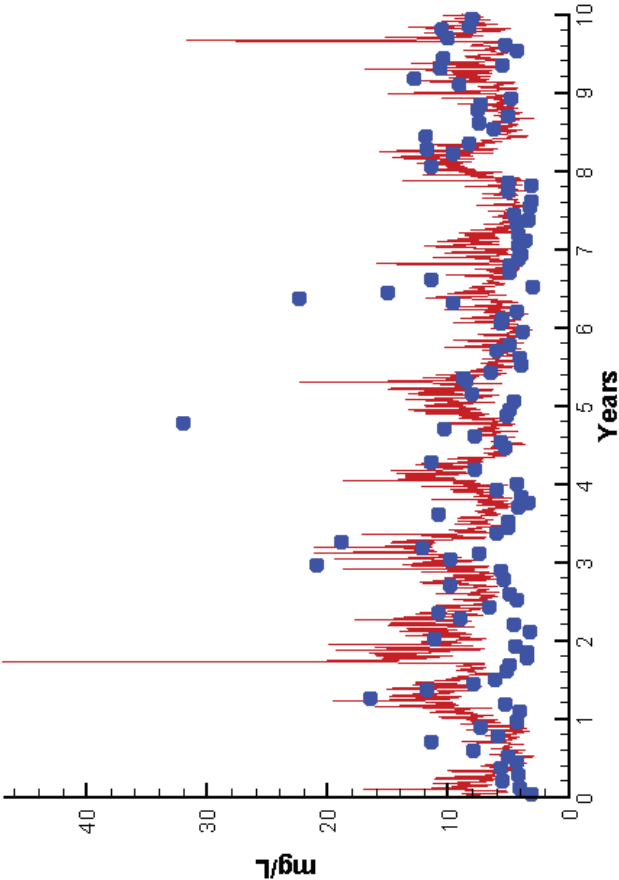
0.9366
1.0126
1.5272

Station LE3.2

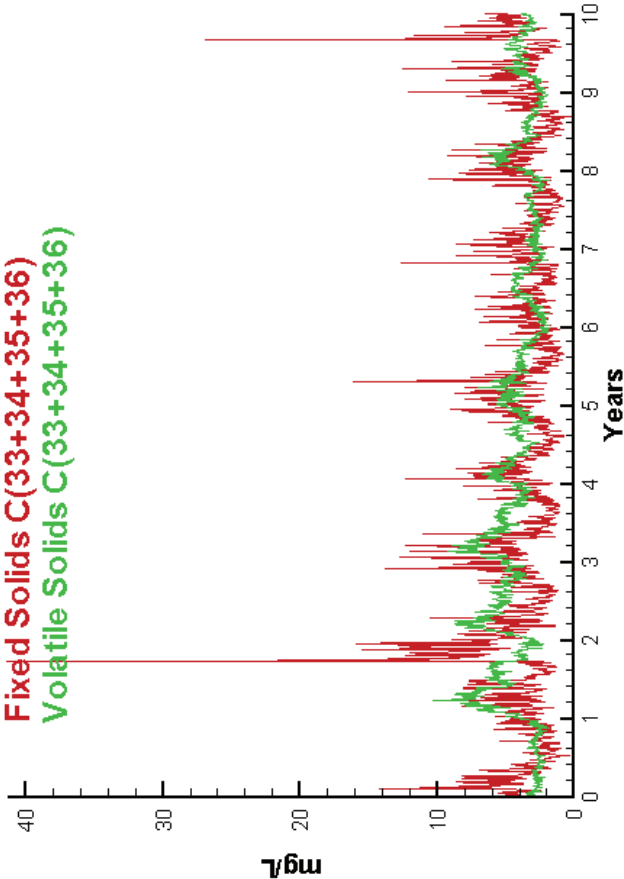
Run185 2002-2011
Light Extinction LE3.2 Surface



Run185 2002-2011
Total Solids LE3.2 Surface



Run185 2002-2011
Solids Surface

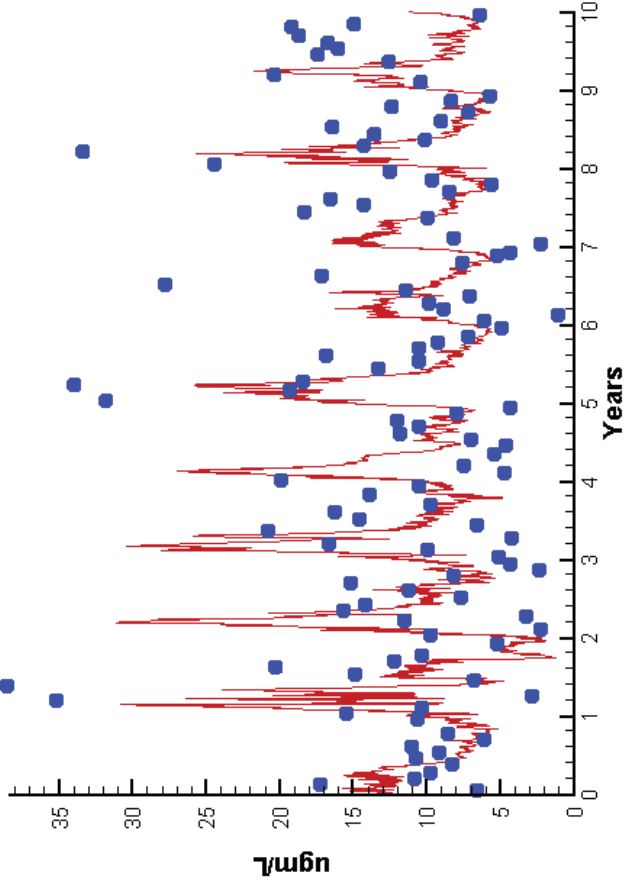


Mean Difference Absolute Mean Difference

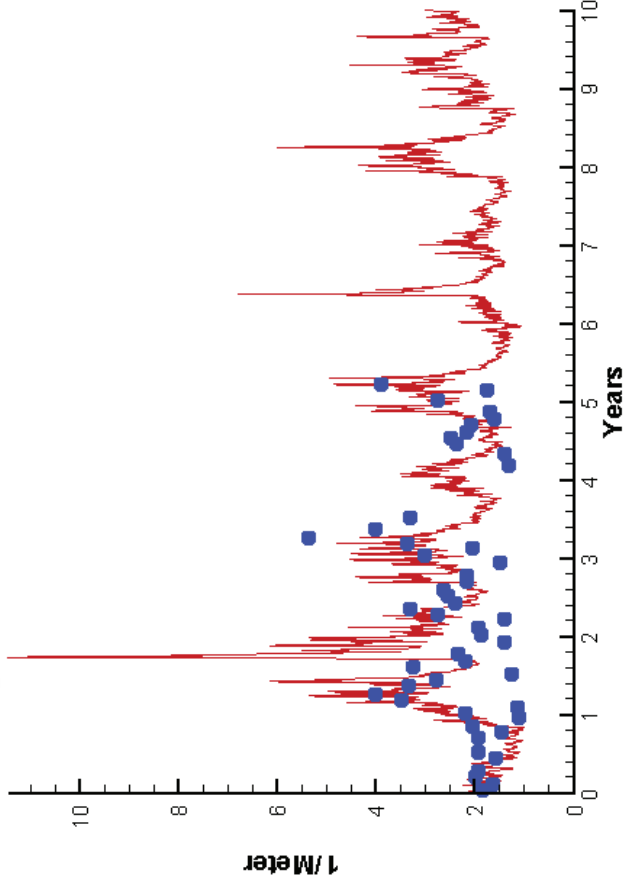
KE	0.3002	0.3817
TSS	0.5221	3.0569

Station RET3.2

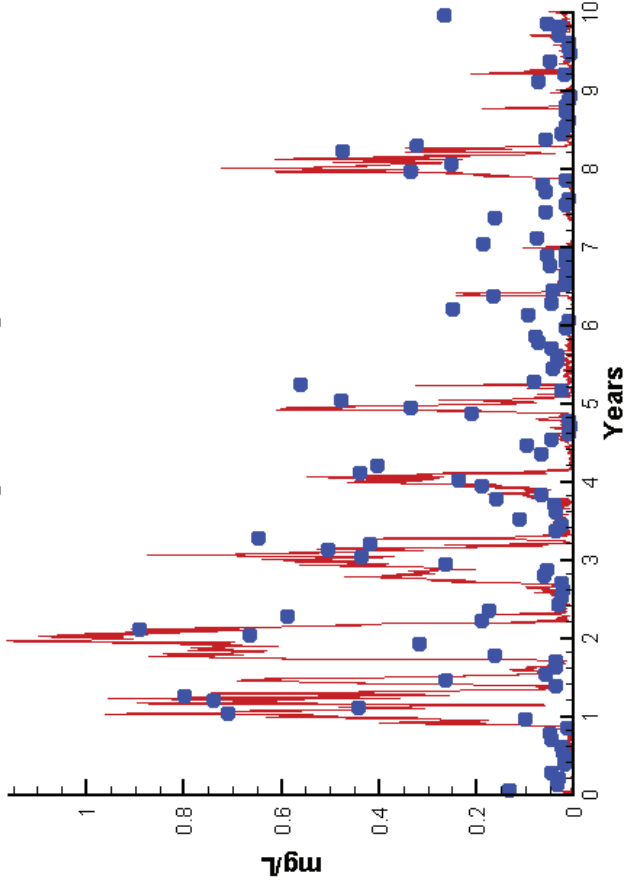
Run185 2002-2011
Chlorophyll RET3.2 Surface



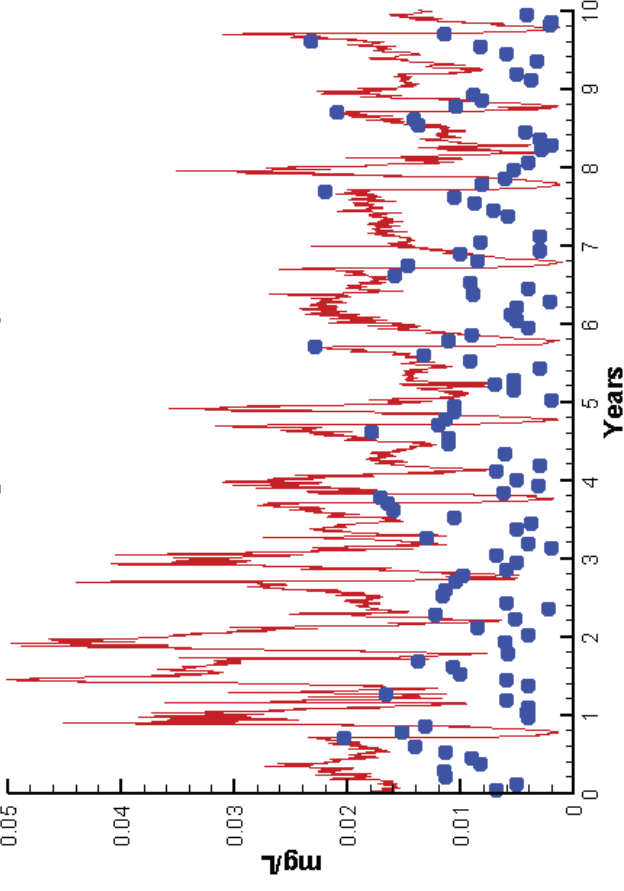
Run185 2002-2011
Light Extinction RET3.2 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen RET3.2 Surface

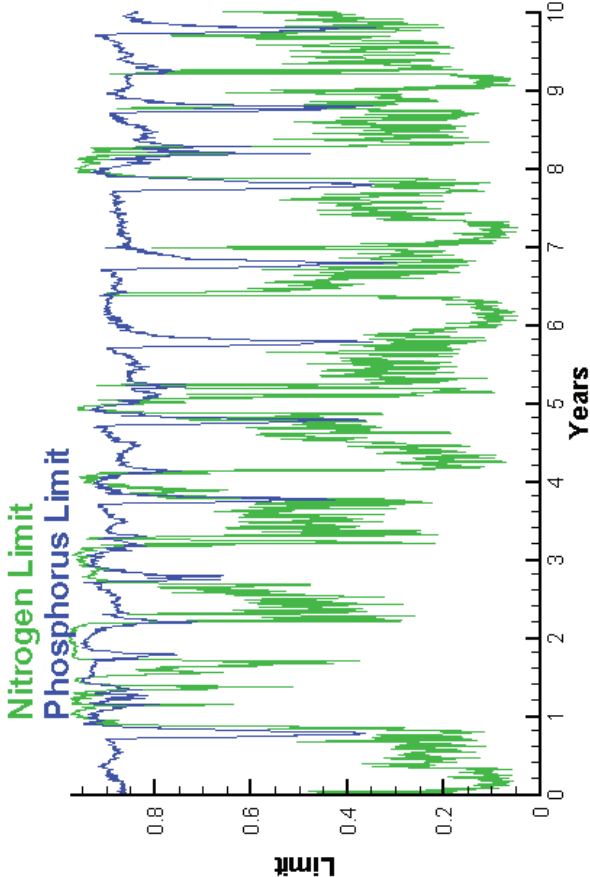


Run185 2002-2011
Dissolved Inorganic Phosphorus RET3.2 Surface

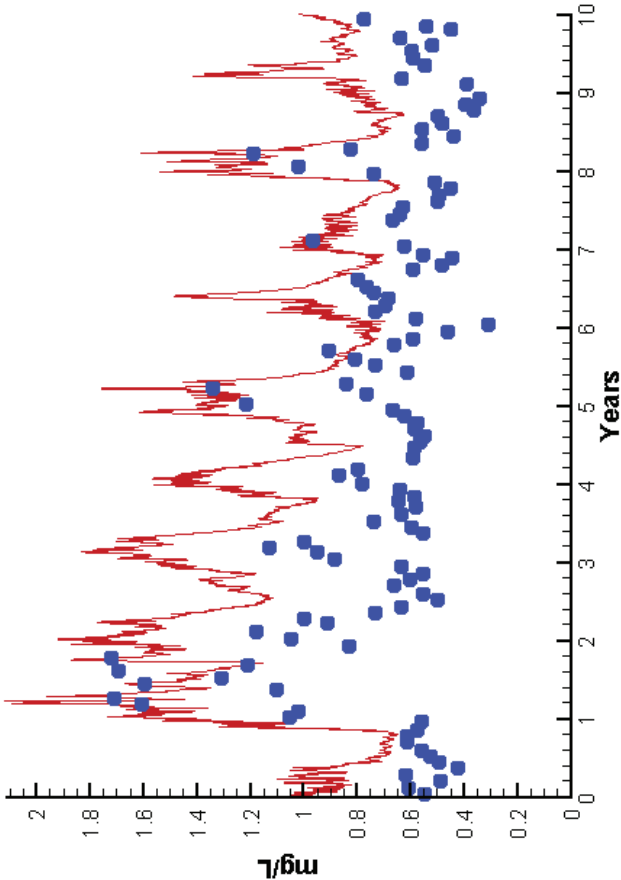


Station RET3.2

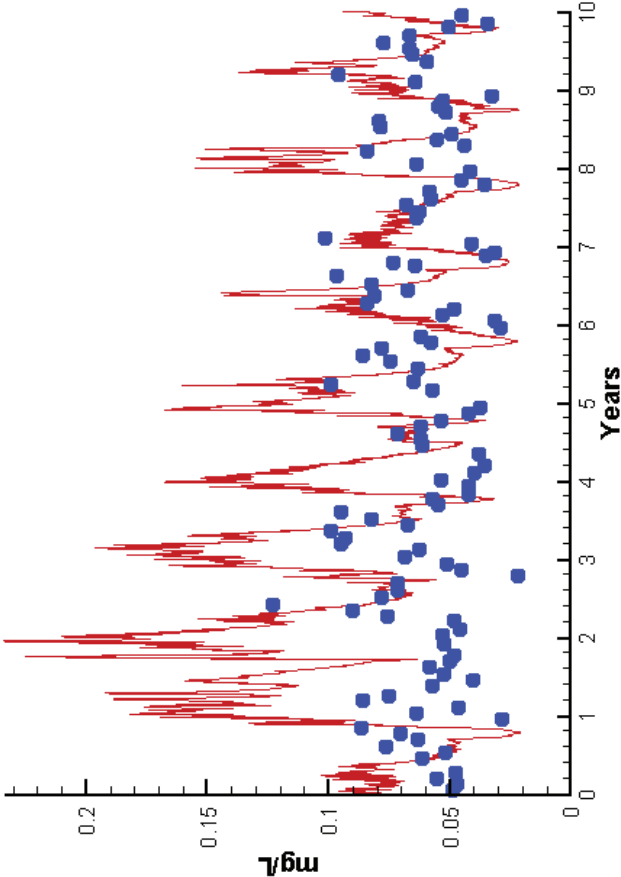
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen RET3.2 Surface



Run185 2002-2011
Total Phosphorus RET3.2 Surface



Mean Difference

Absolute Mean Difference

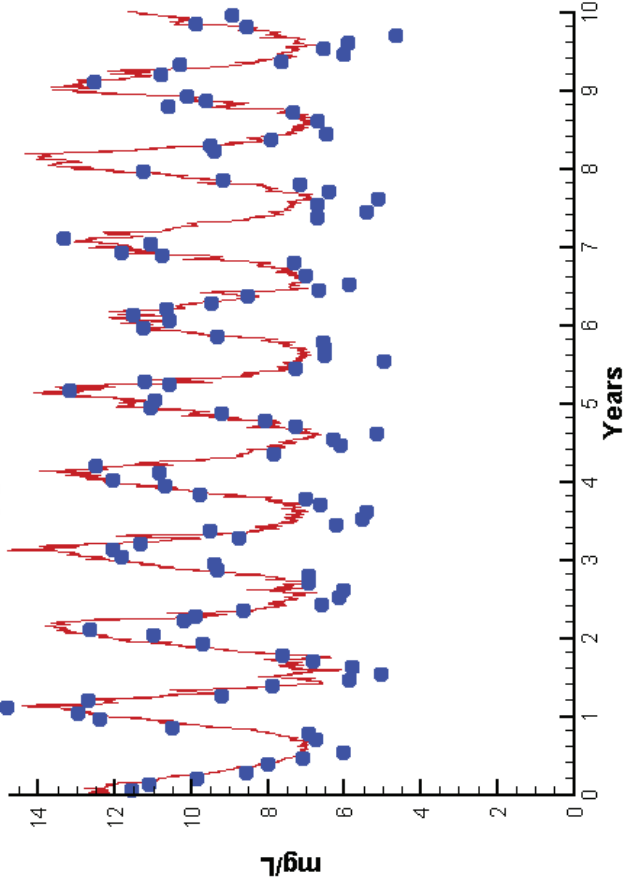
Chl
DIN
KE
DIP
TP
TN

-1.1918
-0.0275
0.3215
0.0091
0.0239
0.3669

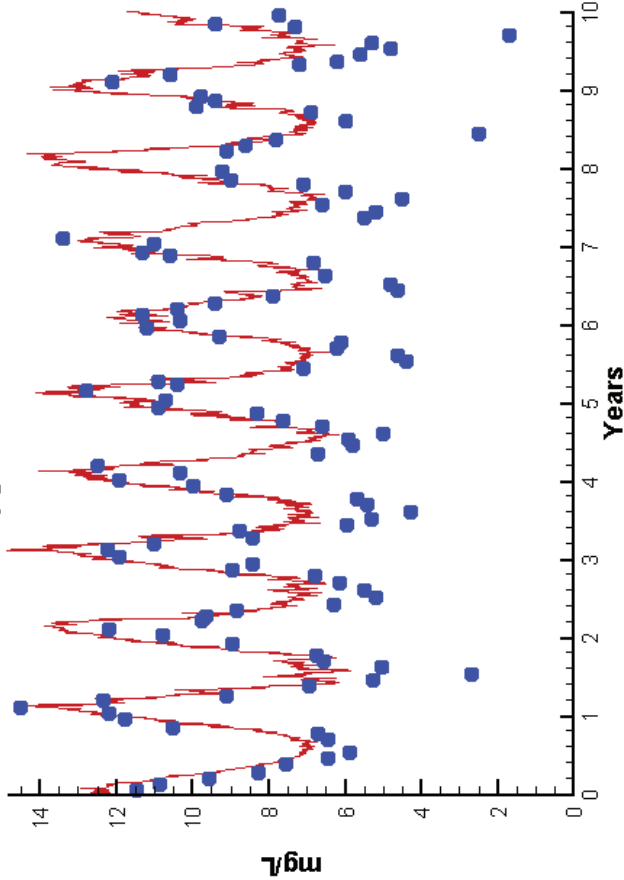
5.7597
0.0964
0.8660
0.0111
0.0389
0.3778

Station RET3.2

Run185 2002-2011
Dissolved Oxygen RET3.2 Surface



Run185 2002-2011
Dissolved Oxygen RET3.2 Bottom



Mean Difference

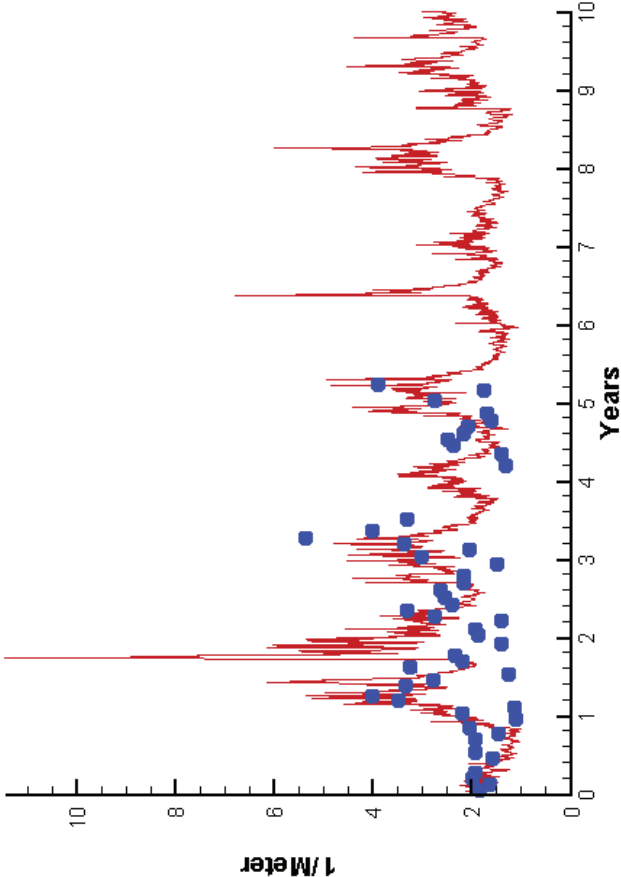
Top DO 0.6870
Bot DO 1.2016

Absolute Mean Difference

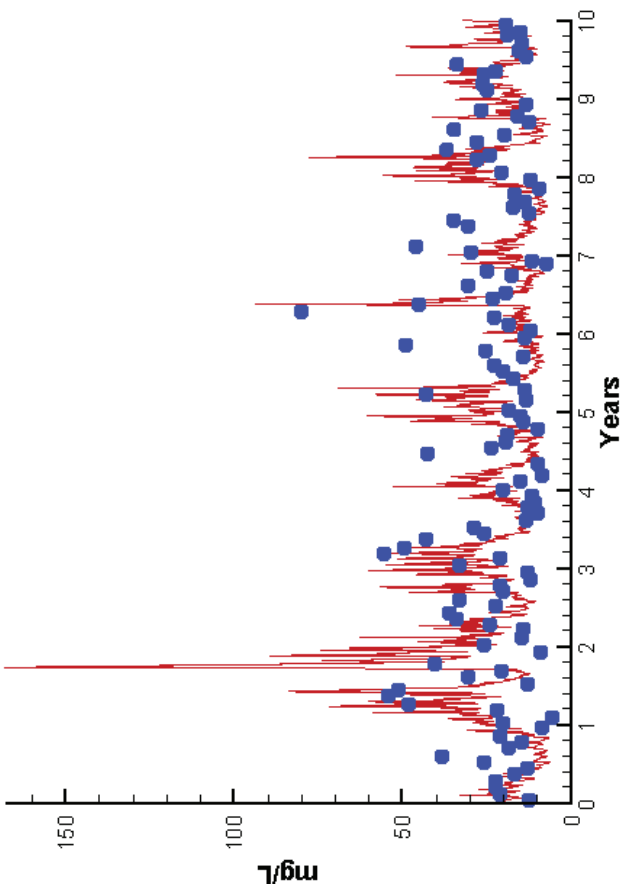
0.9843
1.3714

Station RET3.2

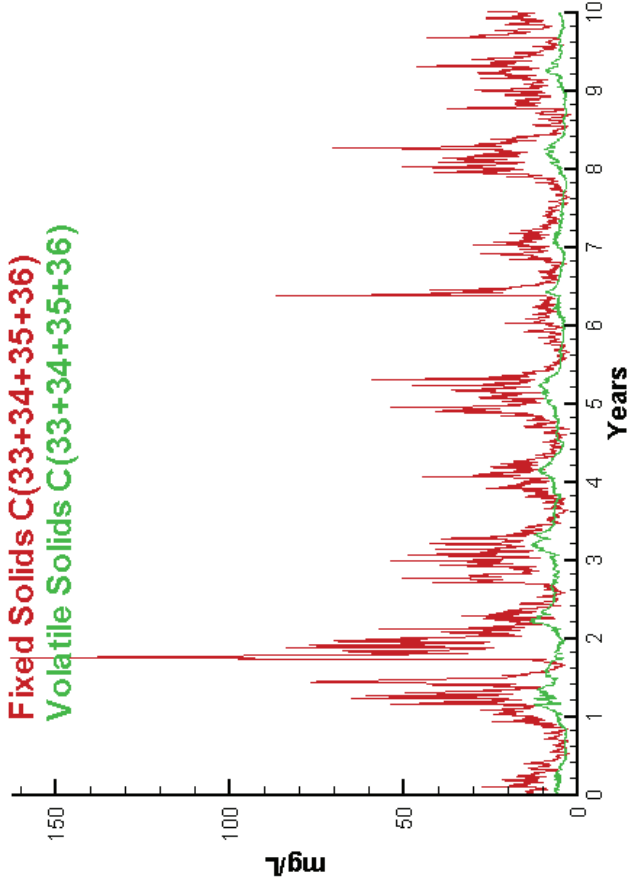
Run185 2002-2011
Light Extinction RET3.2 Surface



Run185 2002-2011
Total Solids RET3.2 Surface



Run185 2002-2011
Solids Surface



Mean Difference

0.3215
-1.0123

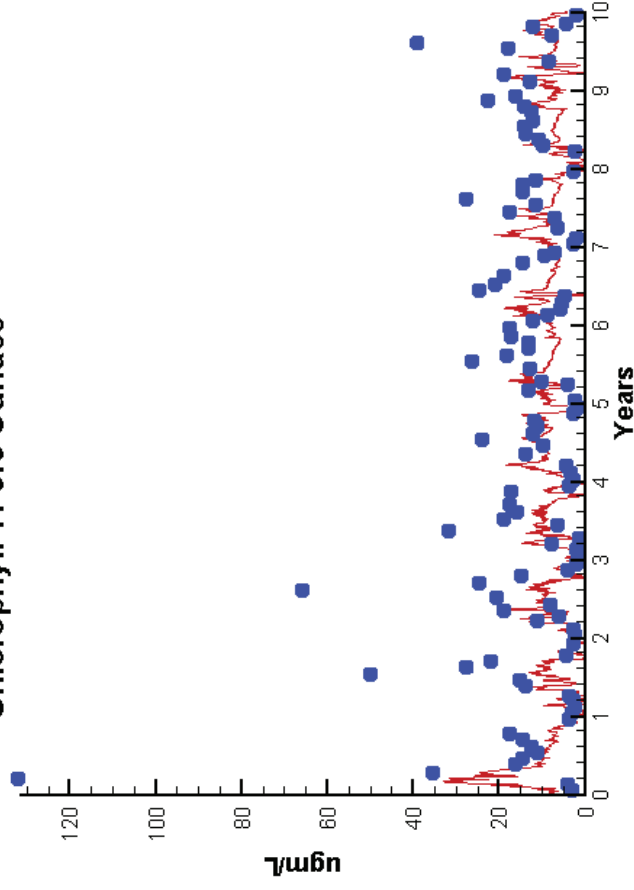
Absolute Mean Difference

0.8660
11.0025

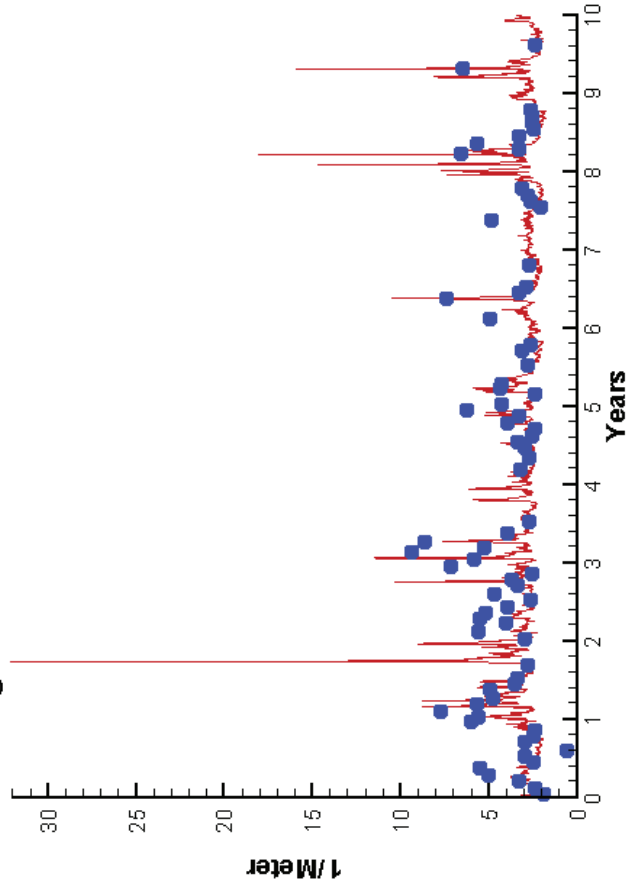
KE
TSS

Station TF3.3

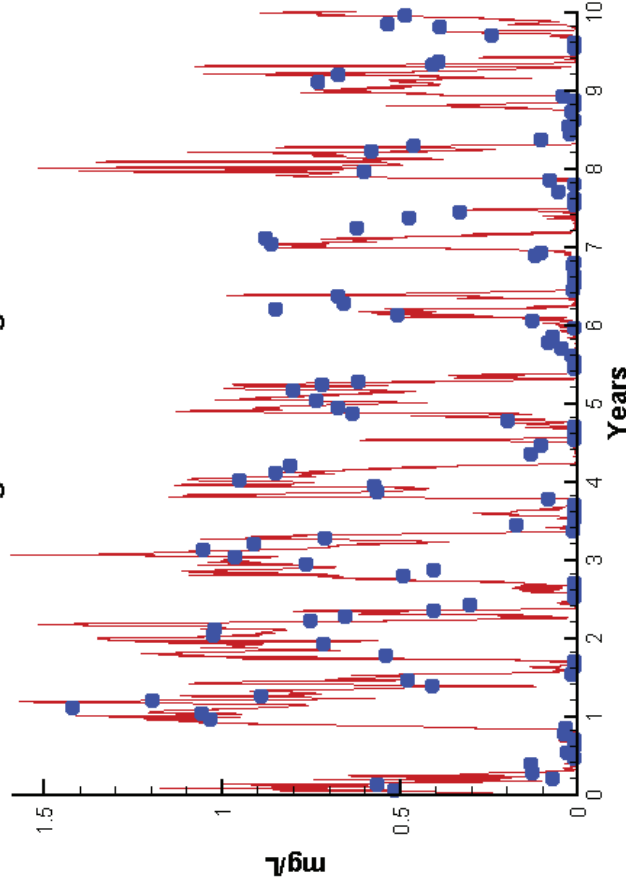
Run185 2002-2011
Chlorophyll TF3.3 Surface



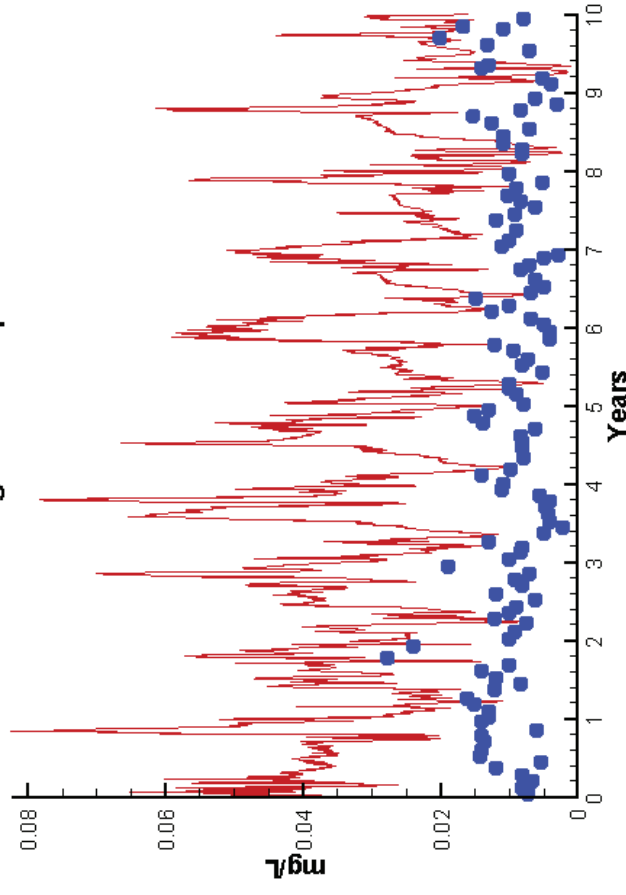
Run185 2002-2011
Light Extinction TF3.3 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen TF3.3 Surface

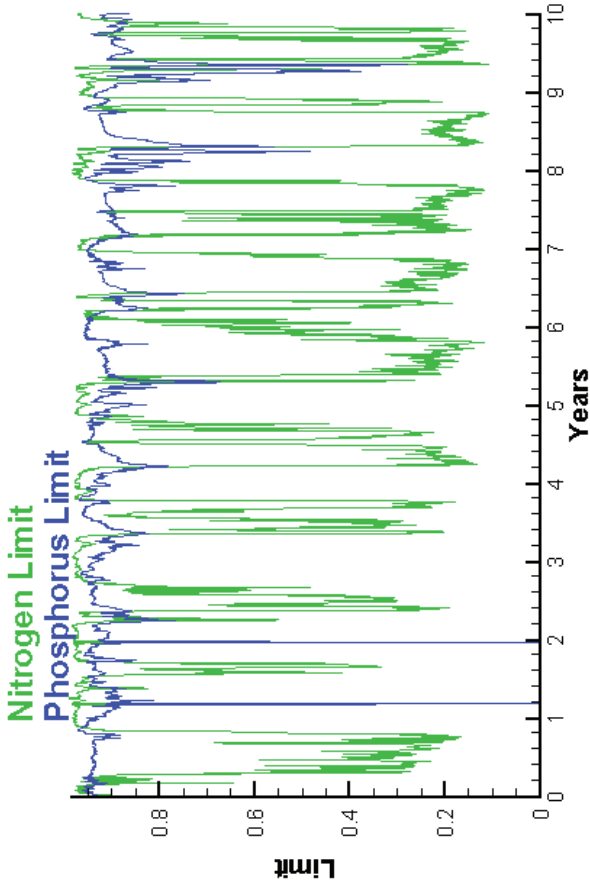


Run185 2002-2011
Dissolved Inorganic Phosphorus TF3.3 Surface

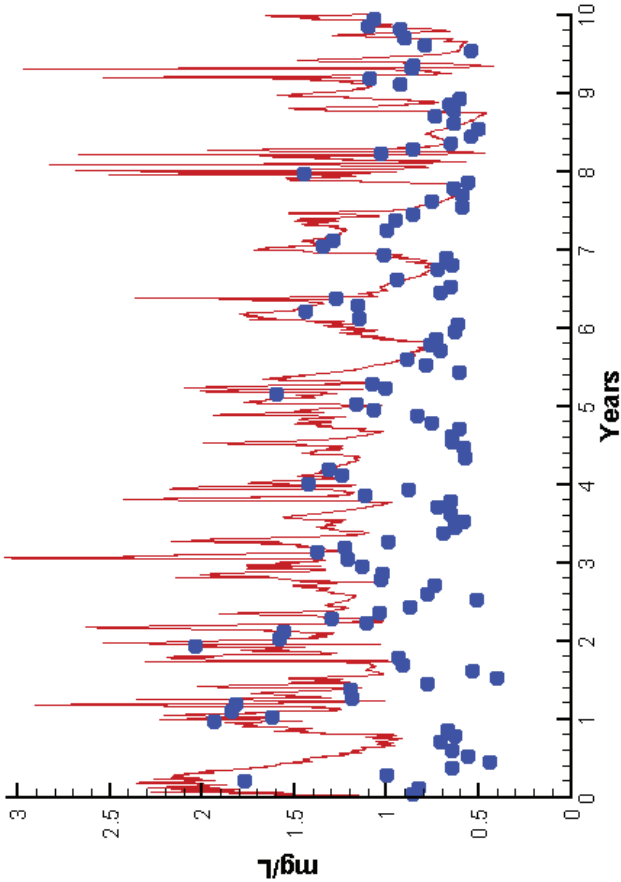


Station TF3.3

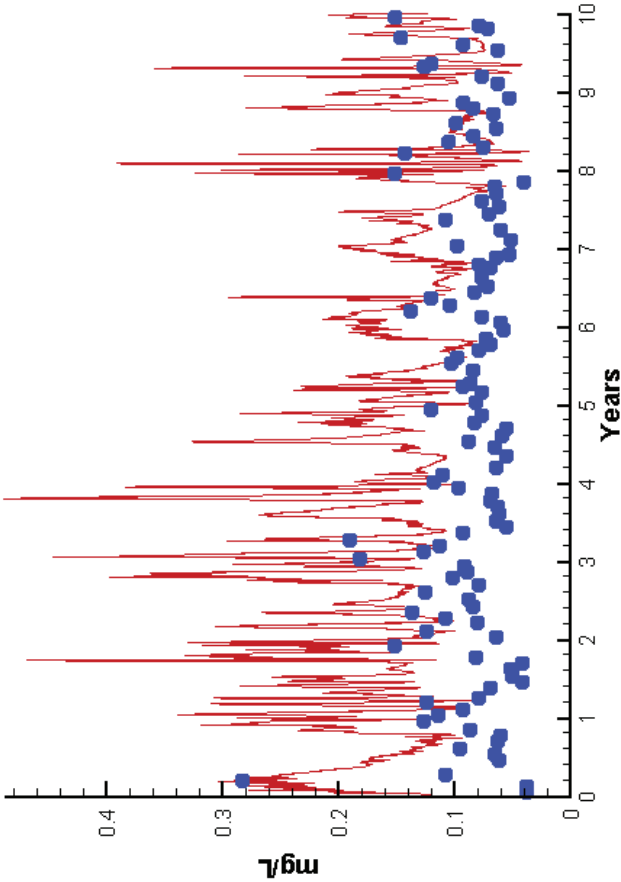
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen TF3.3 Surface



Run185 2002-2011
Total Phosphorus TF3.3 Surface



Mean Difference

Absolute Mean Difference

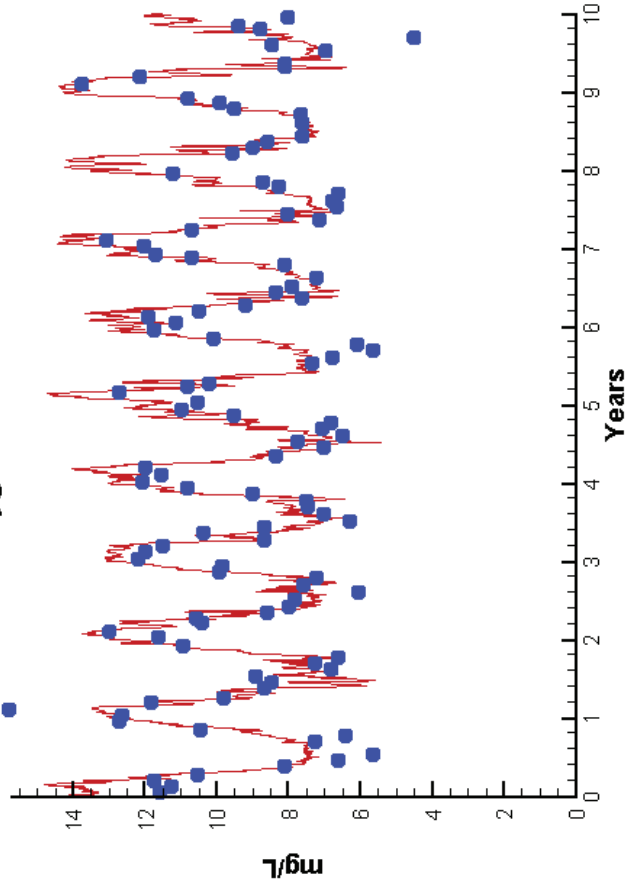
Chl
DIN
KE
DIP
TP
TN

-5.1296
-0.0265
-0.9014
0.0215
0.0702
0.3586

8.0606
0.1719
1.1738
0.0219
0.0756
0.4193

Station TF3.3

Run185 2002-2011
Dissolved Oxygen TF3.3 Surface



Mean Difference

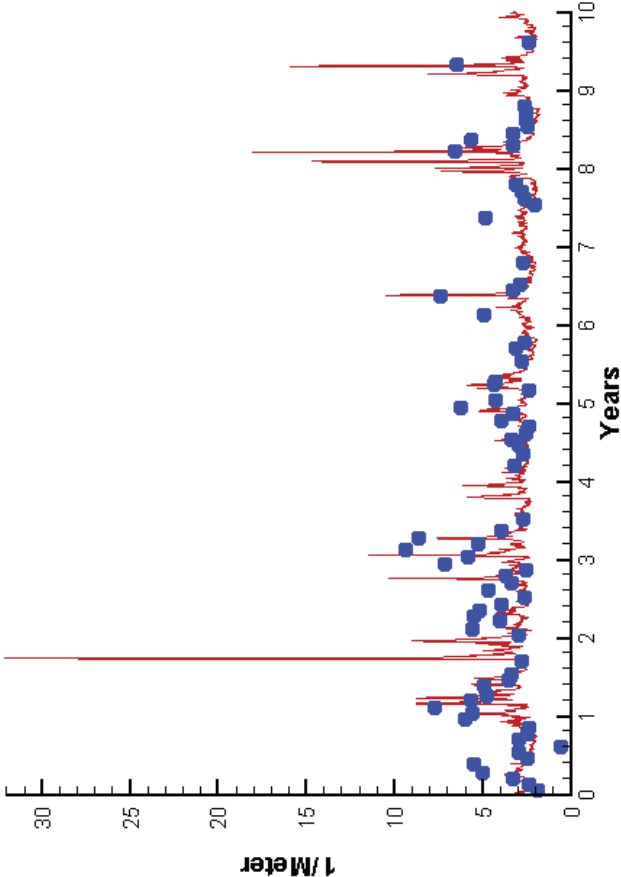
Top DO 0.6379

Absolute Mean Difference

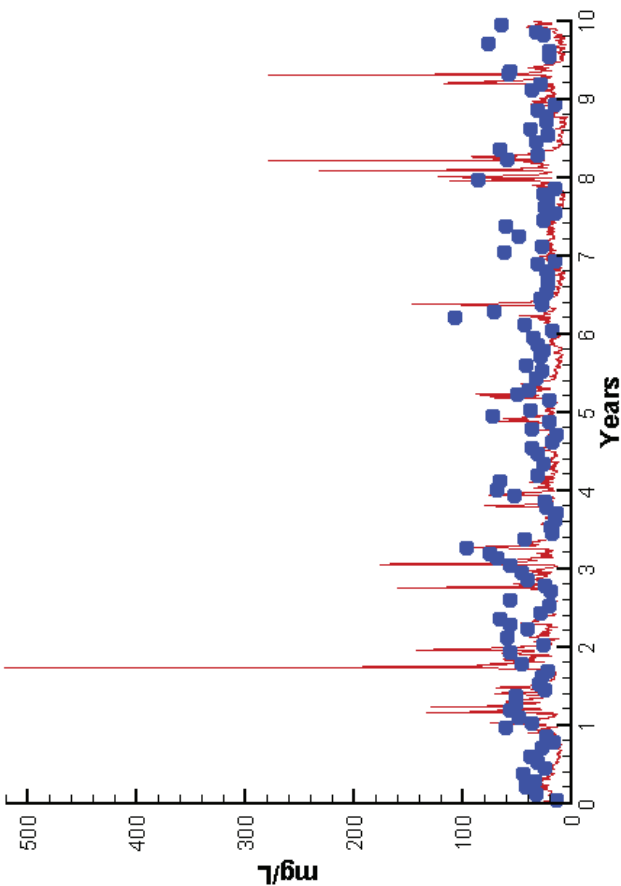
0.9528

Station TF3.3

Run185 2002-2011
Light Extinction TF3.3 Surface

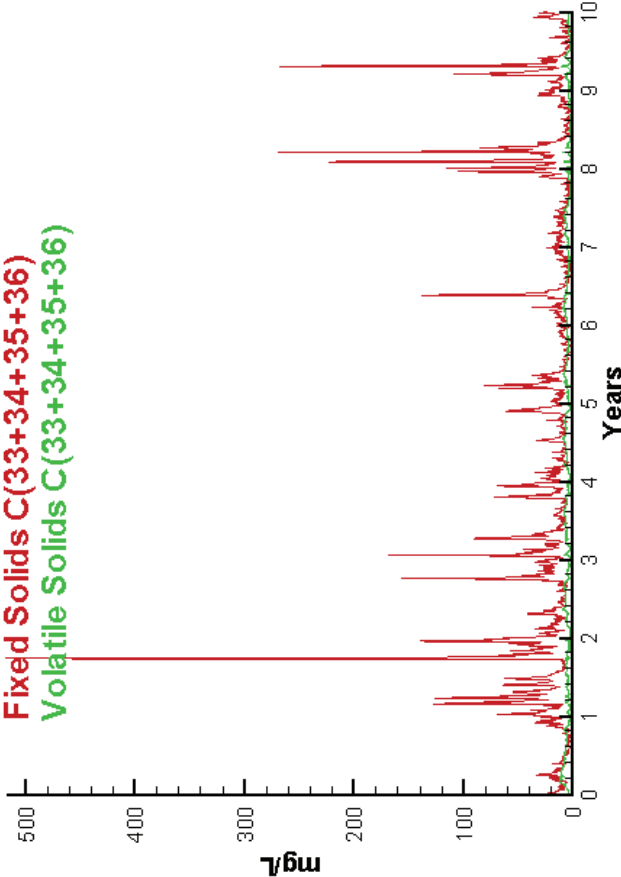


Run185 2002-2011
Total Solids TF3.3 Surface



Run185 2002-2011
Solids Surface

Fixed Solids C(33+34+35+36)
Volatile Solids C(33+34+35+36)



Mean Difference

Absolute Mean Difference

KE

-0.9014

1.1738

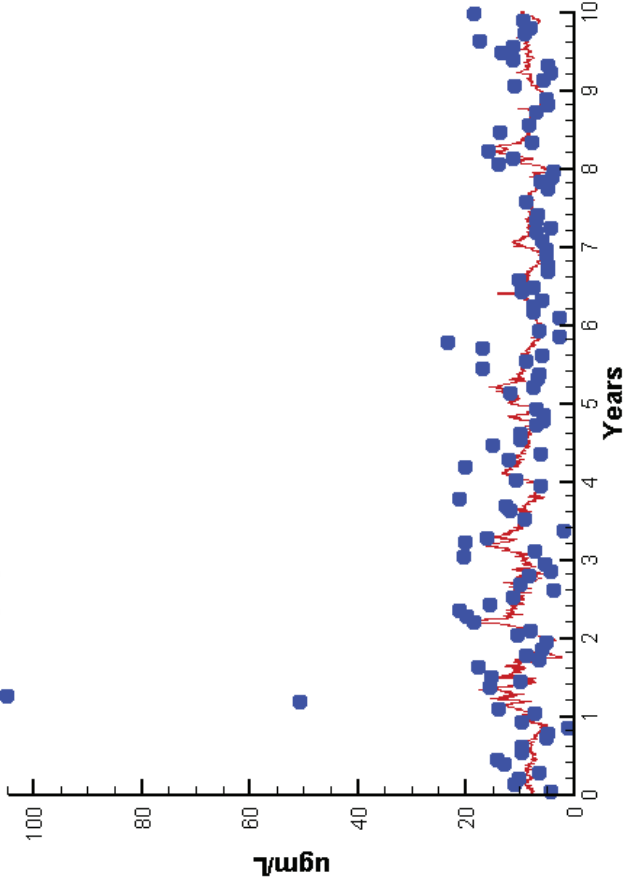
TSS

-12.3532

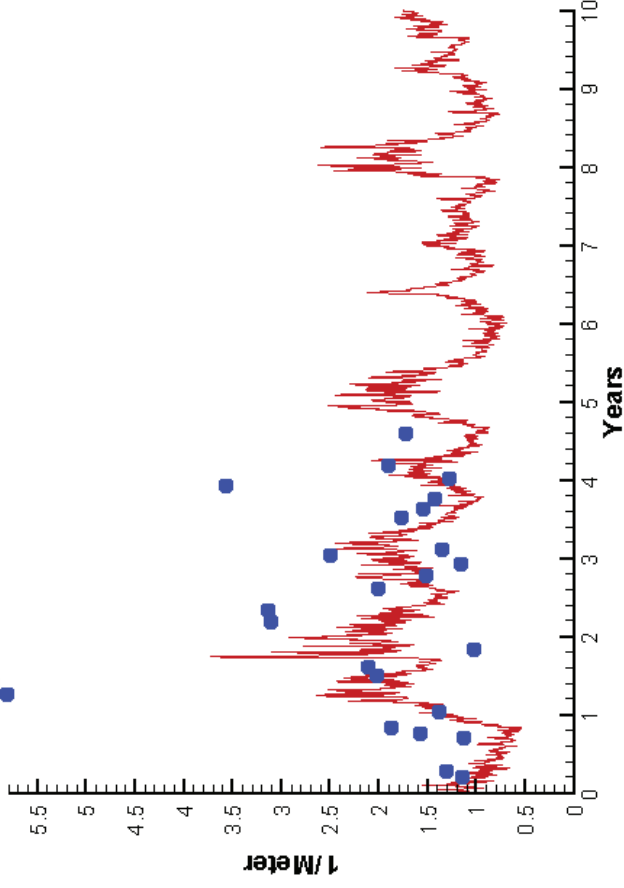
19.5607

Station LE4.2

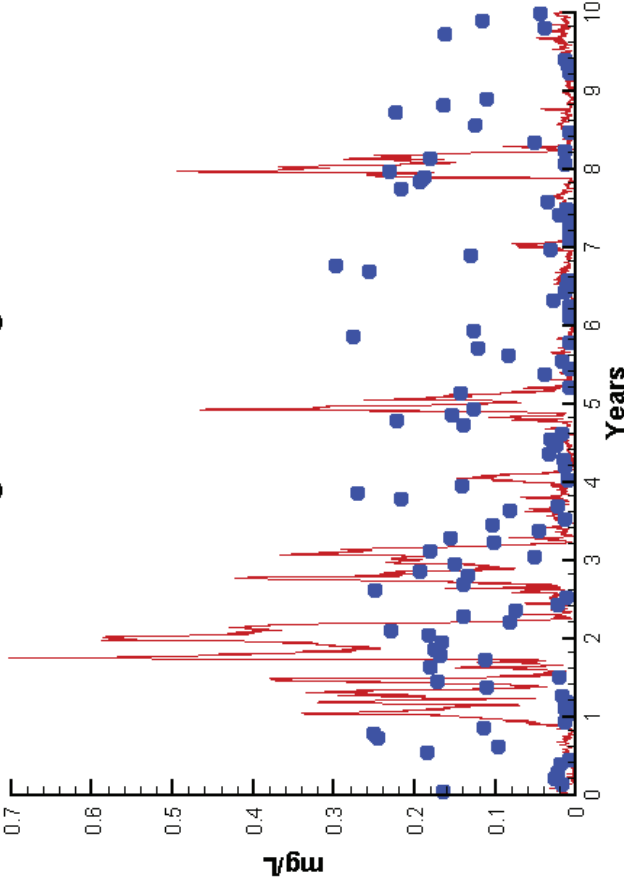
Run185 2002-2011
Chlorophyll LE4.2 Surface



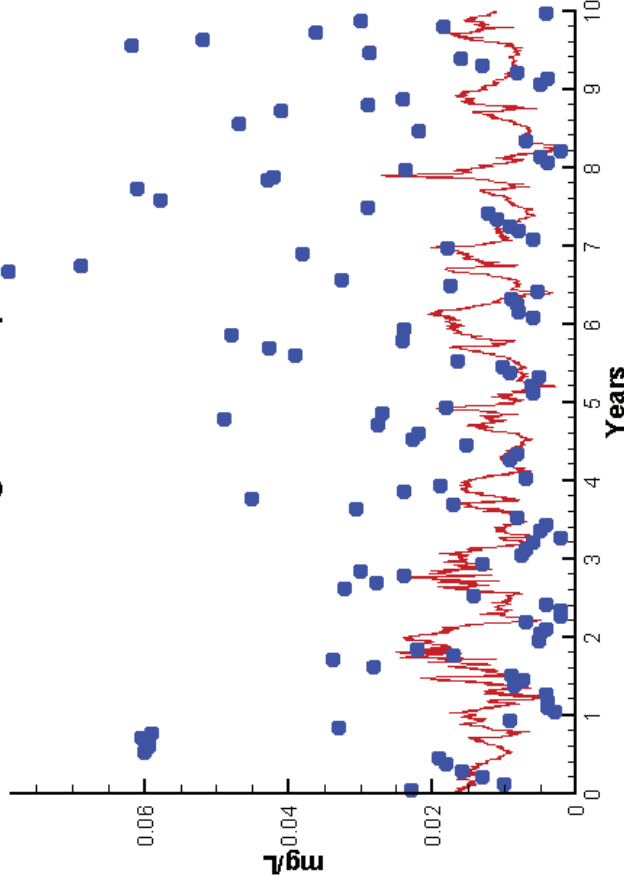
Run185 2002-2011
Light Extinction LE4.2 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen LE4.2 Surface

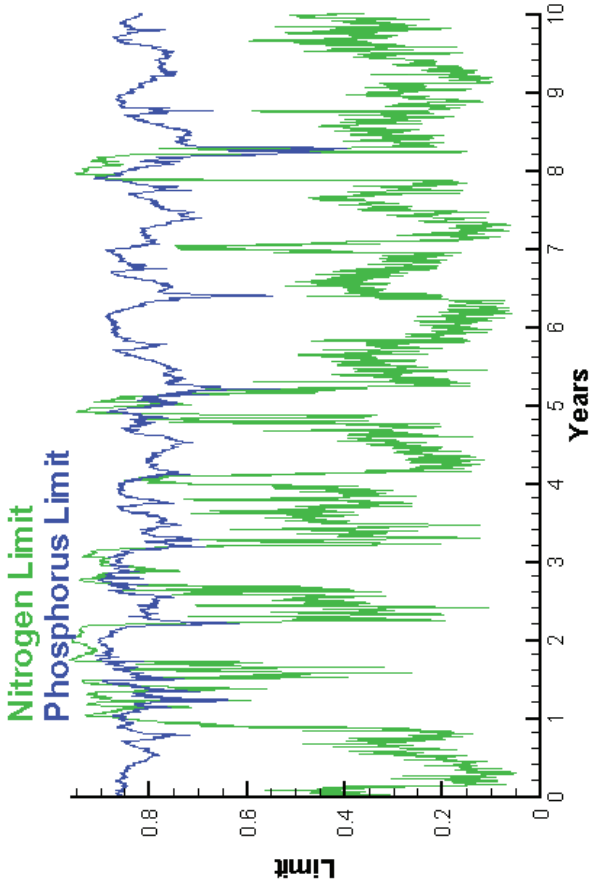


Run185 2002-2011
Dissolved Inorganic Phosphorus LE4.2 Surface

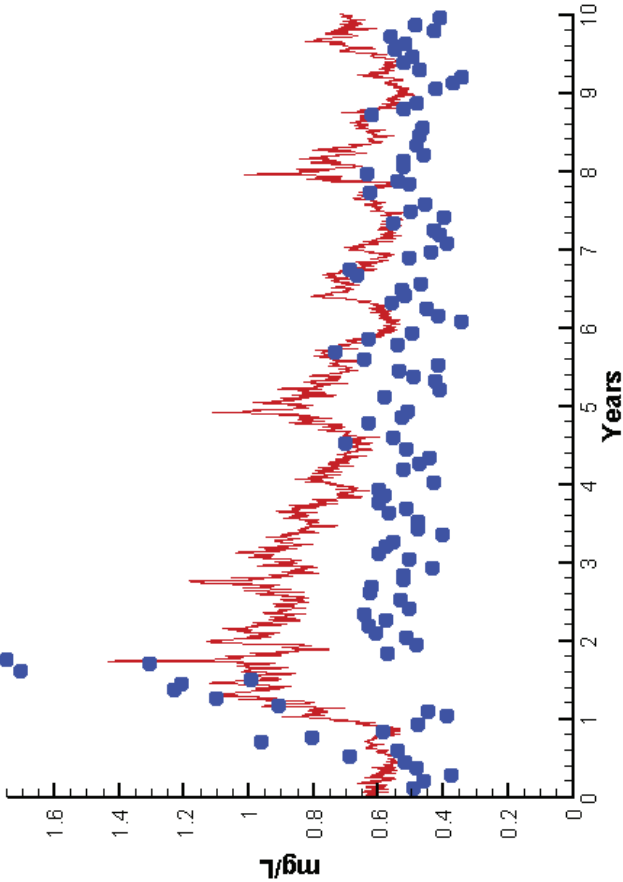


Station LE4.2

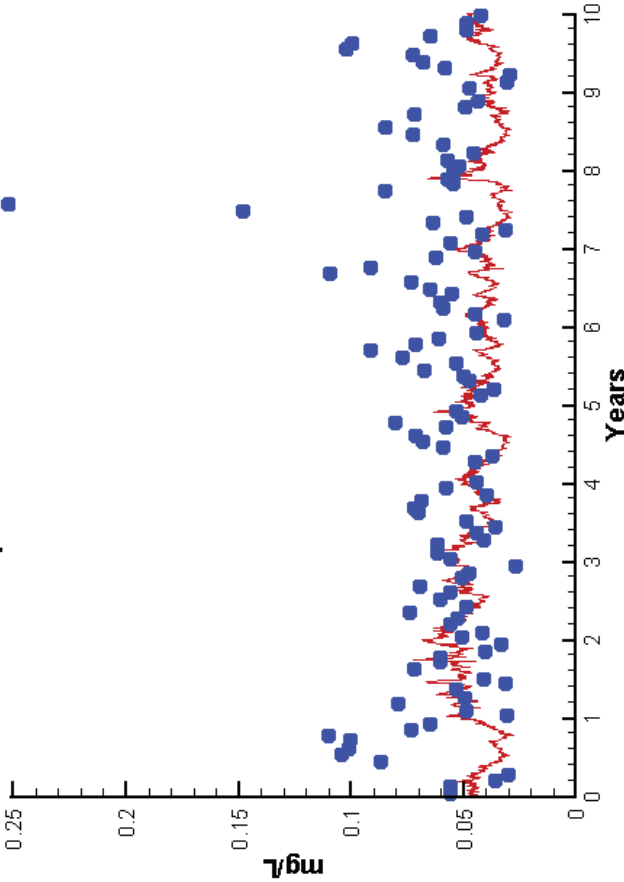
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen LE4.2 Surface



Run185 2002-2011
Total Phosphorus LE4.2 Surface



Mean Difference

Absolute Mean Difference

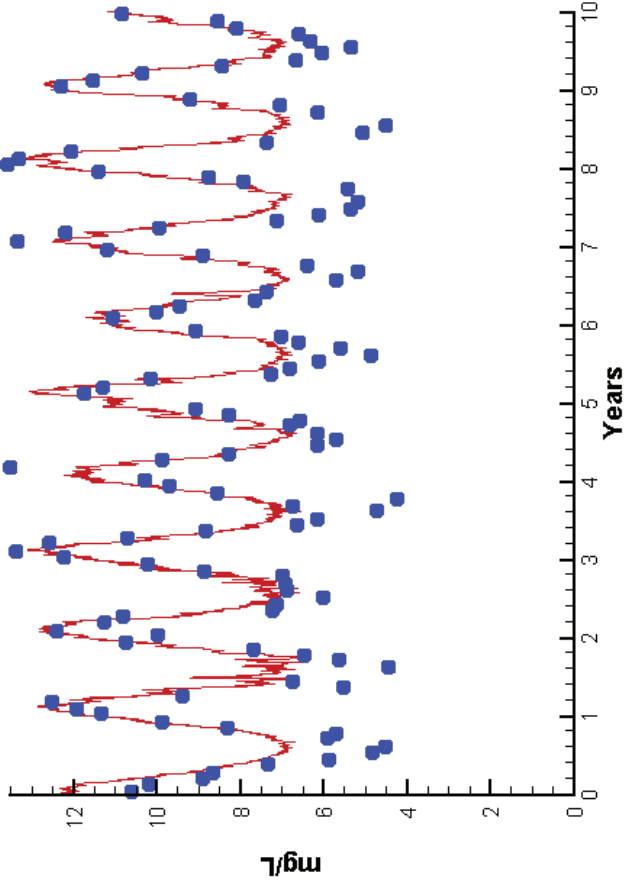
Chl
DIN
KE
DIP
TP
TN

-1.8234
-0.0242
-0.5701
-0.0090
-0.0173
0.1619

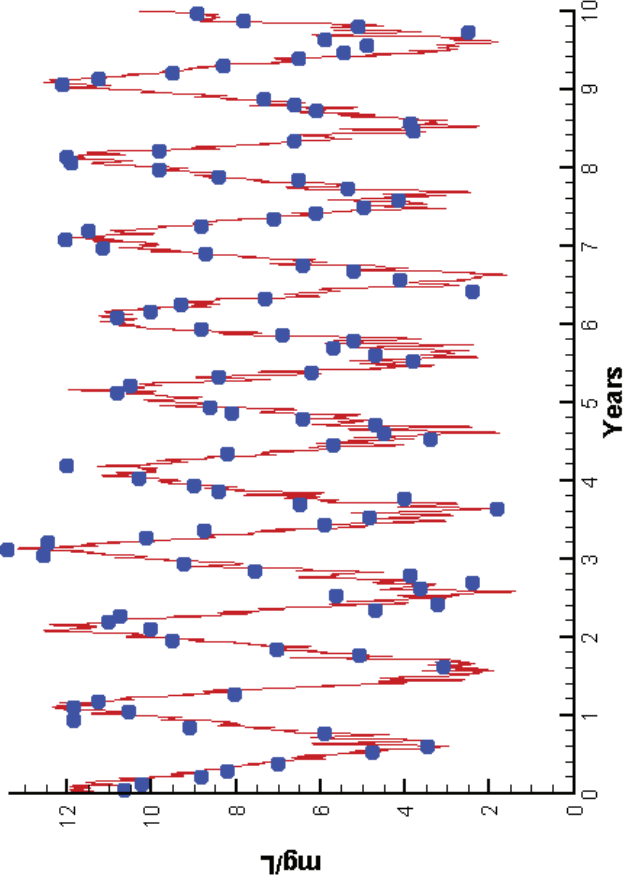
4.5072
0.0864
0.7623
0.0133
0.0223
0.2161

Station LE4.2

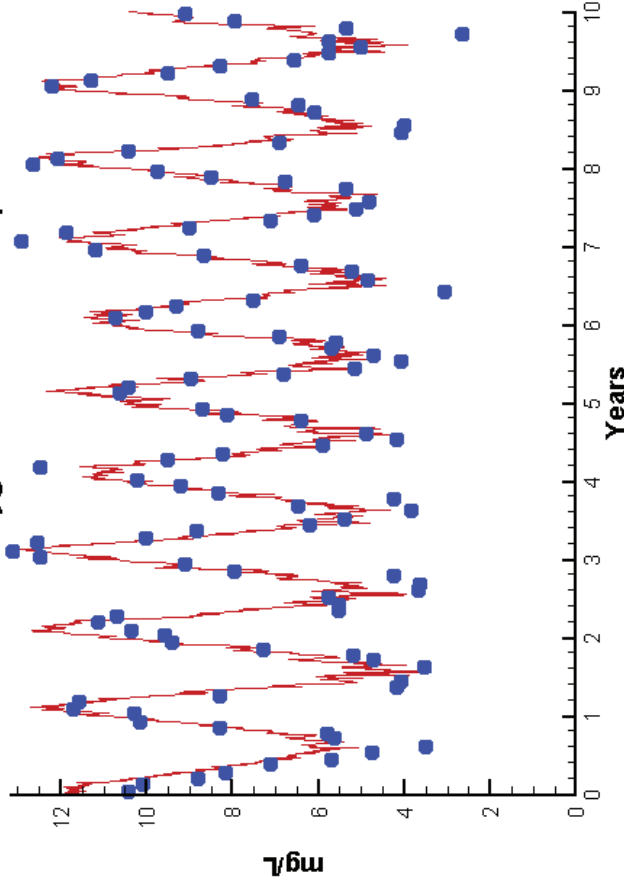
Run185 2002-2011
Dissolved Oxygen LE4.2 Surface



Run185 2002-2011
Dissolved Oxygen LE4.2 Bottom



Run185 2002-2011
Dissolved Oxygen LE4.2 Mid-Depth



Mean Difference

Absolute Mean Difference

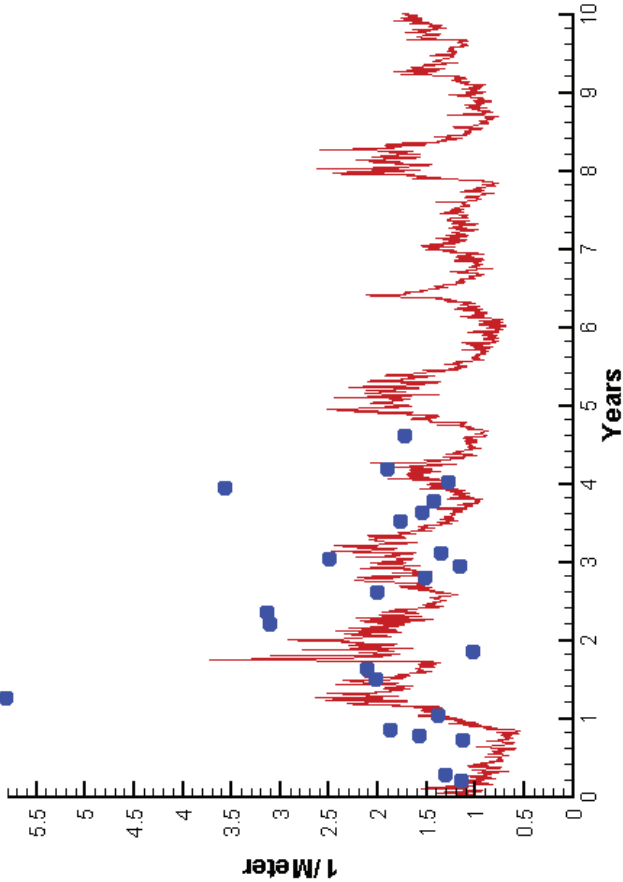
Top DO
Mid DO
Bot DO

0.8620
0.7054
-0.0948

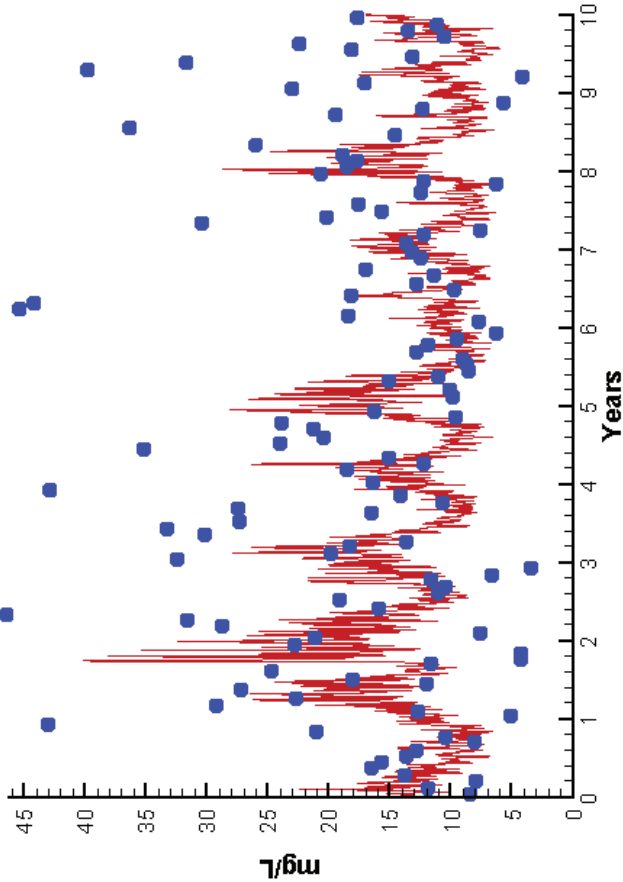
1.1115
0.9900
0.8960

Station LE4.2

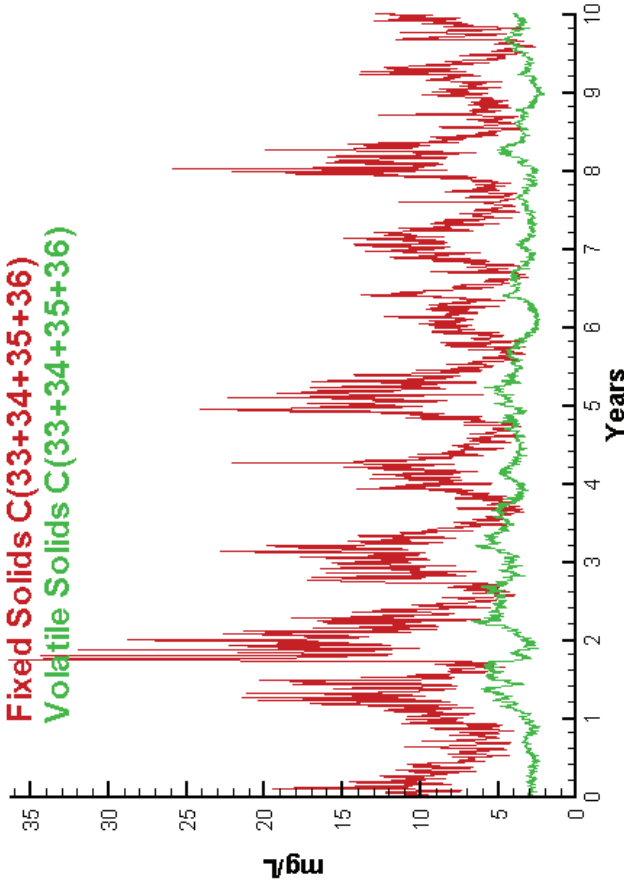
Run185 2002-2011
Light Extinction LE4.2 Surface



Run185 2002-2011
Total Solids LE4.2 Surface



Run185 2002-2011
Solids Surface



Mean Difference

Absolute Mean Difference

KE

-0.5701

0.7623

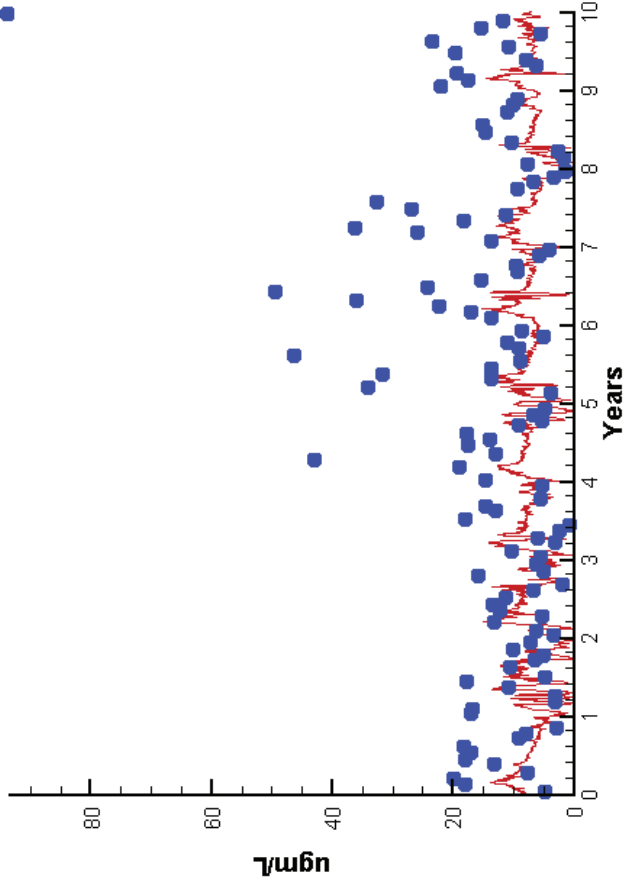
TSS

-4.8857

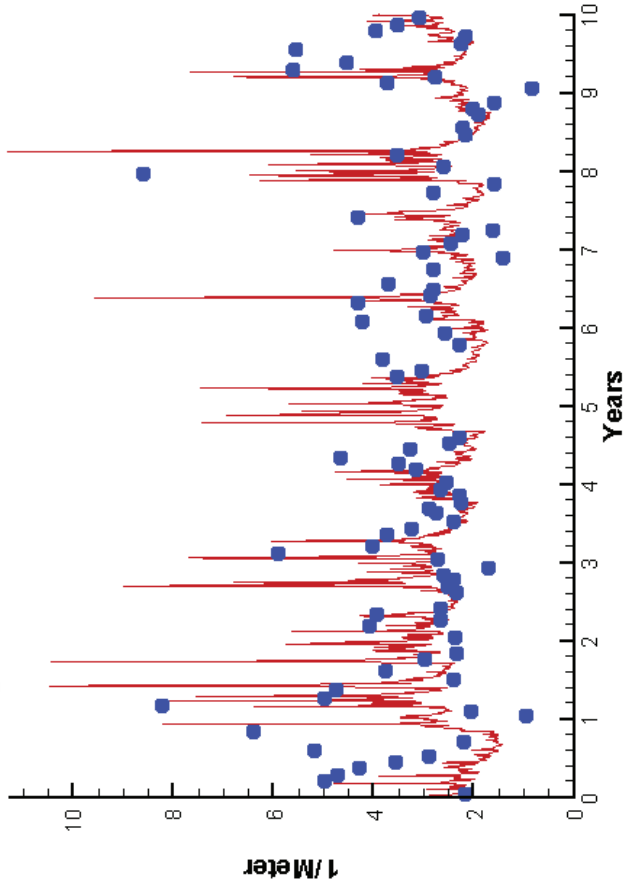
7.5413

Station RET4.3

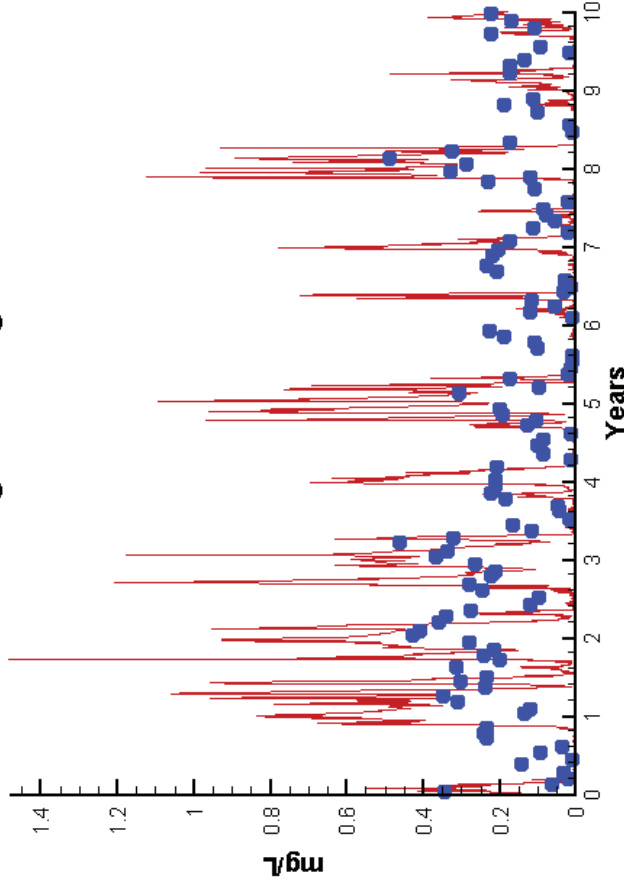
Run185 2002-2011
Chlorophyll RET4.3 Surface



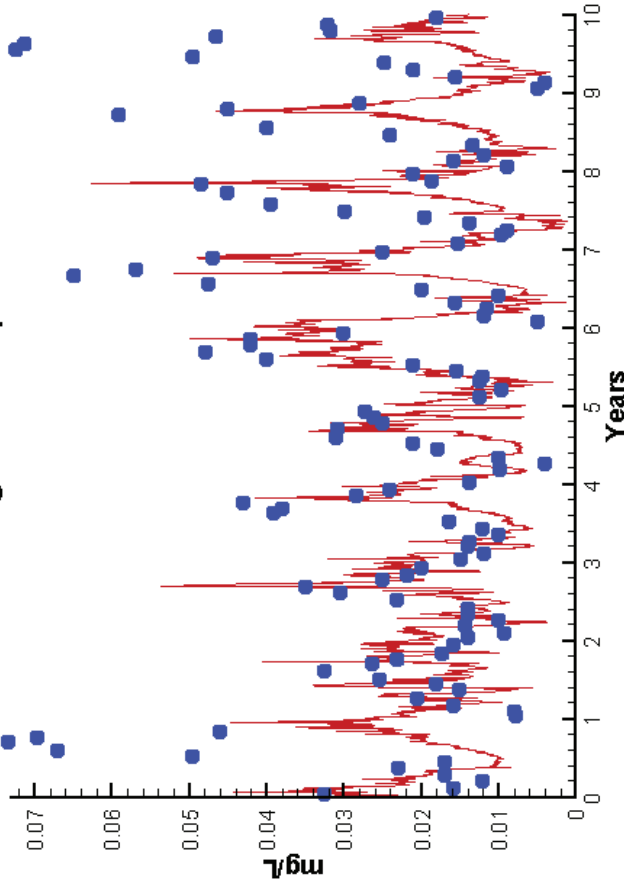
Run185 2002-2011
Light Extinction RET4.3 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen RET4.3 Surface

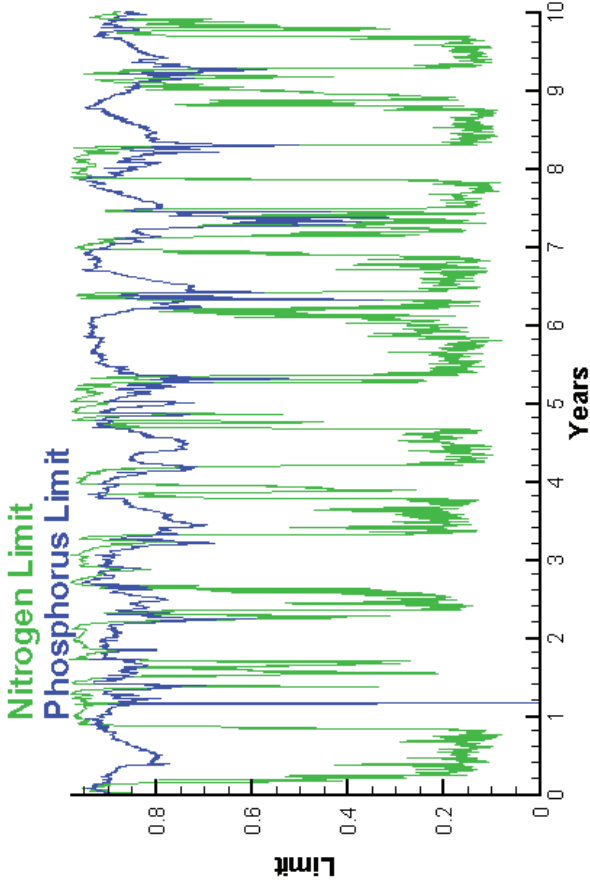


Run185 2002-2011
Dissolved Inorganic Phosphorus RET4.3 Surface

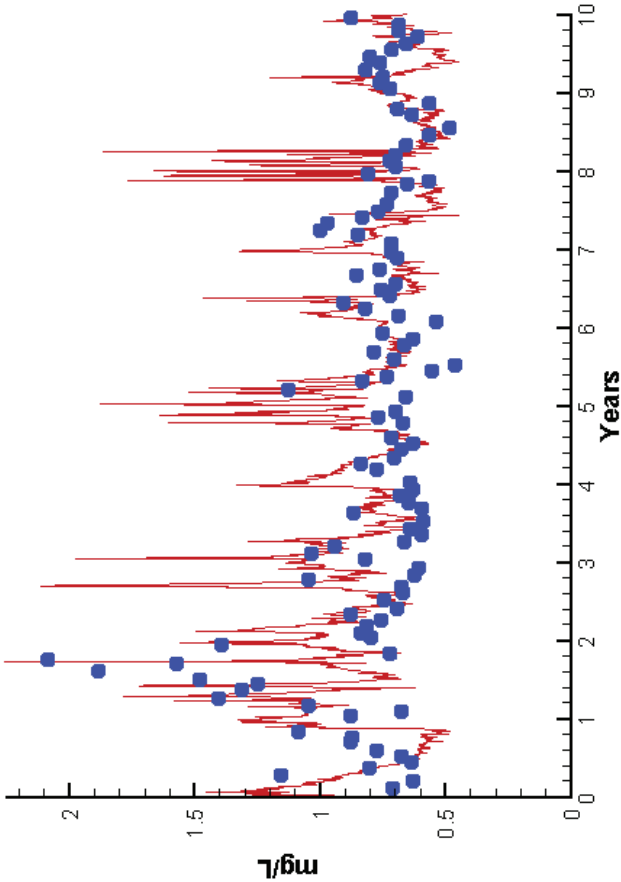


Station RET4.3

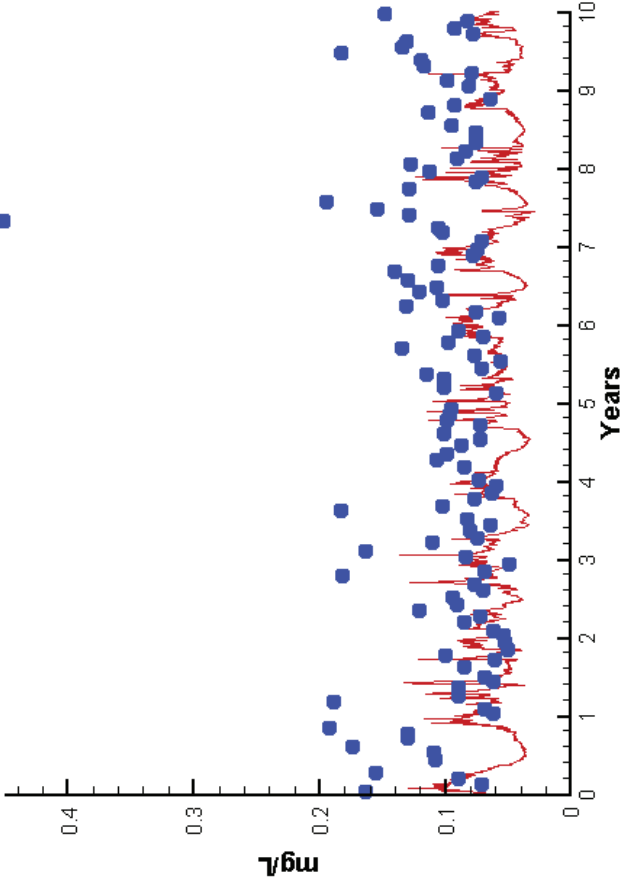
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen RET4.3 Surface



Run185 2002-2011
Total Phosphorus RET4.3 Surface



Mean Difference

Absolute Mean Difference

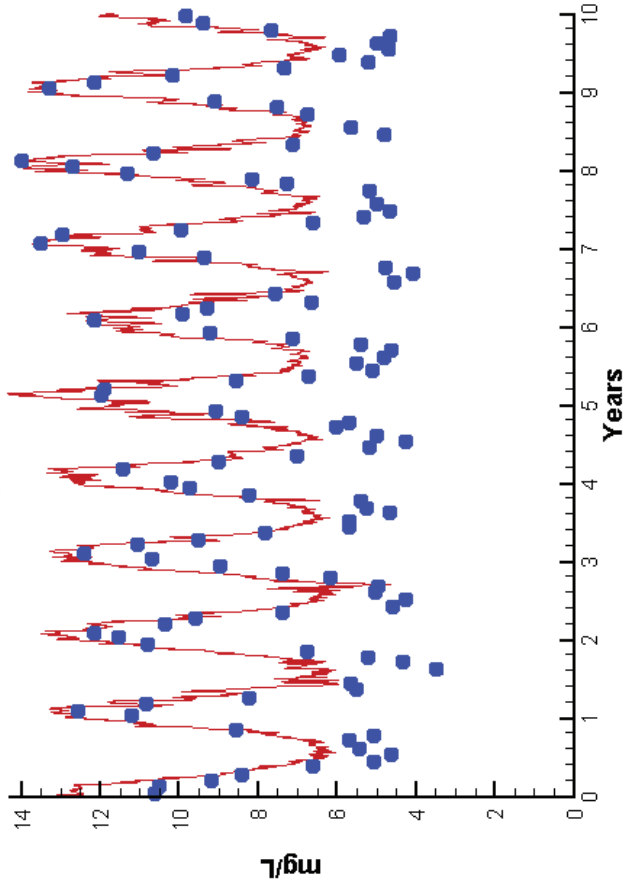
Chl
DIN
KE
DIP
TP
TN

-5.9294
-0.0091
-0.6395
-0.0083
-0.0425
0.0169

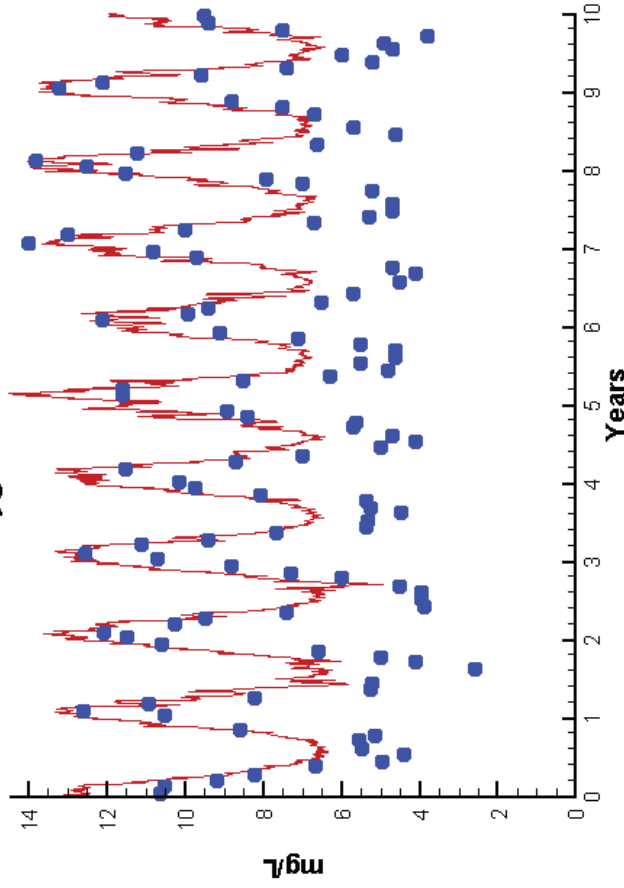
7.6531
0.1316
1.0228
0.0124
0.0469
0.2114

Station RET4.3

Run185 2002-2011
Dissolved Oxygen RET4.3 Surface



Run185 2002-2011
Dissolved Oxygen RET4.3 Bottom



Mean Difference

Top DO
Bot DO

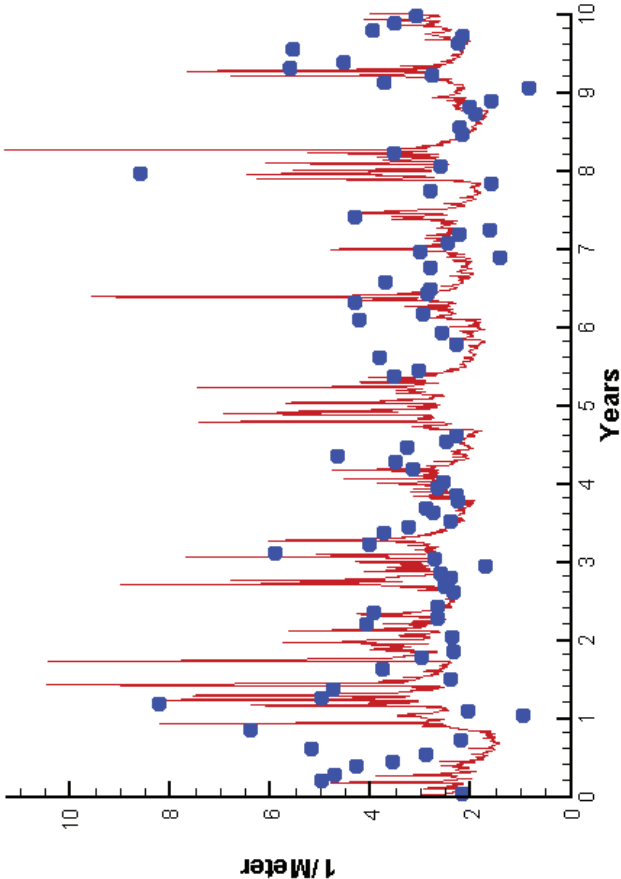
1.5776
1.7271

1.6226
1.7828

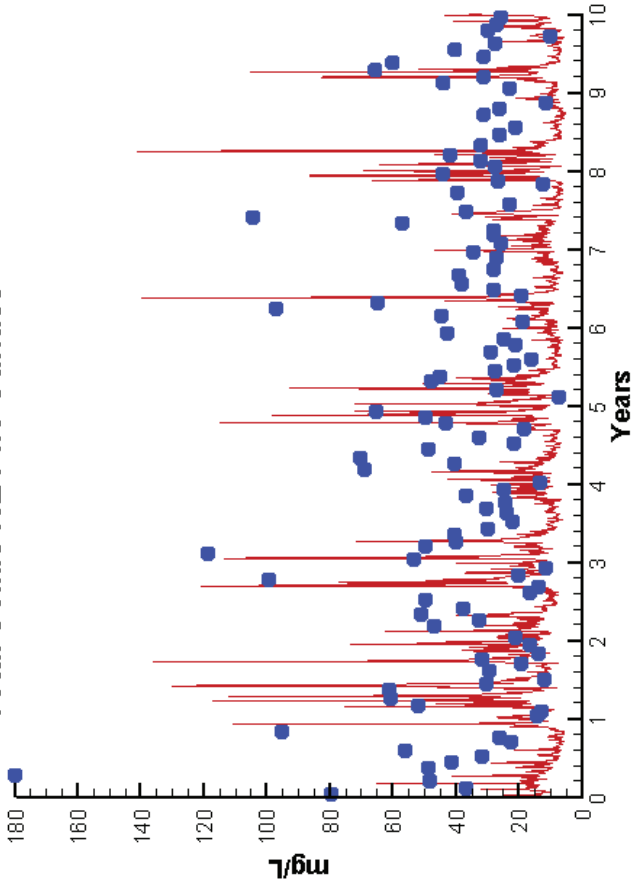
Absolute Mean Difference

Station RET4.3

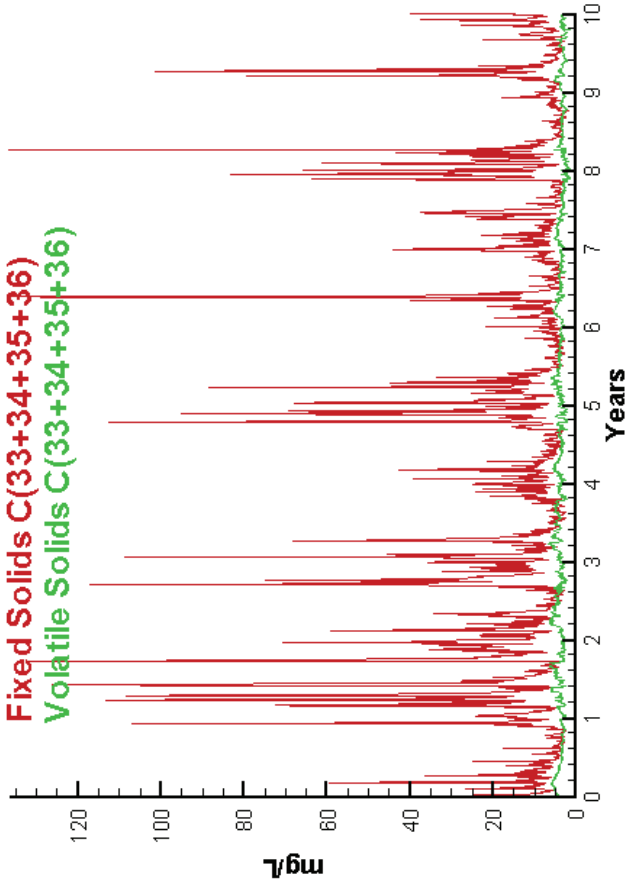
Run185 2002-2011
Light Extinction RET4.3 Surface



Run185 2002-2011
Total Solids RET4.3 Surface



Run185 2002-2011
Solids Surface

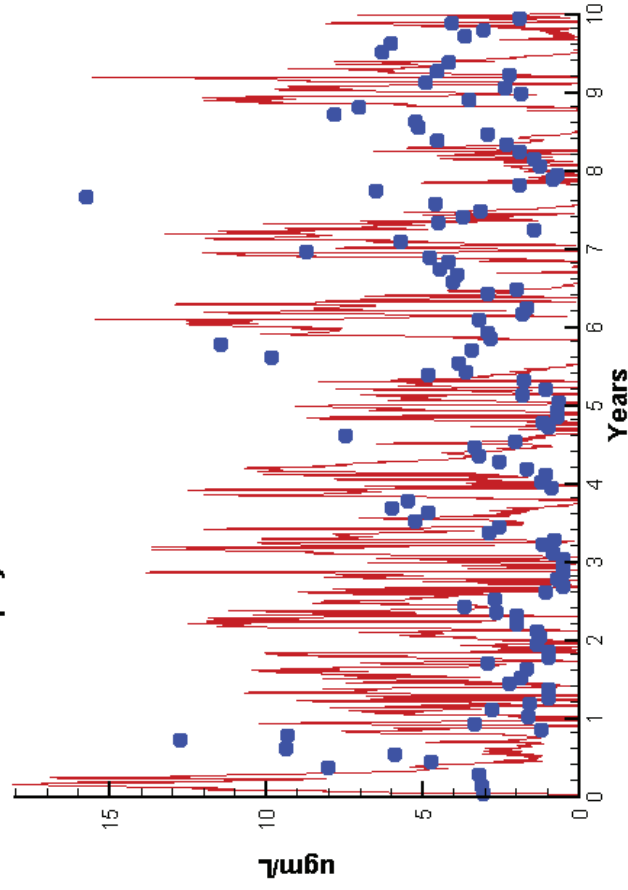


Mean Difference Absolute Mean Difference

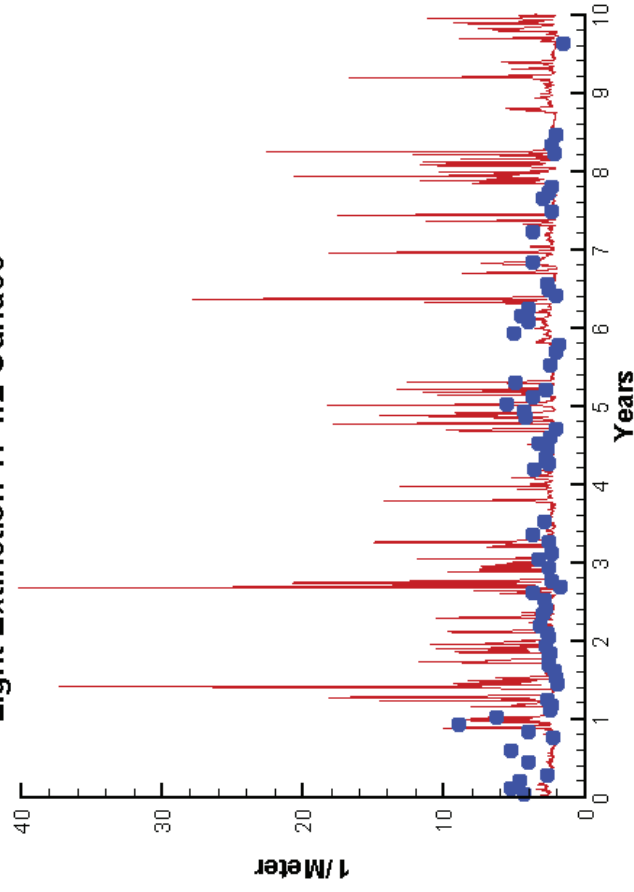
KE	-0.6395	1.0228
TSS	-22.1149	24.4500

Station TF4.2

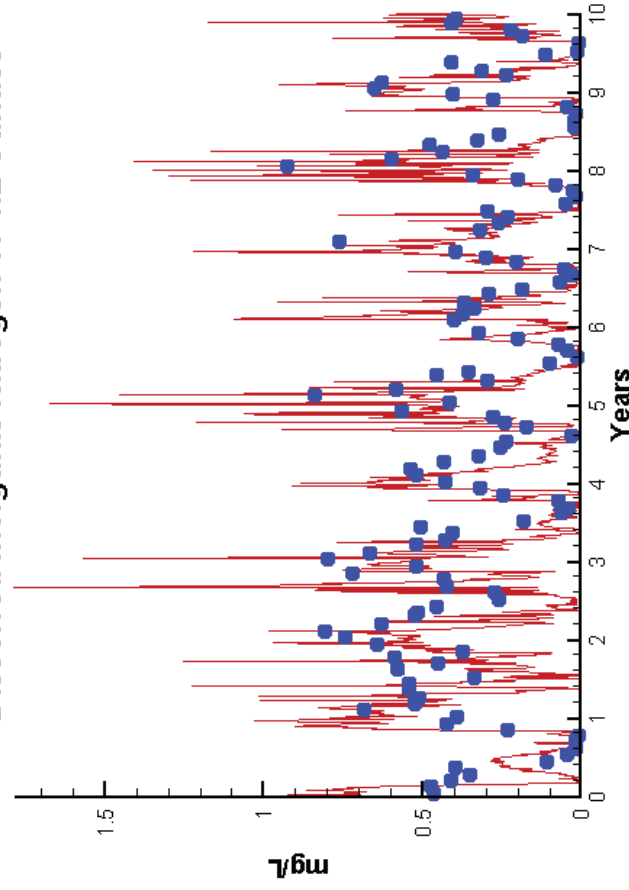
Run185 2002-2011
Chlorophyll TF4.2 Surface



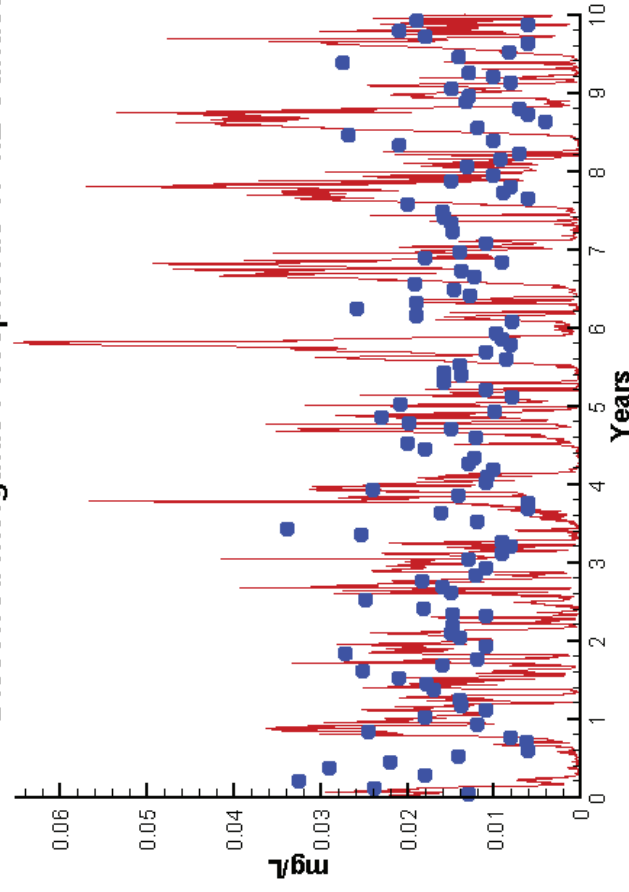
Run185 2002-2011
Light Extinction TF4.2 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen TF4.2 Surface

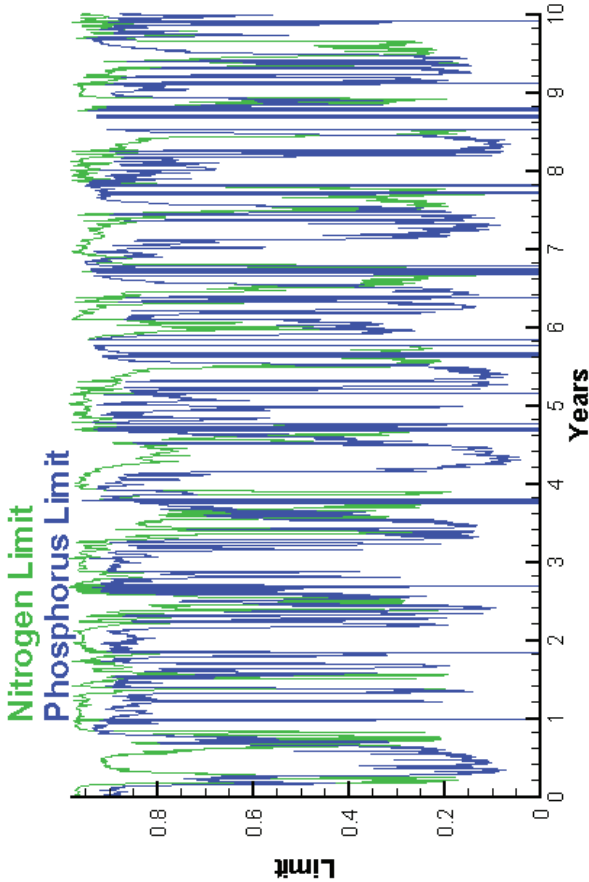


Run185 2002-2011
Dissolved Inorganic Phosphorus TF4.2 Surface

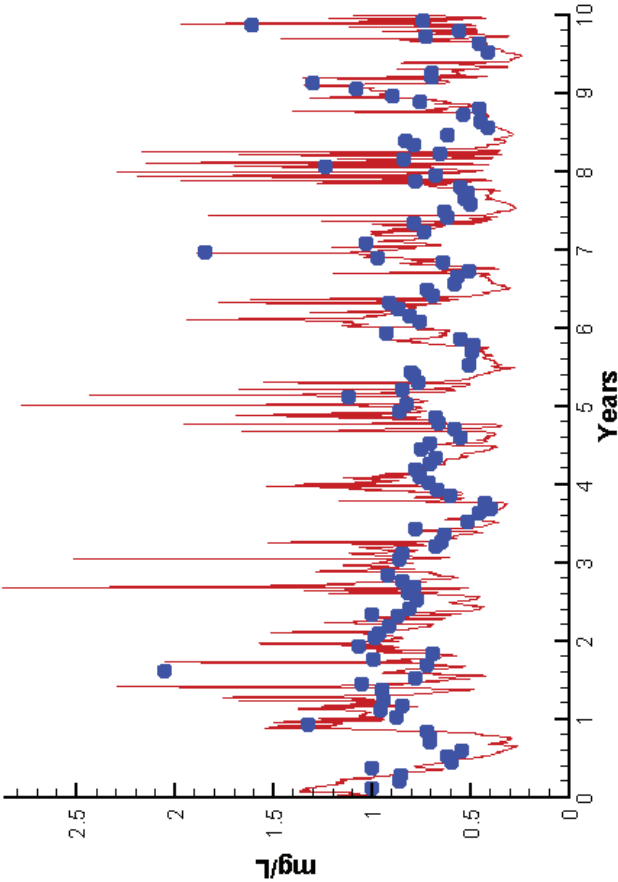


Station TF4.2

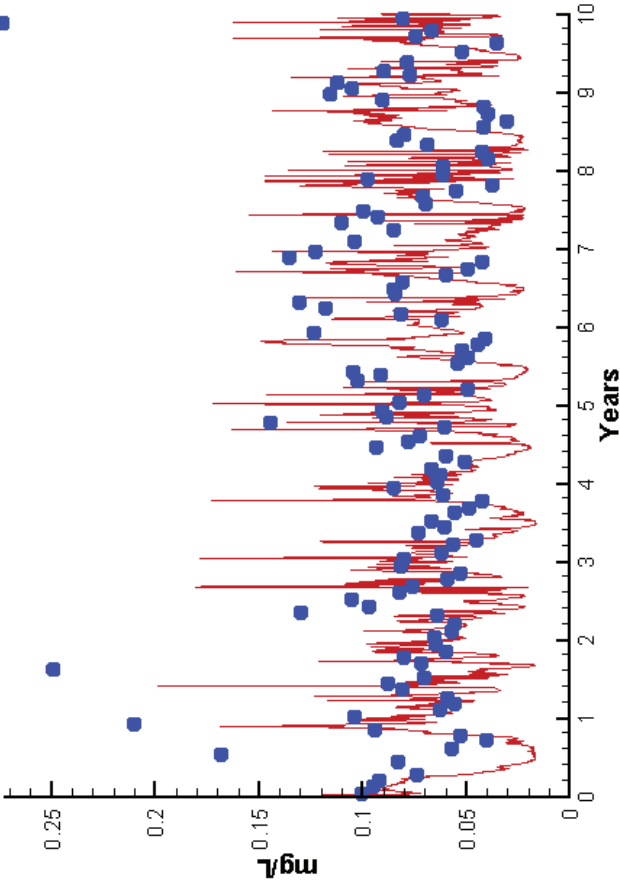
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen TF4.2 Surface



Run185 2002-2011
Total Phosphorus TF4.2 Surface



Mean Difference

Absolute Mean Difference

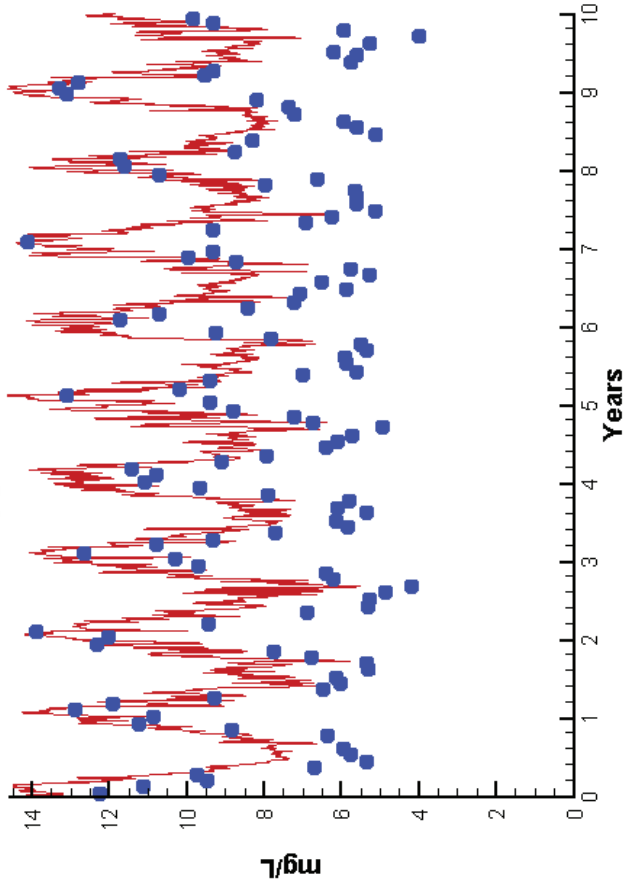
Chl
DIN
KE
DIP
TP
TN

0.3433
-0.0631
0.2348
-0.0023
-0.0216
-0.0659

3.8476
0.1704
1.3846
0.0116
0.0380
0.2261

Station TF4.2

Run185 2002-2011
Dissolved Oxygen TF4.2 Surface



Mean Difference

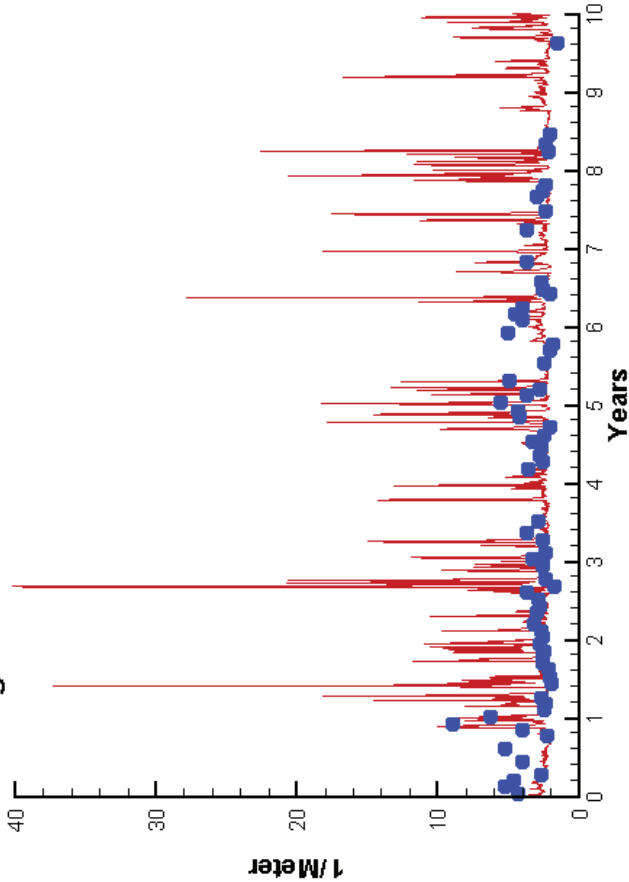
Top DO 2.2185

Absolute Mean Difference

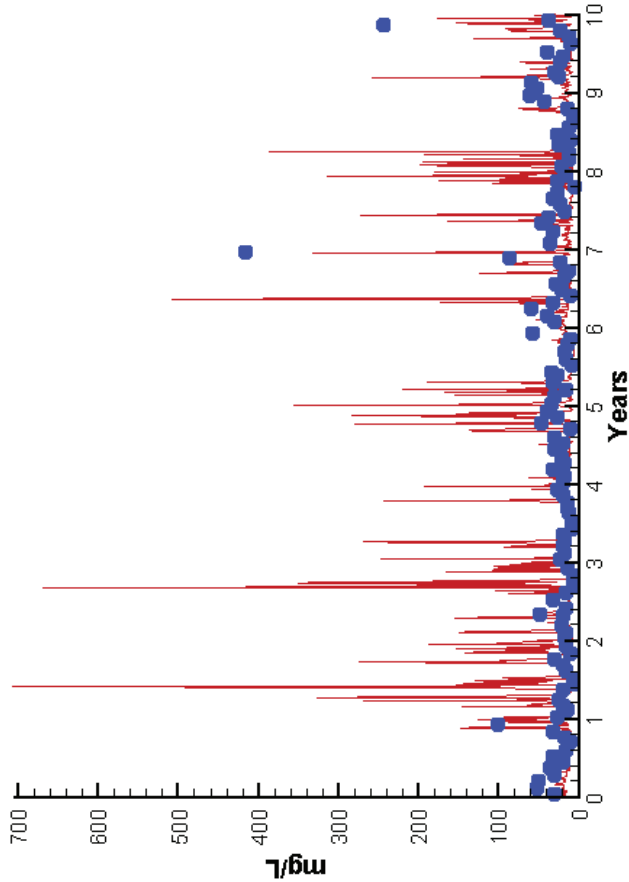
2.2704

Station TF4.2

Run185 2002-2011
Light Extinction TF4.2 Surface

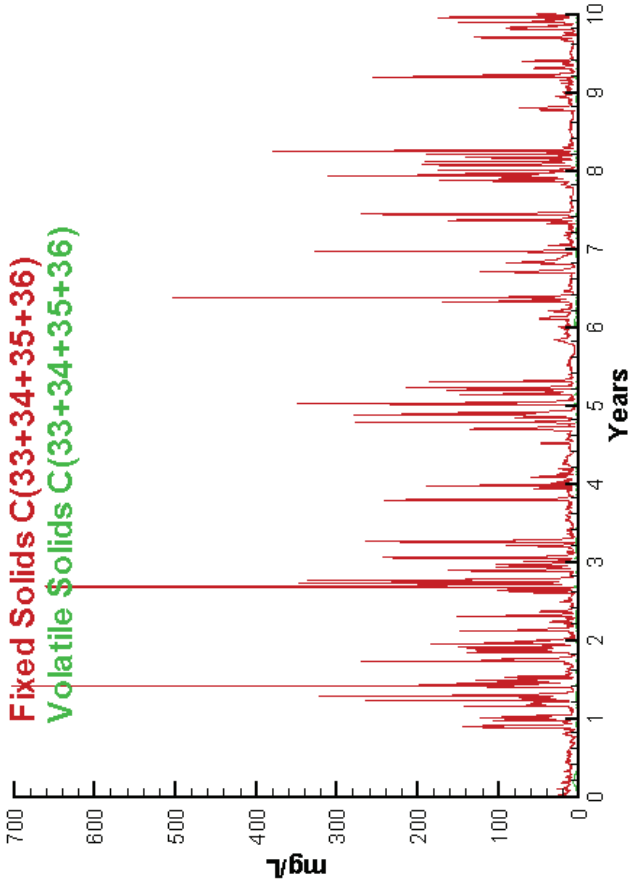


Run185 2002-2011
Total Solids TF4.2 Surface



Run185 2002-2011
Solids Surface

Fixed Solids C(33+34+35+36)
Volatile Solids C(33+34+35+36)



Mean Difference

Absolute Mean Difference

KE

0.2348

1.3846

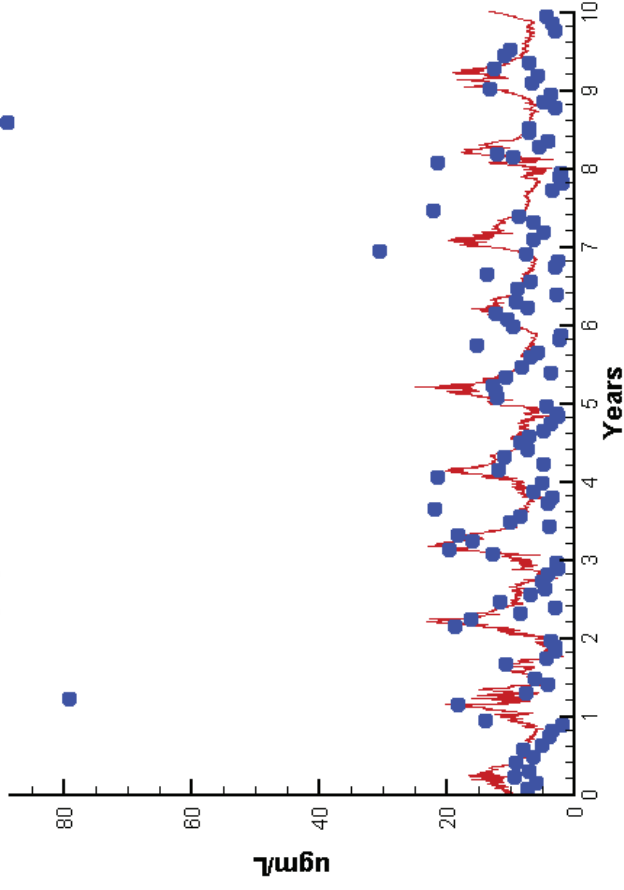
TSS

1.0171

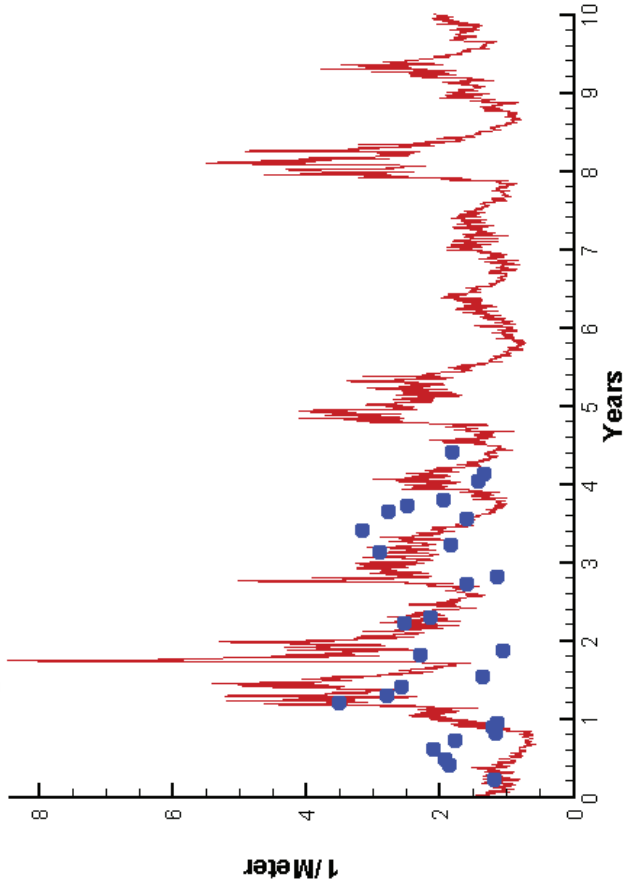
29.1954

Station LE5.3

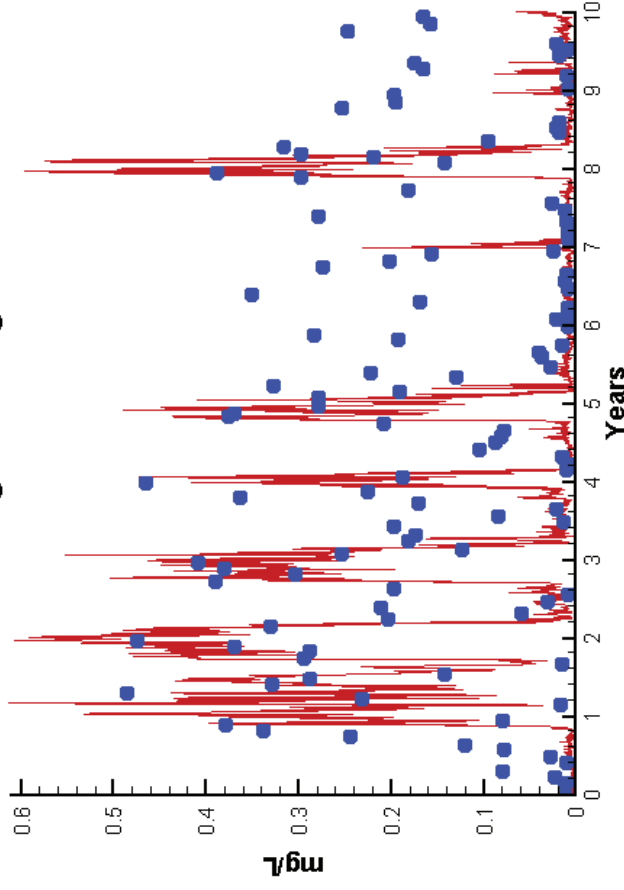
Run185 2002-2011
Chlorophyll LE5.3 Surface



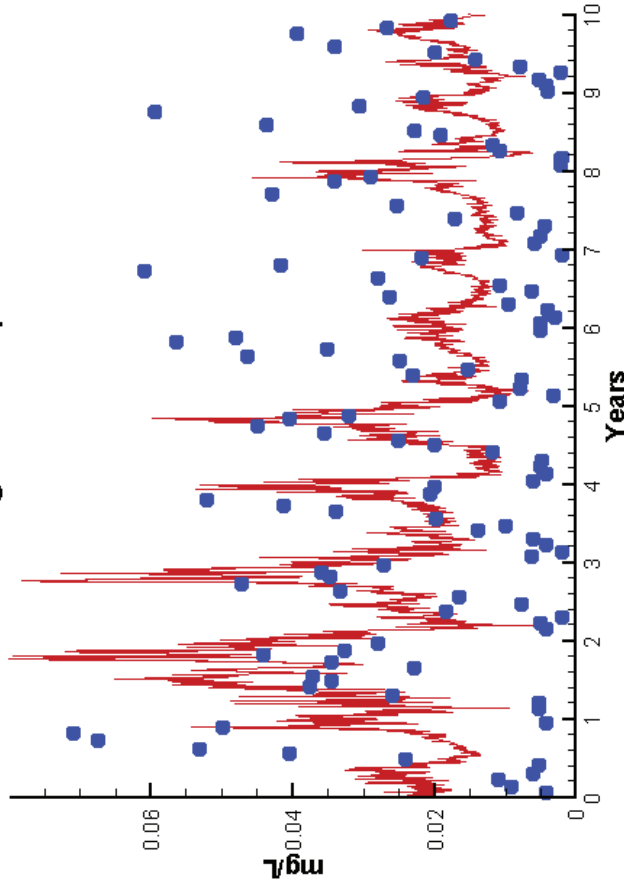
Run185 2002-2011
Light Extinction LE5.3 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen LE5.3 Surface

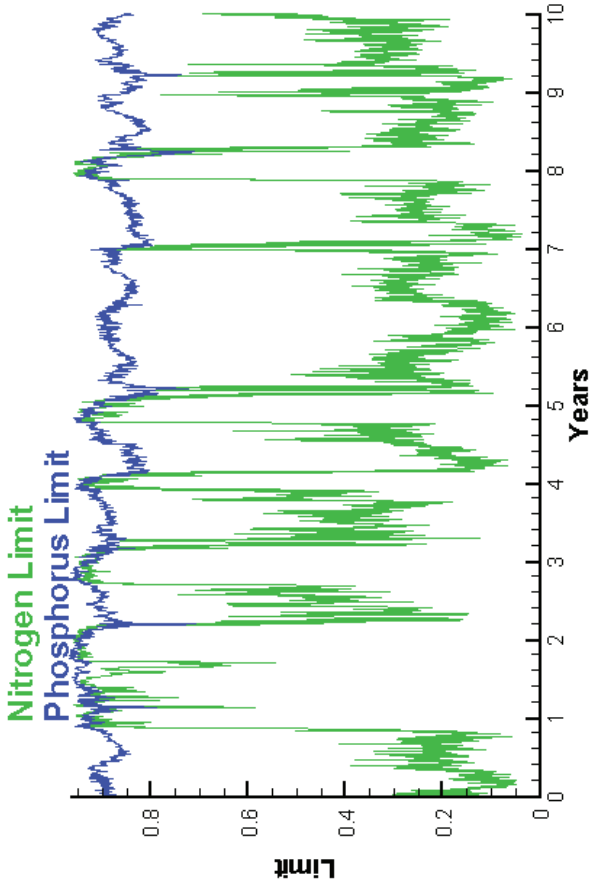


Run185 2002-2011
Dissolved Inorganic Phosphorus LE5.3 Surface

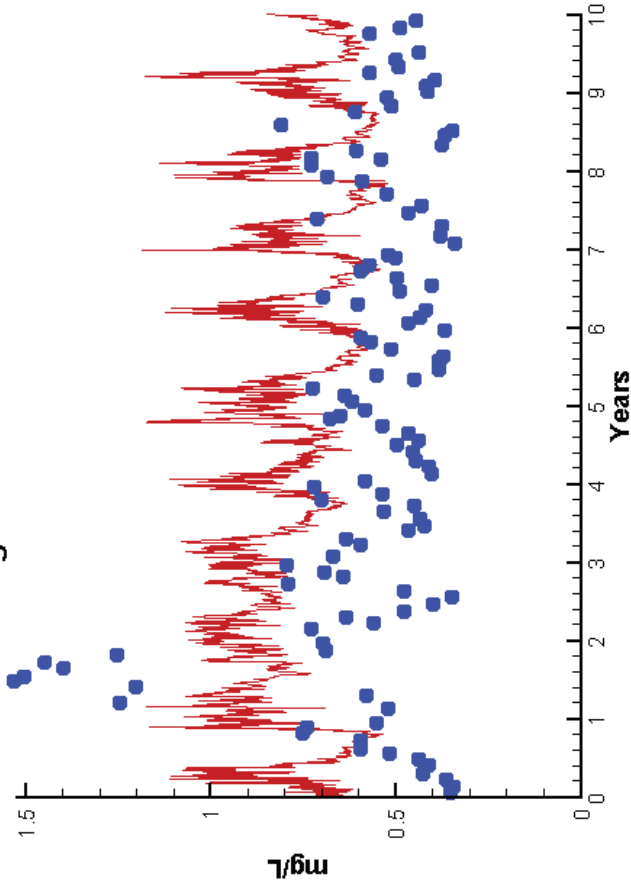


Station LE5.3

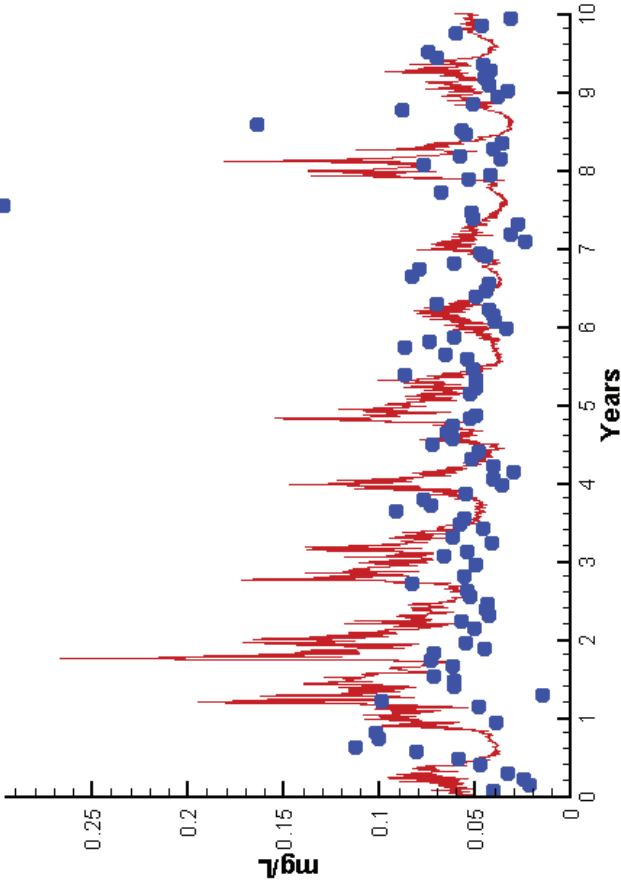
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen LE5.3 Surface



Run185 2002-2011
Total Phosphorus LE5.3 Surface



Mean Difference

Absolute Mean Difference

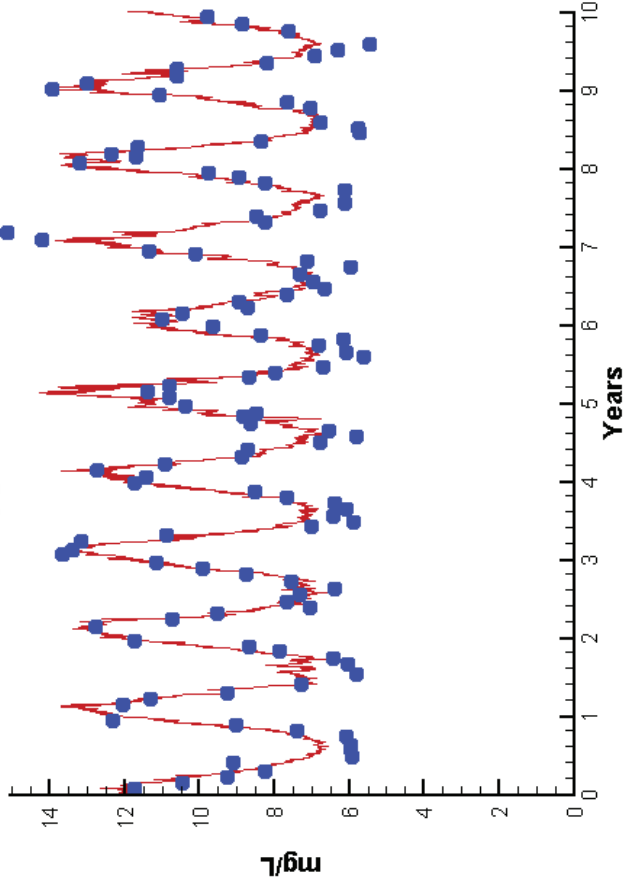
Chl
DIN
KE
DIP
TP
TN

0.3878
-0.0686
0.1162
0.0017
0.0082
0.1982

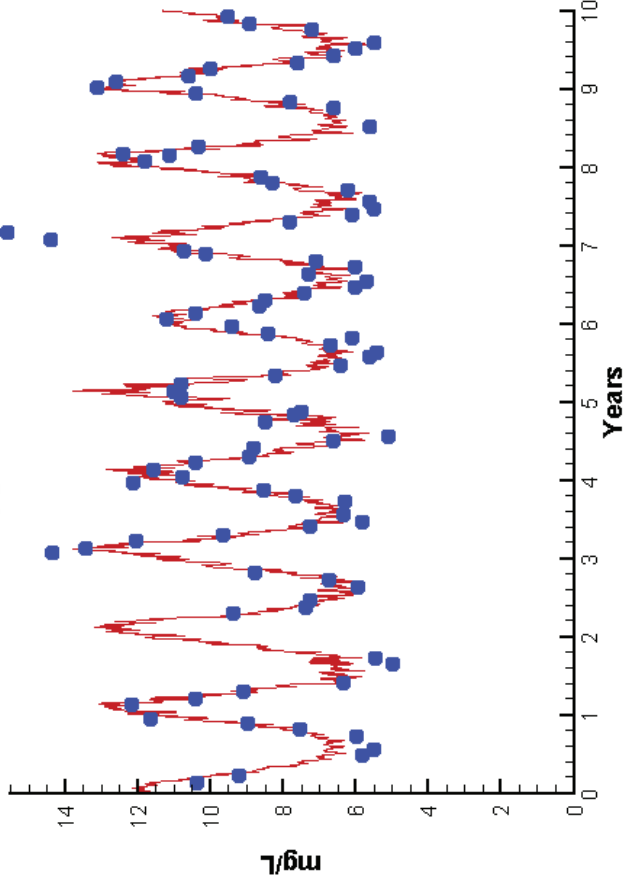
5.0631
0.0958
0.8436
0.0136
0.0317
0.2706

Station LE5.3

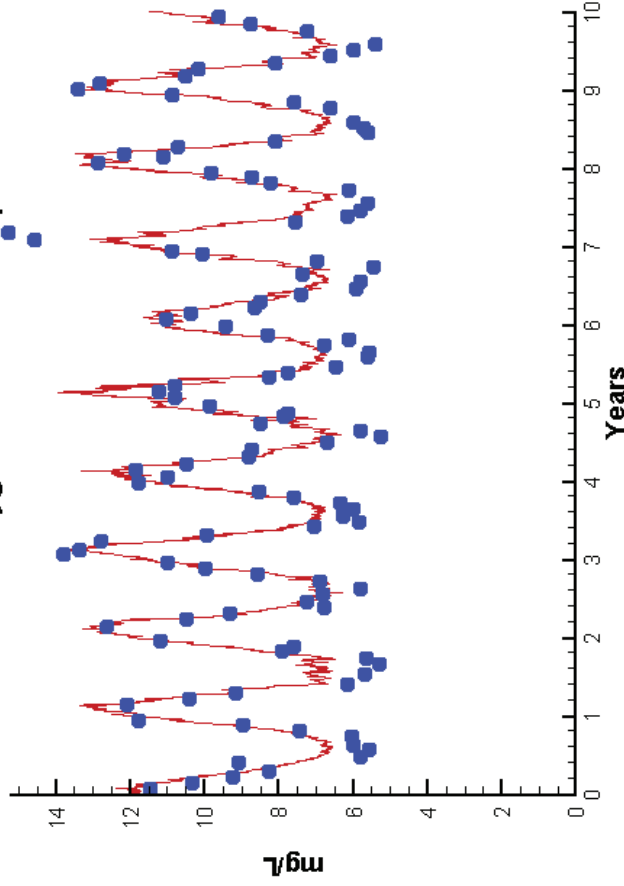
Run185 2002-2011
Dissolved Oxygen LE5.3 Surface



Run185 2002-2011
Dissolved Oxygen LE5.3 Bottom



Run185 2002-2011
Dissolved Oxygen LE5.3 Mid-Depth



Mean Difference

Absolute Mean Difference

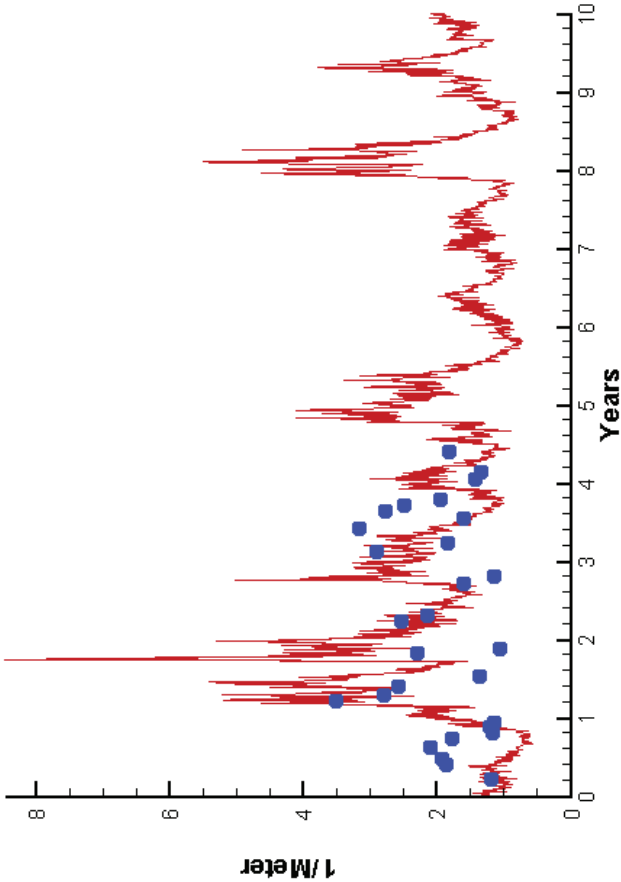
Top DO
Mid DO
Bot DO

0.5121
0.6263
0.4136

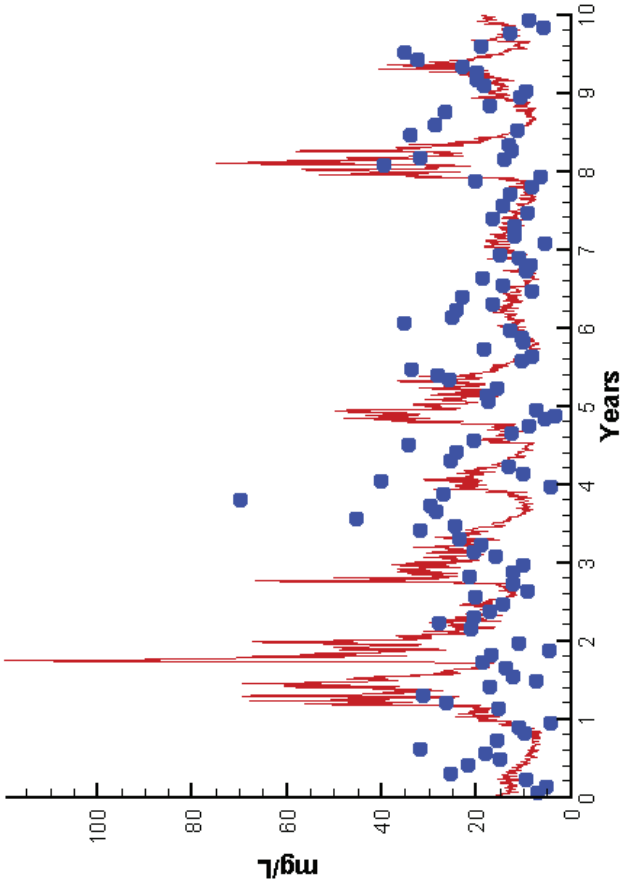
0.8720
0.9503
0.8552

Station LE5.3

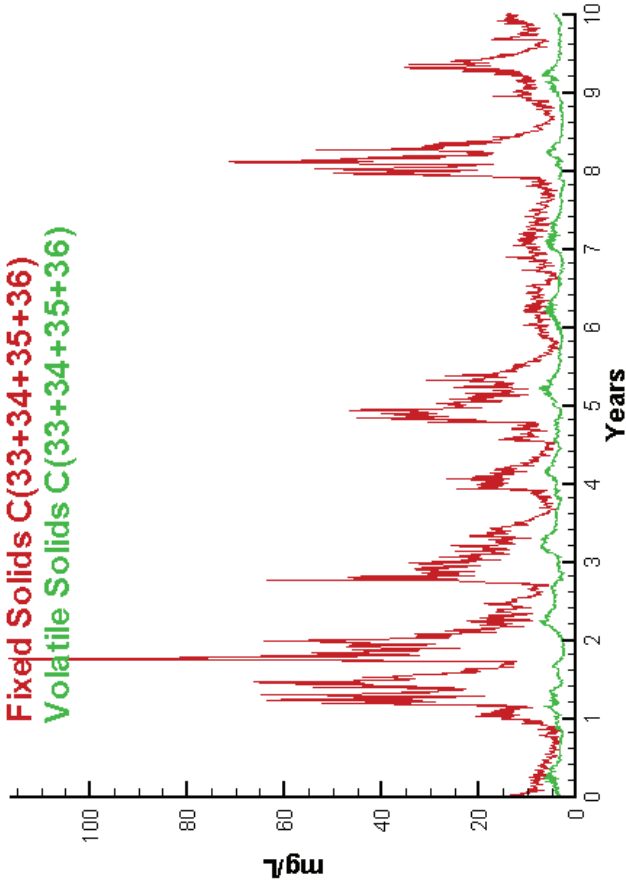
Run185 2002-2011
Light Extinction LE5.3 Surface



Run185 2002-2011
Total Solids LE5.3 Surface



Run185 2002-2011
Solids Surface



Mean Difference

Absolute Mean Difference

KE

0.1162

0.8436

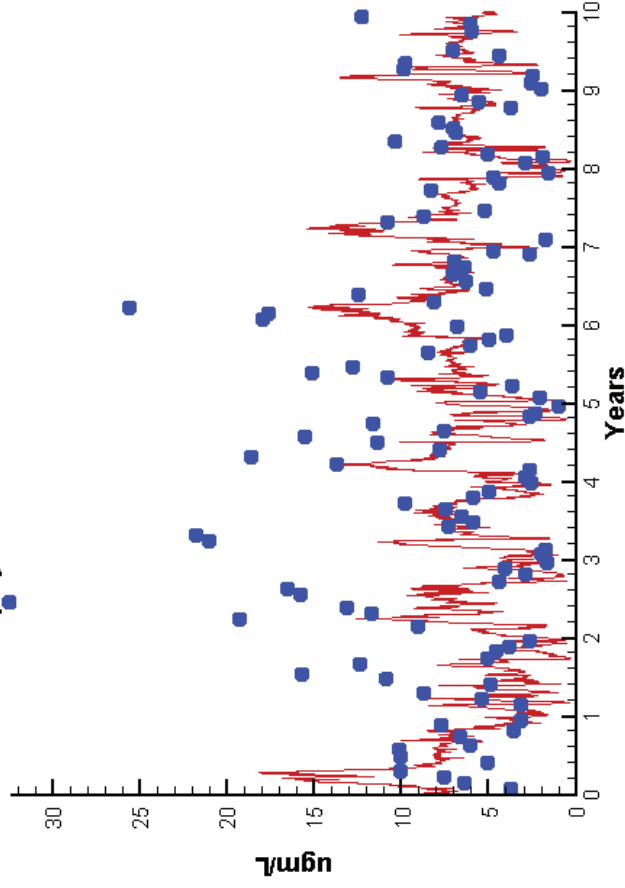
TSS

1.6267

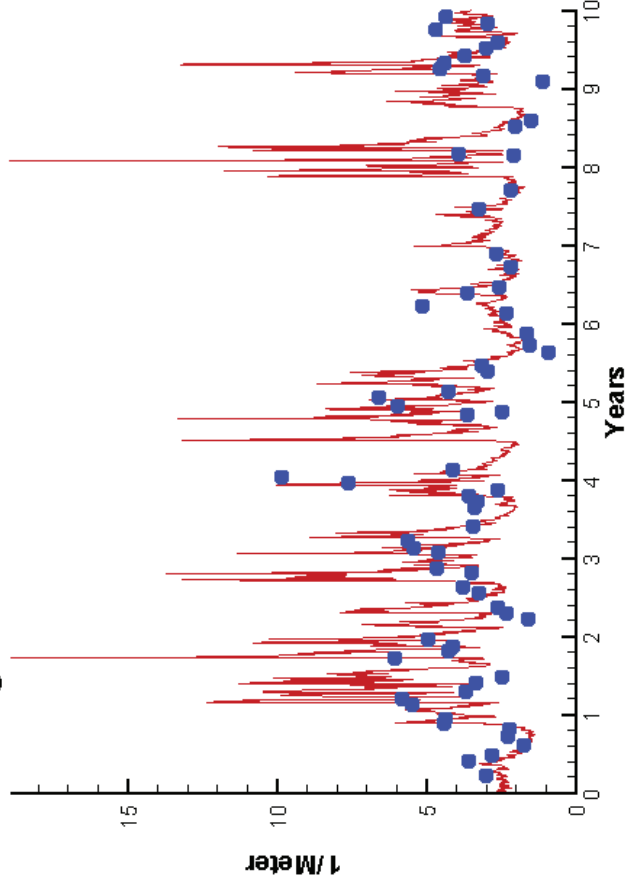
11.5137

Station RET5.2

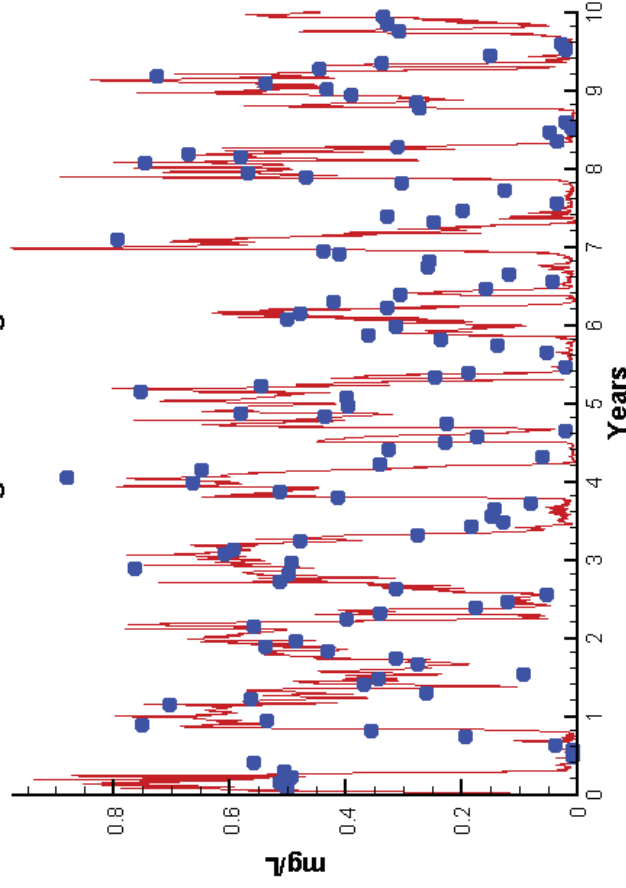
Run185 2002-2011
Chlorophyll RET5.2 Surface



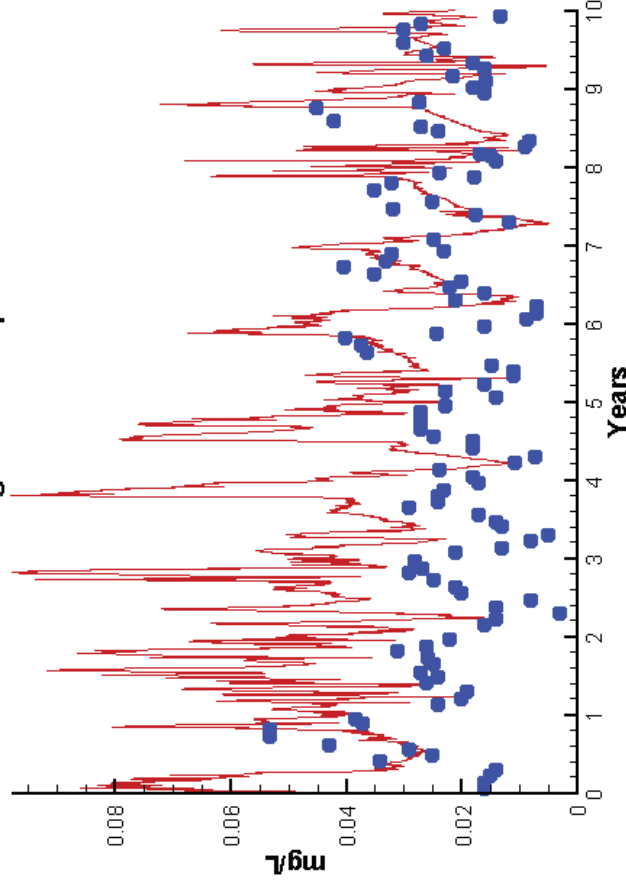
Run185 2002-2011
Light Extinction RET5.2 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen RET5.2 Surface

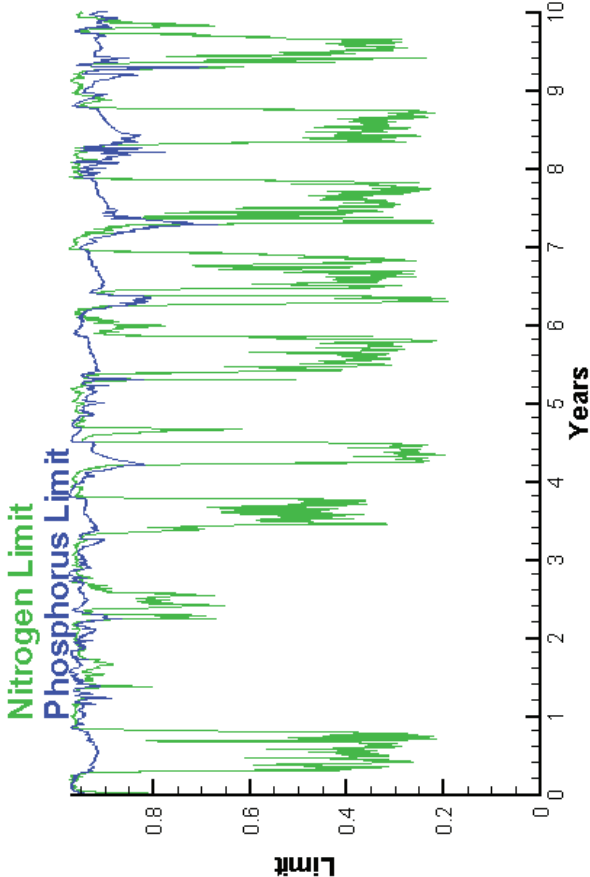


Run185 2002-2011
Dissolved Inorganic Phosphorus RET5.2 Surface

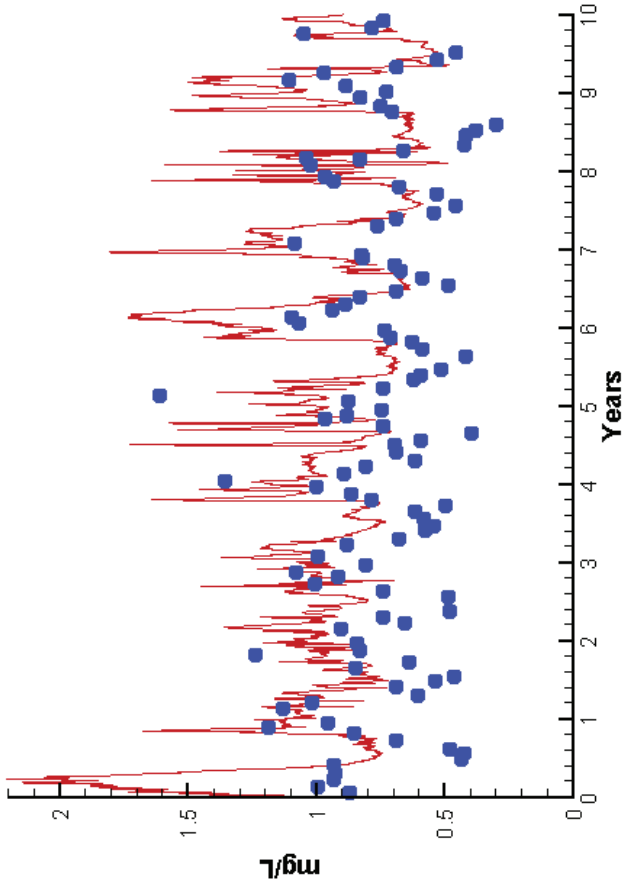


Station RET5.2

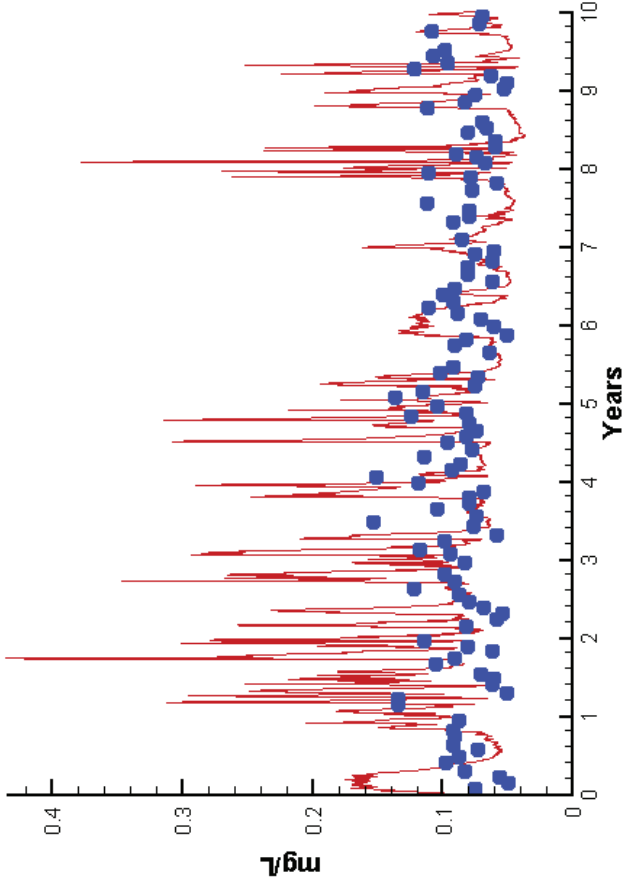
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen RET5.2 Surface



Run185 2002-2011
Total Phosphorus RET5.2 Surface



Mean Difference

Absolute Mean Difference

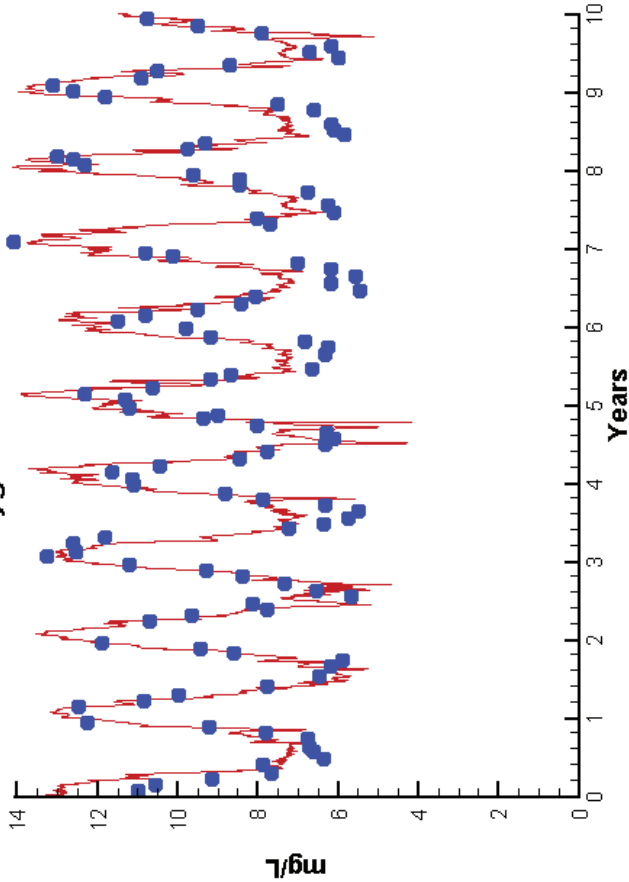
Chl
DIN
KE
DIP
TP
TN

-1.2059
-0.0509
0.5825
0.0166
0.0236
0.2457

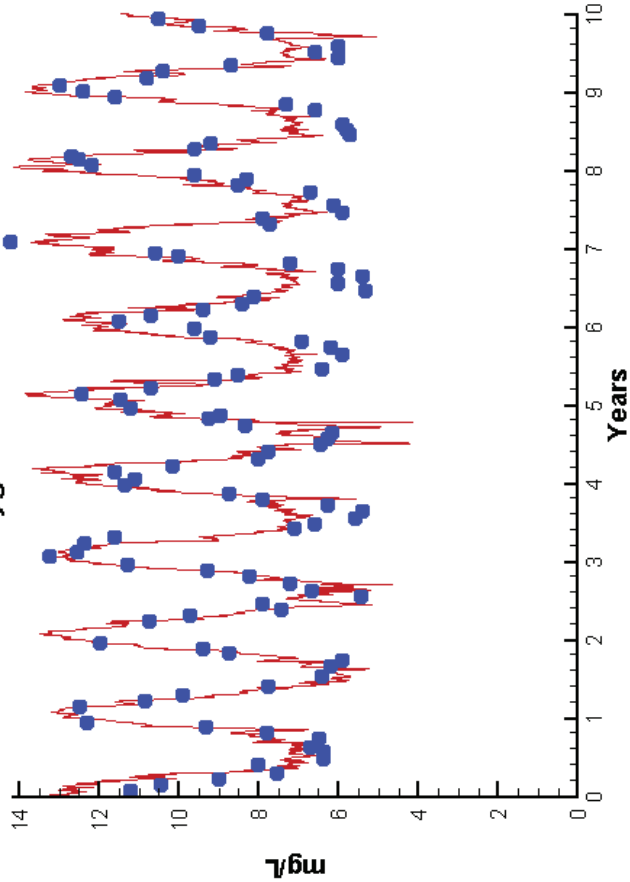
3.8493
0.1343
1.6815
0.0196
0.0494
0.2796

Station RET5.2

Run185 2002-2011
Dissolved Oxygen RET5.2 Surface



Run185 2002-2011
Dissolved Oxygen RET5.2 Bottom



Mean Difference

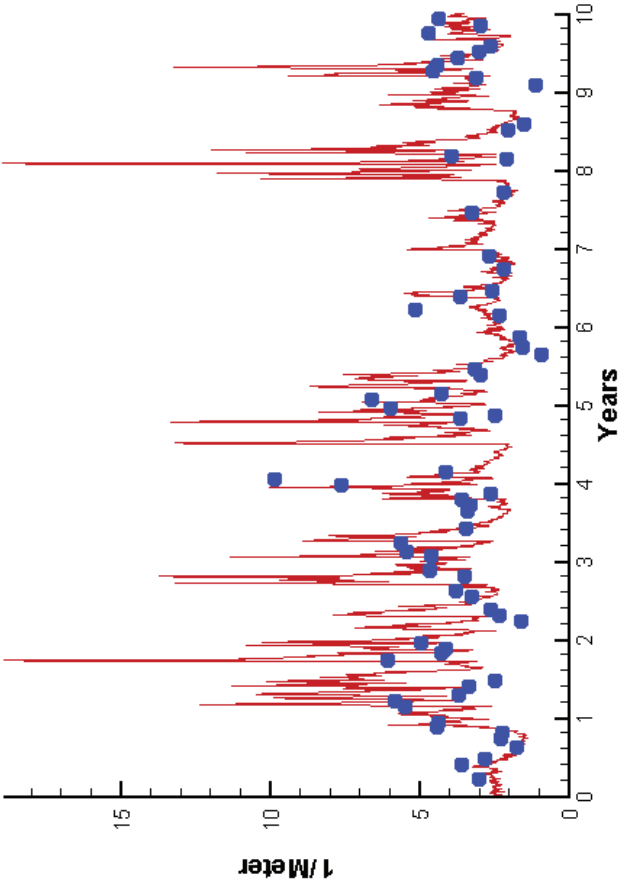
Top DO 0.6359
Bot DO 0.6132

Absolute Mean Difference

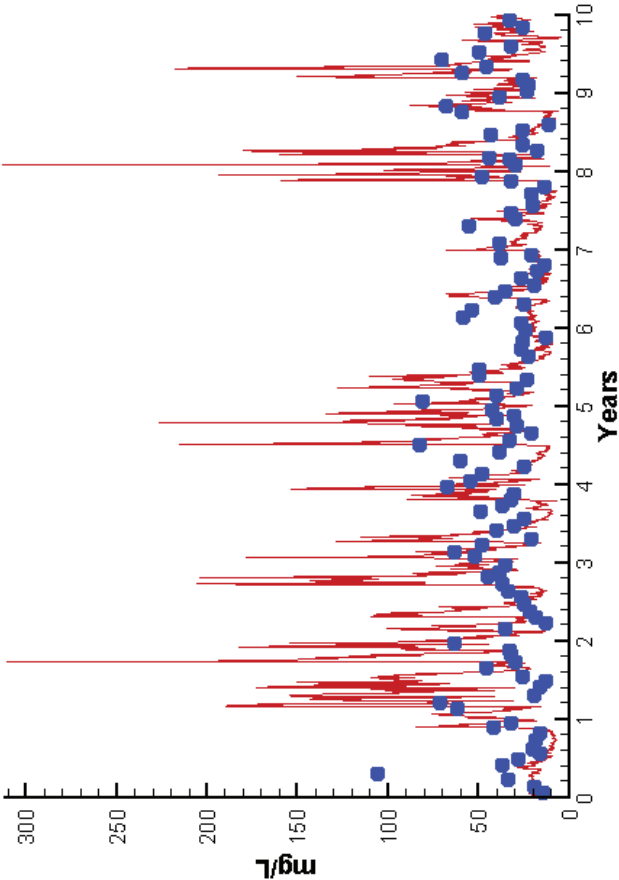
1.0669
1.0438

Station RET5.2

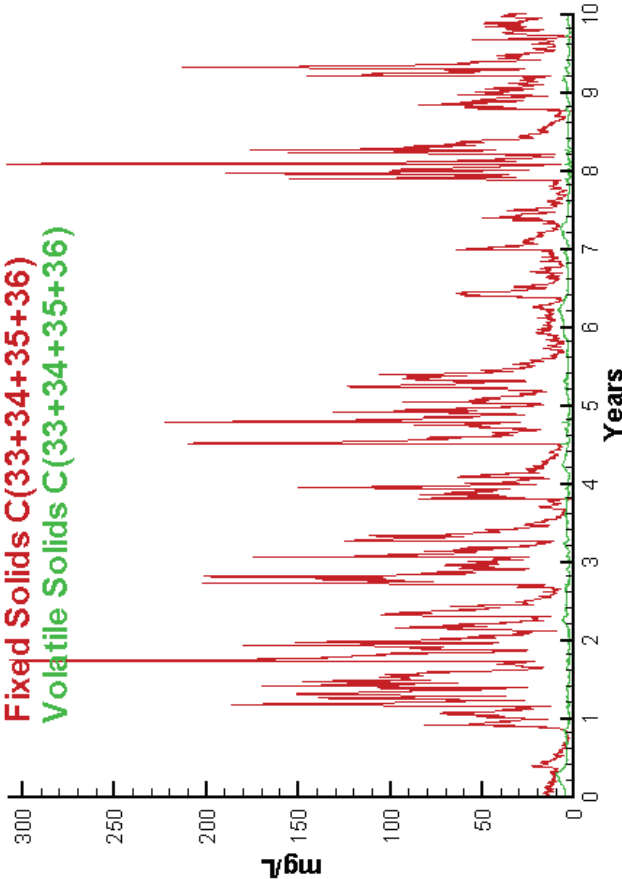
Run185 2002-2011
Light Extinction RET5.2 Surface



Run185 2002-2011
Total Solids RET5.2 Surface



Run185 2002-2011
Solids Surface



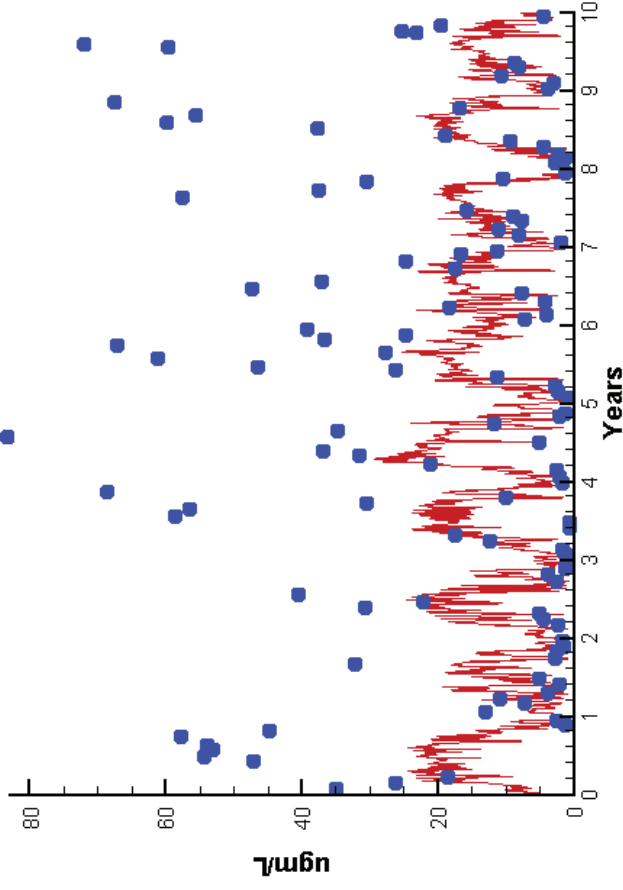
Fixed Solids C(33+34+35+36)
Volatile Solids C(33+34+35+36)

Mean Difference Absolute Mean Difference

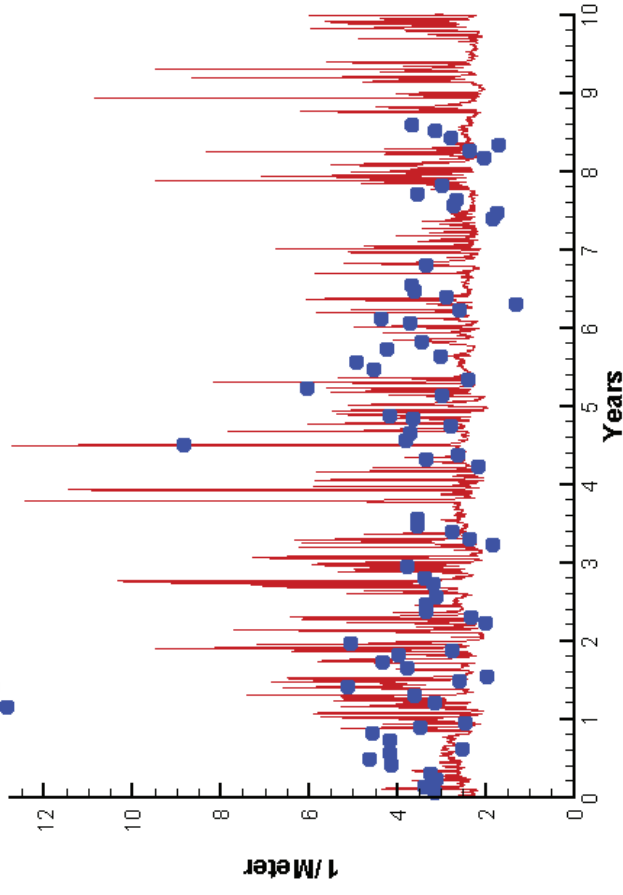
KE 0.5825 1.6815
TSS 11.7786 30.2895

Station TF5.5

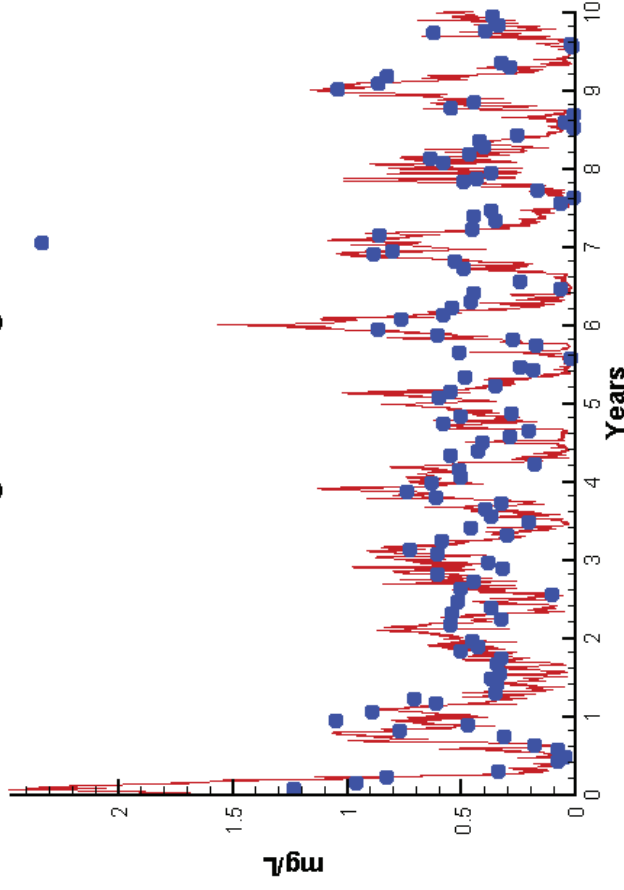
Run185 2002-2011
Chlorophyll TF5.5 Surface



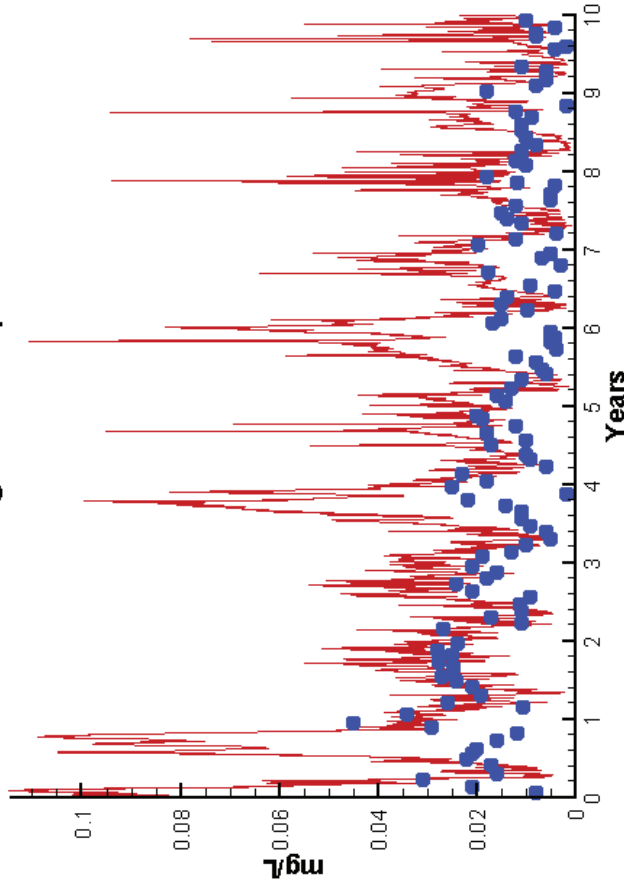
Run185 2002-2011
Light Extinction TF5.5 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen TF5.5 Surface

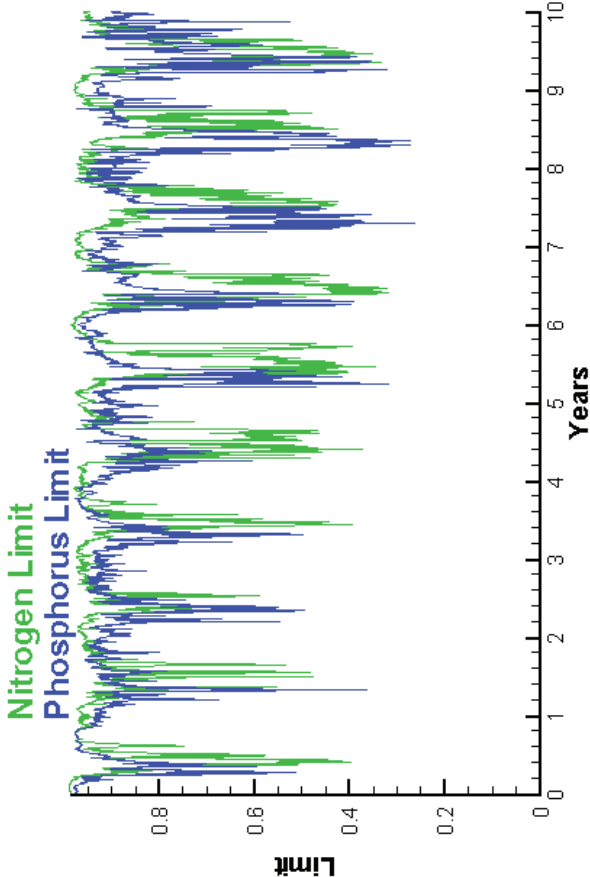


Run185 2002-2011
Dissolved Inorganic Phosphorus TF5.5 Surface

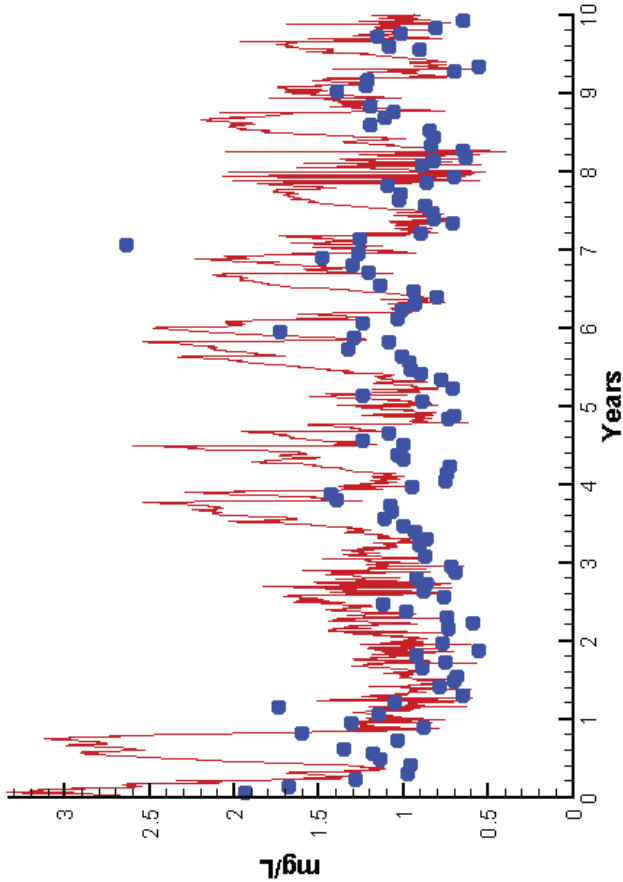


Station TF5.5

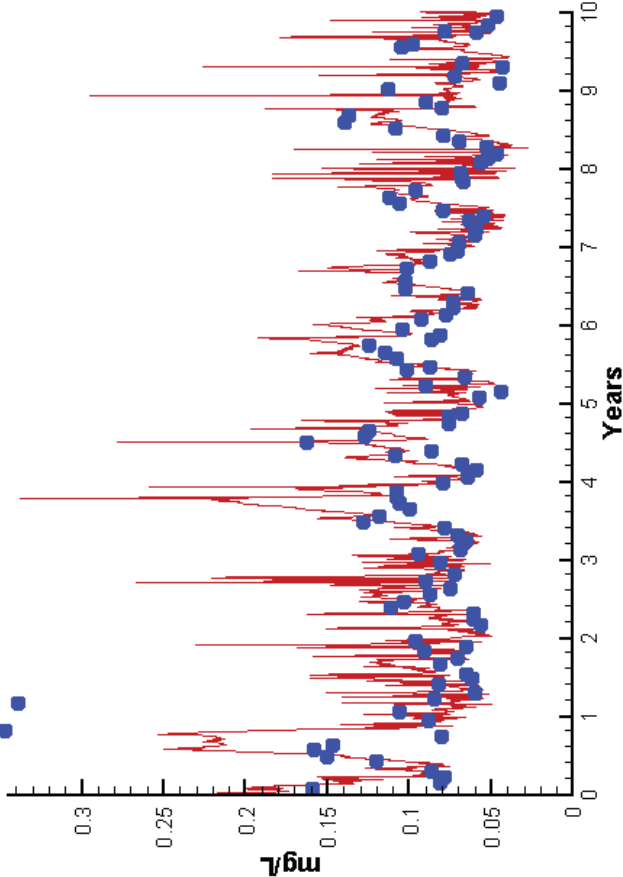
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen TF5.5 Surface



Run185 2002-2011
Total Phosphorus TF5.5 Surface



Mean Difference

Absolute Mean Difference

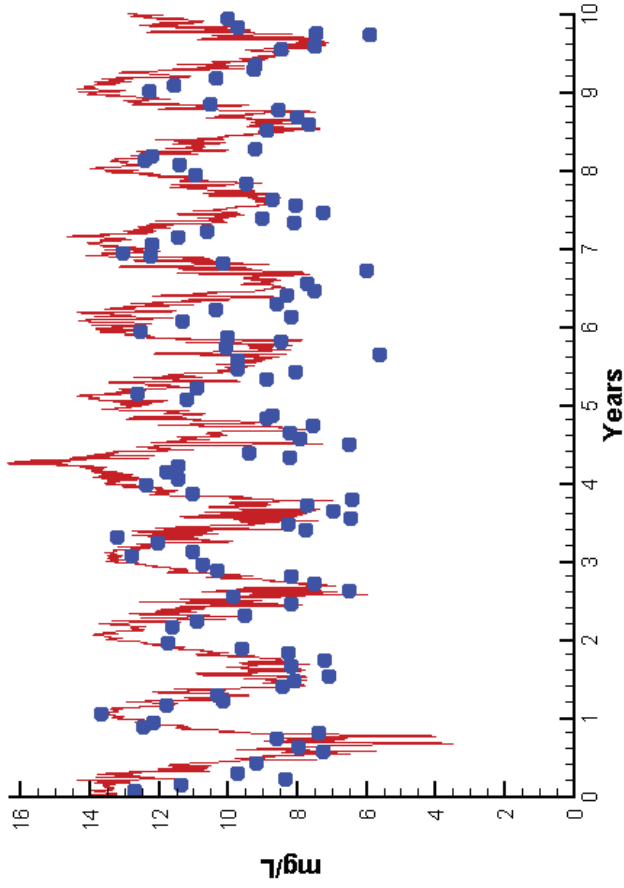
Chl
DIN
KE
DIP
TP
TN

-8.8161
-0.0364
-0.3434
0.0135
0.0120
0.4223

13.2715
0.1762
1.0290
0.0160
0.0296
0.4691

Station TF5.5

Run185 2002-2011
Dissolved Oxygen TF5.5 Surface



Mean Difference

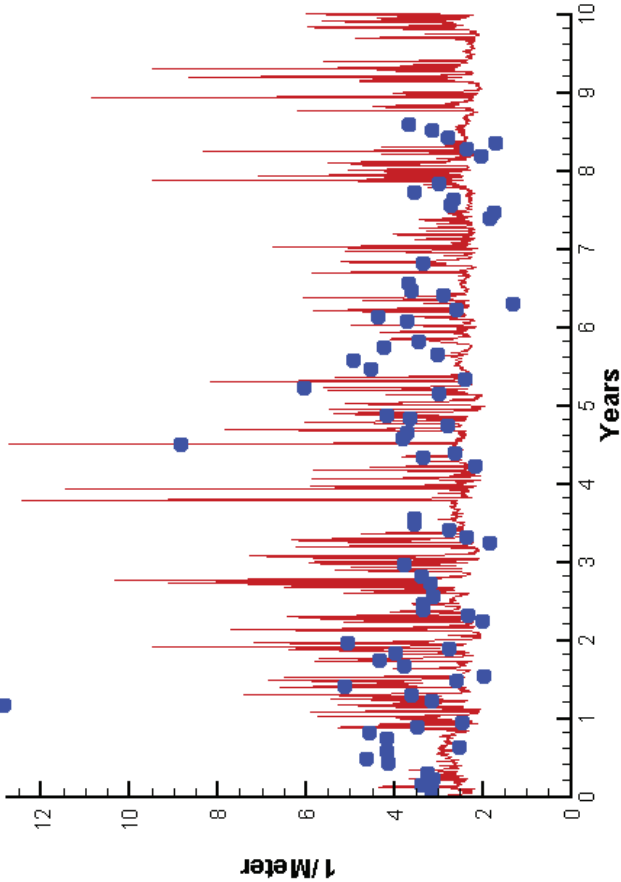
Top DO 1.6069

Absolute Mean Difference

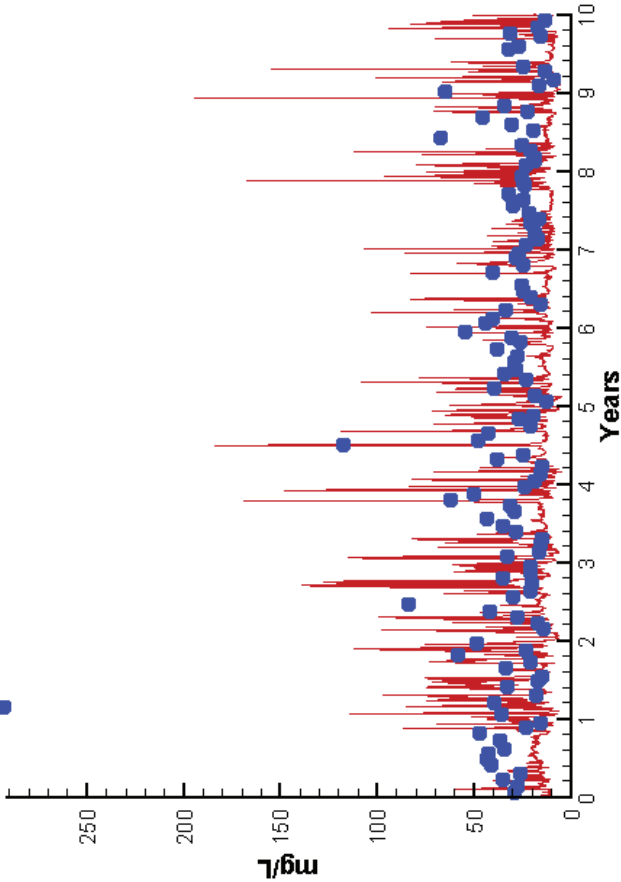
1.7413

Station TF5.5

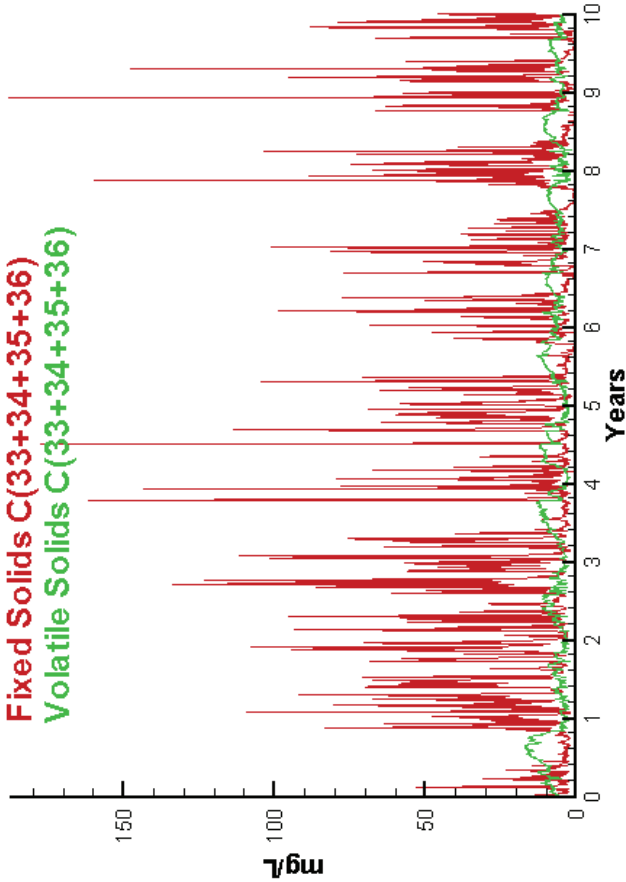
Run185 2002-2011
Light Extinction TF5.5 Surface



Run185 2002-2011
Total Solids TF5.5 Surface



Run185 2002-2011
Solids Surface



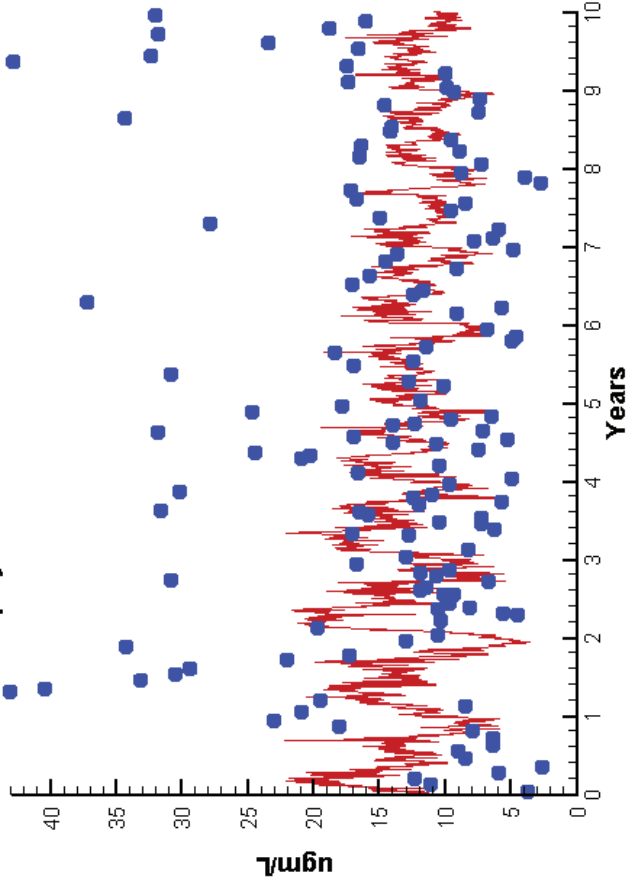
Fixed Solids C(33+34+35+36)
Volatile Solids C(33+34+35+36)

Mean Difference Absolute Mean Difference

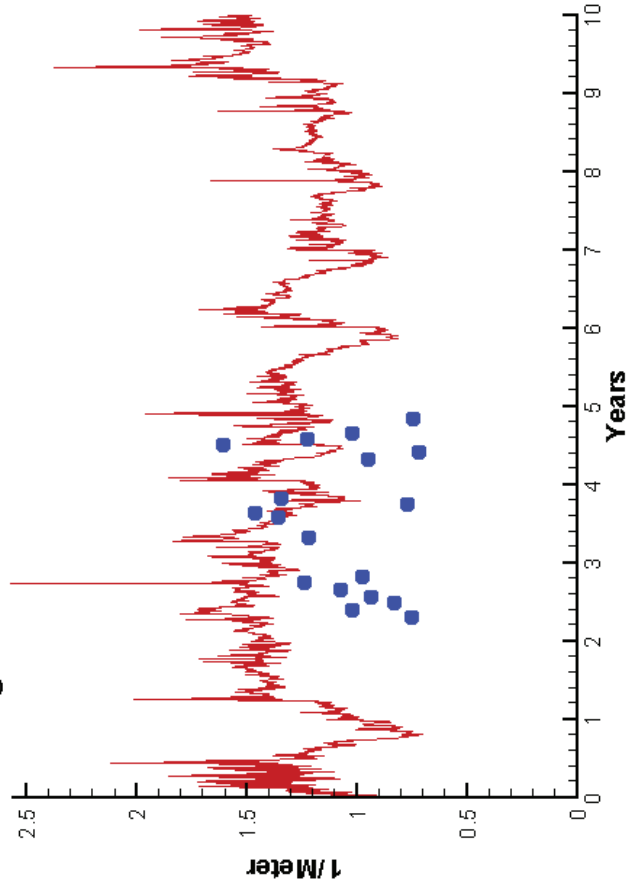
KE 1.0290
TSS 21.1587

Station EE1.1

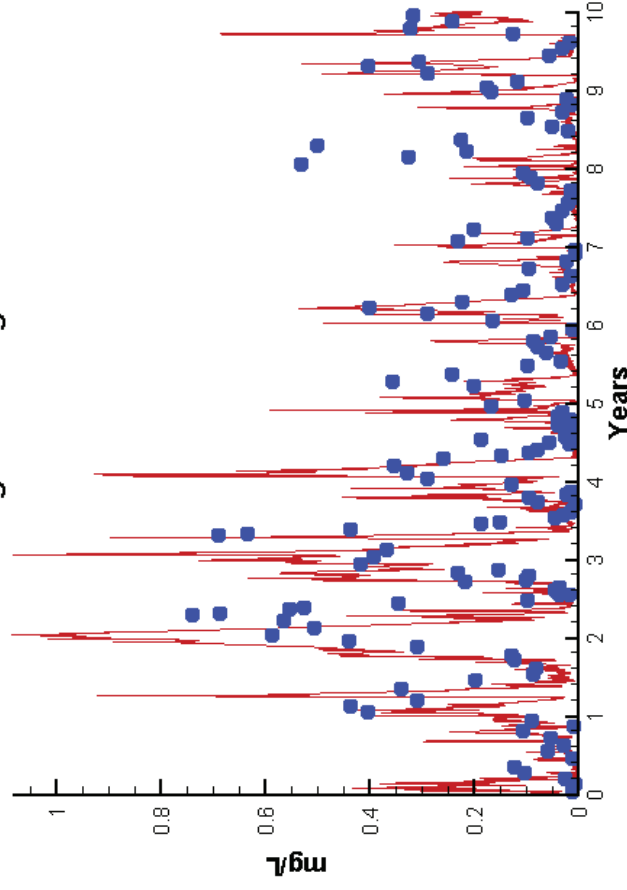
Run185 2002-2011
Chlorophyll EE1.1 Surface



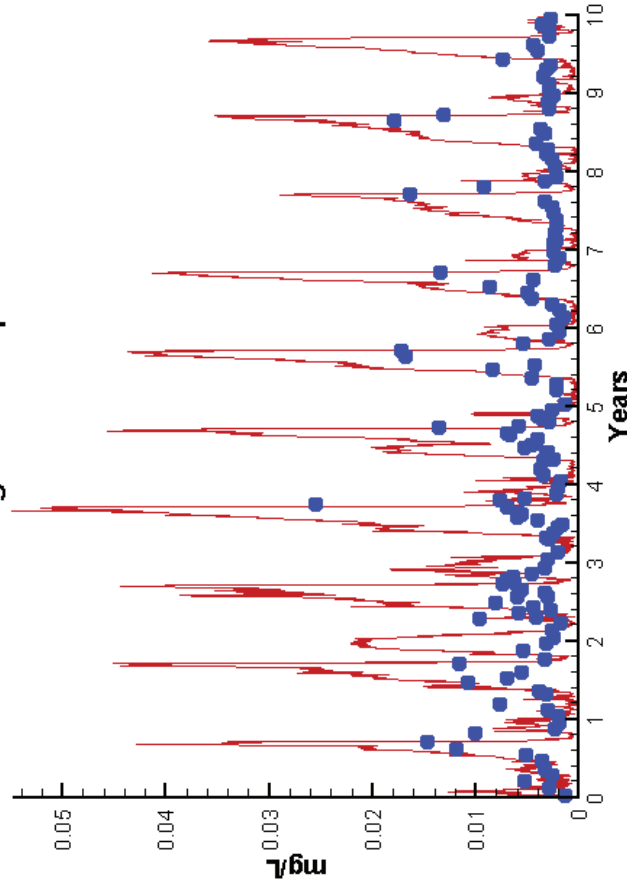
Run185 2002-2011
Light Extinction EE1.1 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen EE1.1 Surface

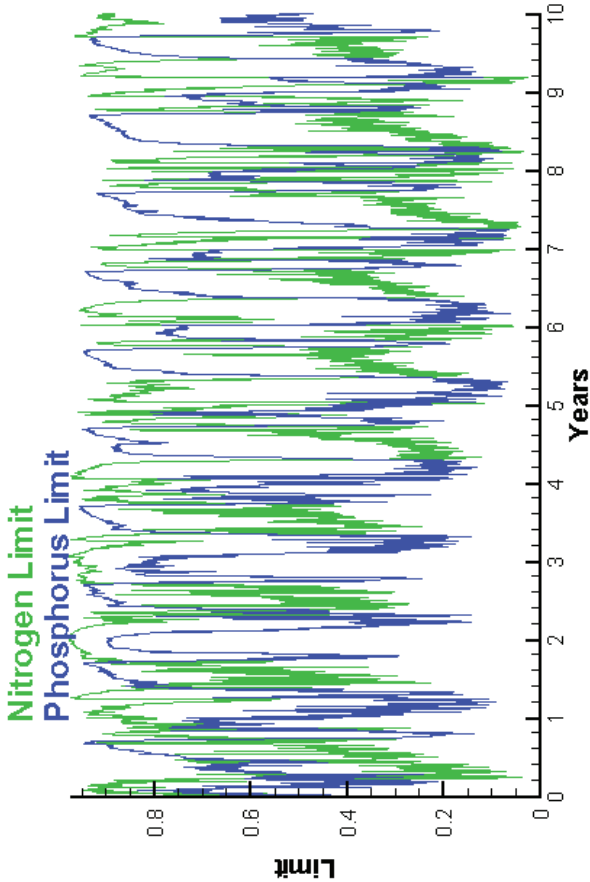


Run185 2002-2011
Dissolved Inorganic Phosphorus EE1.1 Surface

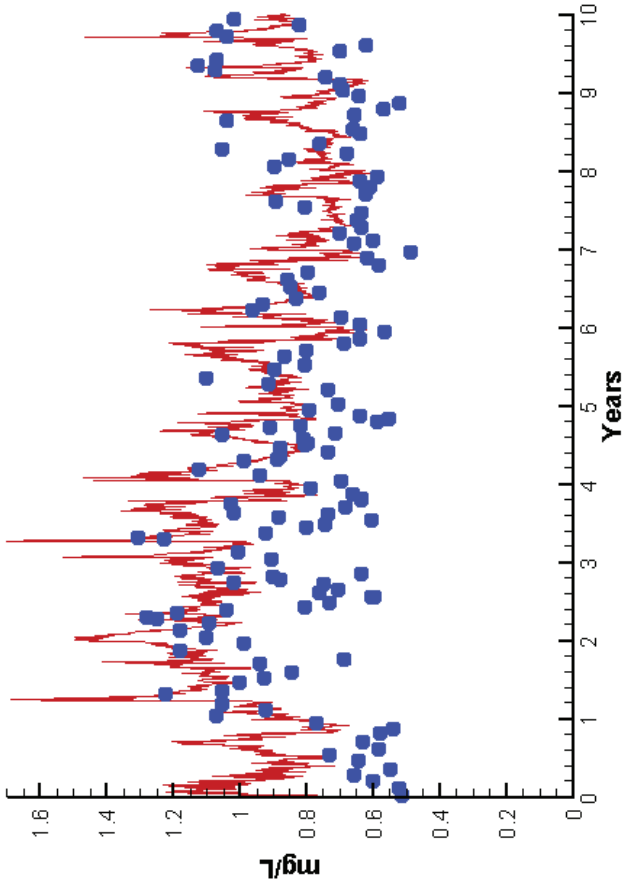


Station EE1.1

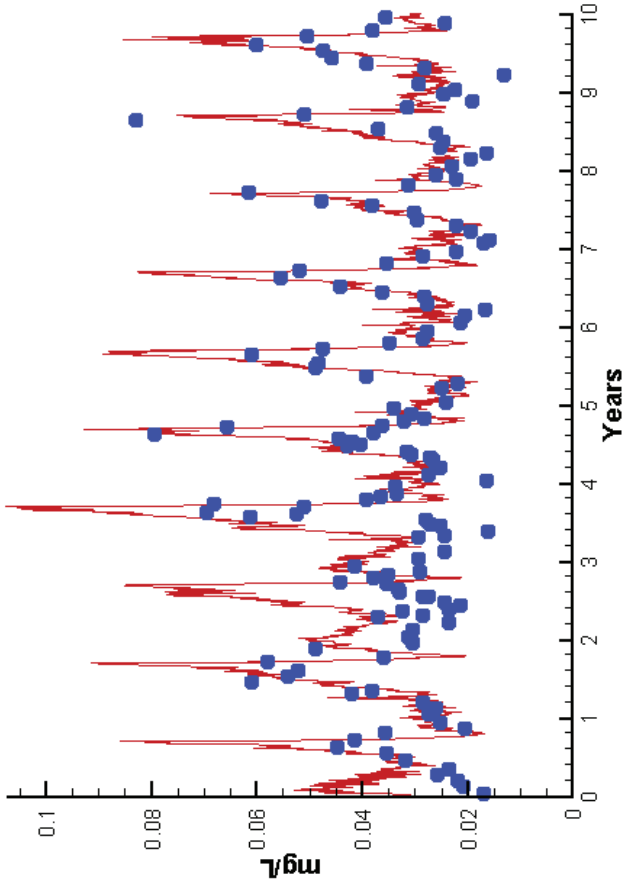
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen EE1.1 Surface



Run185 2002-2011
Total Phosphorus EE1.1 Surface



Mean Difference

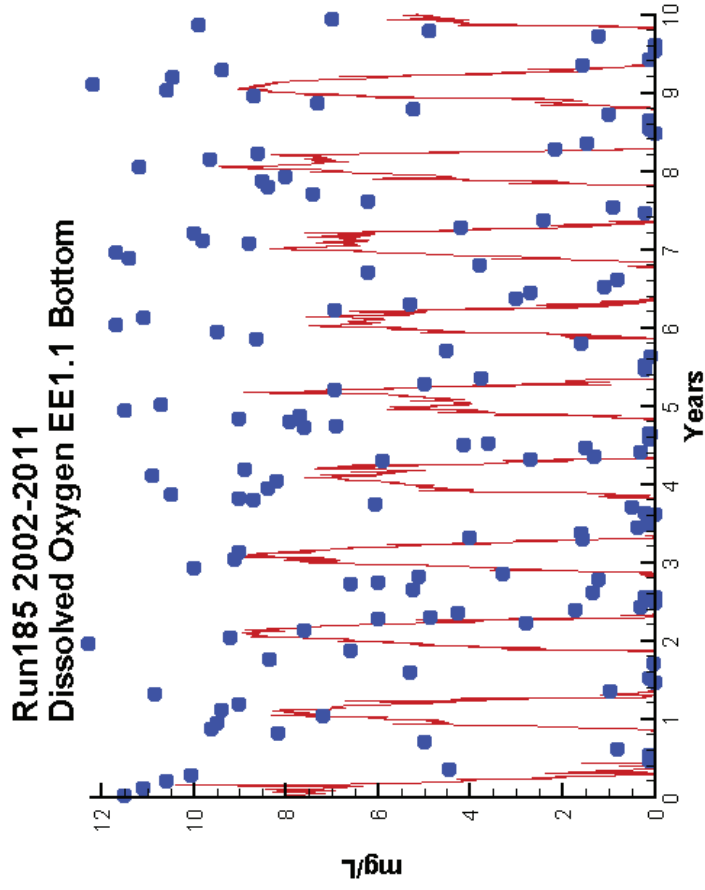
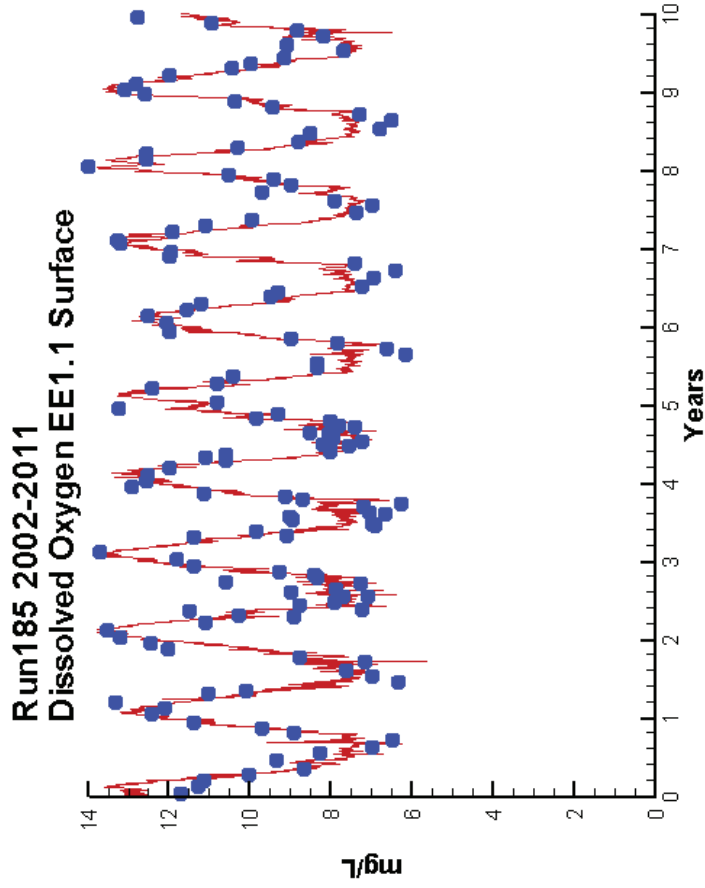
Absolute Mean Difference

Chl
DIN
KE
DIP
TP
TN

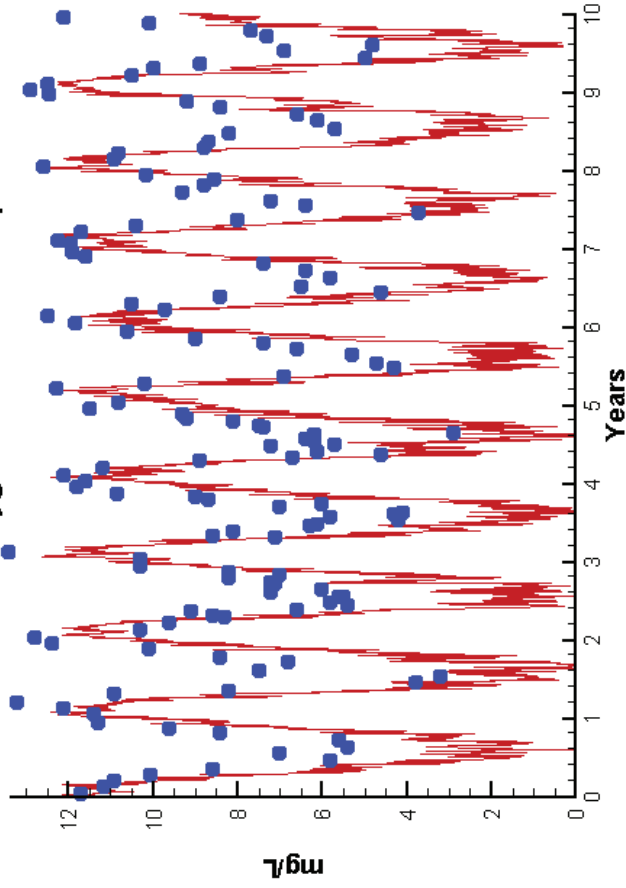
-1.8408
-0.0419
0.4815
0.0046
0.0051
0.1457

7.1310
0.1275
0.5739
0.0074
0.0109
0.1946

Station EE1.1



Run185 2002-2011
Dissolved Oxygen EE1.1 Mid-Depth



Mean Difference

Absolute Mean Difference

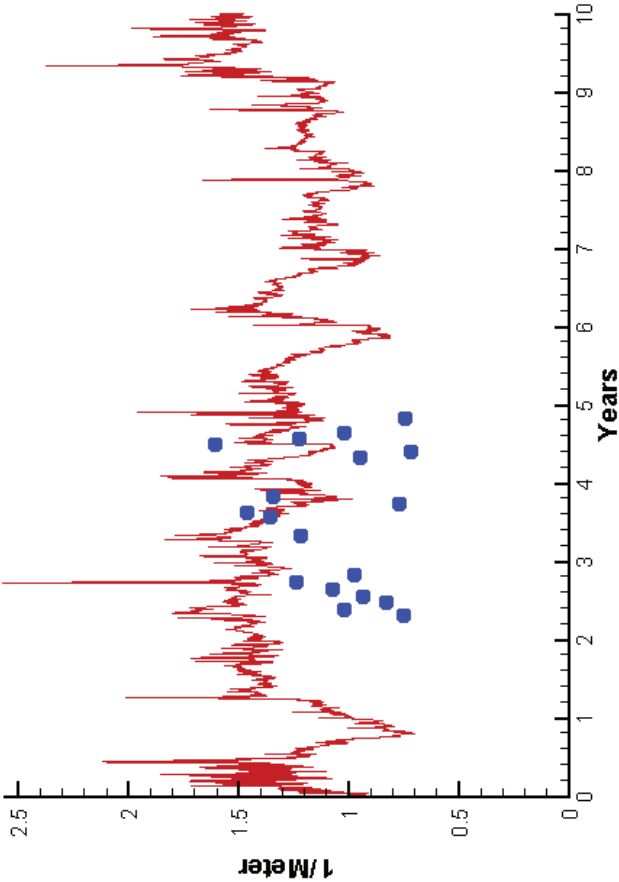
Top DO
Mid DO
Bot DO

-0.1693
-2.7728
-3.2444

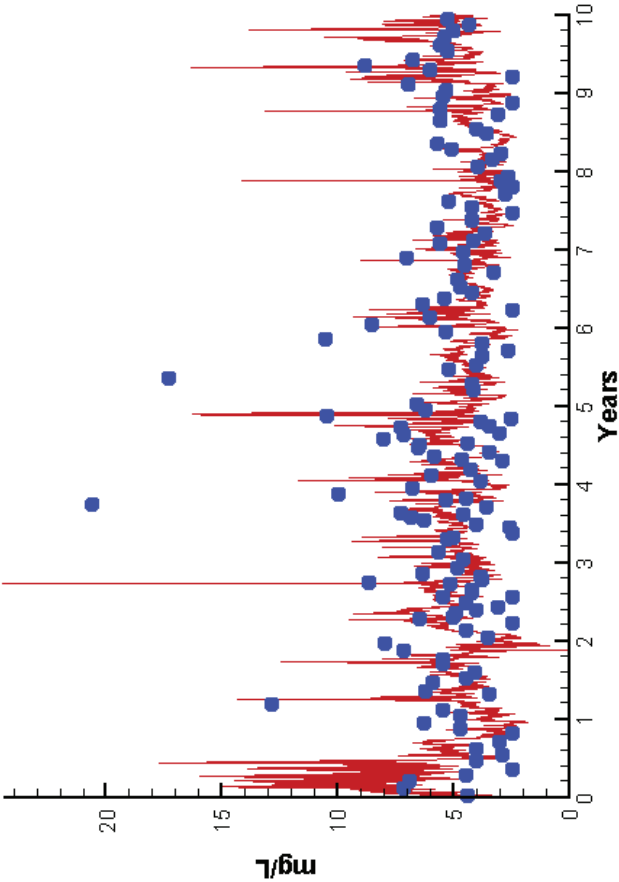
0.7751
2.8139
3.2900

Station EE1.1

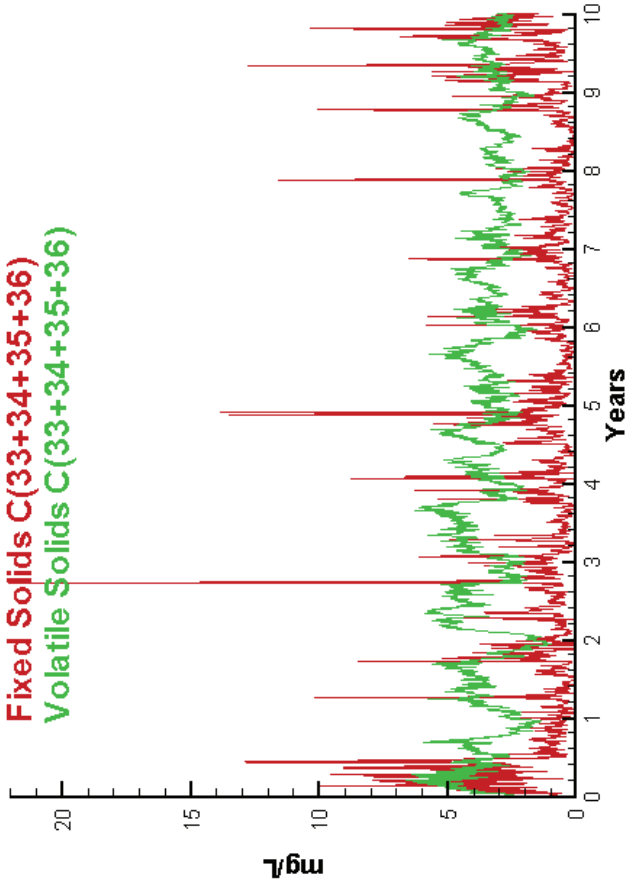
Run185 2002-2011
Light Extinction EE1.1 Surface



Run185 2002-2011
Total Solids EE1.1 Surface



Run185 2002-2011
Solids Surface

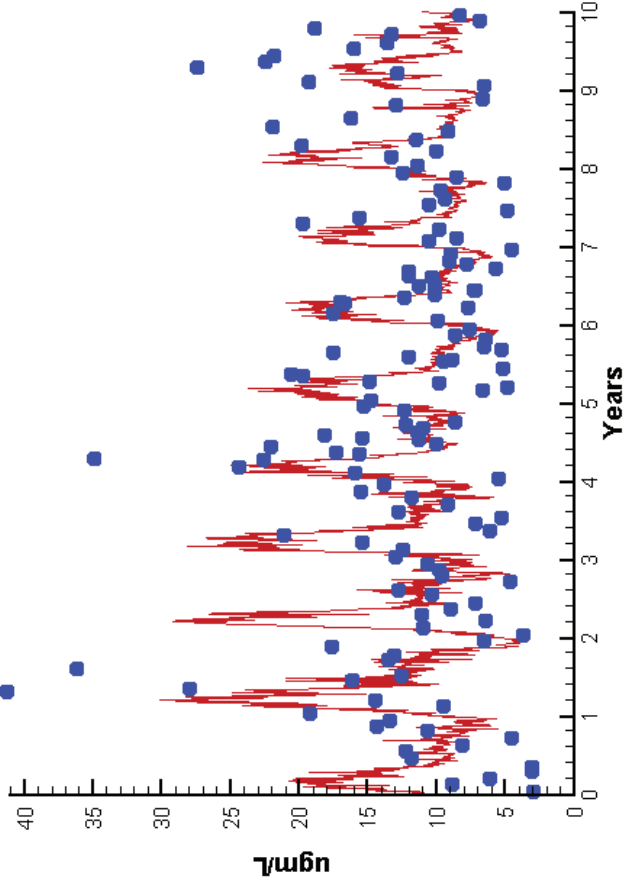


Mean Difference Absolute Mean Difference

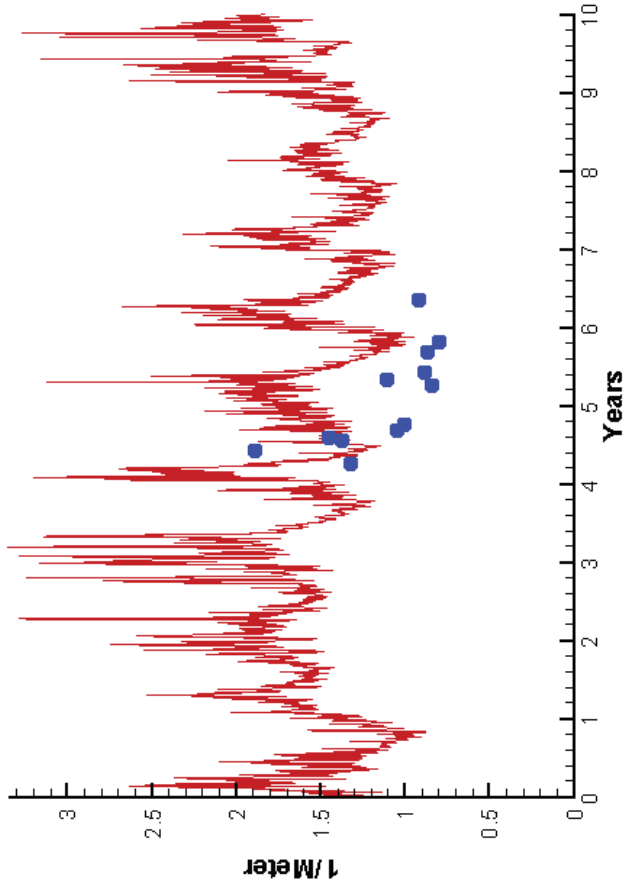
KE 0.4815 0.5739
TSS -0.2391 2.1513

Station EE2.1

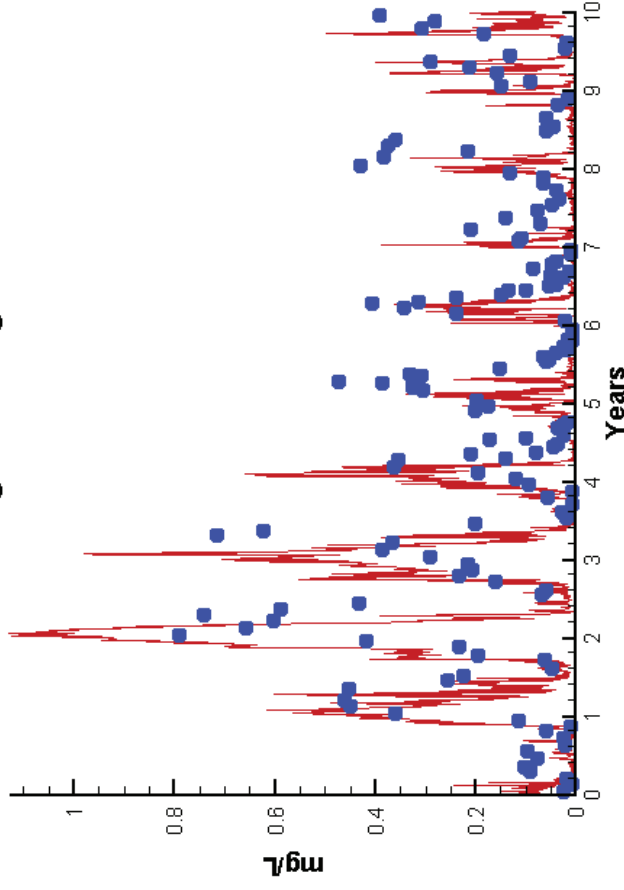
Run185 2002-2011
Chlorophyll EE2.1 Surface



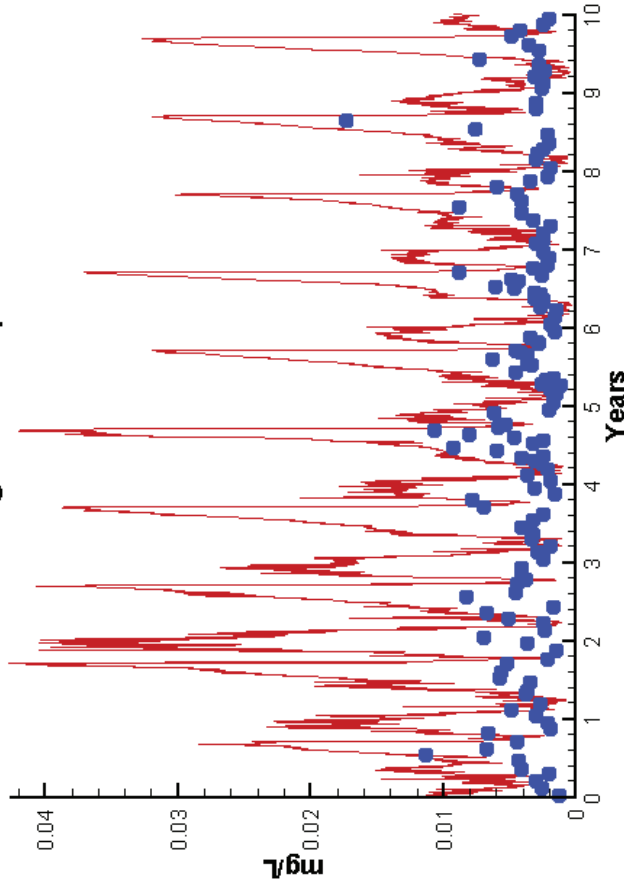
Run185 2002-2011
Light Extinction EE2.1 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen EE2.1 Surface

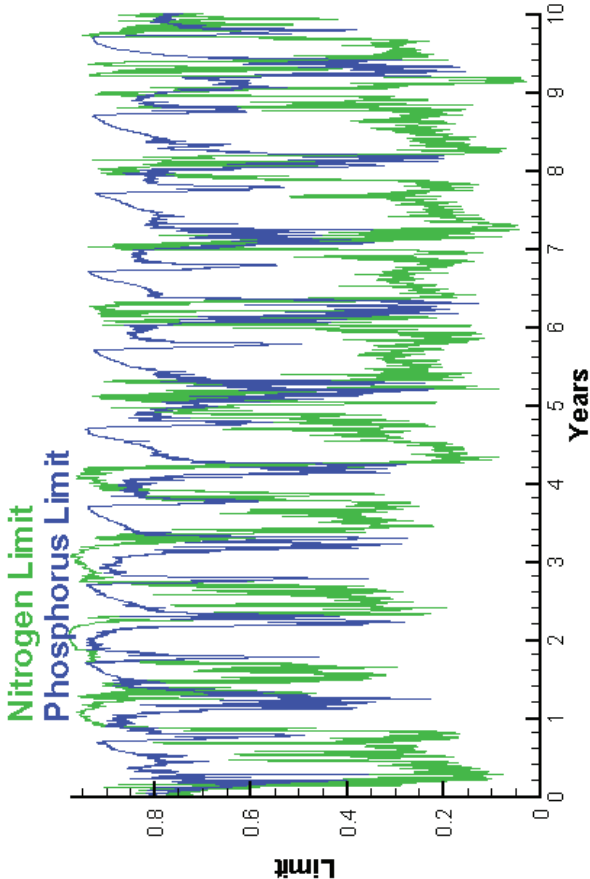


Run185 2002-2011
Dissolved Inorganic Phosphorus EE2.1 Surface

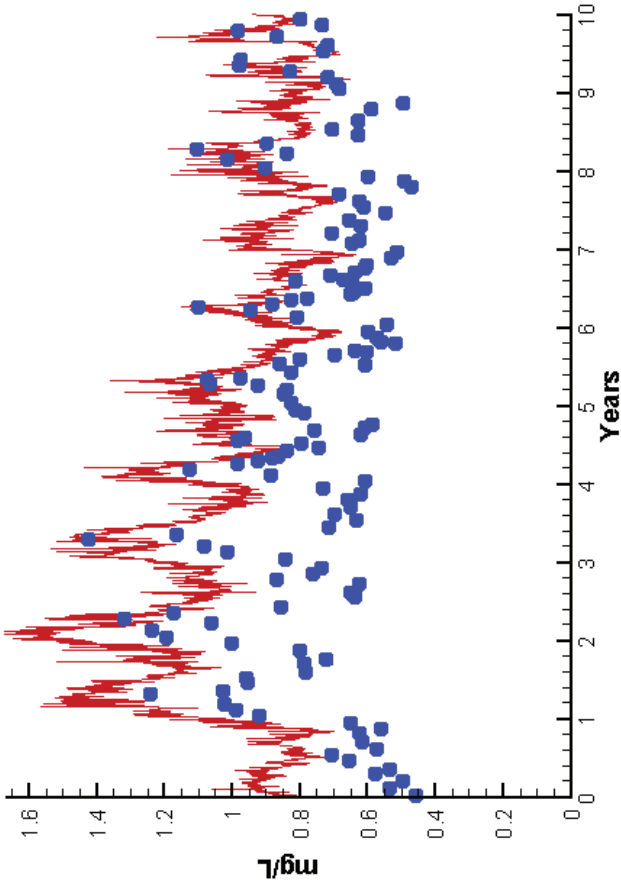


Station EE2.1

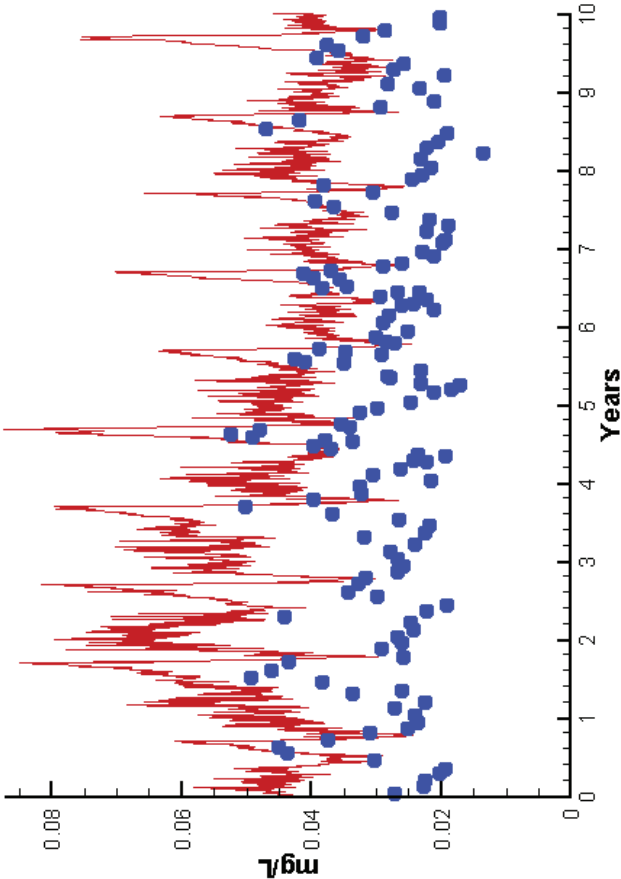
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen EE2.1 Surface



Run185 2002-2011
Total Phosphorus EE2.1 Surface



Mean Difference

Absolute Mean Difference

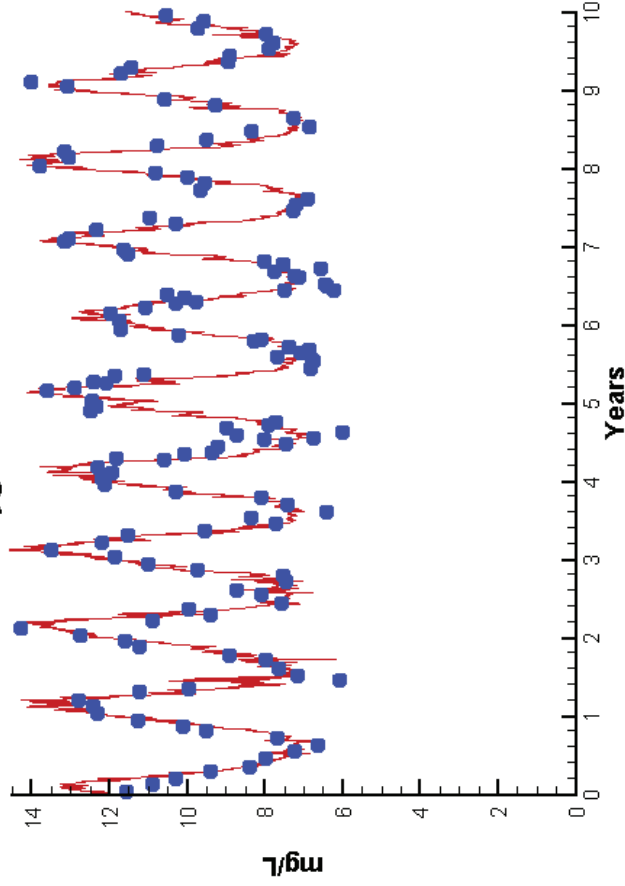
Chl
DIN
KE
DIP
TP
TN

0.0791
-0.0661
0.3670
0.0080
0.0167
0.2197

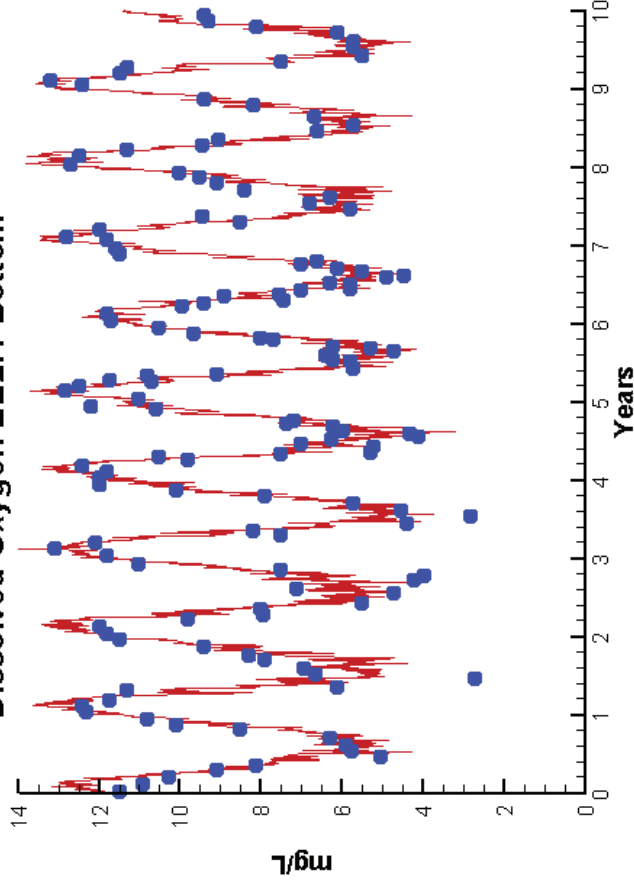
5.1238
0.1273
0.4848
0.0083
0.0170
0.2283

Station EE2.1

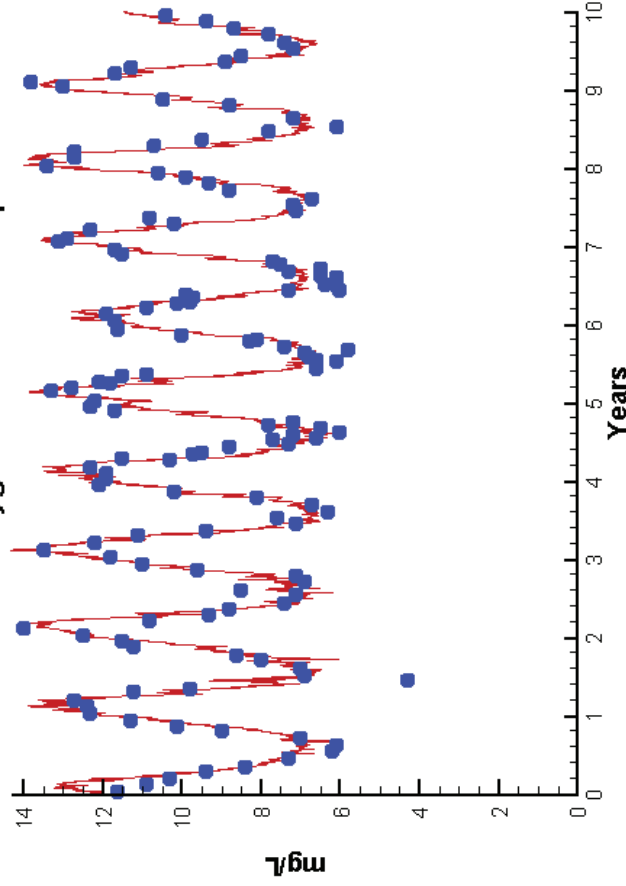
Run185 2002-2011
Dissolved Oxygen EE2.1 Surface



Run185 2002-2011
Dissolved Oxygen EE2.1 Bottom



Run185 2002-2011
Dissolved Oxygen EE2.1 Mid-Depth



Mean Difference

Absolute Mean Difference

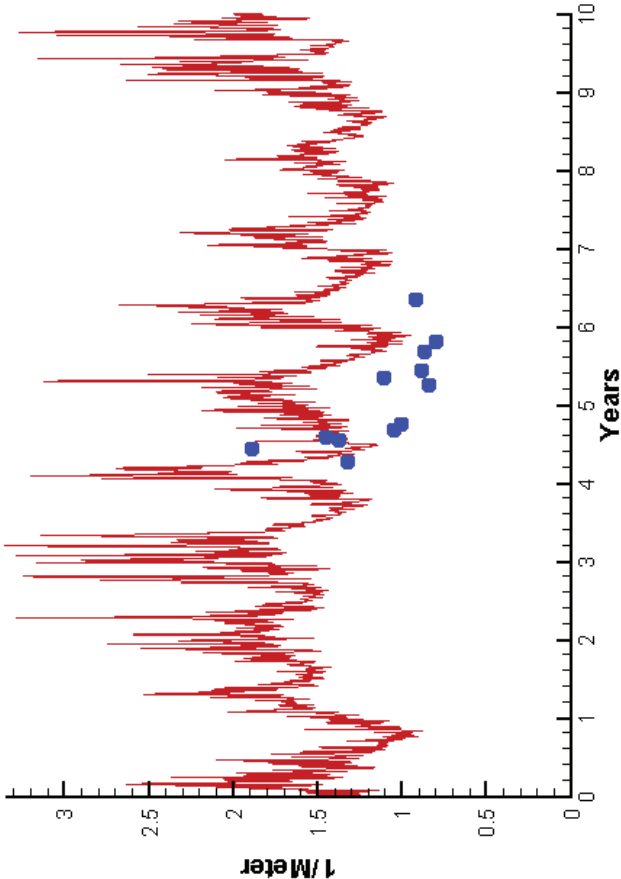
Top DO
Mid DO
Bot DO

-0.1543
-0.1037
0.0468

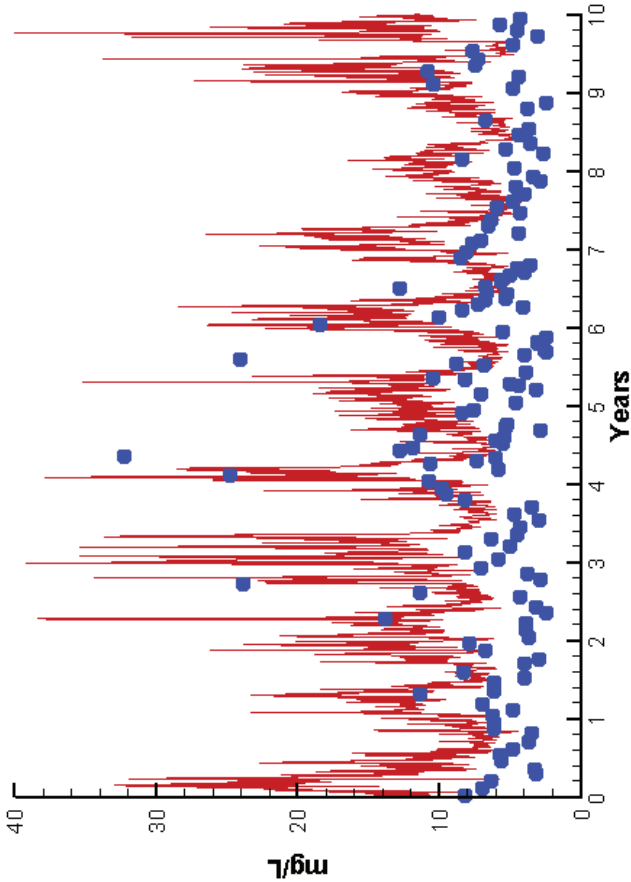
0.7369
0.6982
0.8543

Station EE2.1

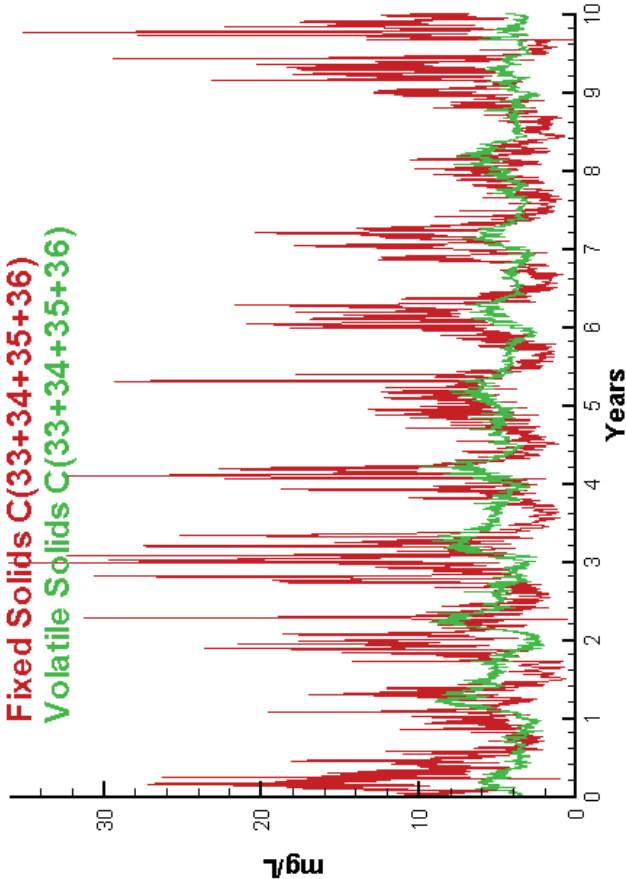
Run185 2002-2011
Light Extinction EE2.1 Surface



Run185 2002-2011
Total Solids EE2.1 Surface



Run185 2002-2011
Solids Surface

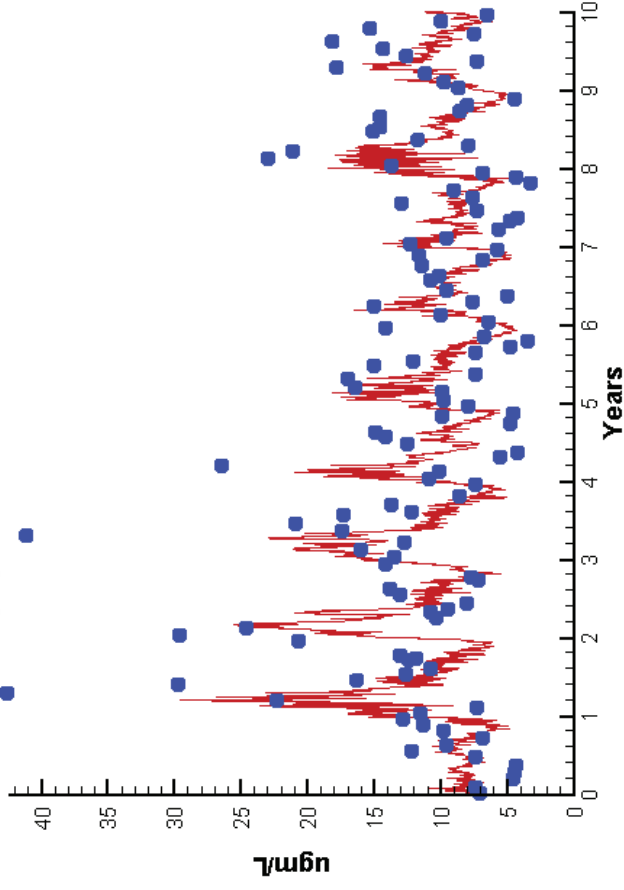


Mean Difference Absolute Mean Difference

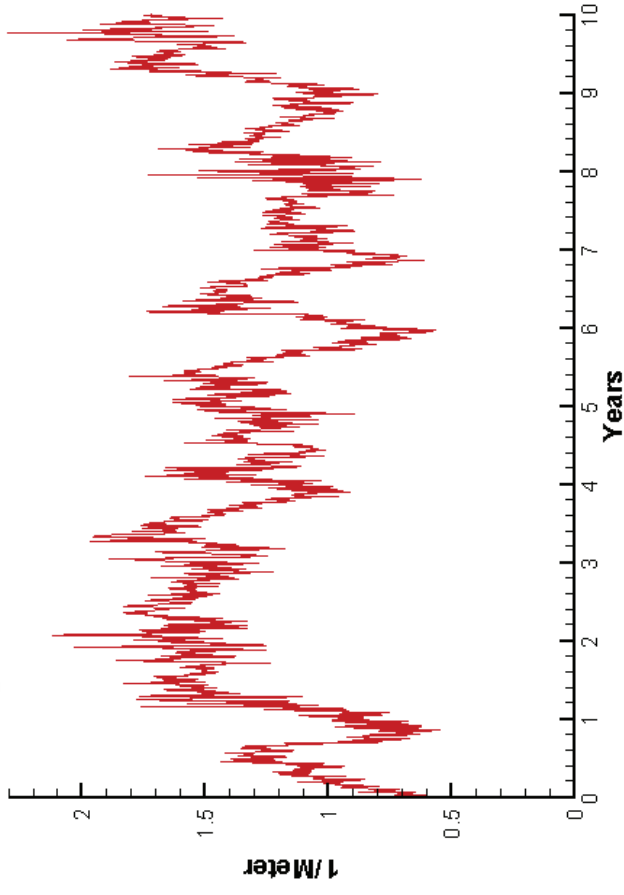
KE 0.3670 0.4848
TSS 3.9311 5.3306

Station EE3.1

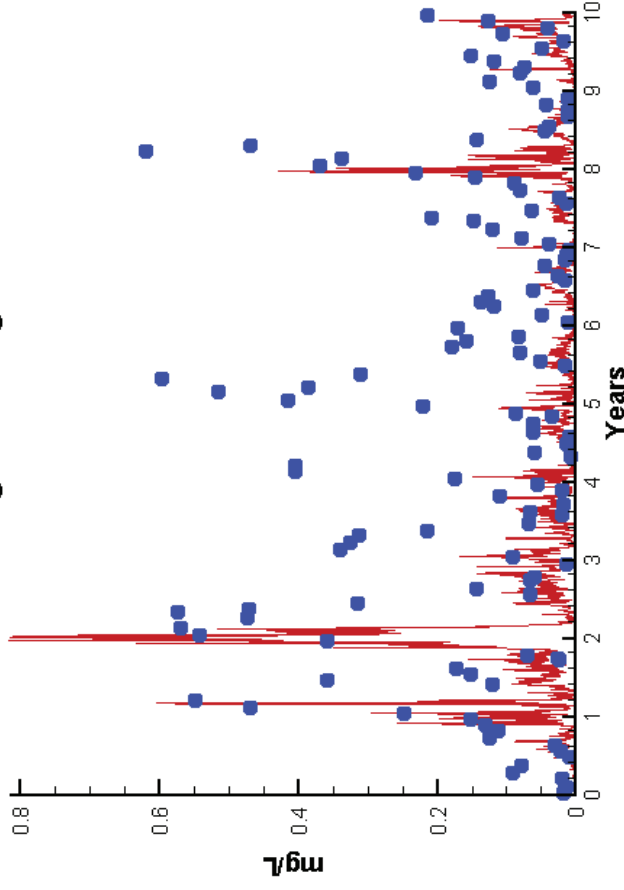
Run185 2002-2011
Chlorophyll EE3.1 Surface



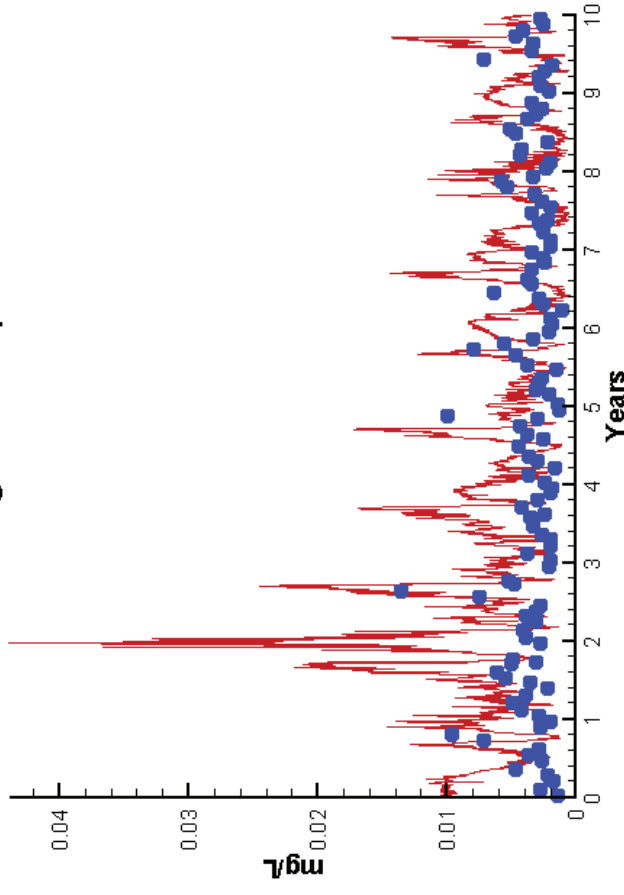
Run185 2002-2011
Light Extinction EE3.1 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen EE3.1 Surface

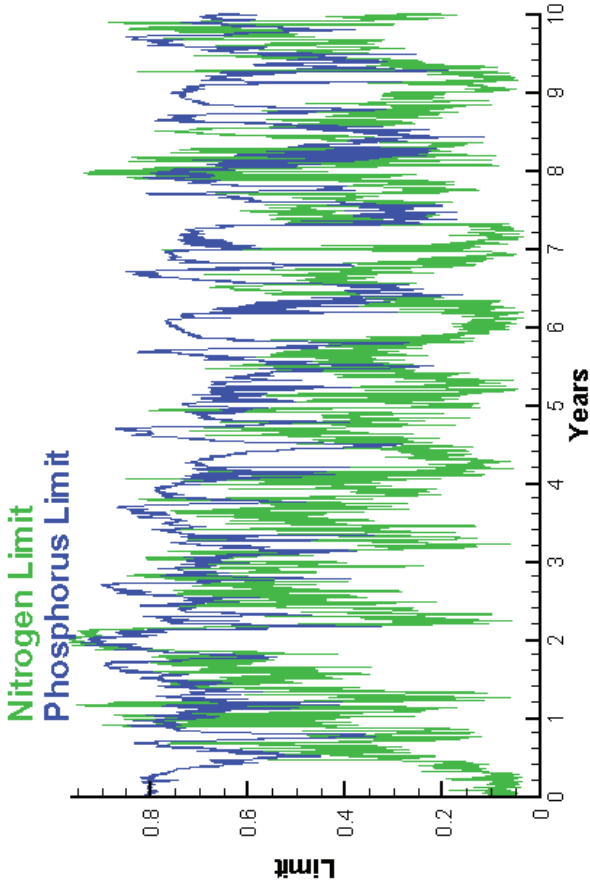


Run185 2002-2011
Dissolved Inorganic Phosphorus EE3.1 Surface

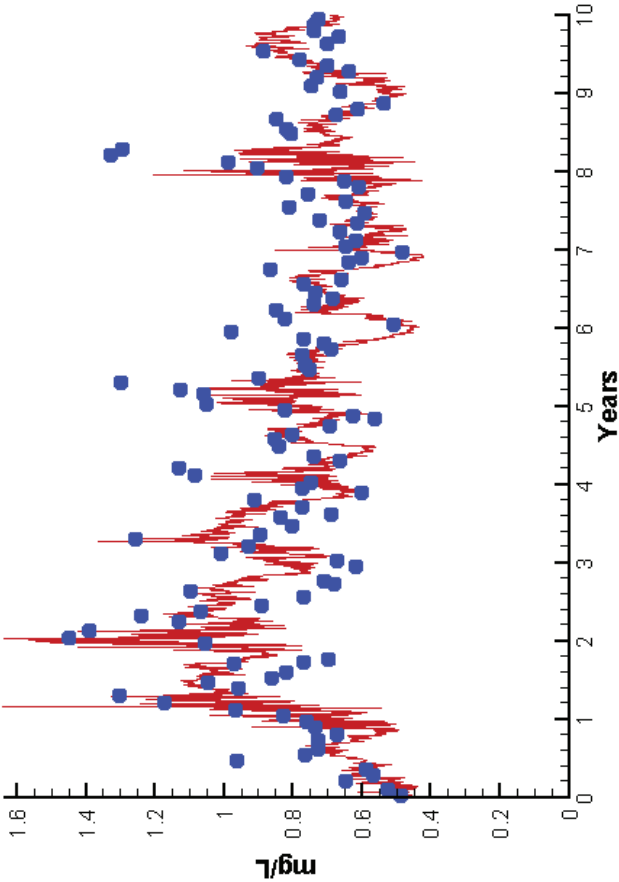


Station EE3.1

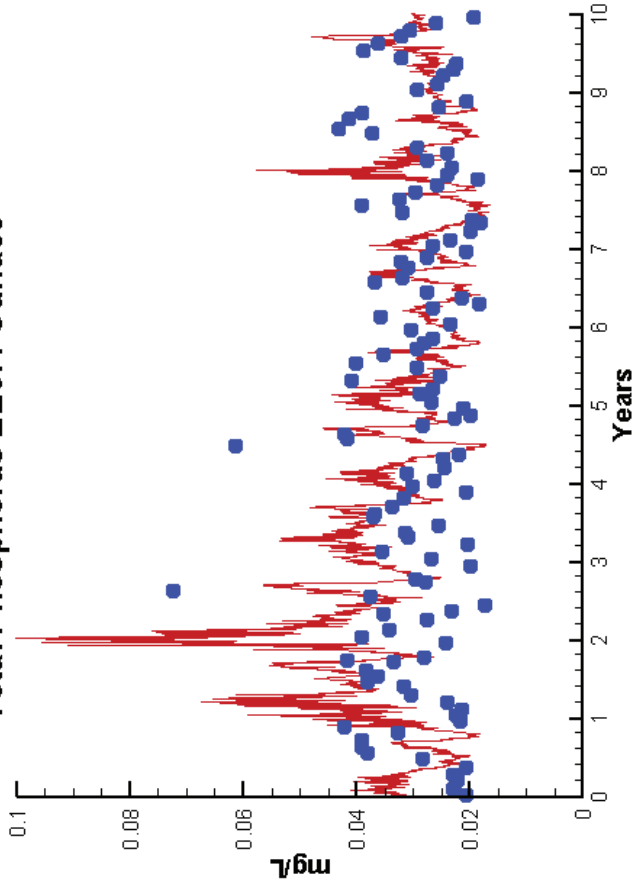
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen EE3.1 Surface



Run185 2002-2011
Total Phosphorus EE3.1 Surface



Mean Difference

Absolute Mean Difference

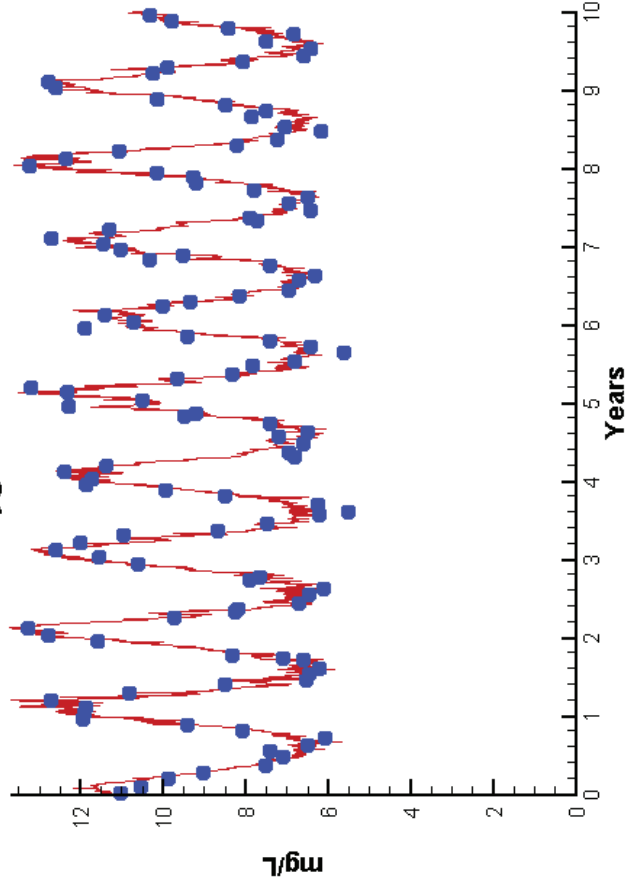
Chl
DIN
KE
DIP
TP
TN

-1.1486
-0.1139
-0.1139
0.0025
0.0028
-0.0537

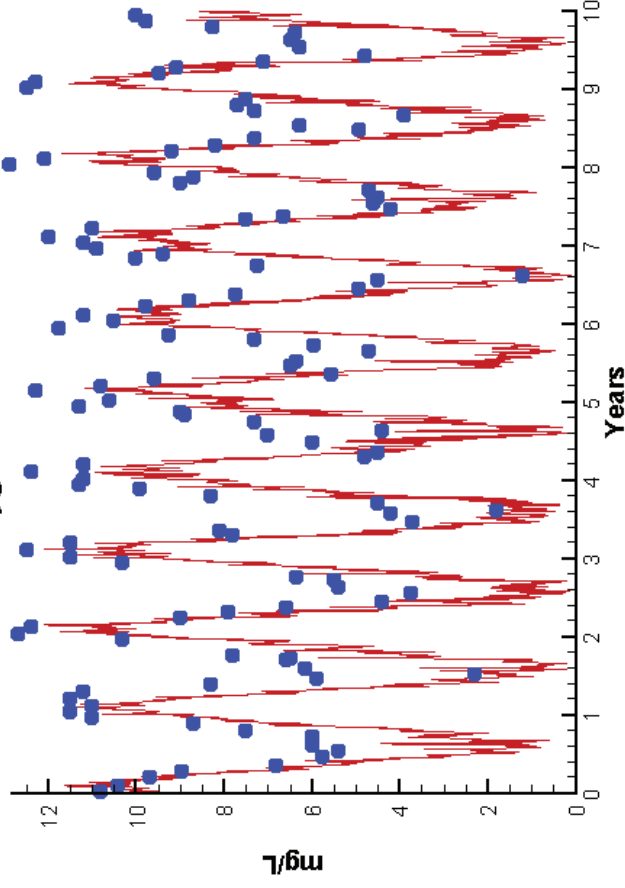
4.2877
0.1272
0.1272
0.0037
0.0097
0.1349

Station EE3.1

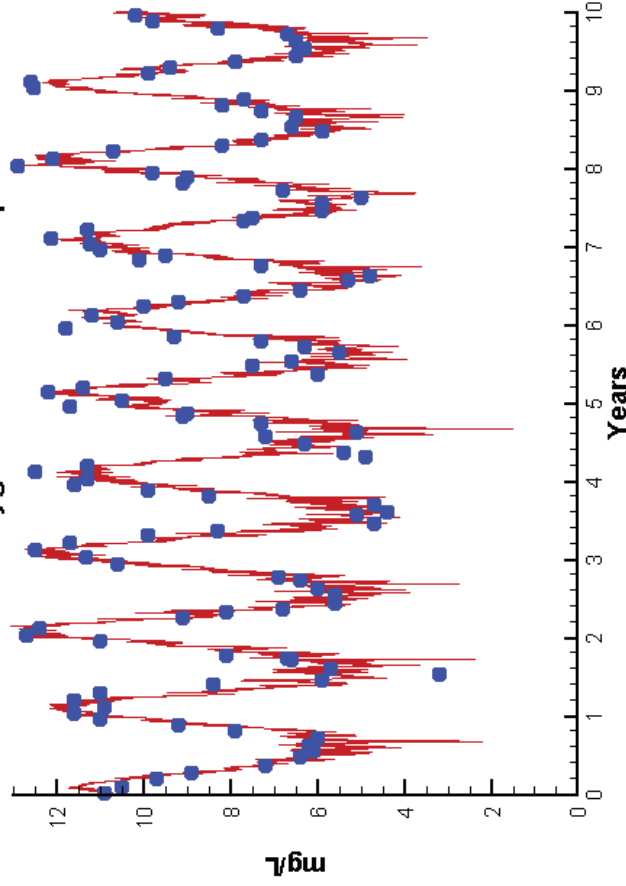
Run185 2002-2011
Dissolved Oxygen EE3.1 Surface



Run185 2002-2011
Dissolved Oxygen EE3.1 Bottom



Run185 2002-2011
Dissolved Oxygen EE3.1 Mid-Depth



Mean Difference

Absolute Mean Difference

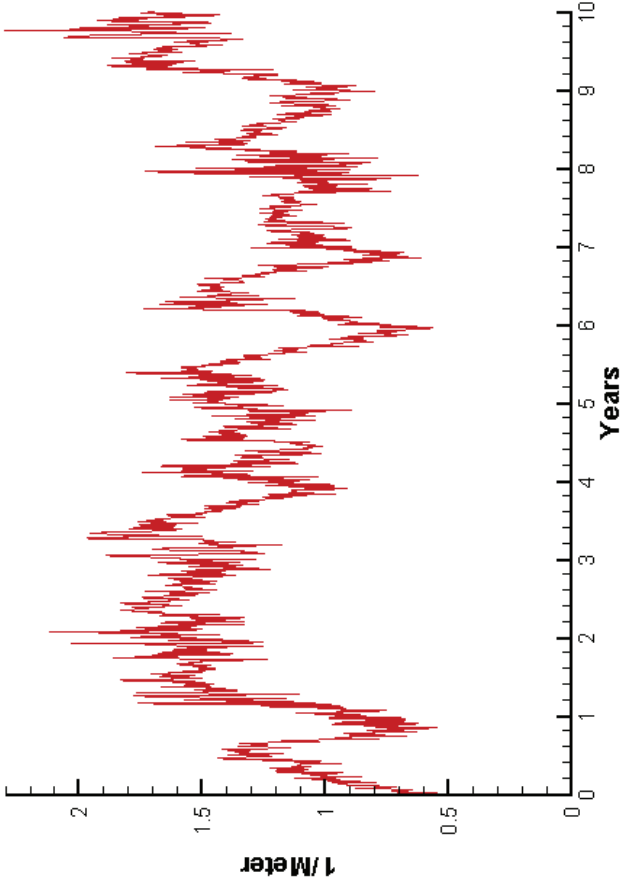
Top DO
Mid DO
Bot DO

-0.0531
-0.4940
-2.5822

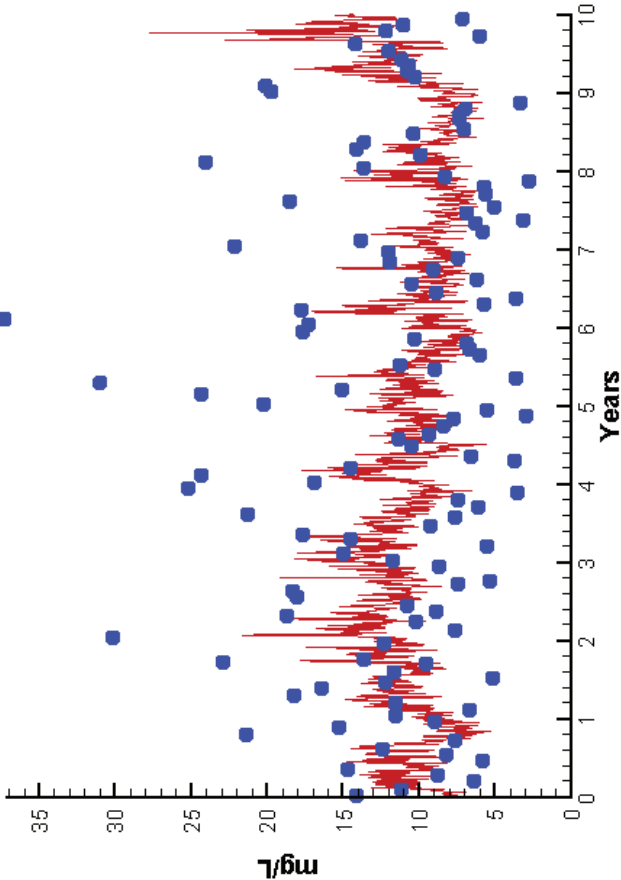
0.5547
0.8236
2.6253

Station EE3.1

Run185 2002-2011
Light Extinction EE3.1 Surface

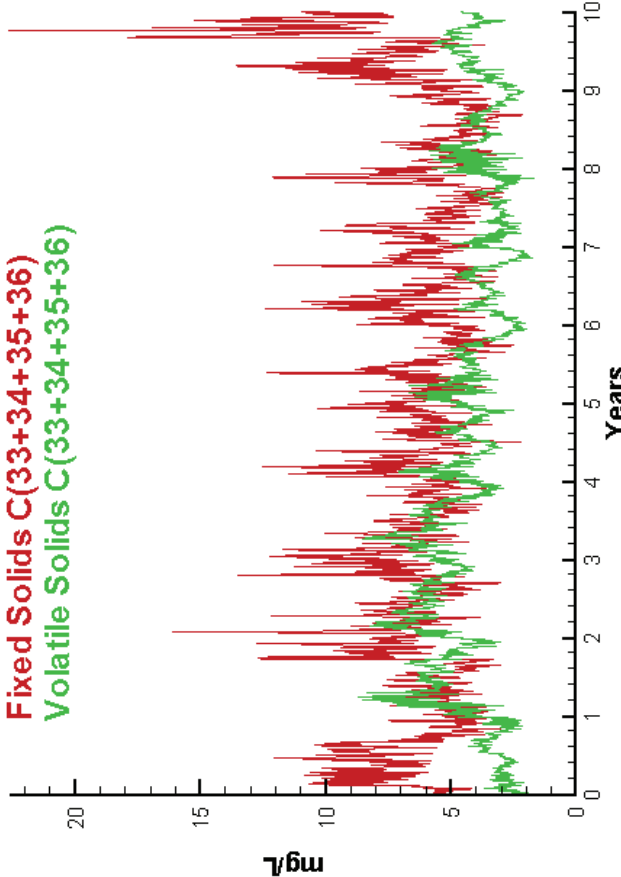


Run185 2002-2011
Total Solids EE3.1 Surface



Run185 2002-2011
Solids Surface

Fixed Solids C(33+34+35+36)
Volatile Solids C(33+34+35+36)



Mean Difference

Absolute Mean Difference

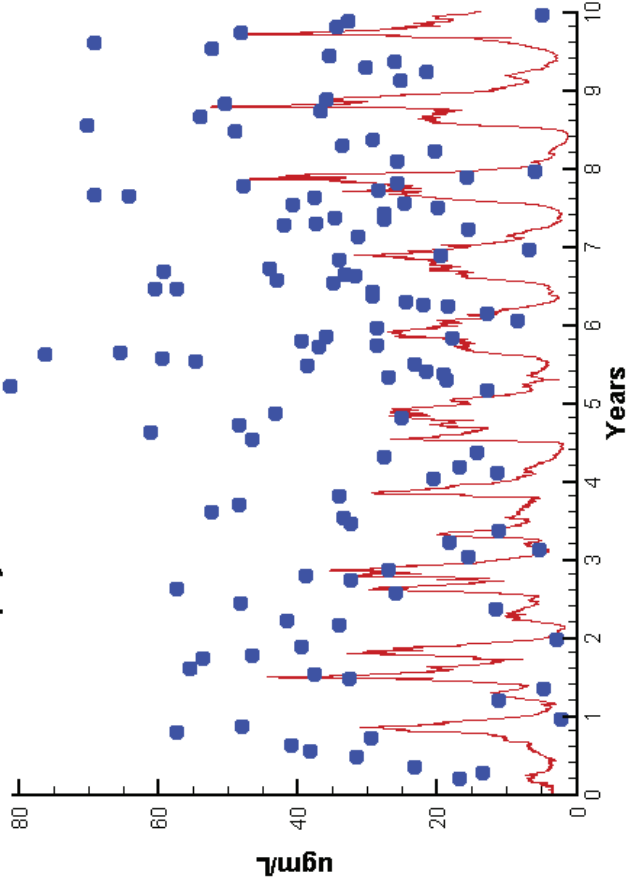
KE
TSS

-0.0537
-1.1454

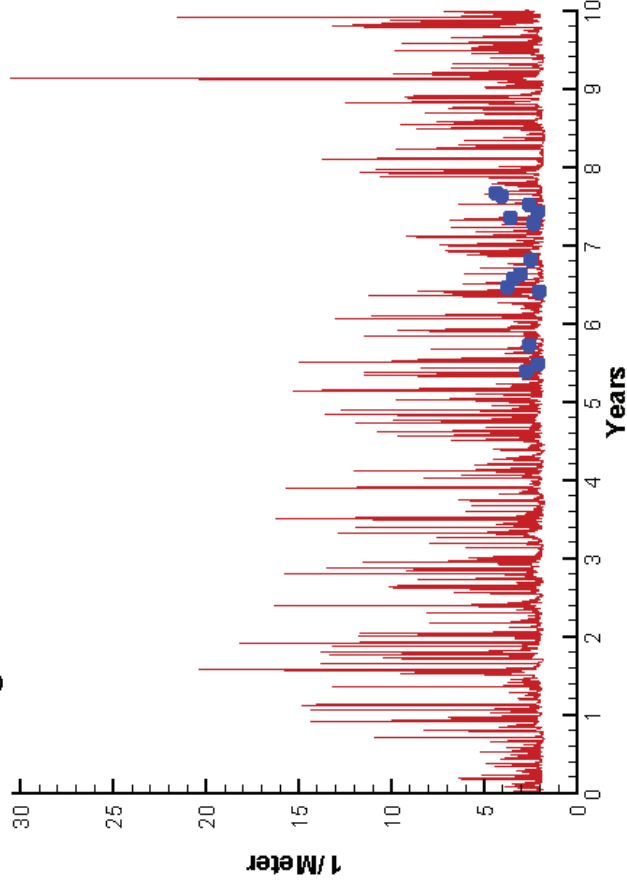
0.1349
4.7198

Station ET1.1

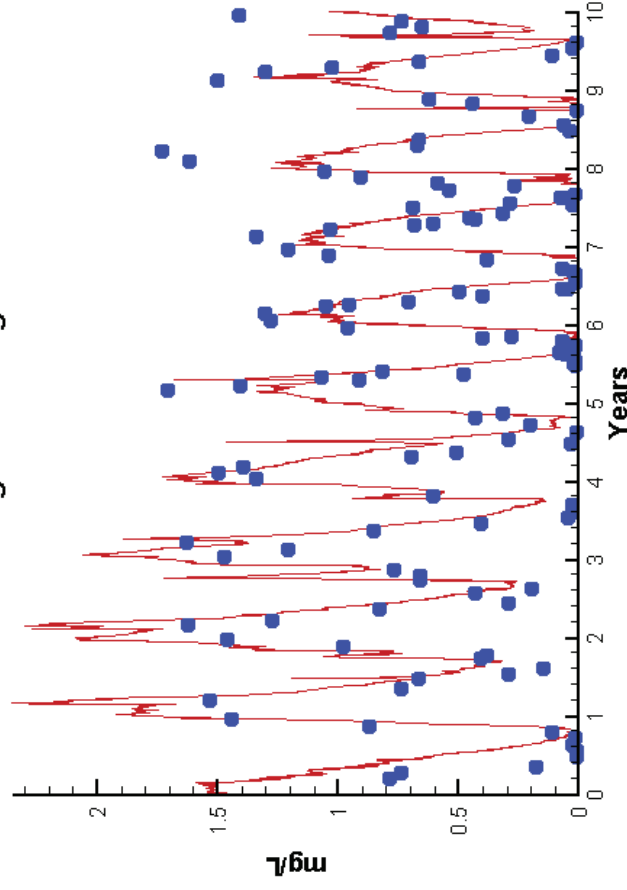
Run185 2002-2011
Chlorophyll ET1.1 Surface



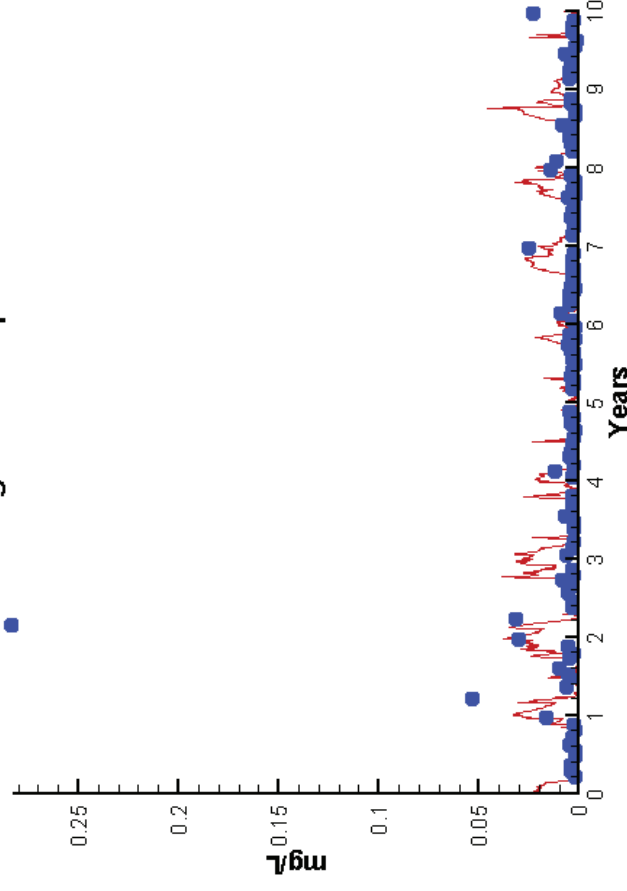
Run185 2002-2011
Light Extinction ET1.1 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen ET1.1 Surface

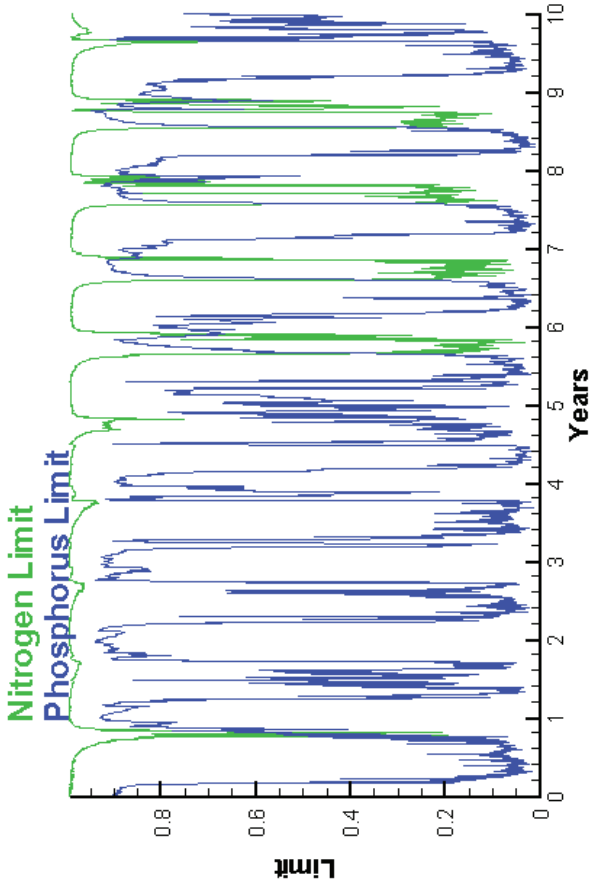


Run185 2002-2011
Dissolved Inorganic Phosphorus ET1.1 Surface

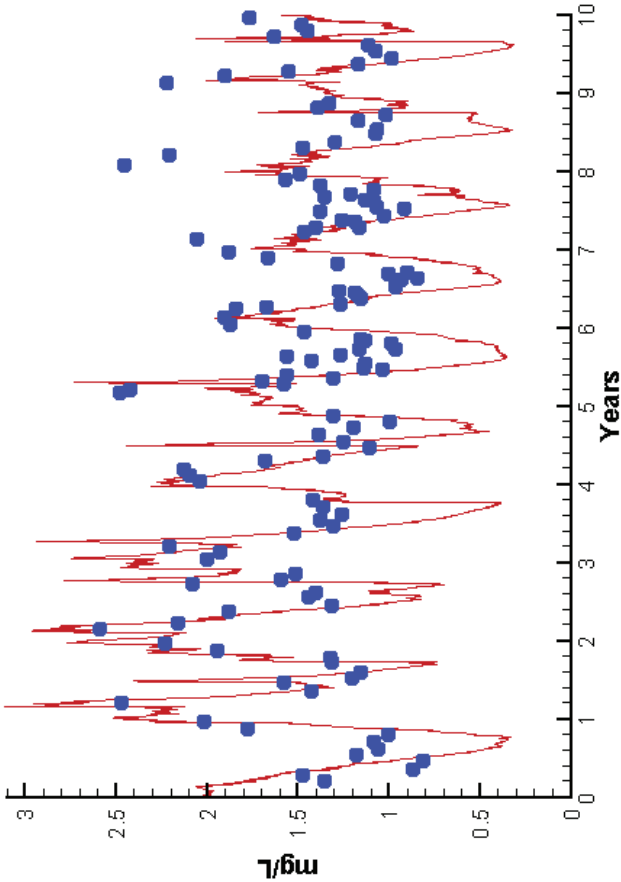


Station ET1.1

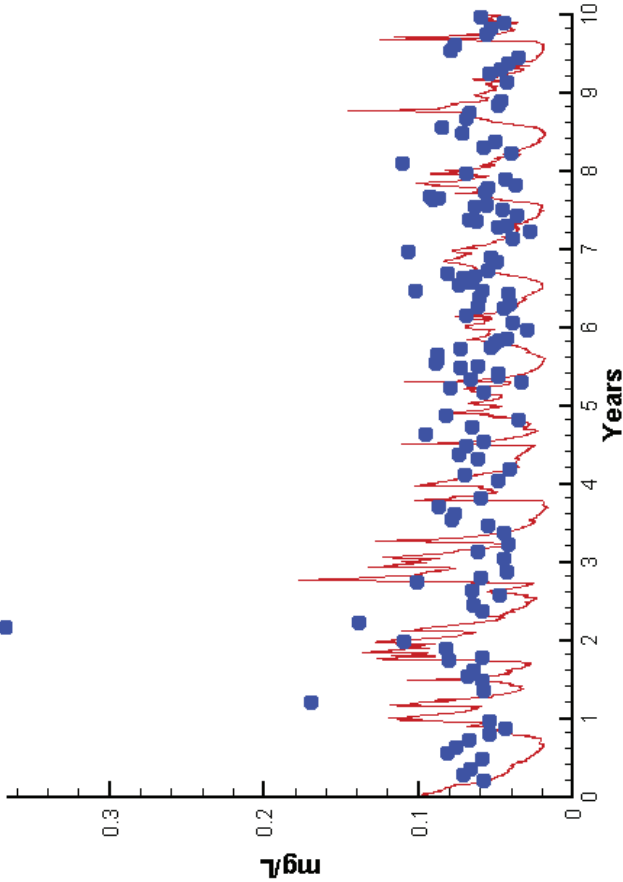
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen ET1.1 Surface



Run185 2002-2011
Total Phosphorus ET1.1 Surface



Mean Difference

Absolute Mean Difference

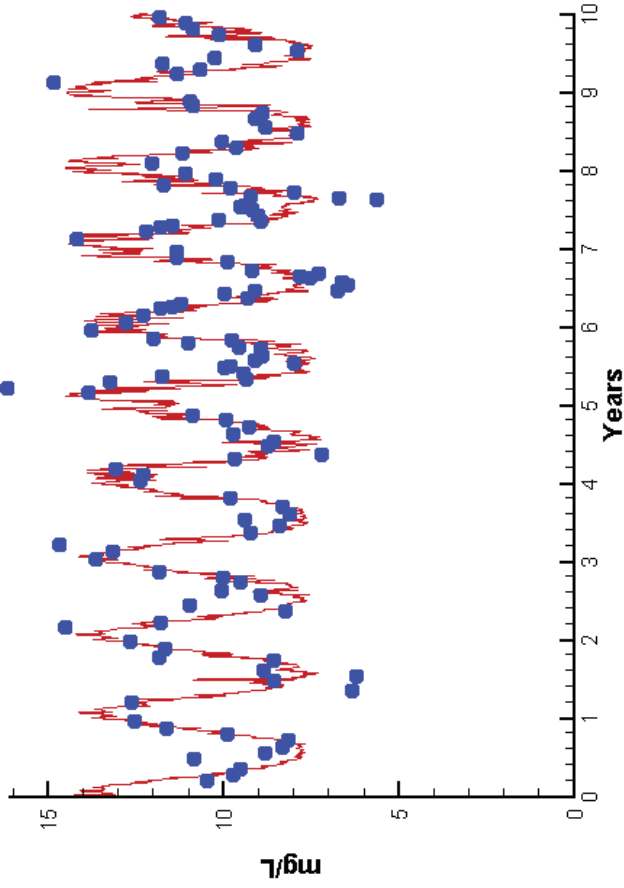
Chl
DIN
KE
DIP
TP
TN

-20.6924
0.0533
-0.5979
-0.0009
-0.0176
-0.3030

22.6306
0.2898
0.7760
0.0084
0.0301
0.4243

Station ET1.1

Run185 2002-2011
Dissolved Oxygen ET1.1 Surface



Mean Difference

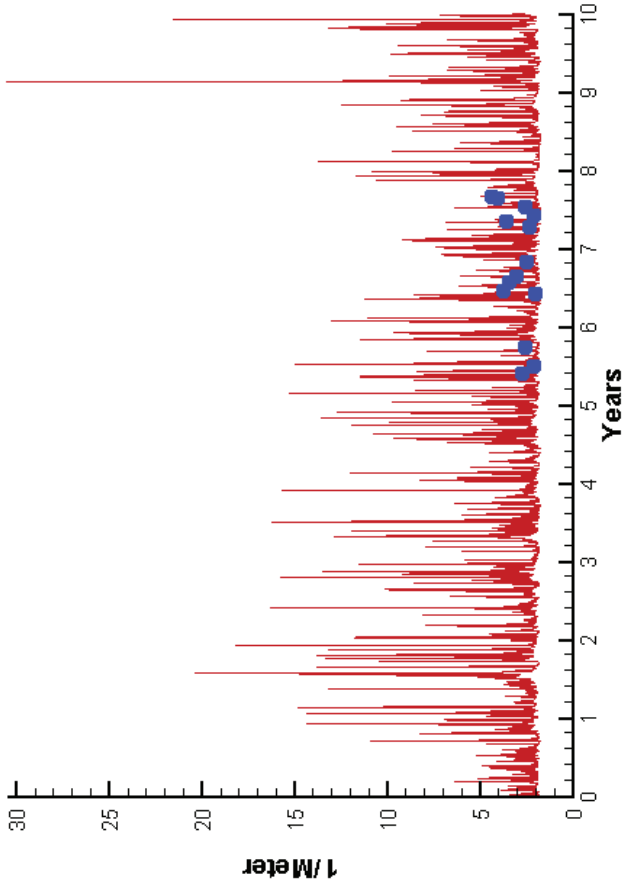
Top DO -0.4410

Absolute Mean Difference

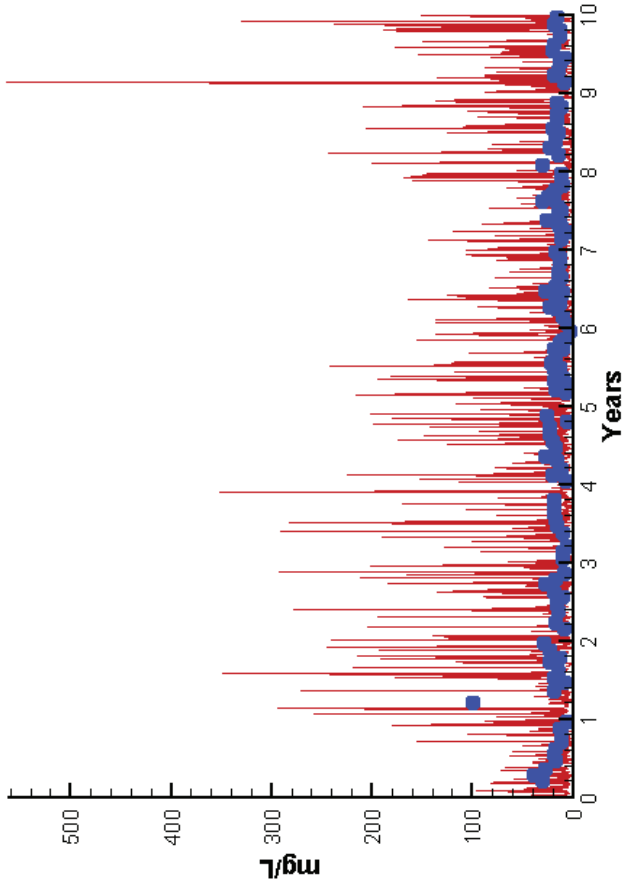
1.0019

Station ET1.1

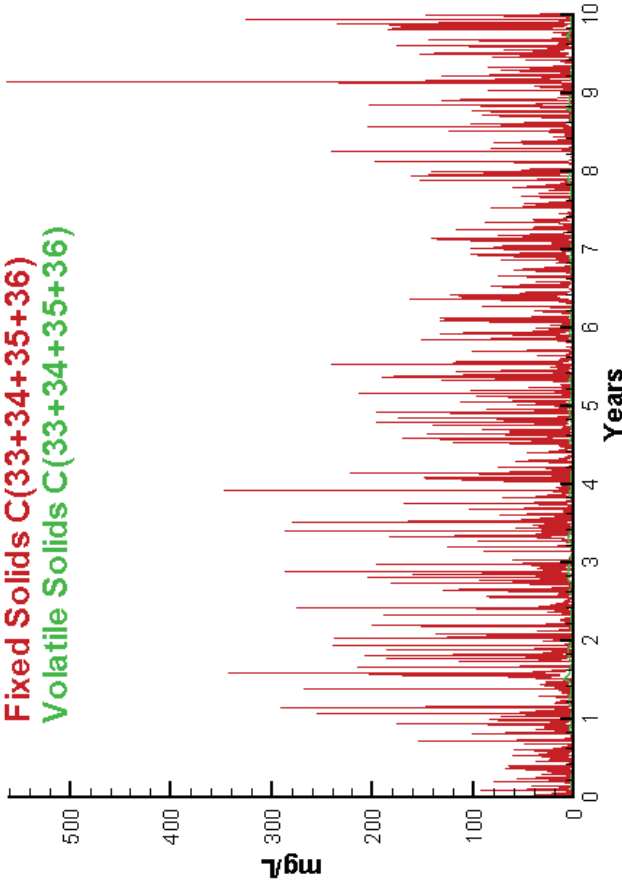
Run185 2002-2011
Light Extinction ET1.1 Surface



Run185 2002-2011
Total Solids ET1.1 Surface



Run185 2002-2011
Solids Surface

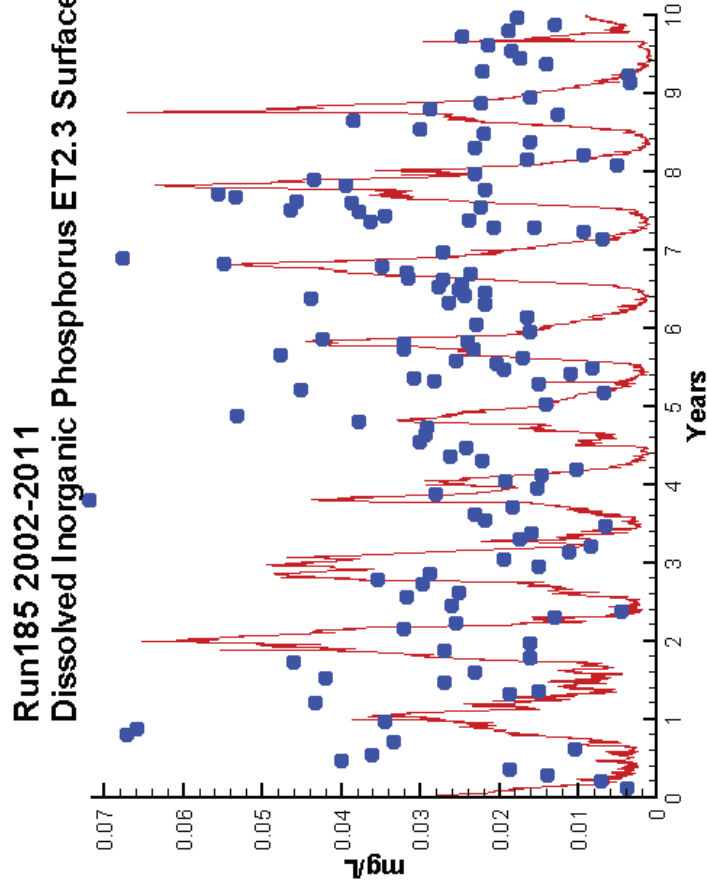
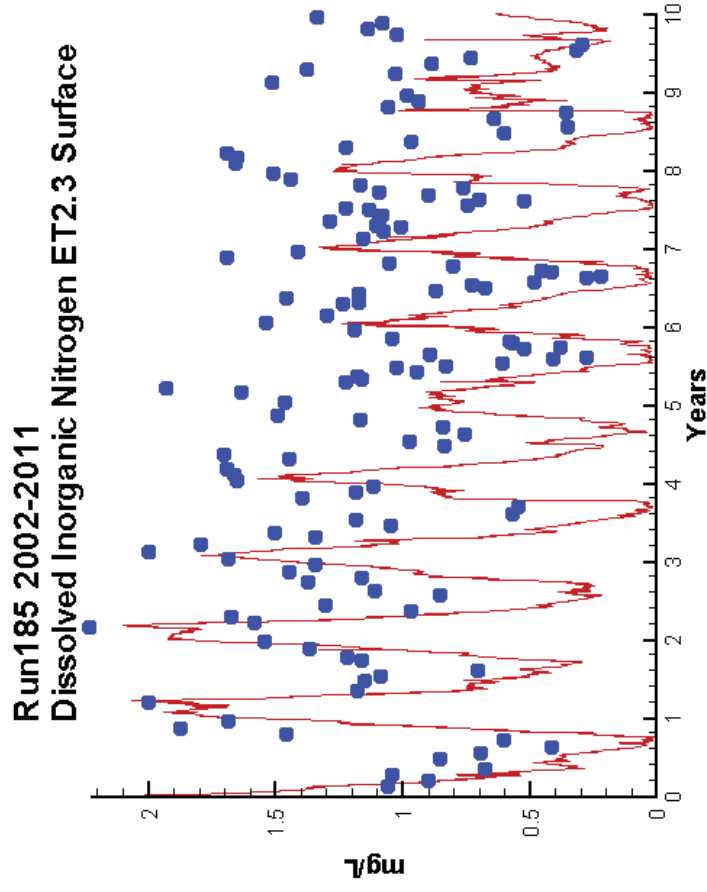
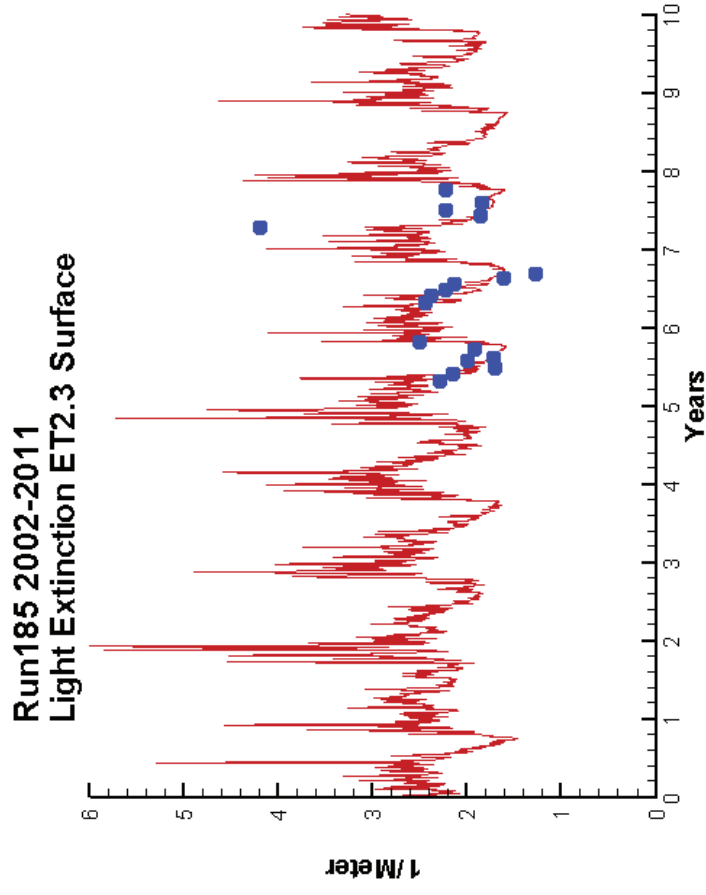
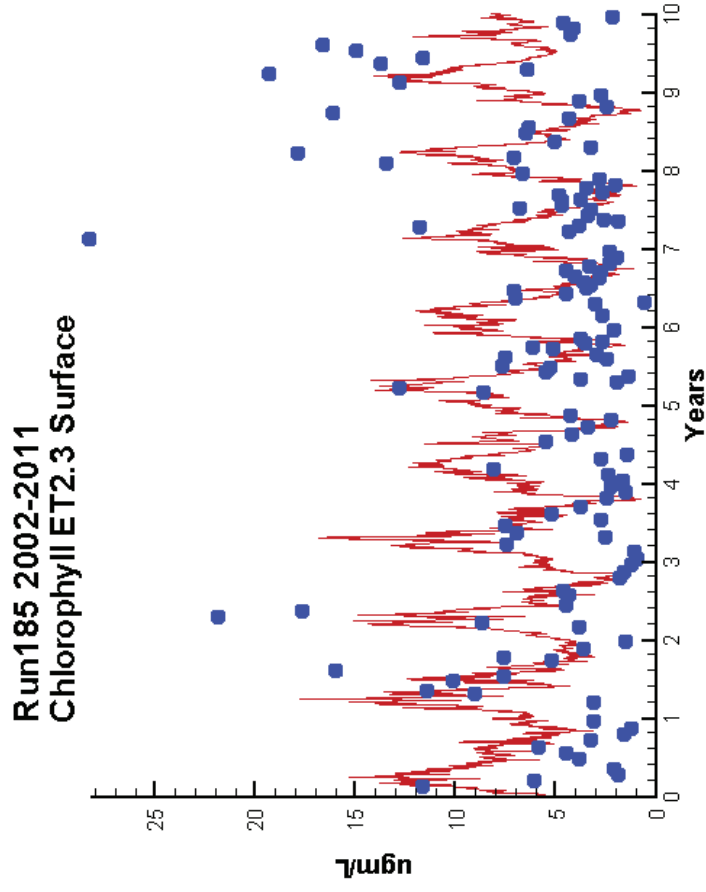


Fixed Solids C(33+34+35+36)
Volatile Solids C(33+34+35+36)

Mean Difference Absolute Mean Difference

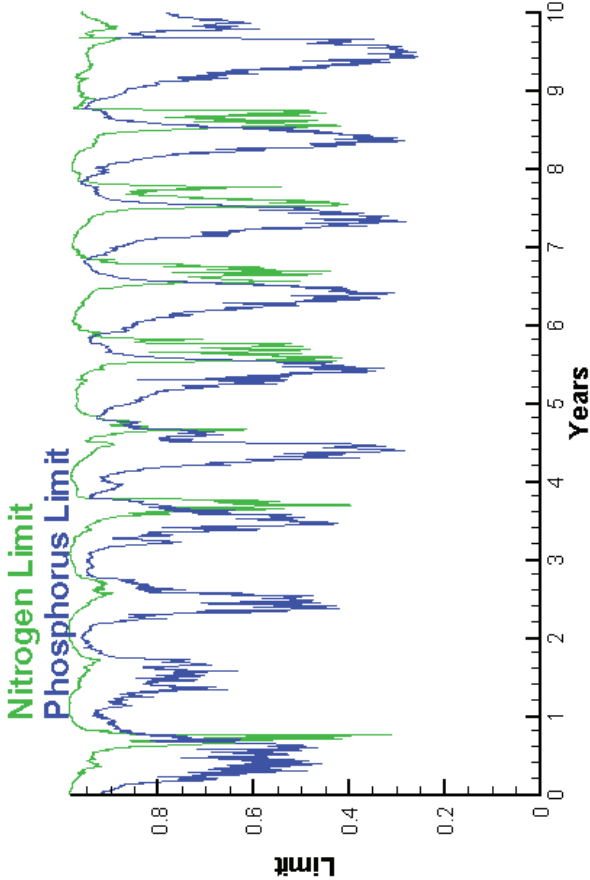
KE	-0.5979	0.7760
TSS	0.4981	14.3498

Station ET2.3

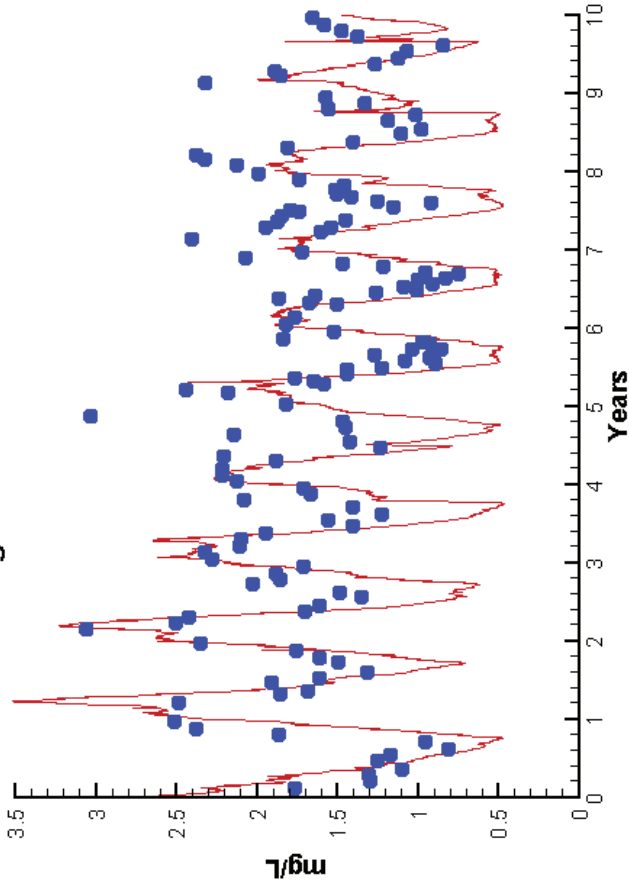


Station ET2.3

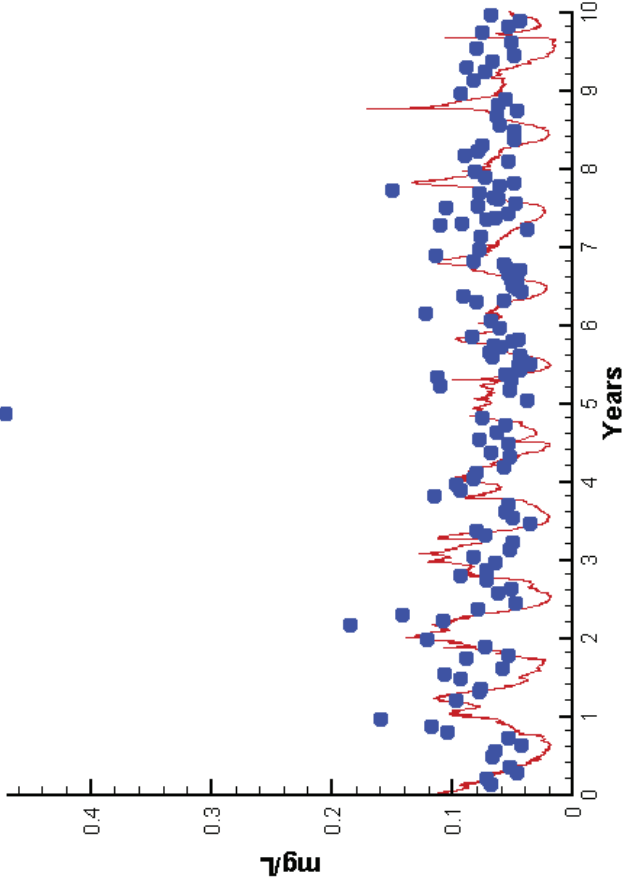
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen ET2.3 Surface



Run185 2002-2011
Total Phosphorus ET2.3 Surface



Mean Difference

Absolute Mean Difference

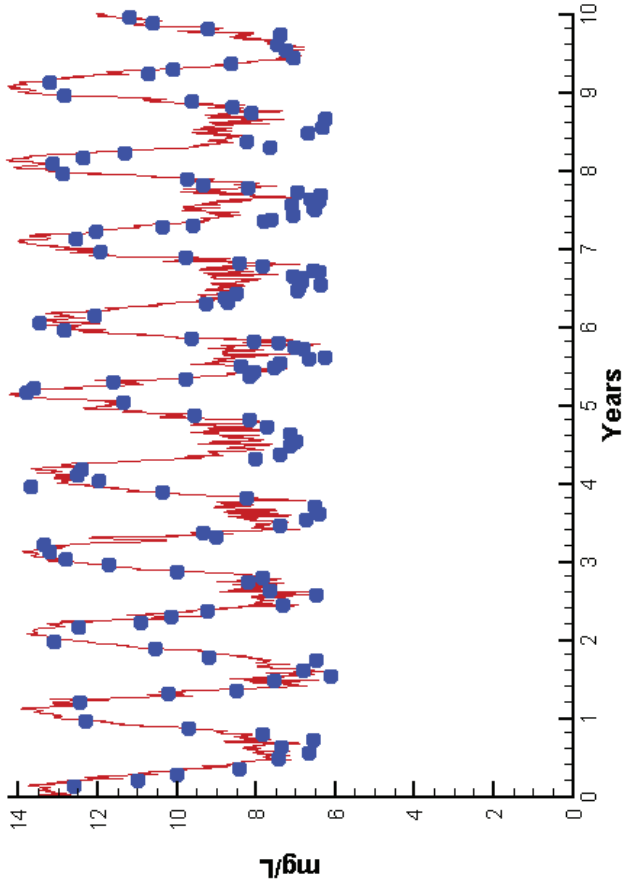
Chl
DIN
KE
DIP
TP
TN

1.1123
-0.5663
-0.0950
-0.0099
-0.0162
-0.3727

3.6530
0.5770
0.3220
0.0155
0.0300
0.4712

Station ET2.3

Run185 2002-2011
Dissolved Oxygen ET2.3 Surface



Mean Difference

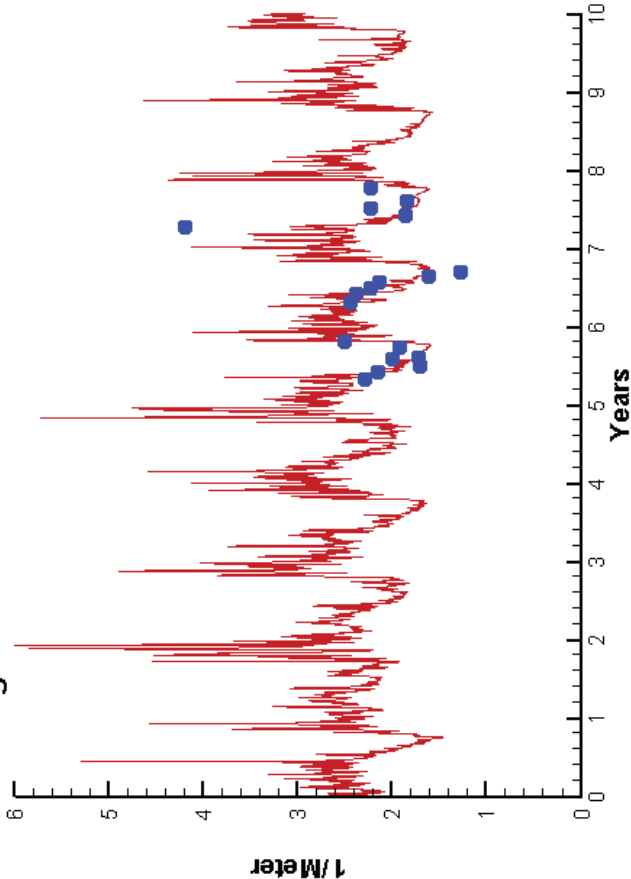
Top DO 0.7649

Absolute Mean Difference

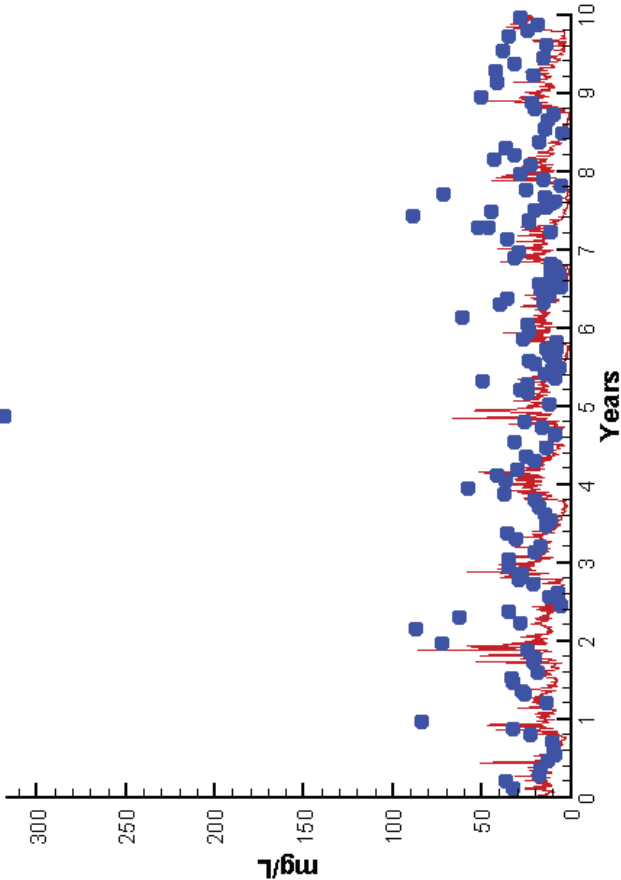
0.9706

Station ET2.3

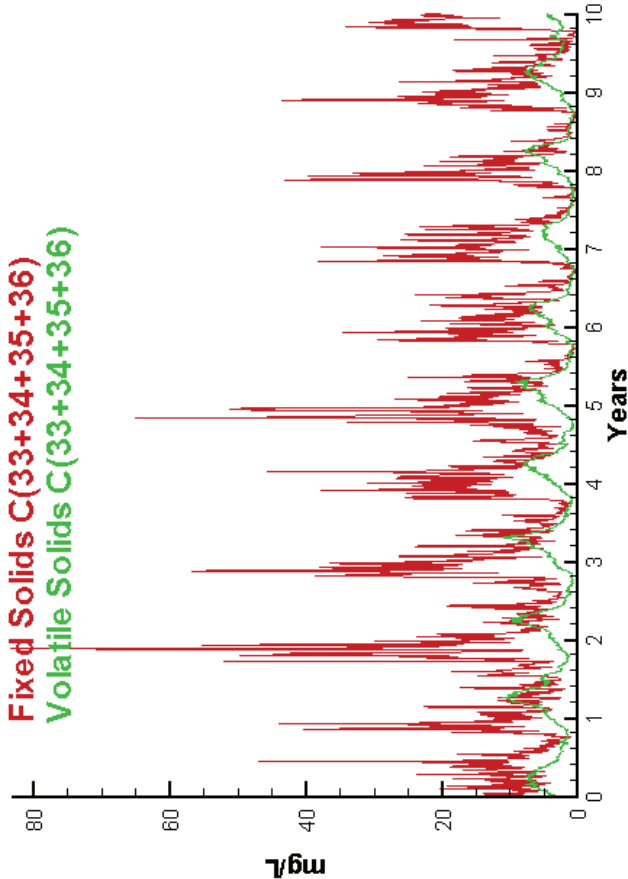
Run185 2002-2011
Light Extinction ET2.3 Surface



Run185 2002-2011
Total Solids ET2.3 Surface



Run185 2002-2011
Solids Surface



Mean Difference

Absolute Mean Difference

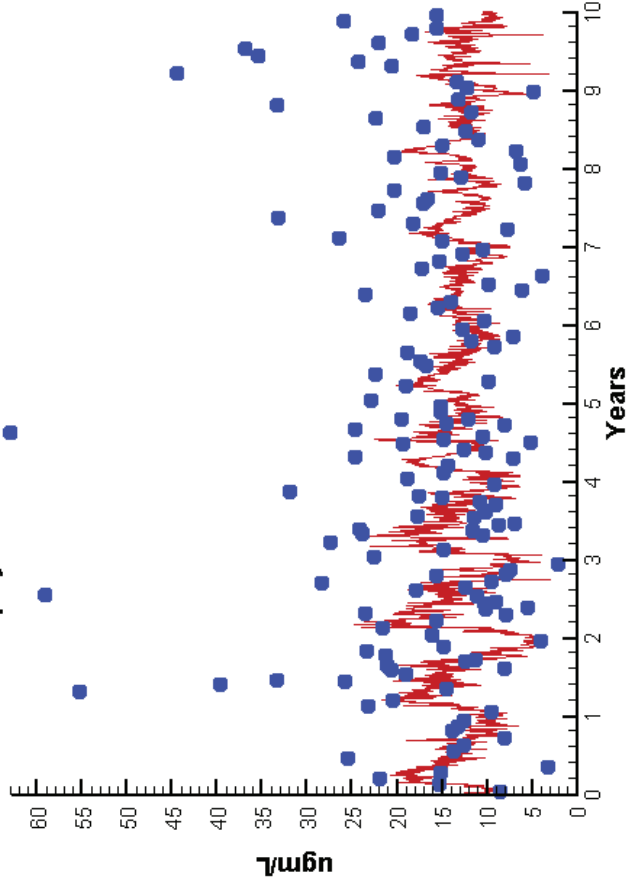
KE
TSS

-0.0950
-14.5140

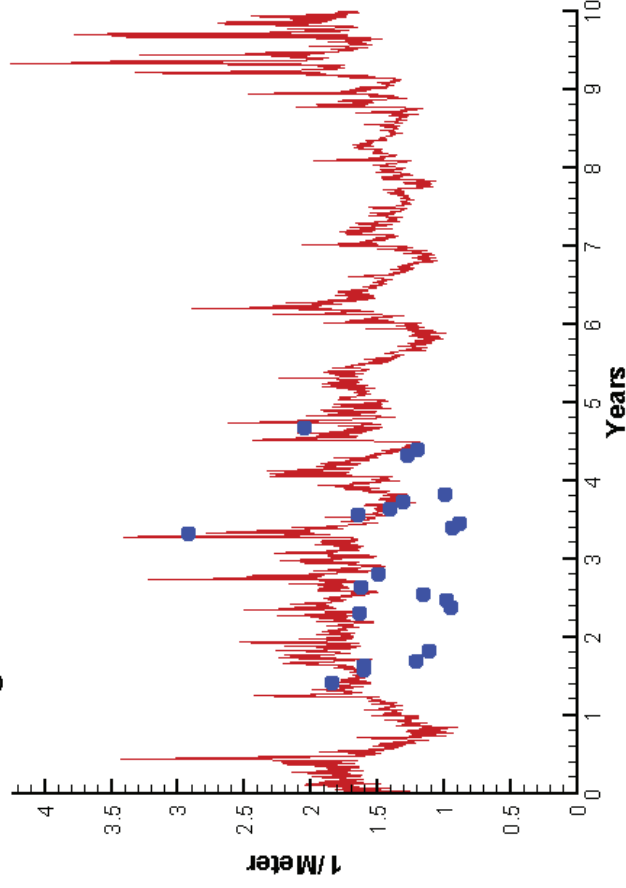
0.3220
16.6911

Station ET4.2

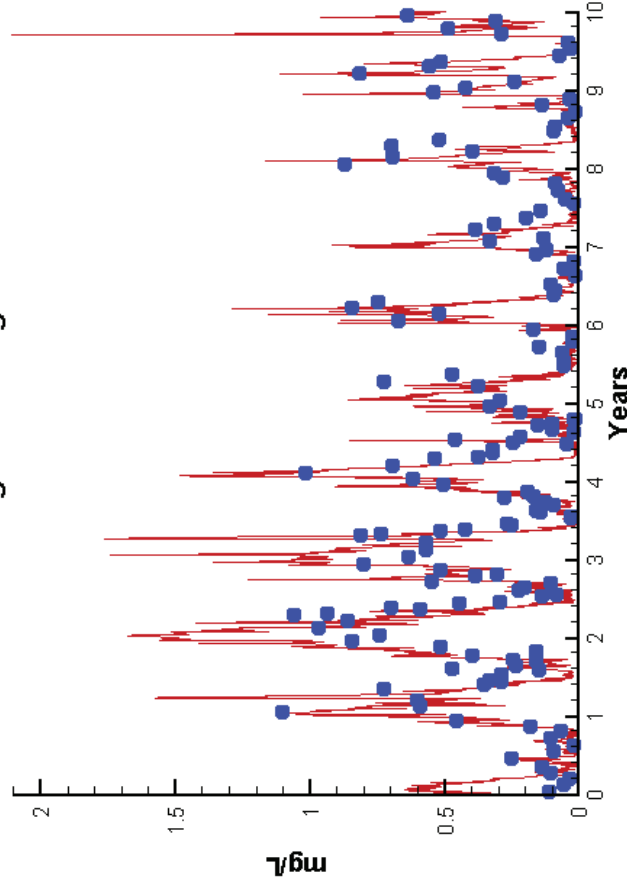
Run185 2002-2011
Chlorophyll ET4.2 Surface



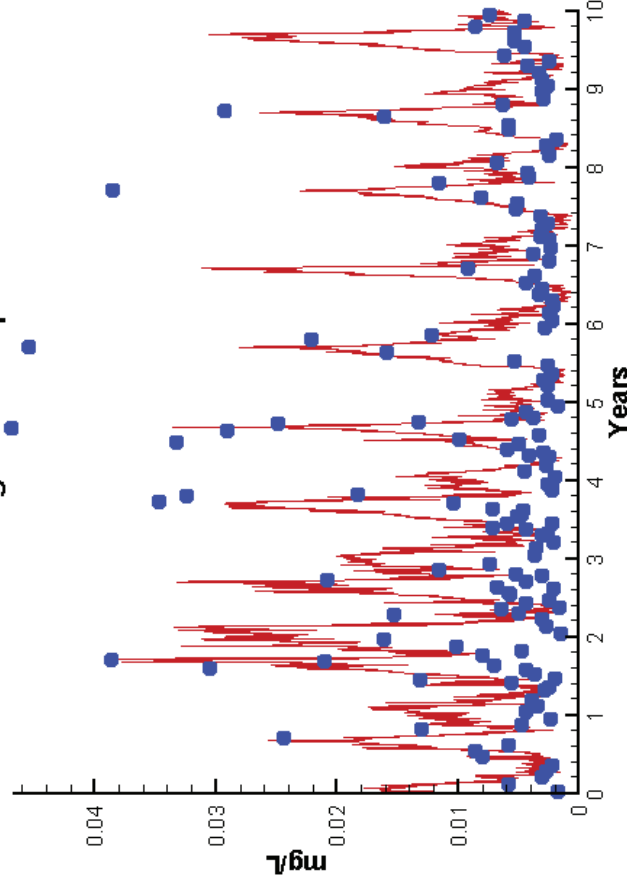
Run185 2002-2011
Light Extinction ET4.2 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen ET4.2 Surface

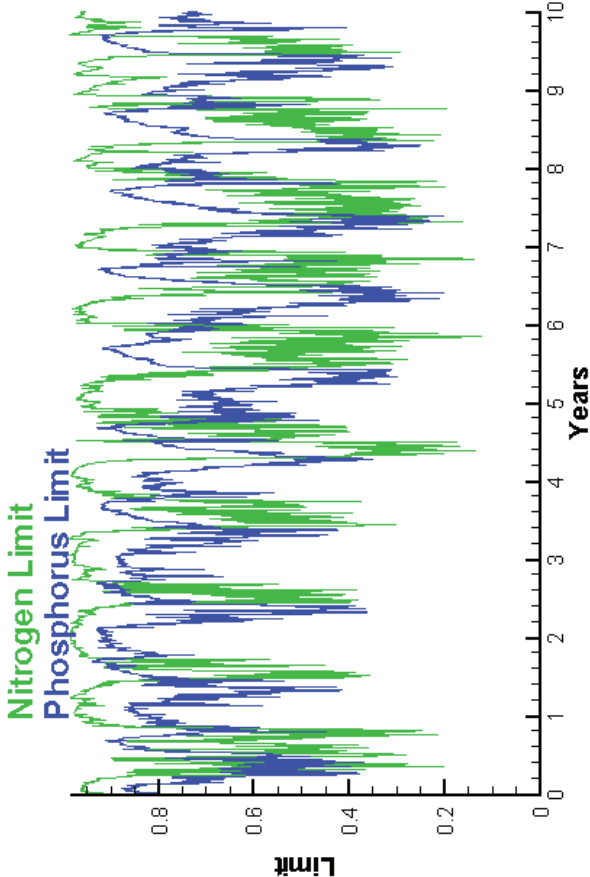


Run185 2002-2011
Dissolved Inorganic Phosphorus ET4.2 Surface

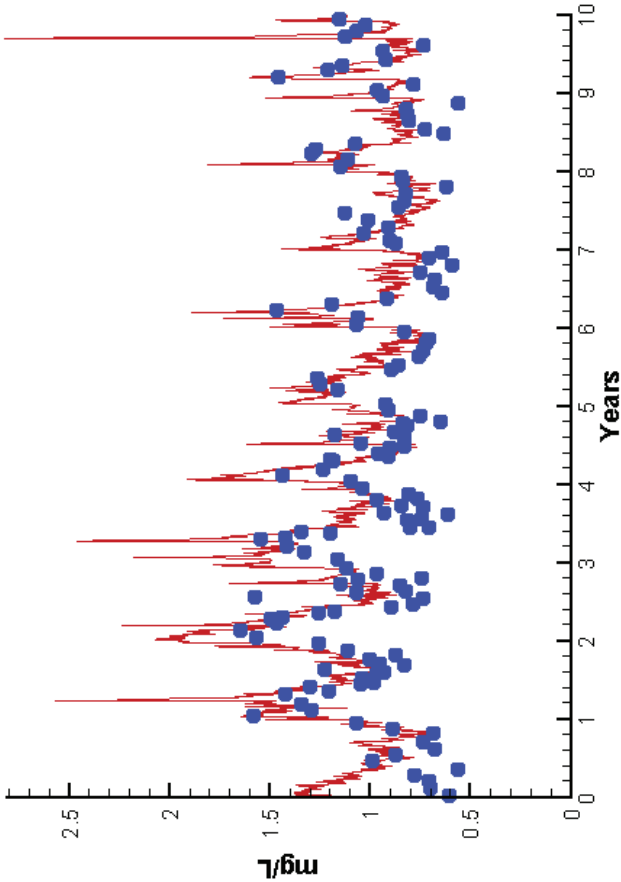


Station ET4.2

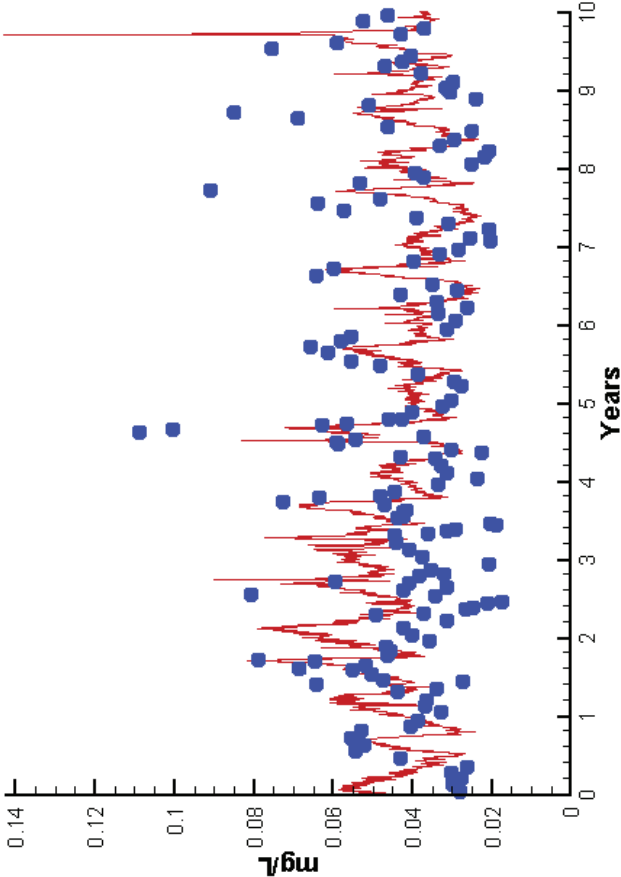
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen ET4.2 Surface



Run185 2002-2011
Total Phosphorus ET4.2 Surface



Mean Difference

Absolute Mean Difference

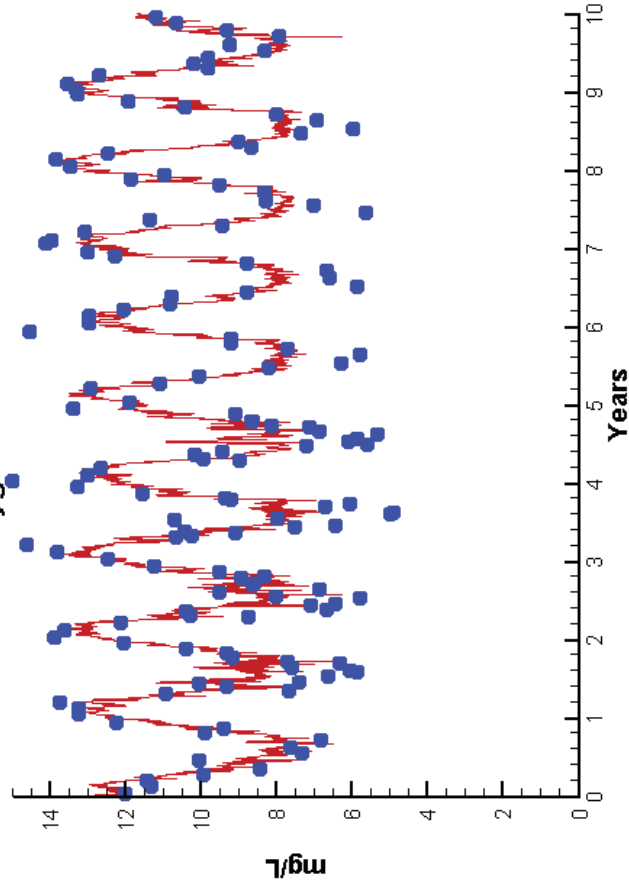
Chl
DIN
KE
DIP
TP
TN

-3.3869
-0.0579
0.2904
0.0025
0.0015
0.1166

7.0386
0.1689
0.4197
0.0067
0.0137
0.1790

Station ET4.2

Run185 2002-2011
Dissolved Oxygen ET4.2 Surface



Top DO

0.2993

1.0471

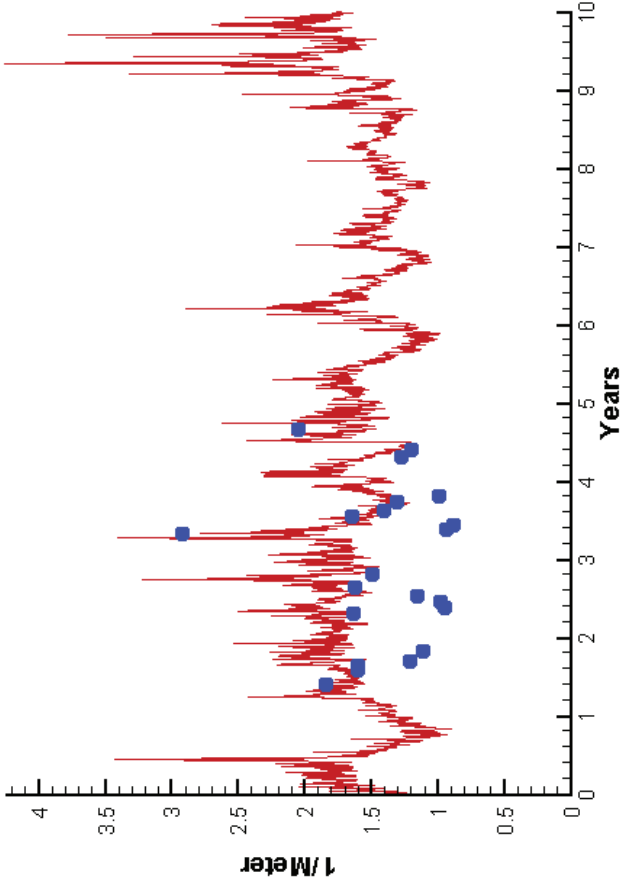
Mean Difference

Absolute Mean Difference

Station ET4.2

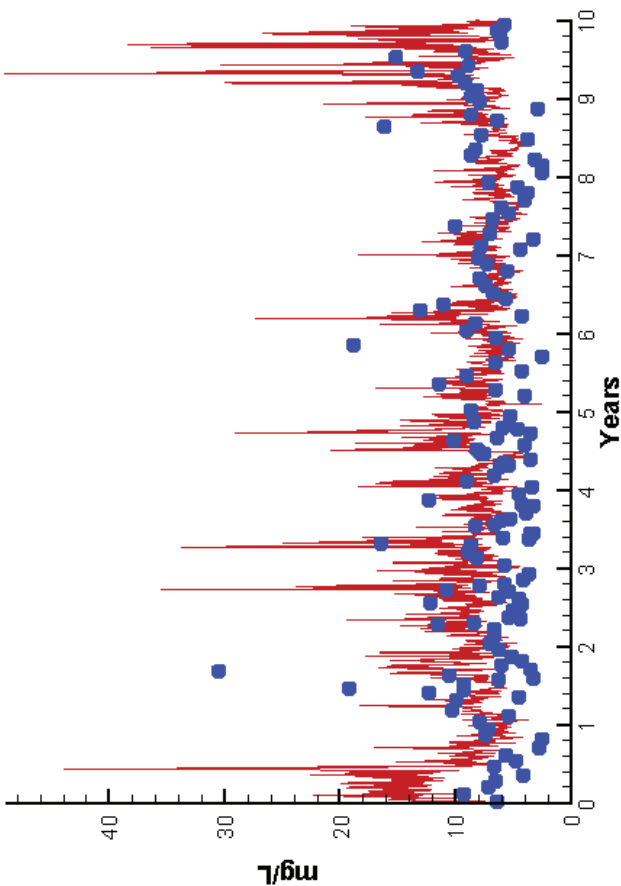
Run185 2002-2011

Light Extinction ET4.2 Surface



Run185 2002-2011

Total Solids ET4.2 Surface

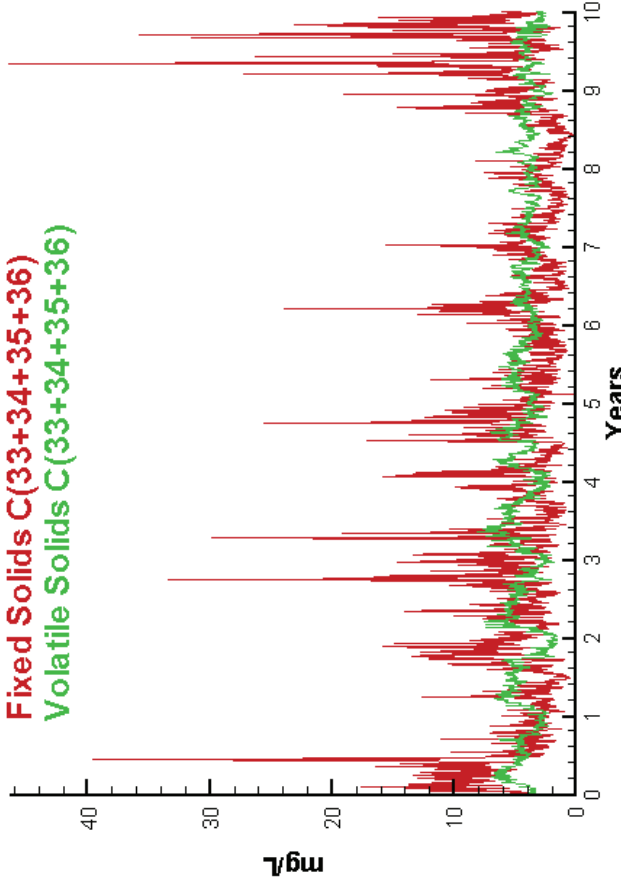


Run185 2002-2011

Solids Surface

Fixed Solids C(33+34+35+36)

Volatile Solids C(33+34+35+36)



Mean Difference

0.2904

1.6896

Absolute Mean Difference

0.4197

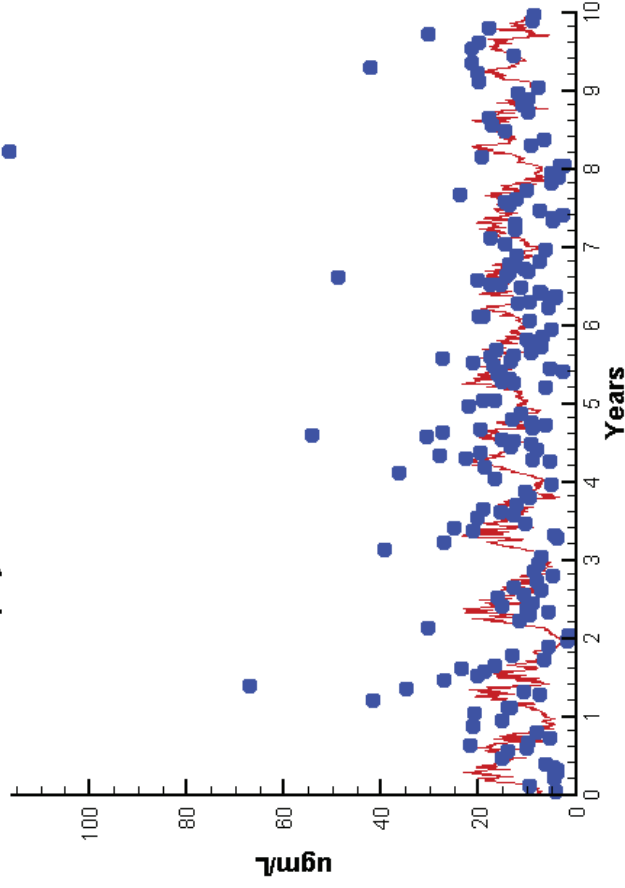
3.6034

KE

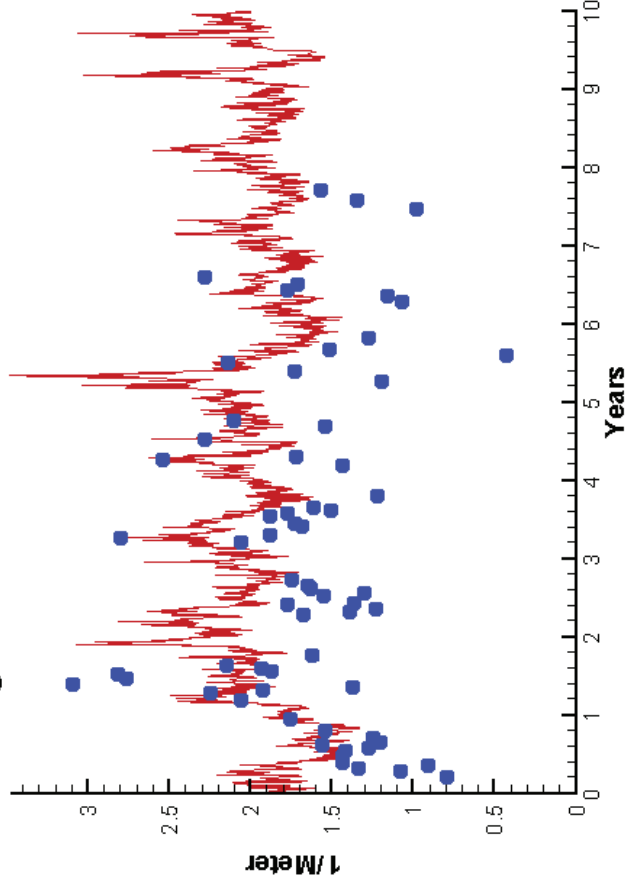
TSS

Station ET5.2

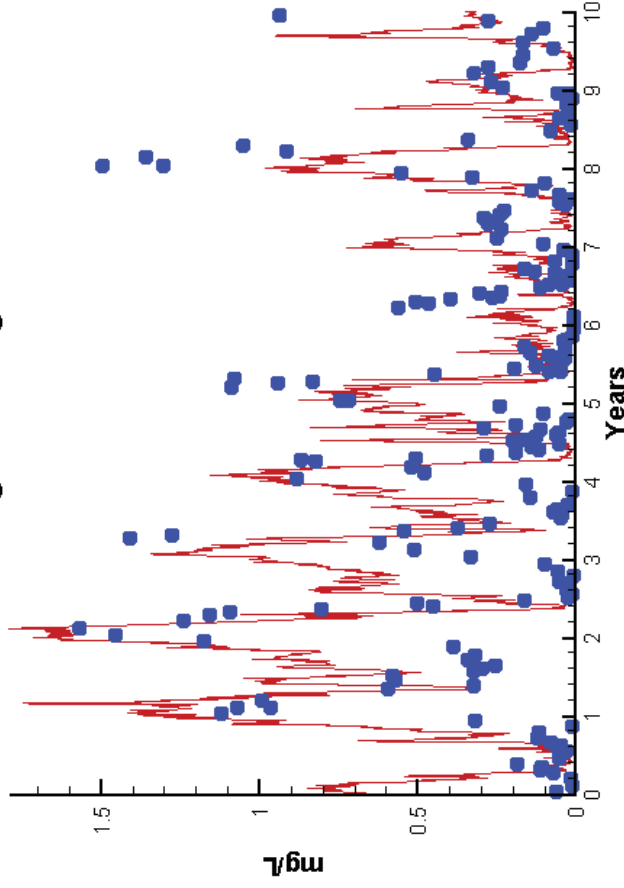
Run185 2002-2011
Chlorophyll ET5.2 Surface



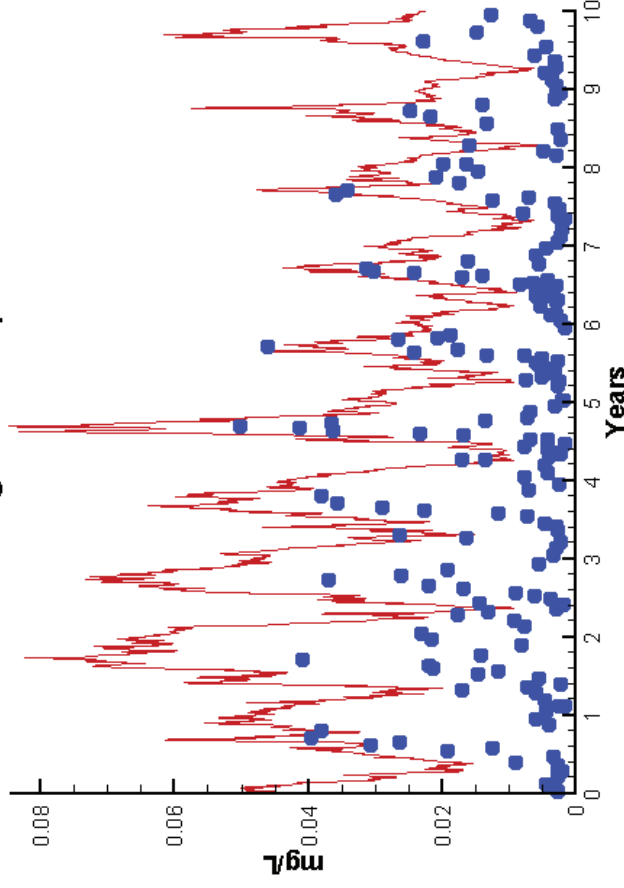
Run185 2002-2011
Light Extinction ET5.2 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen ET5.2 Surface

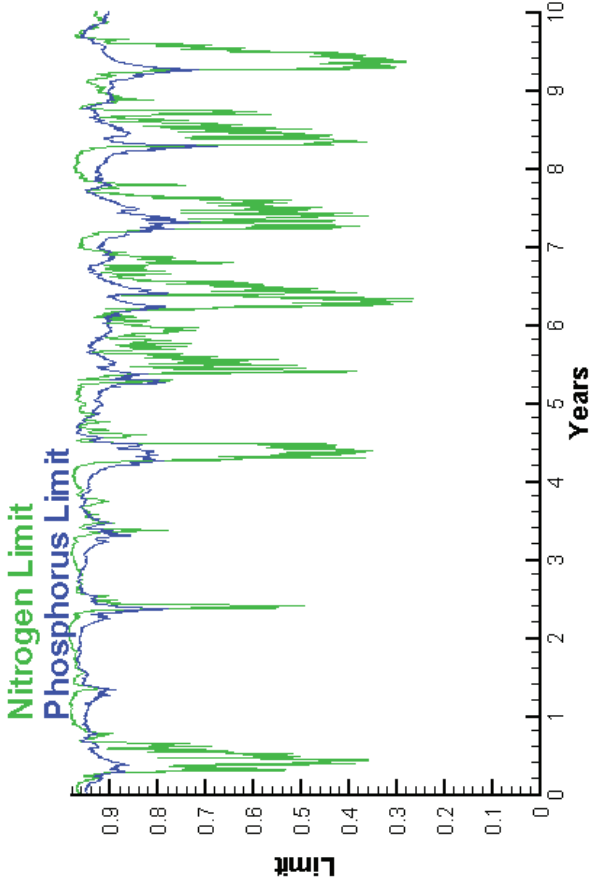


Run185 2002-2011
Dissolved Inorganic Phosphorus ET5.2 Surface

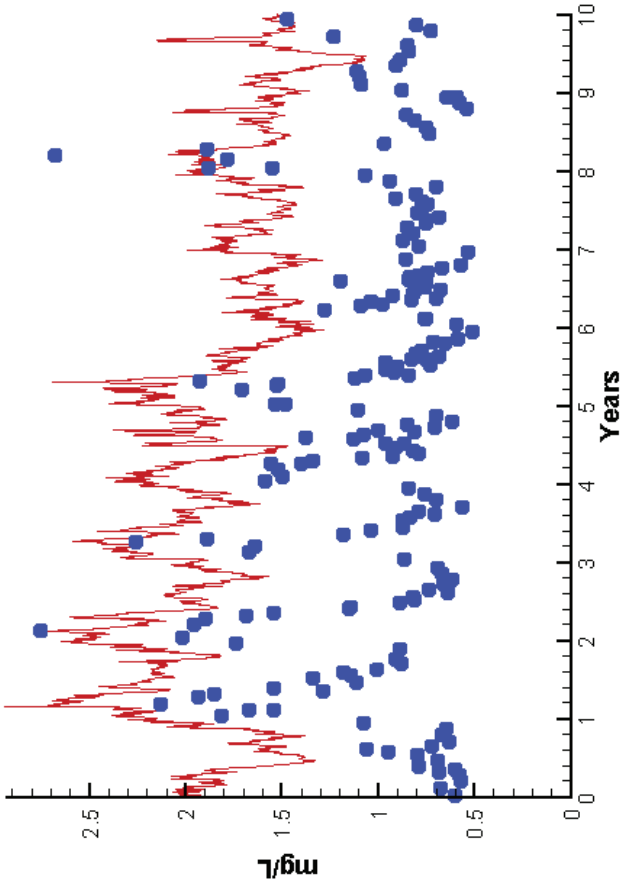


Station ET5.2

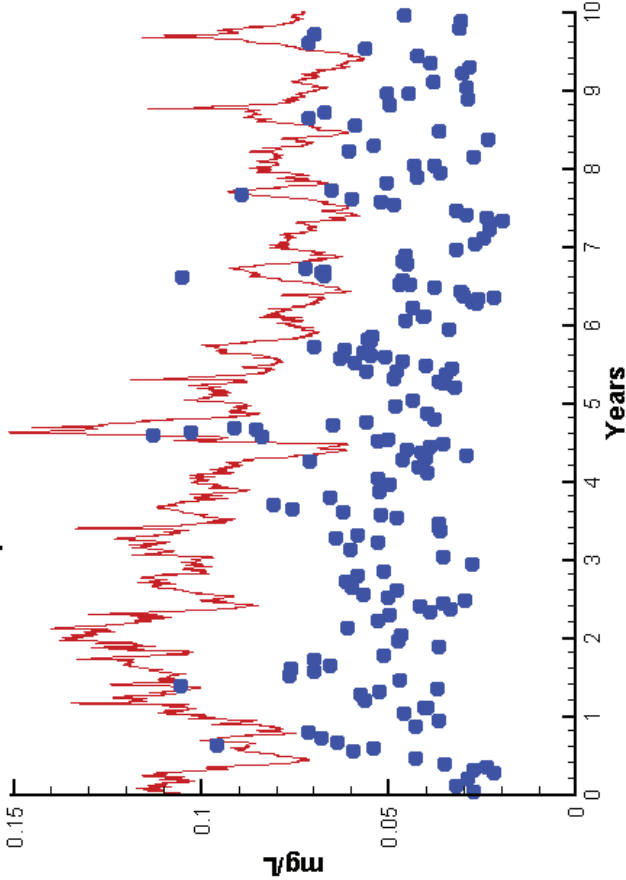
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen ET5.2 Surface



Run185 2002-2011
Total Phosphorus ET5.2 Surface

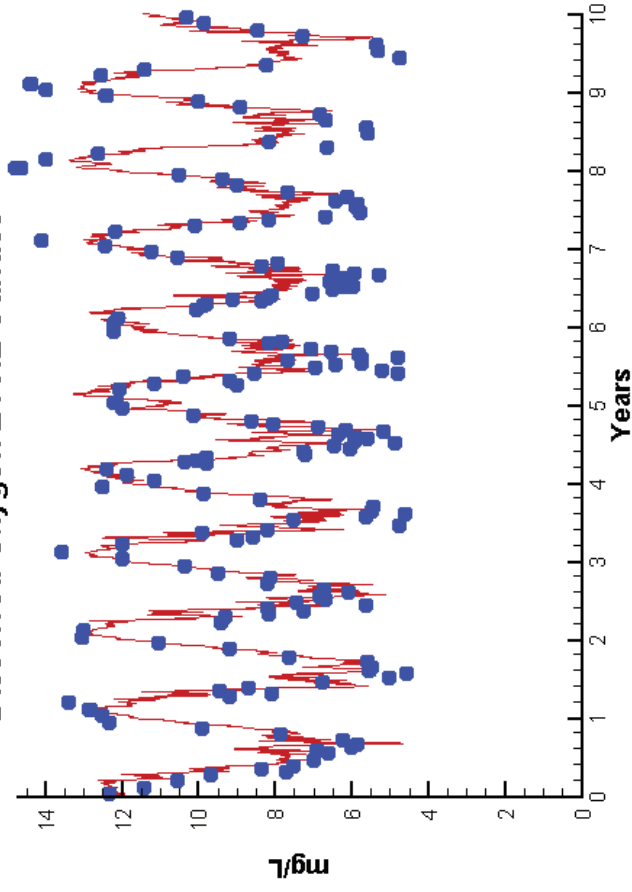


Mean Difference Absolute Mean Difference

Chl	-0.9353	7.4493
DIN	0.0740	0.2982
KE	0.3431	0.4568
DIP	0.0210	0.0213
TP	0.0417	0.0421
TN	0.8169	0.8278

Station ET5.2

Run185 2002-2011
Dissolved Oxygen ET5.2 Surface



Mean Difference

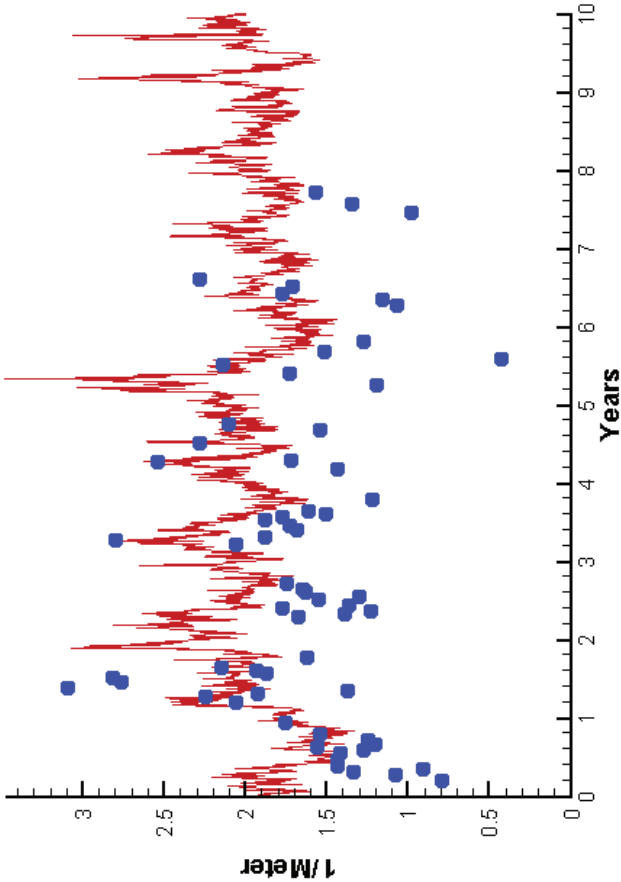
Top DO 0.6898

Absolute Mean Difference

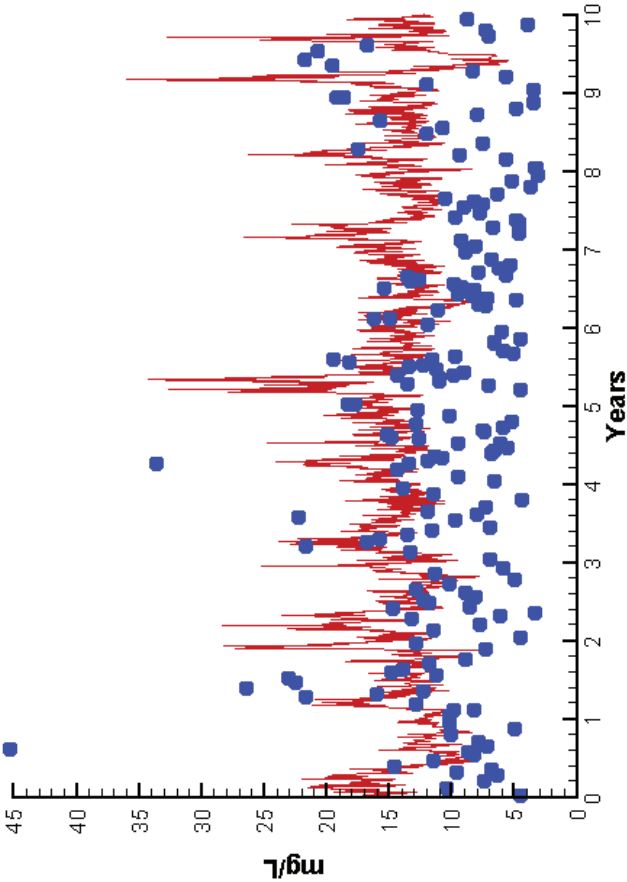
1.1523

Station ET5.2

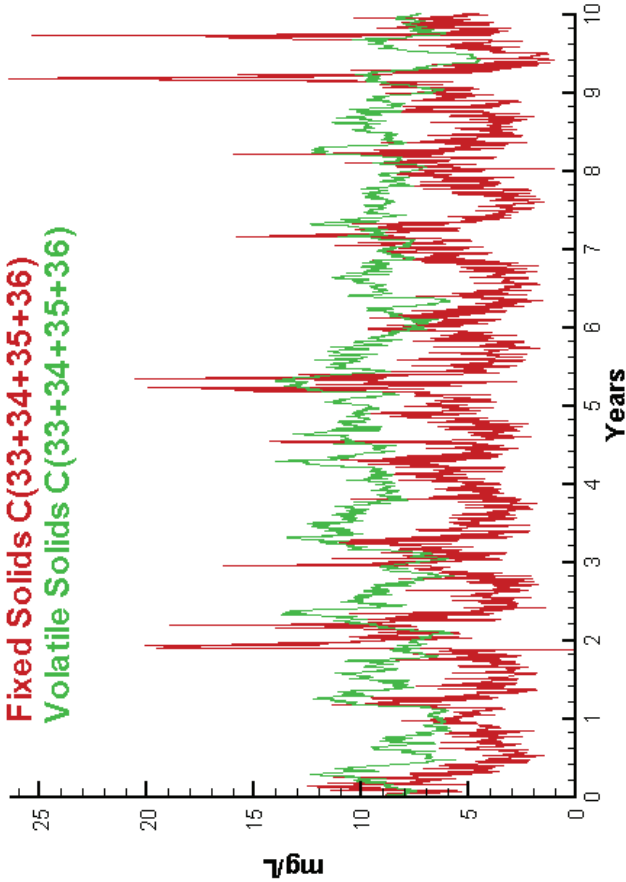
Run185 2002-2011
Light Extinction ET5.2 Surface



Run185 2002-2011
Total Solids ET5.2 Surface



Run185 2002-2011
Solids Surface



Mean Difference Absolute Mean Difference

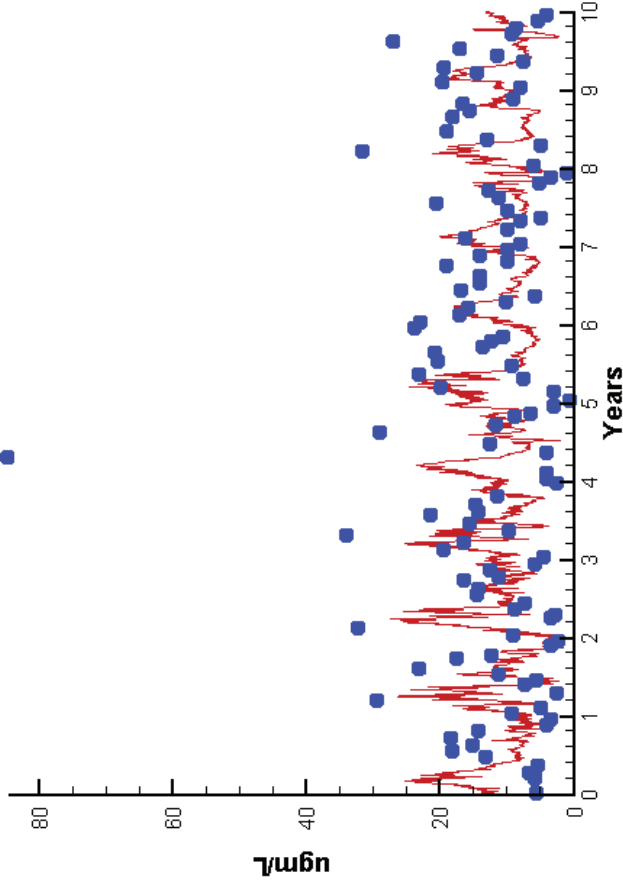
0.3431
3.8966

0.4568
5.8983

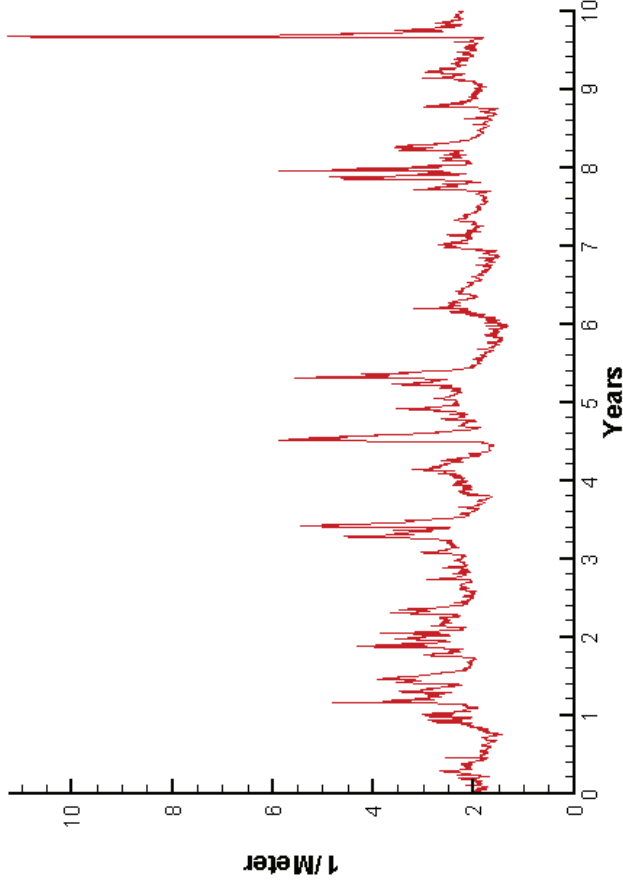
KE
TSS

Station ET6.2

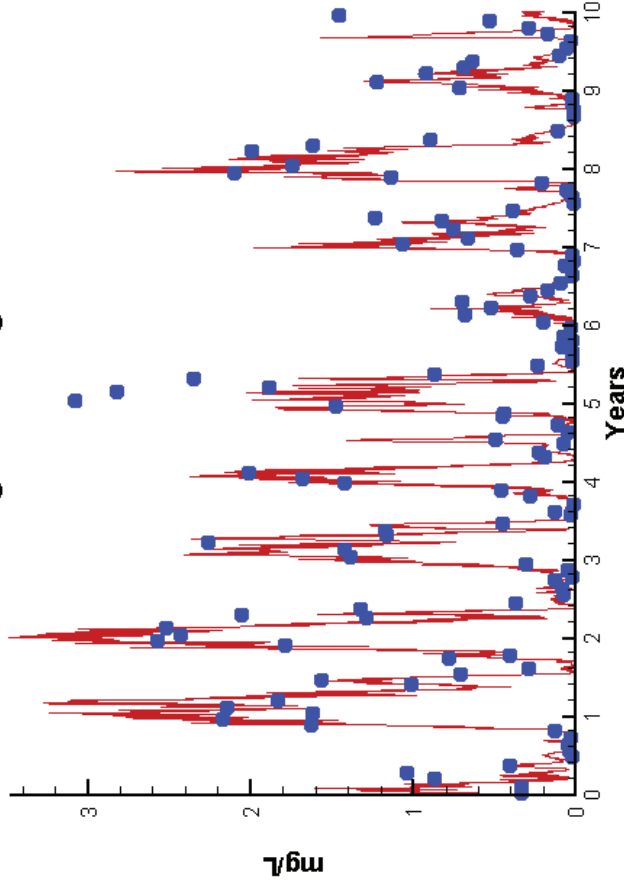
Run185 2002-2011
Chlorophyll ET6.2 Surface



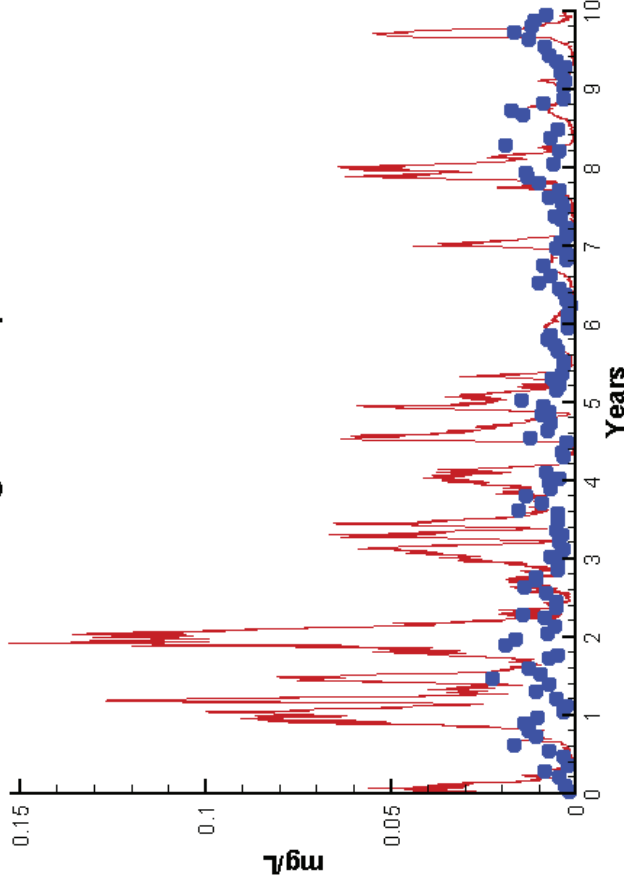
Run185 2002-2011
Light Extinction ET6.2 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen ET6.2 Surface

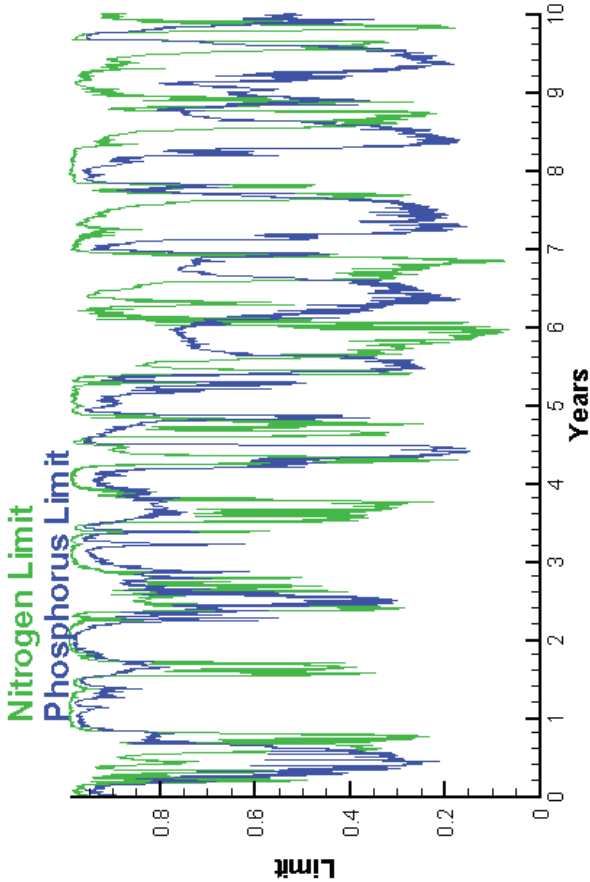


Run185 2002-2011
Dissolved Inorganic Phosphorus ET6.2 Surface

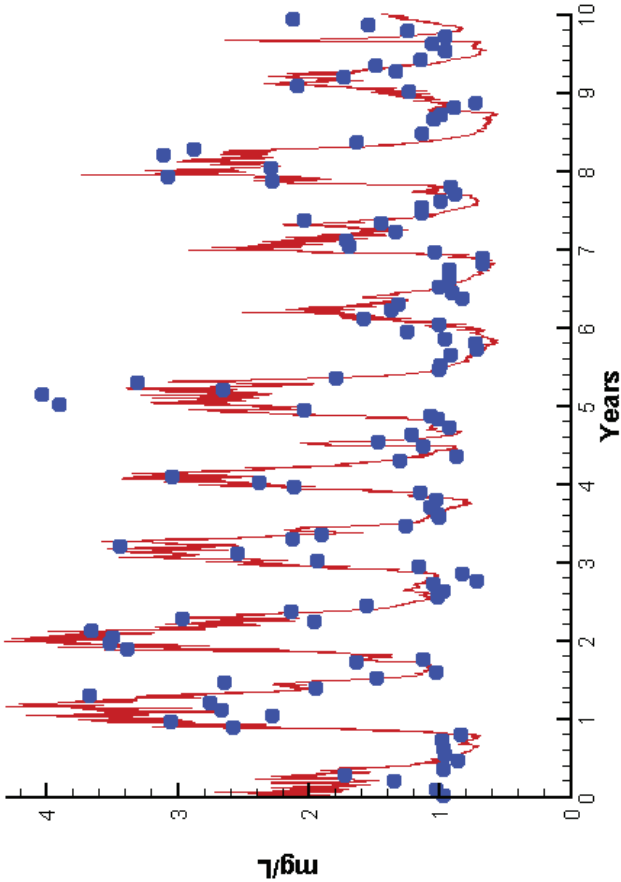


Station ET6.2

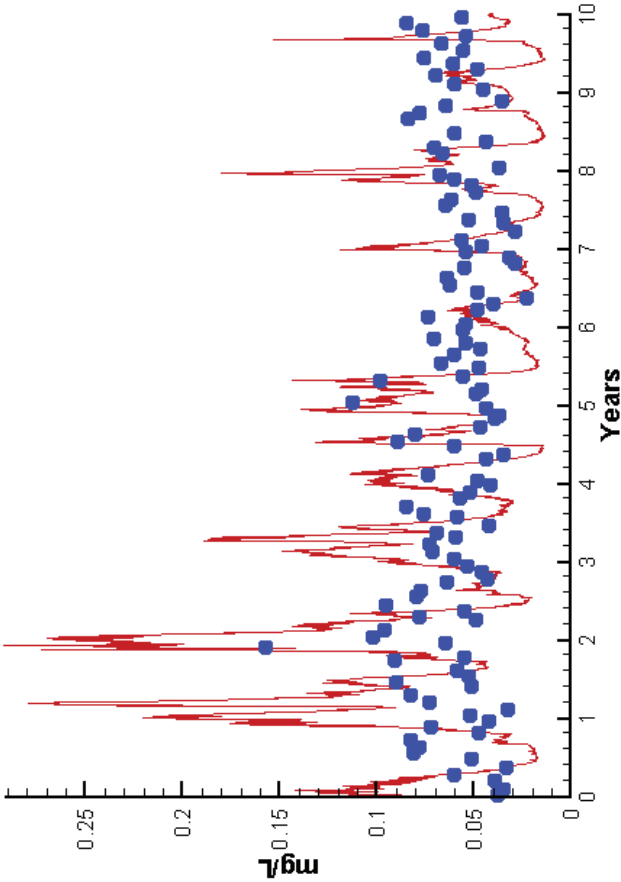
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen ET6.2 Surface



Run185 2002-2011
Total Phosphorus ET6.2 Surface

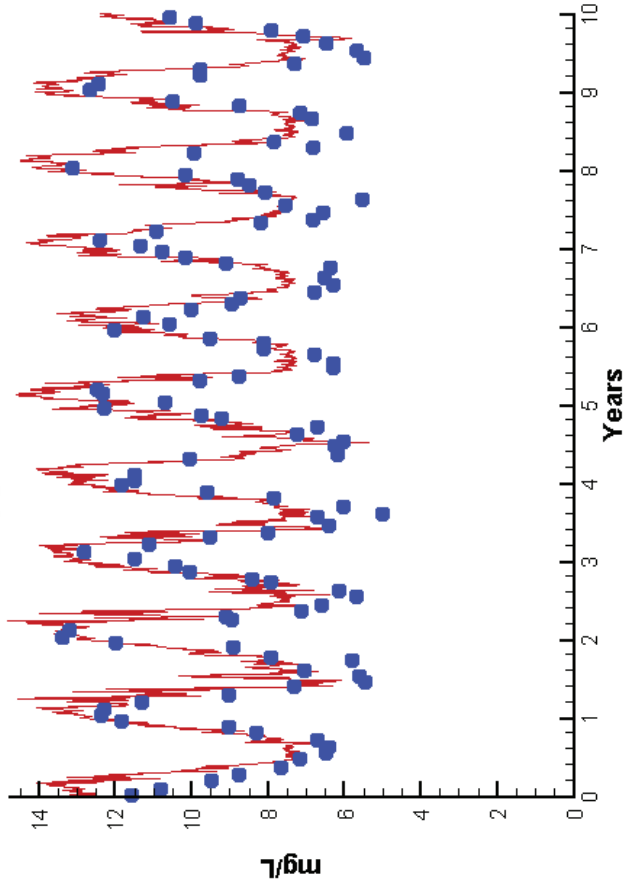


Mean Difference Absolute Mean Difference

Chl	-1.7986	7.3721
DIN	-0.1092	0.3182
KE	-0.1092	0.3182
DIP	0.0117	0.0151
TP	0.0039	0.0344
TN	0.0430	0.3705

Station ET6.2

Run185 2002-2011
Dissolved Oxygen ET6.2 Surface



Mean Difference

Top DO

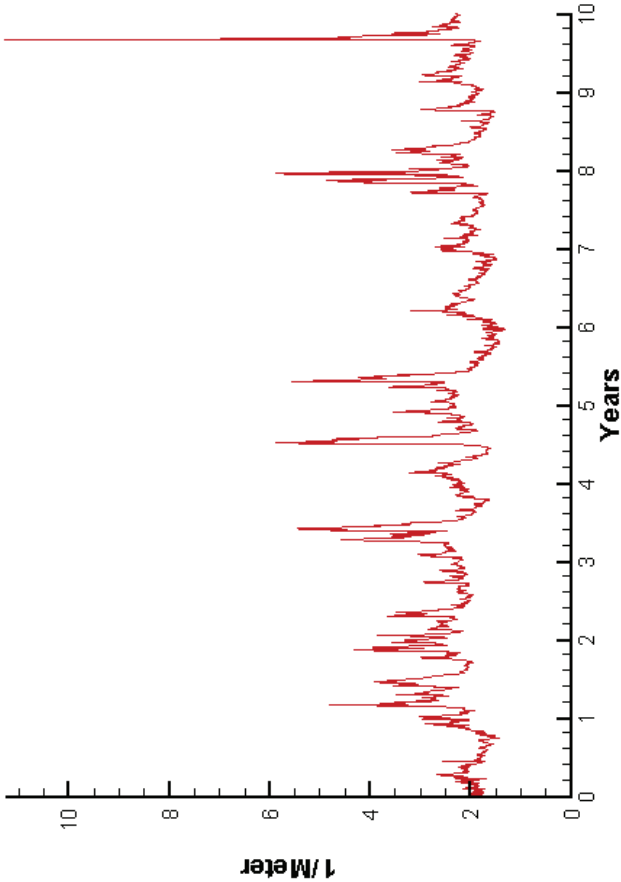
1.3006

Absolute Mean Difference

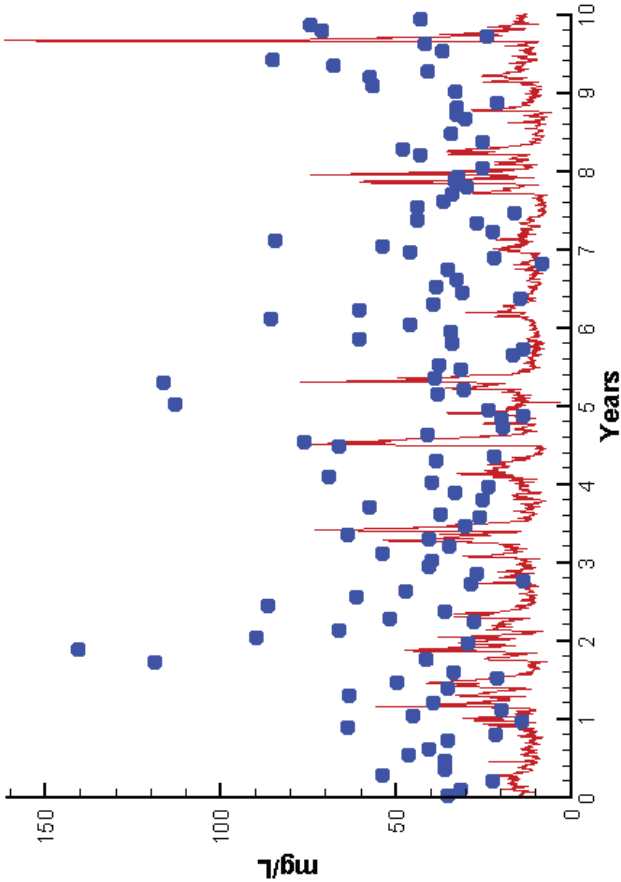
1.3576

Station ET6.2

Run185 2002-2011
Light Extinction ET6.2 Surface

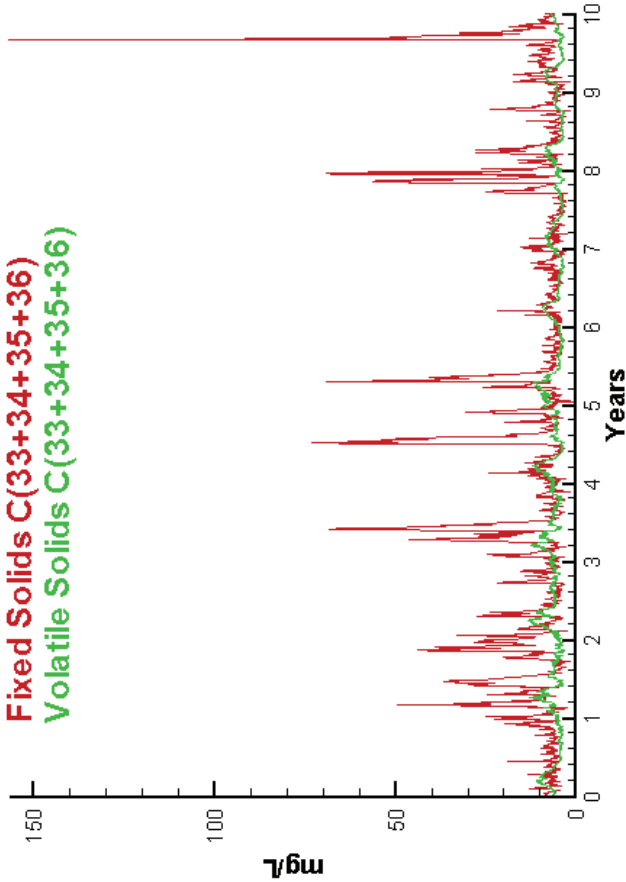


Run185 2002-2011
Total Solids ET6.2 Surface



Run185 2002-2011
Solids Surface

Fixed Solids C(33+34+35+36)
Volatile Solids C(33+34+35+36)



Mean Difference

Absolute Mean Difference

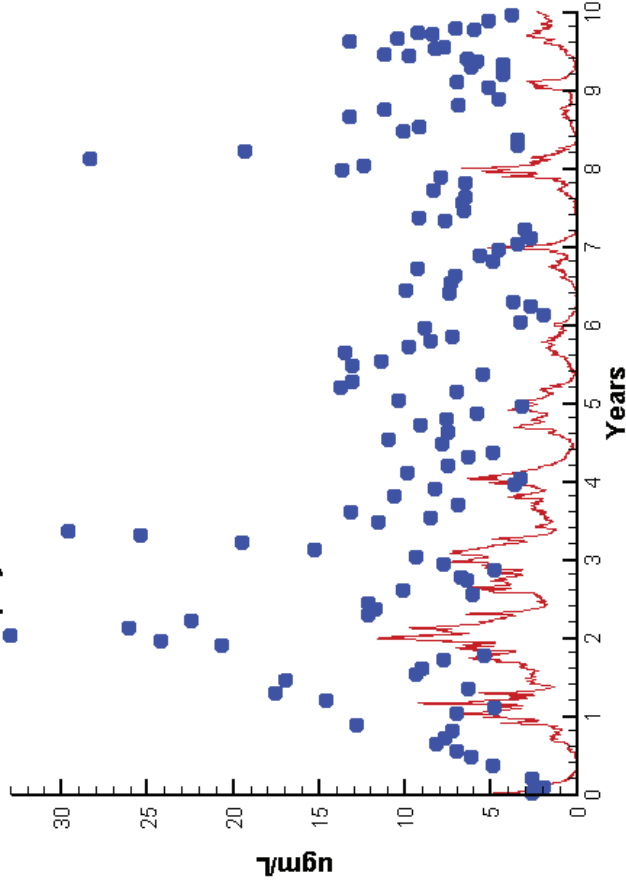
KE
TSS

0.0430
-26.0530

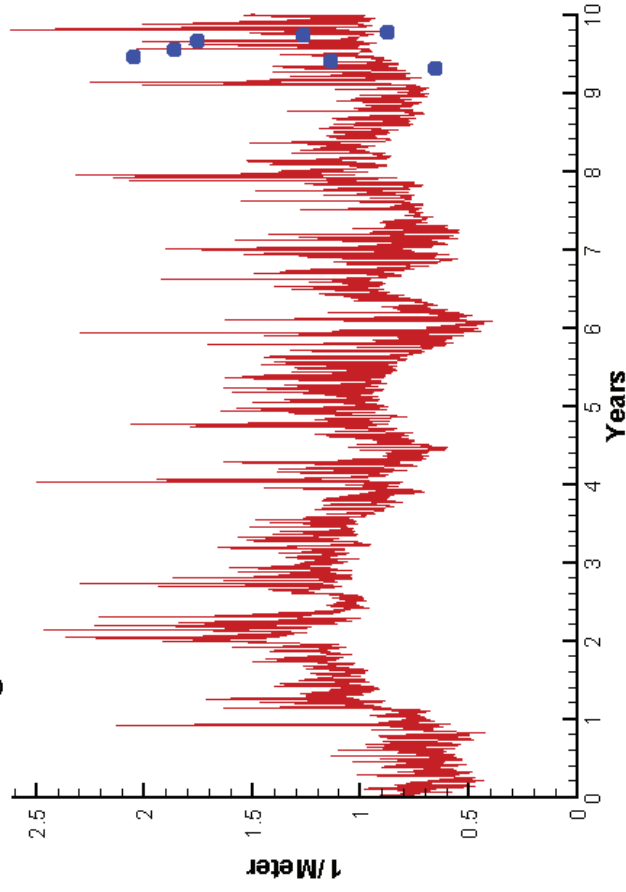
0.3705
26.3530

Station ET9.1

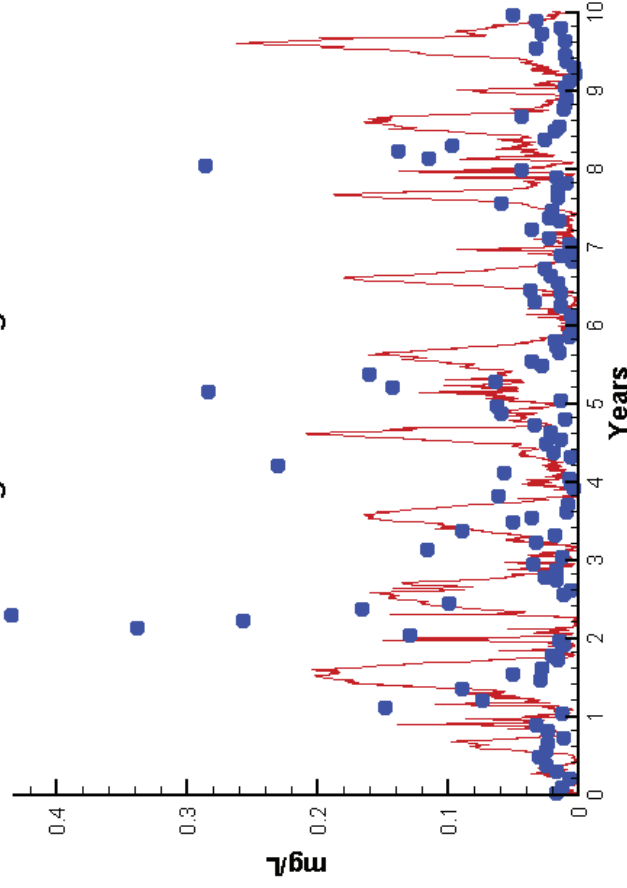
Run185 2002-2011
Chlorophyll ET9.1 Surface



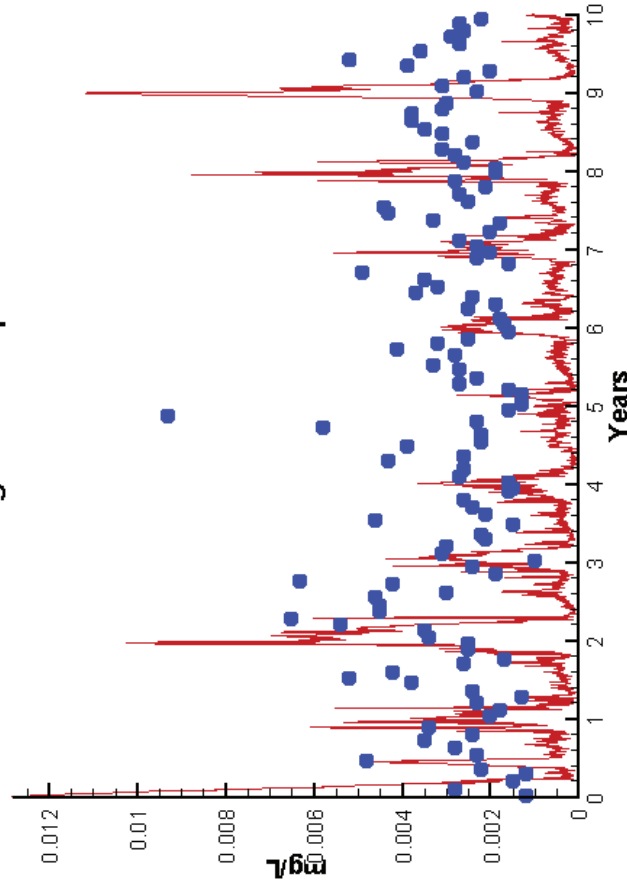
Run185 2002-2011
Light Extinction ET9.1 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen ET9.1 Surface

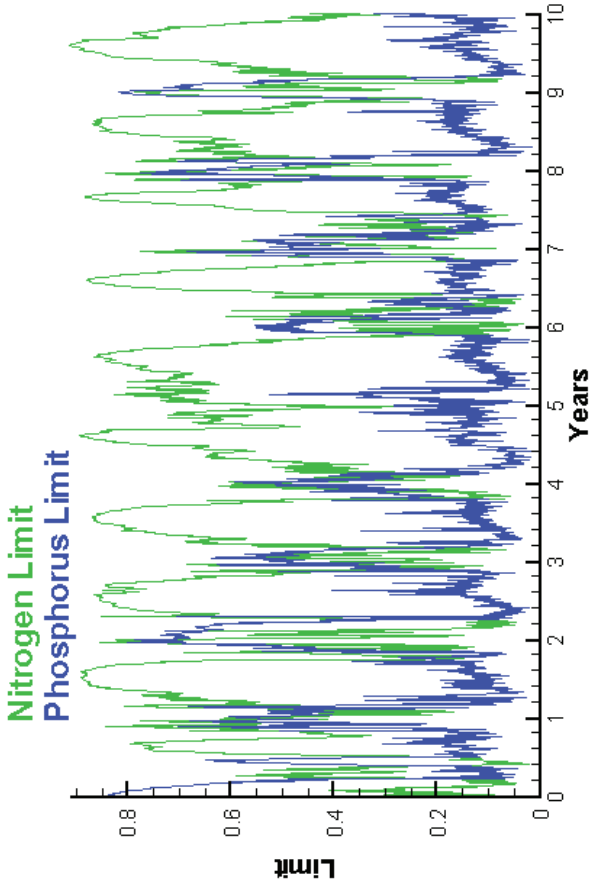


Run185 2002-2011
Dissolved Inorganic Phosphorus ET9.1 Surface

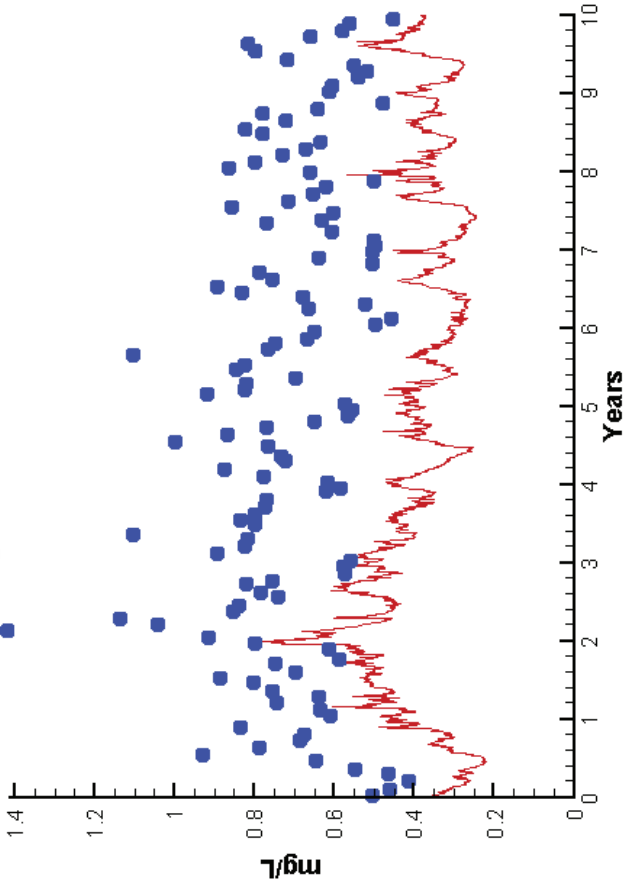


Station ET9.1

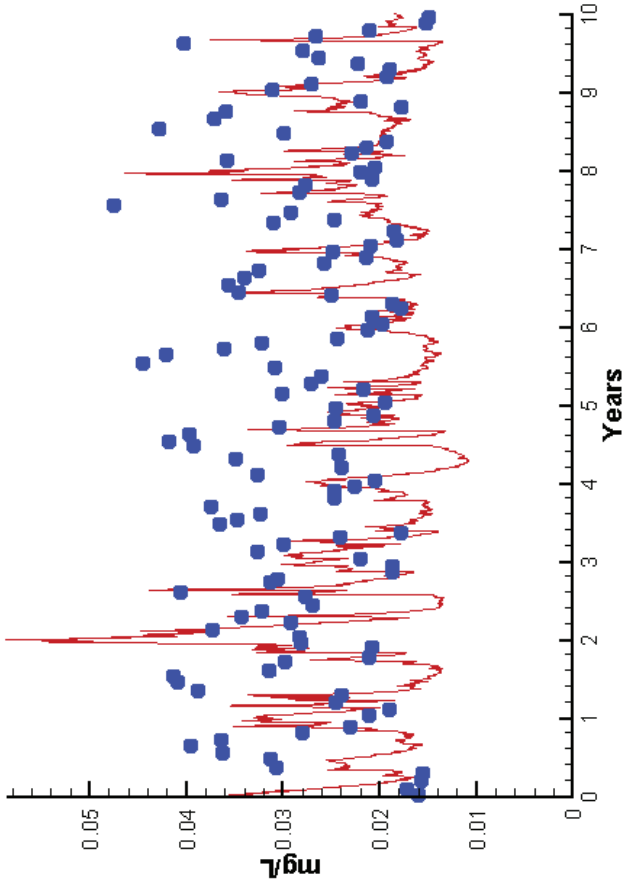
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen ET9.1 Surface



Run185 2002-2011
Total Phosphorus ET9.1 Surface

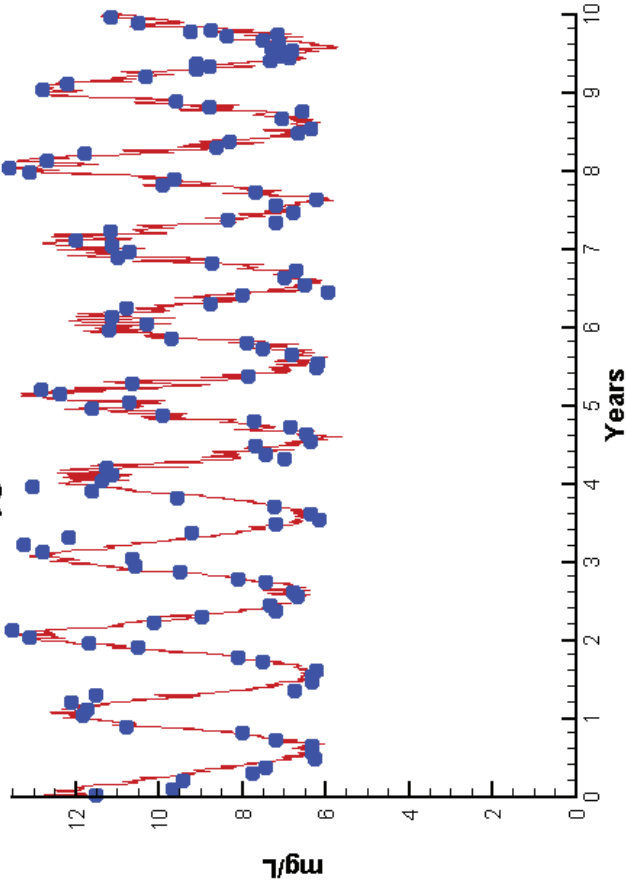


Mean Difference Absolute Mean Difference

Chl	-7.2072	7.2649
DIN	0.0108	0.0601
KE	-0.3511	0.4221
DIP	-0.0016	0.0024
TP	-0.0065	0.0097
TN	-0.3234	0.3234

Station ET9.1

Run185 2002-2011
Dissolved Oxygen ET9.1 Surface



Mean Difference

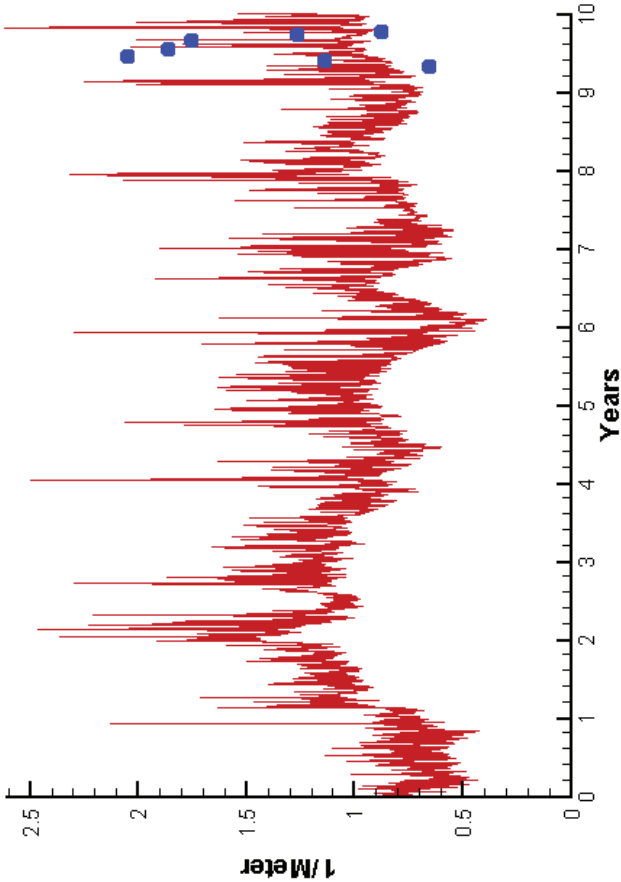
Top DO -0.0224

Absolute Mean Difference

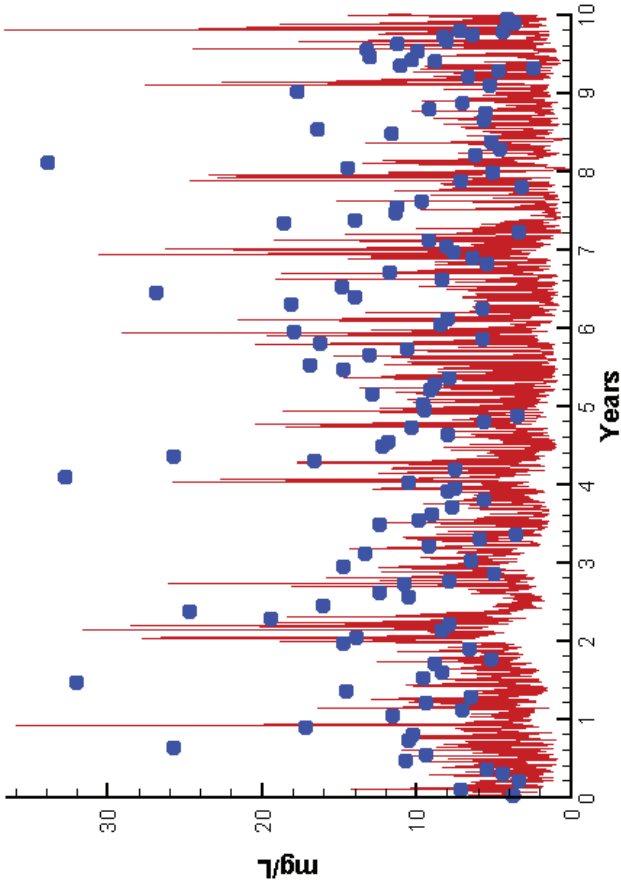
0.5806

Station ET9.1

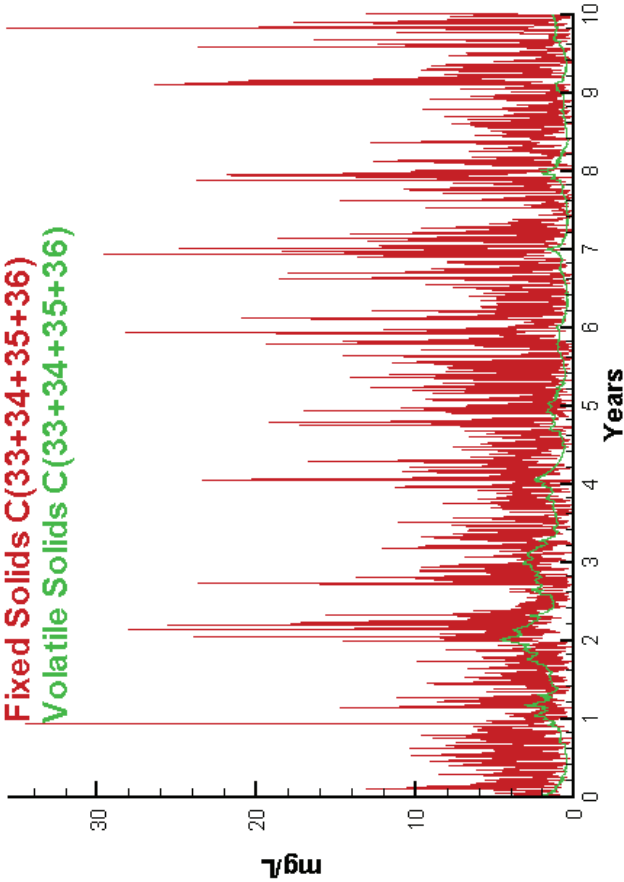
Run185 2002-2011
Light Extinction ET9.1 Surface



Run185 2002-2011
Total Solids ET9.1 Surface



Run185 2002-2011
Solids Surface



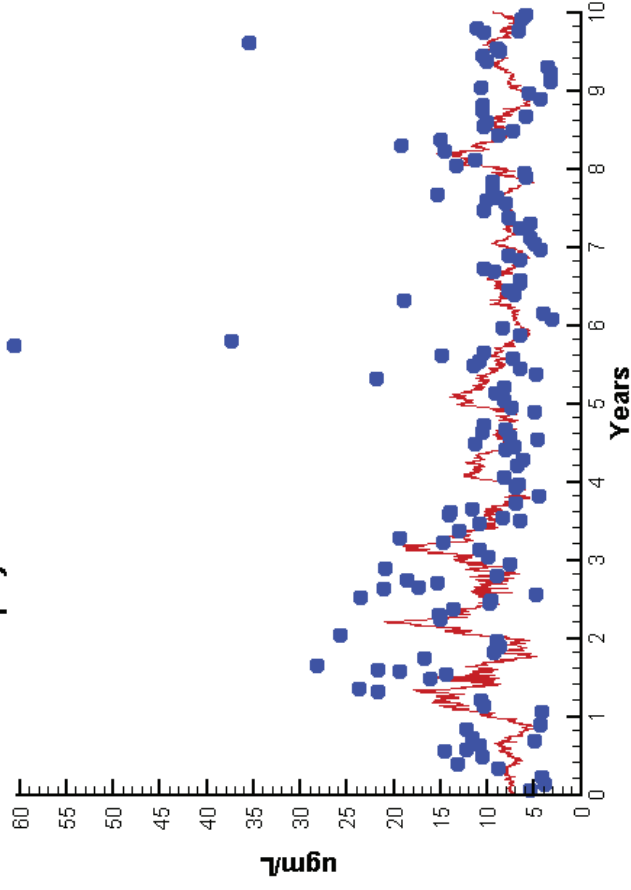
Fixed Solids C(33+34+35+36)
Volatile Solids C(33+34+35+36)

Mean Difference Absolute Mean Difference

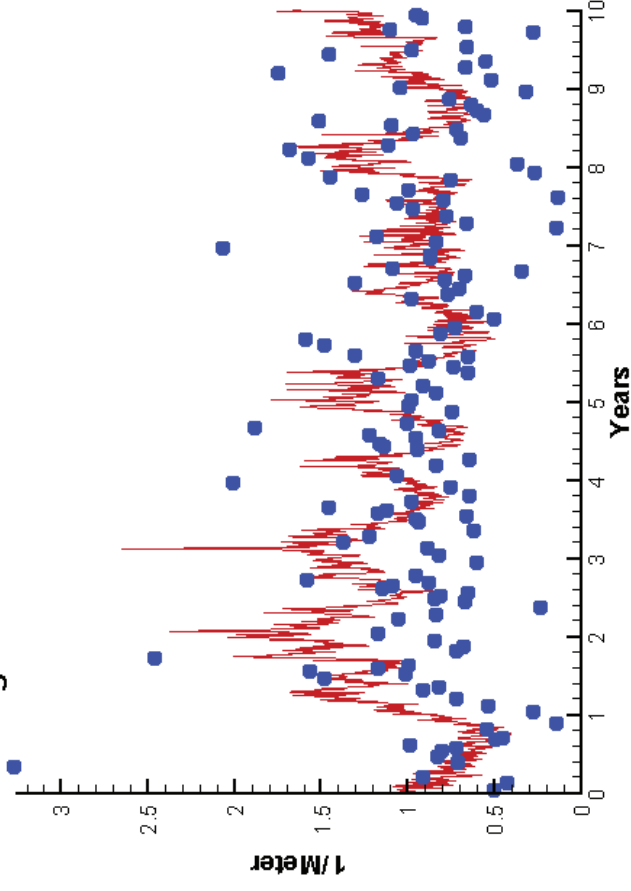
KE 0.4221
TSS 6.9923

Station WE4.2

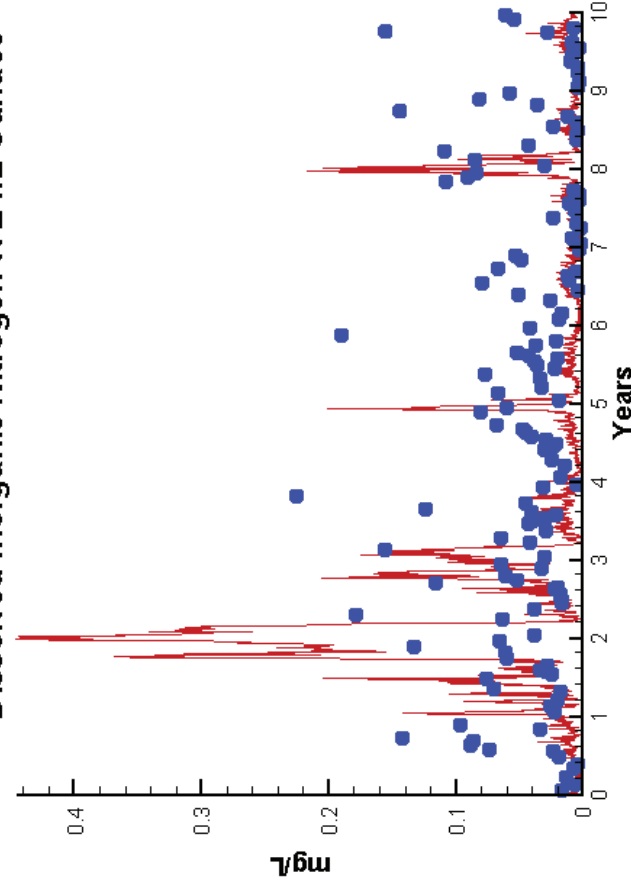
Run185 2002-2011
Chlorophyll WE4.2 Surface



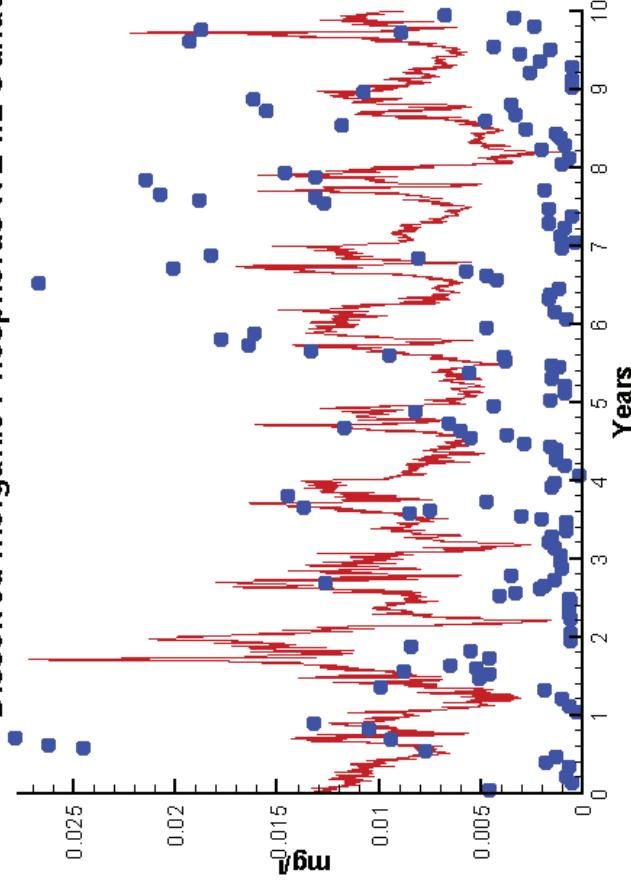
Run185 2002-2011
Light Extinction WE4.2 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen WE4.2 Surface

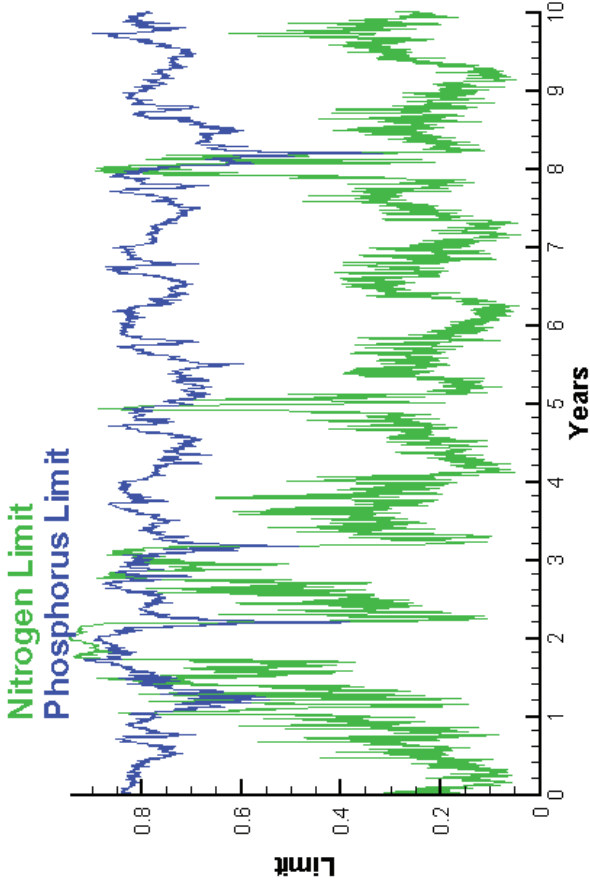


Run185 2002-2011
Dissolved Inorganic Phosphorus WE4.2 Surface

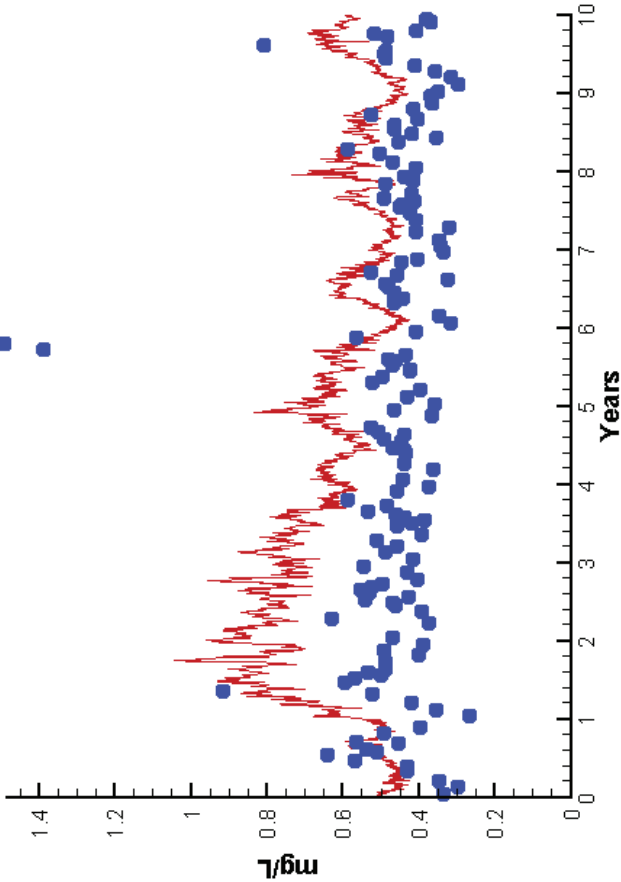


Station WE4.2

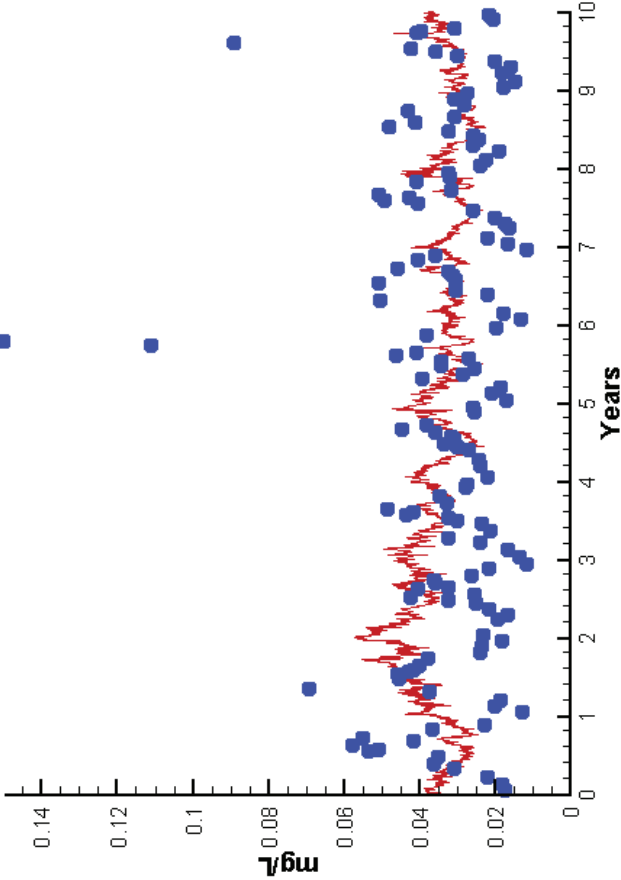
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen WE4.2 Surface



Run185 2002-2011
Total Phosphorus WE4.2 Surface



Mean Difference

Absolute Mean Difference

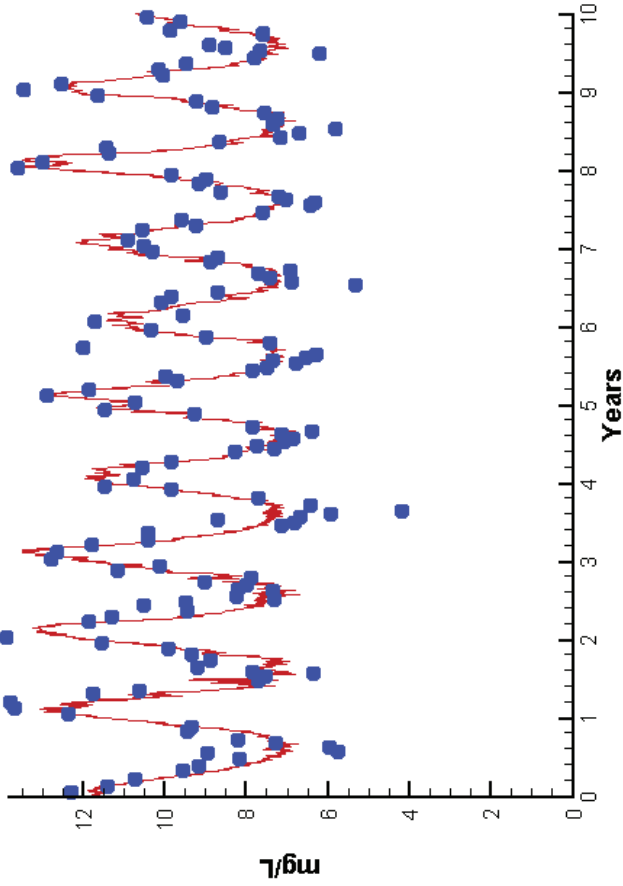
Chl
DIN
KE
DIP
TP
TN

-1.8632
-0.0130
0.1089
0.0033
0.0021
0.1609

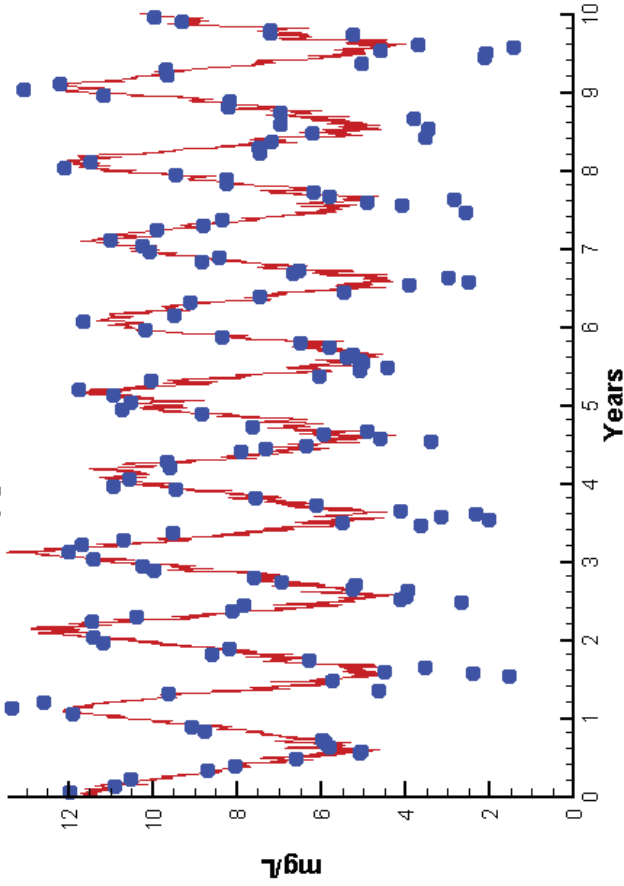
4.2241
0.0386
0.3833
0.0063
0.0129
0.1932

Station WE4.2

Run185 2002-2011
Dissolved Oxygen WE4.2 Surface



Run185 2002-2011
Dissolved Oxygen WE4.2 Bottom



Top DO
Bot DO

-0.1894
0.3797

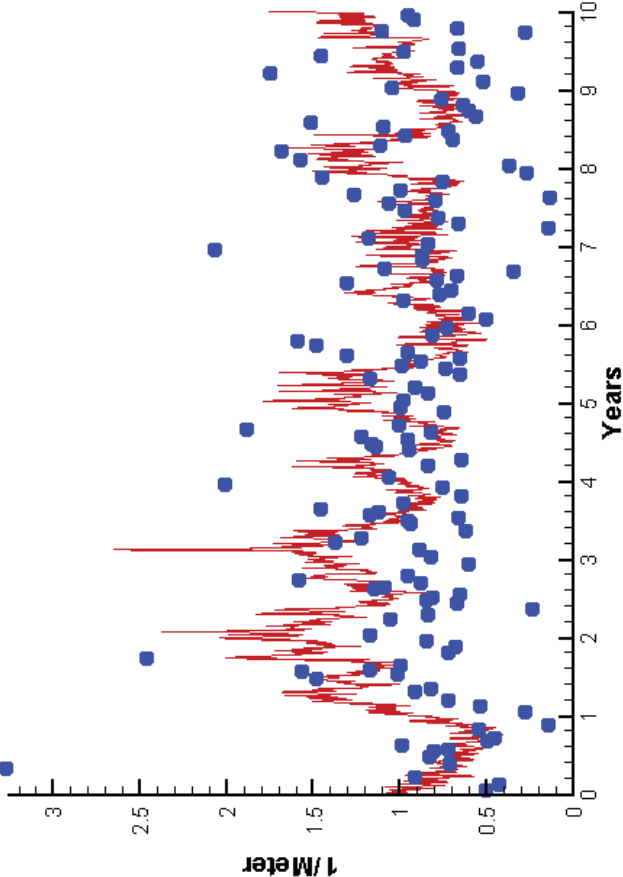
Mean Difference

Absolute Mean Difference

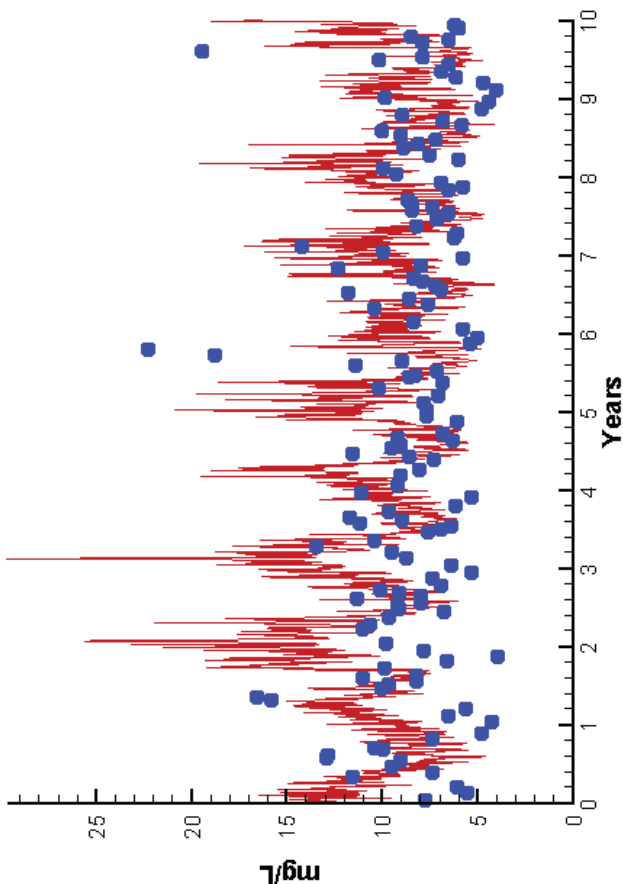
0.7562
0.9836

Station WE4.2

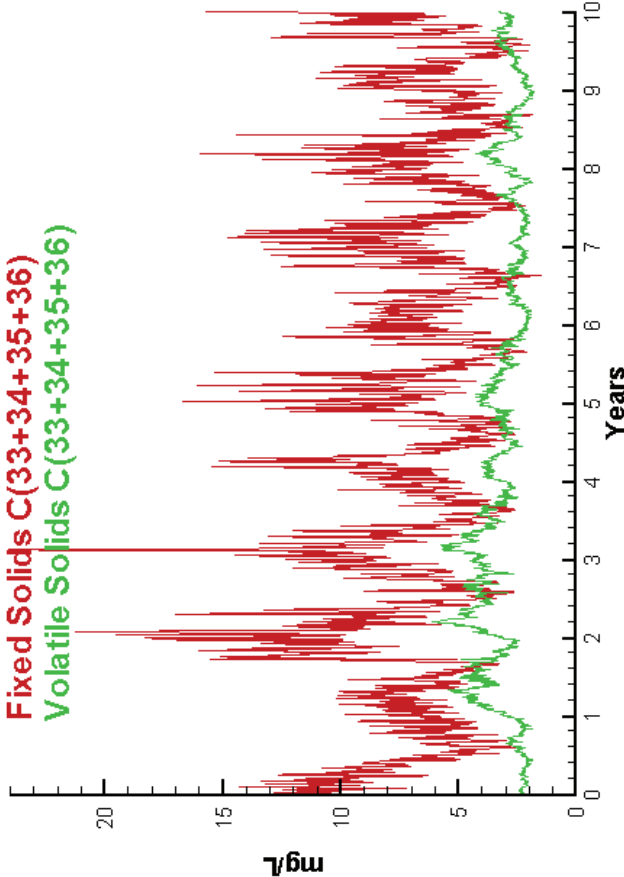
Run185 2002-2011
Light Extinction WE4.2 Surface



Run185 2002-2011
Total Solids WE4.2 Surface



Run185 2002-2011
Solids Surface



Mean Difference

Absolute Mean Difference

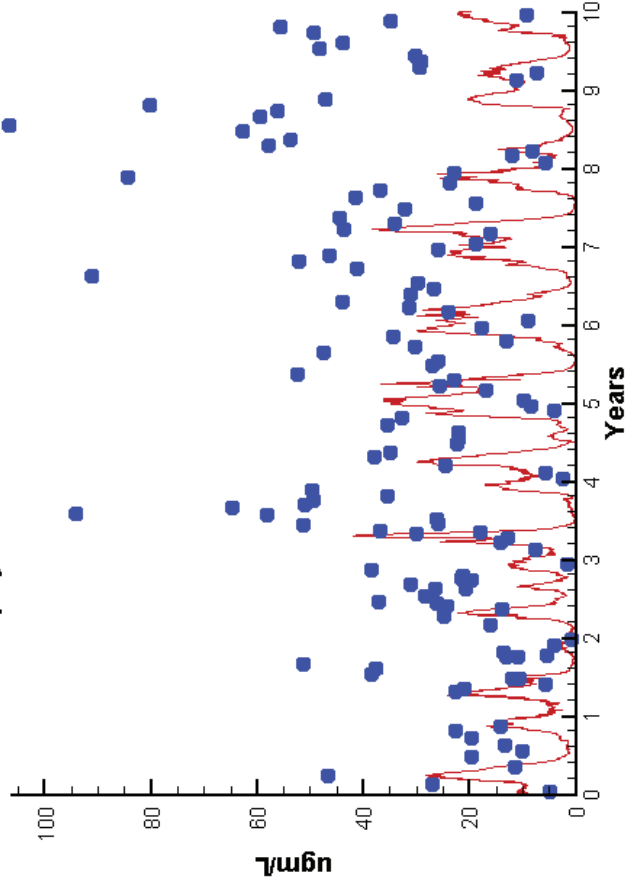
KE
TSS

0.1089
1.0206

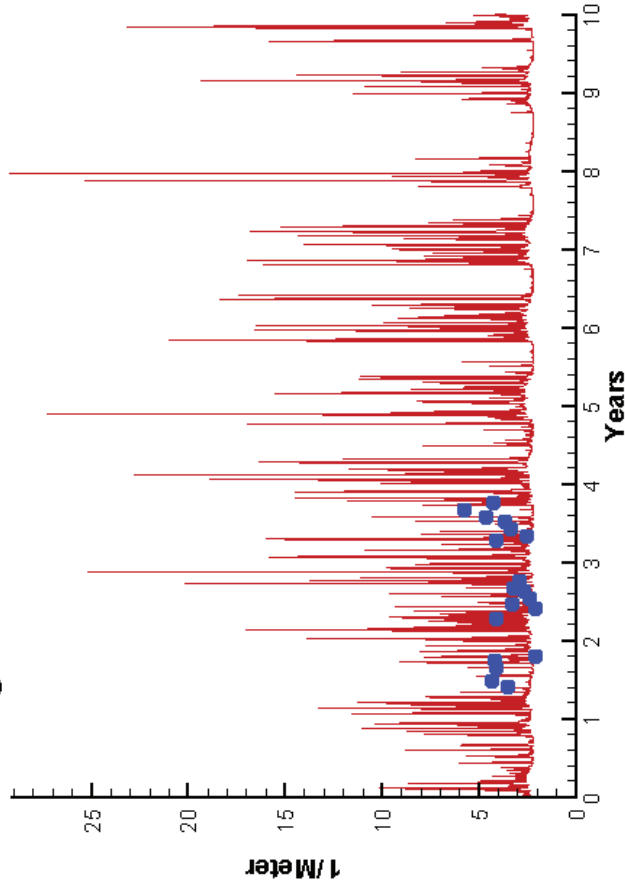
0.3833
3.2212

Station WT1.1

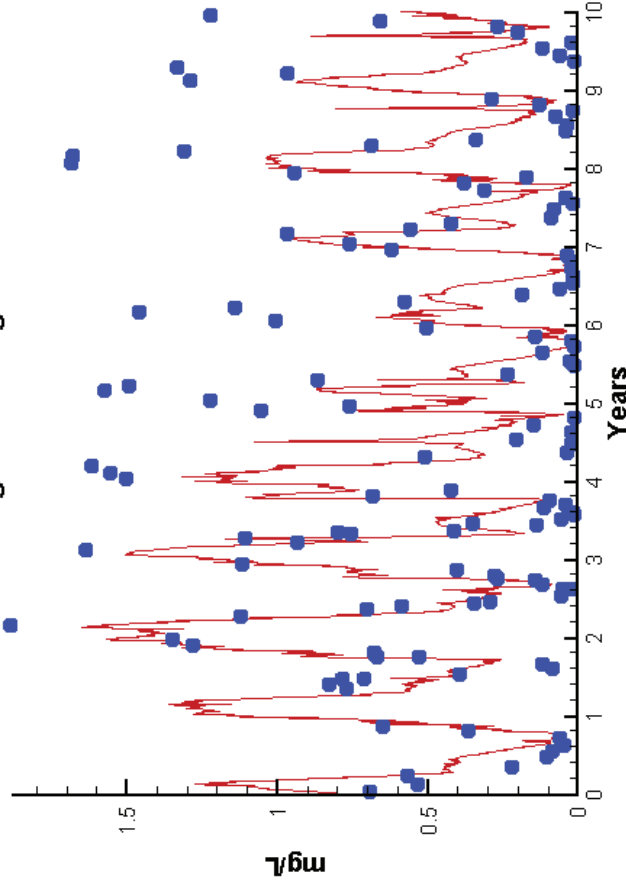
Run185 2002-2011
Chlorophyll WT1.1 Surface



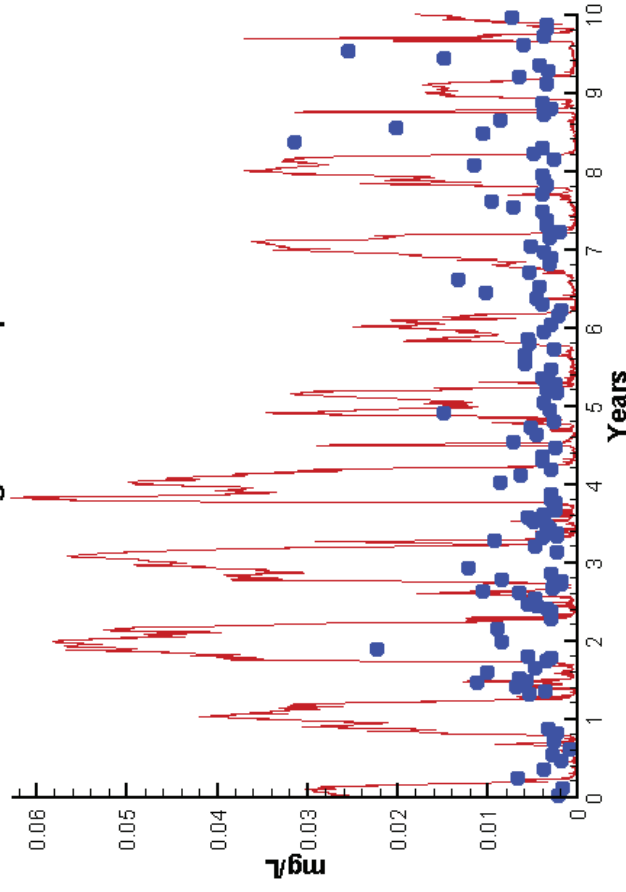
Run185 2002-2011
Light Extinction WT1.1 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen WT1.1 Surface

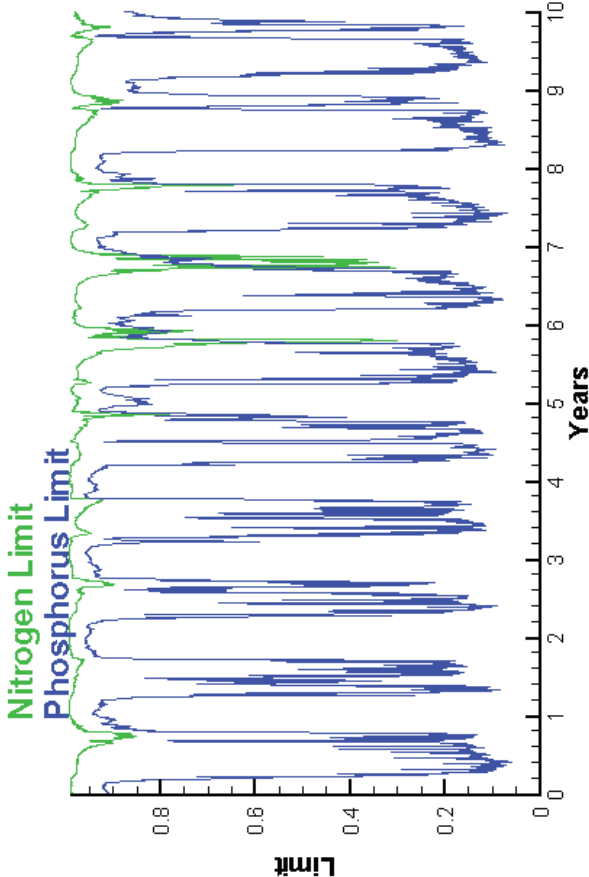


Run185 2002-2011
Dissolved Inorganic Phosphorus WT1.1 Surface

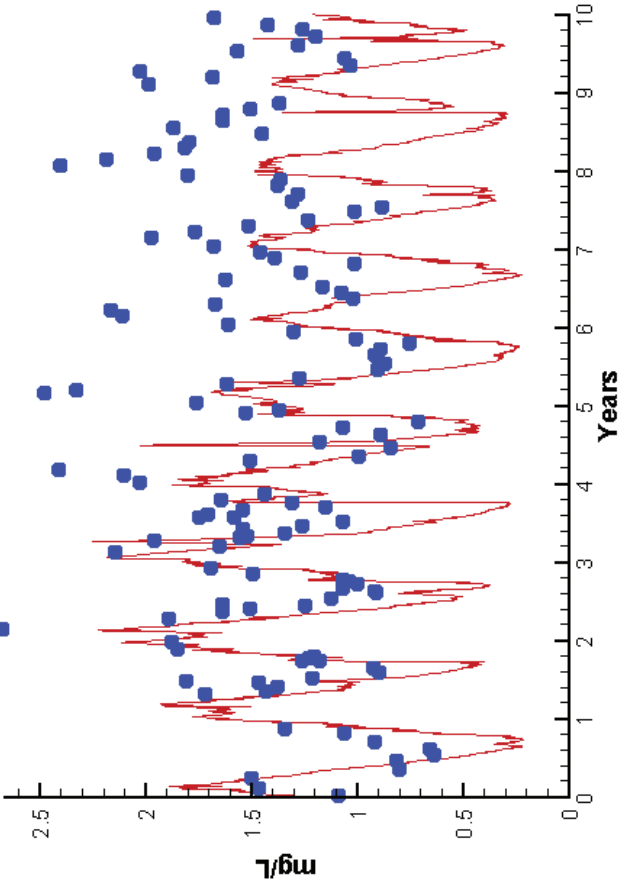


Station WT1.1

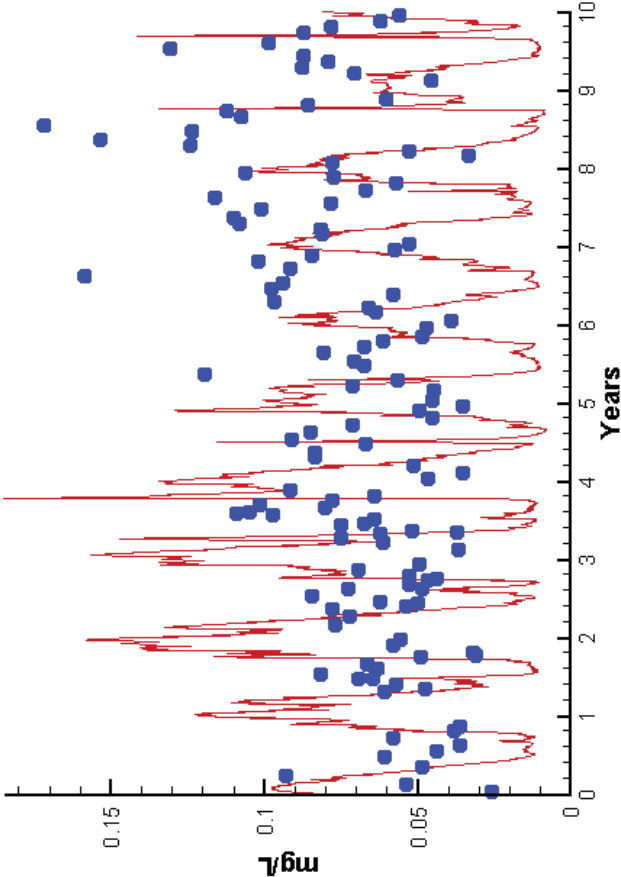
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen WT1.1 Surface



Run185 2002-2011
Total Phosphorus WT1.1 Surface



Mean Difference

Absolute Mean Difference

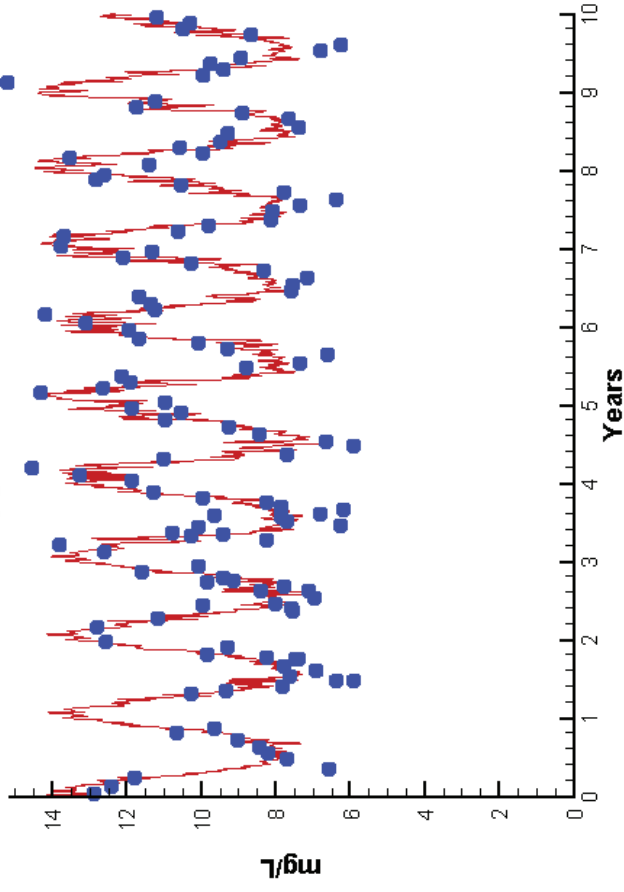
Chl
DIN
KE
DIP
TP
TN

-20.1983
-0.0339
-0.0746
0.0054
-0.0228
-0.4905

23.2407
0.2770
1.9257
0.0108
0.0487
0.5154

Station WT1.1

Run185 2002-2011
Dissolved Oxygen WT1.1 Surface



Mean Difference

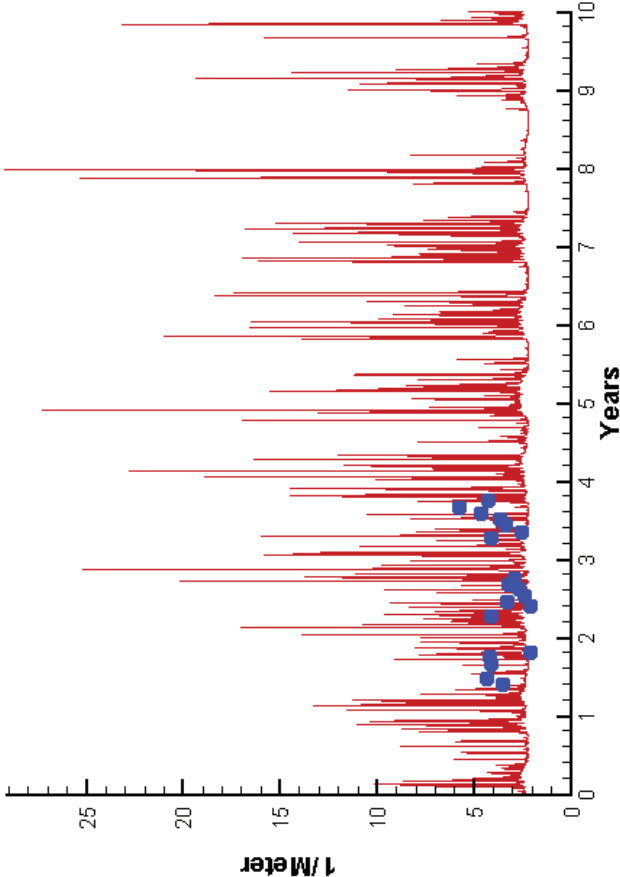
Top DO 0.1944

Absolute Mean Difference

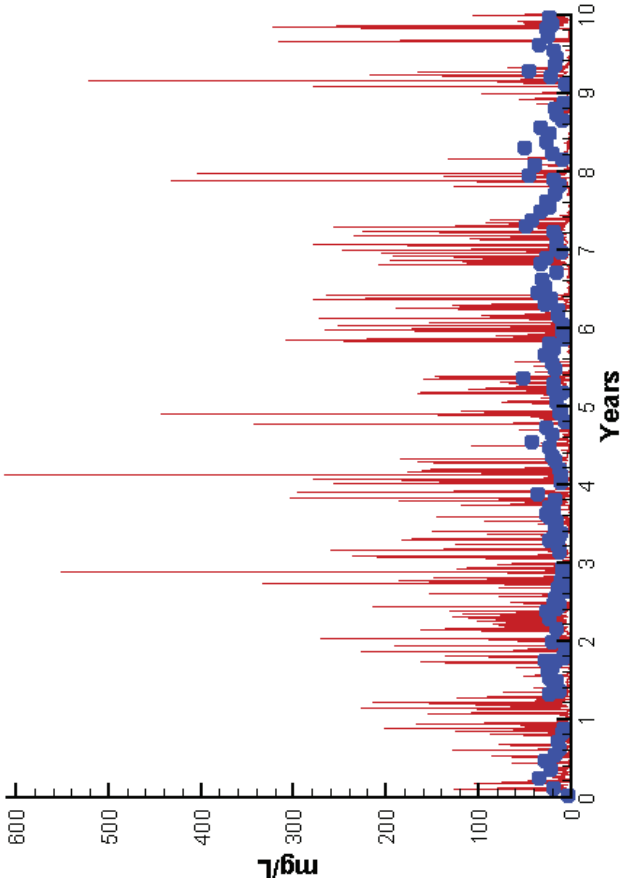
0.9707

Station WT1.1

Run185 2002-2011
Light Extinction WT1.1 Surface

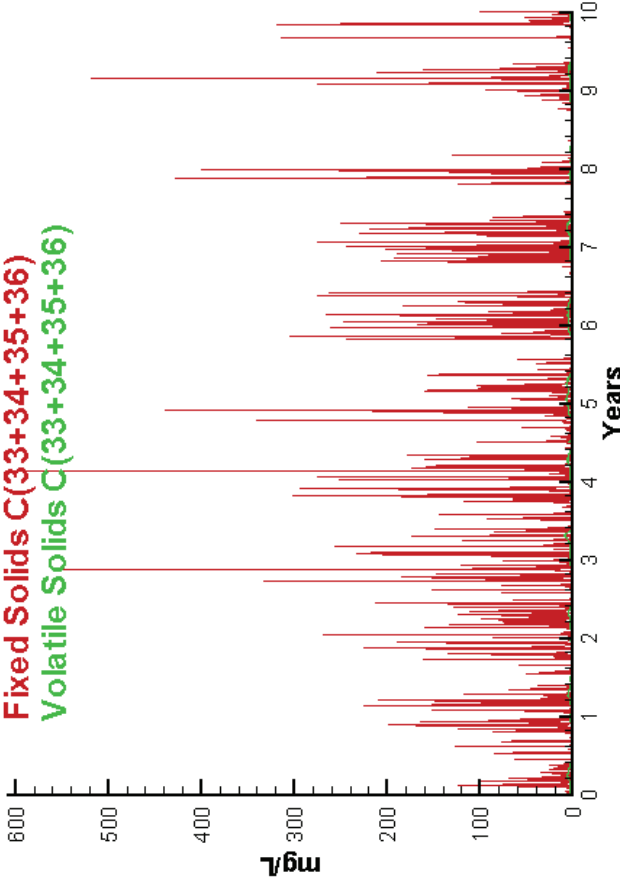


Run185 2002-2011
Total Solids WT1.1 Surface



Run185 2002-2011
Solids Surface

Fixed Solids C(33+34+35+36)
Volatile Solids C(33+34+35+36)



Mean Difference

Absolute Mean Difference

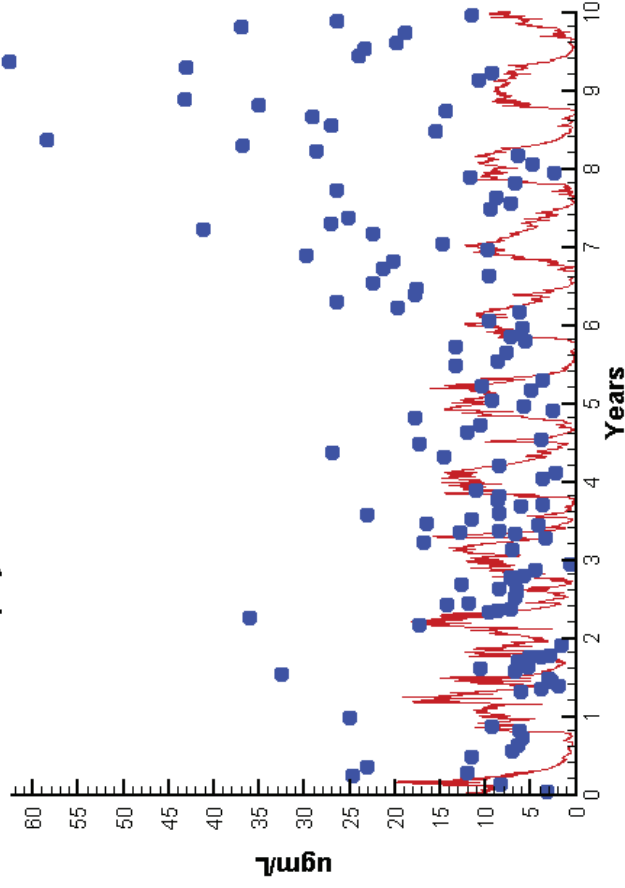
KE
TSS

-0.0746
-3.5132

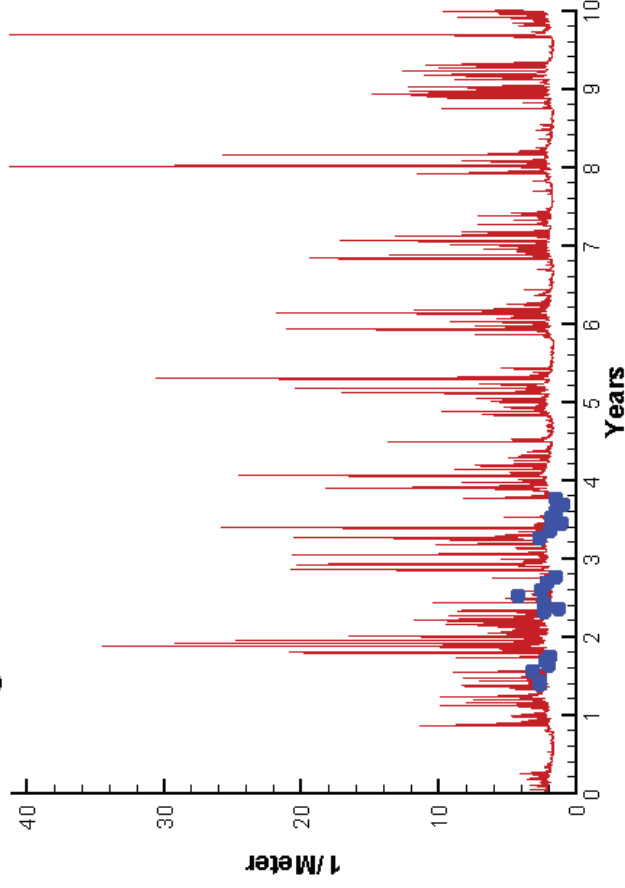
1.9257
21.4269

Station WT2.1

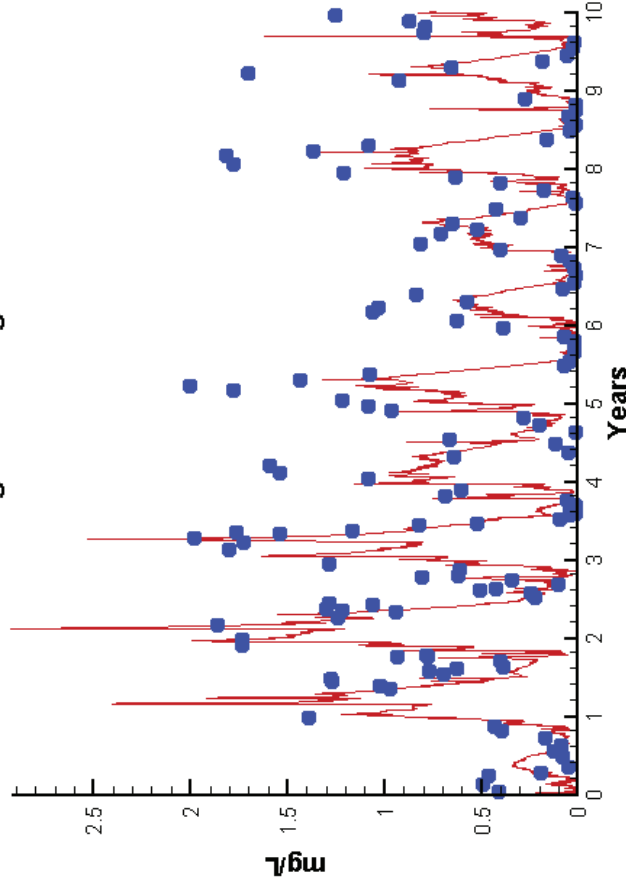
Run185 2002-2011
Chlorophyll WT2.1 Surface



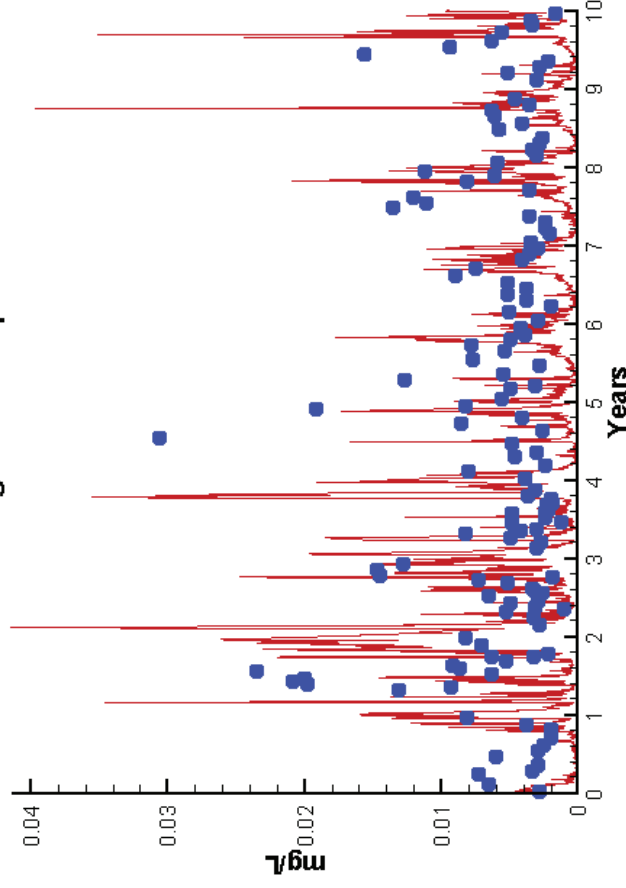
Run185 2002-2011
Light Extinction WT2.1 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen WT2.1 Surface

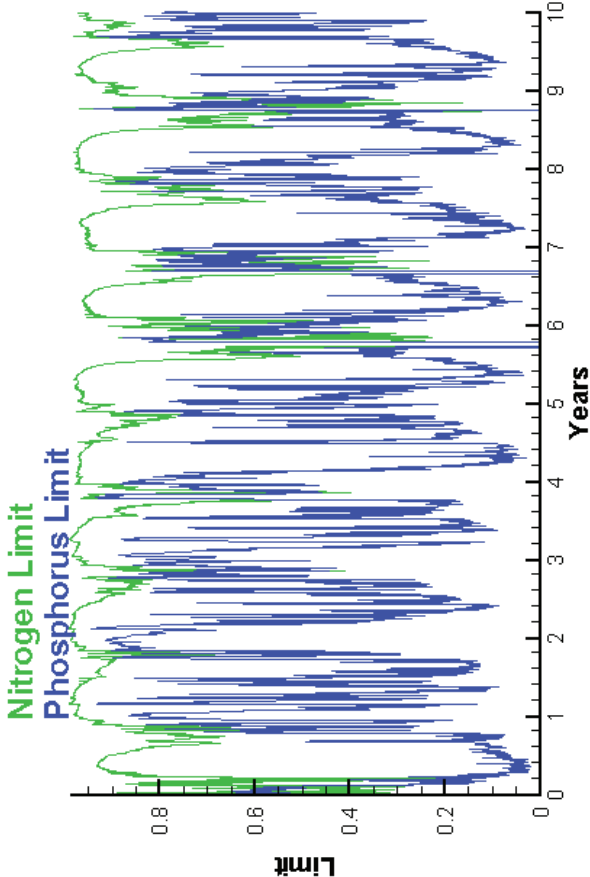


Run185 2002-2011
Dissolved Inorganic Phosphorus WT2.1 Surface

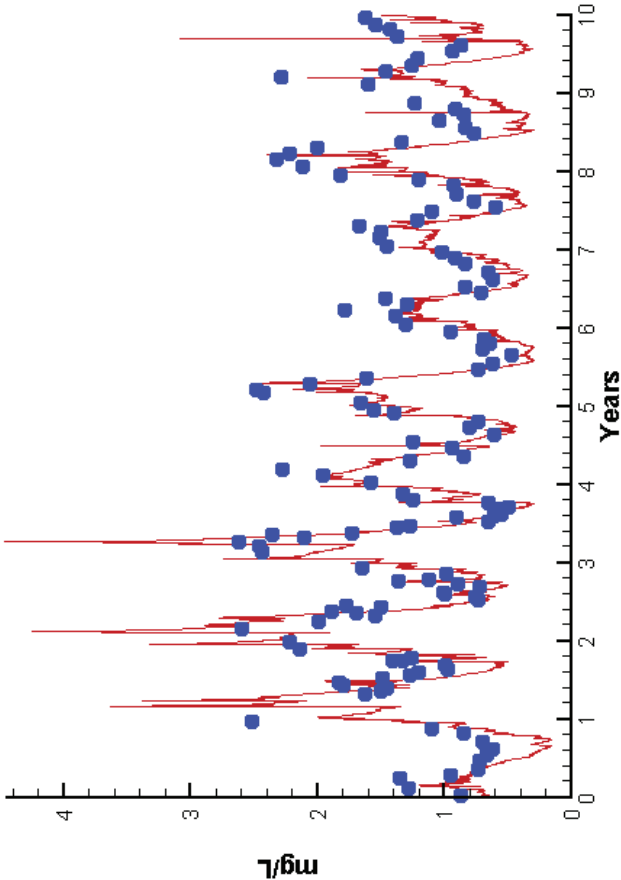


Station WT2.1

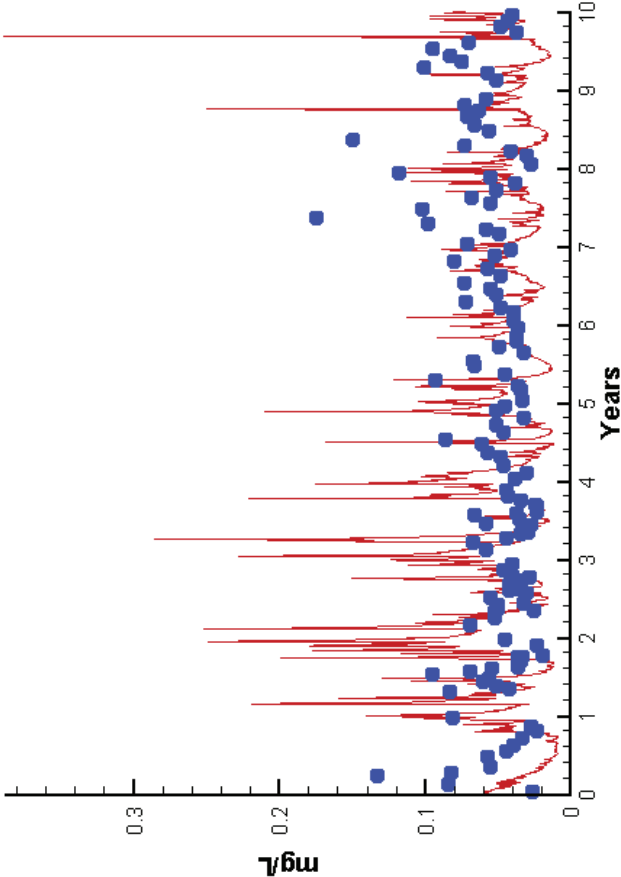
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen WT2.1 Surface



Run185 2002-2011
Total Phosphorus WT2.1 Surface



Mean Difference

Absolute Mean Difference

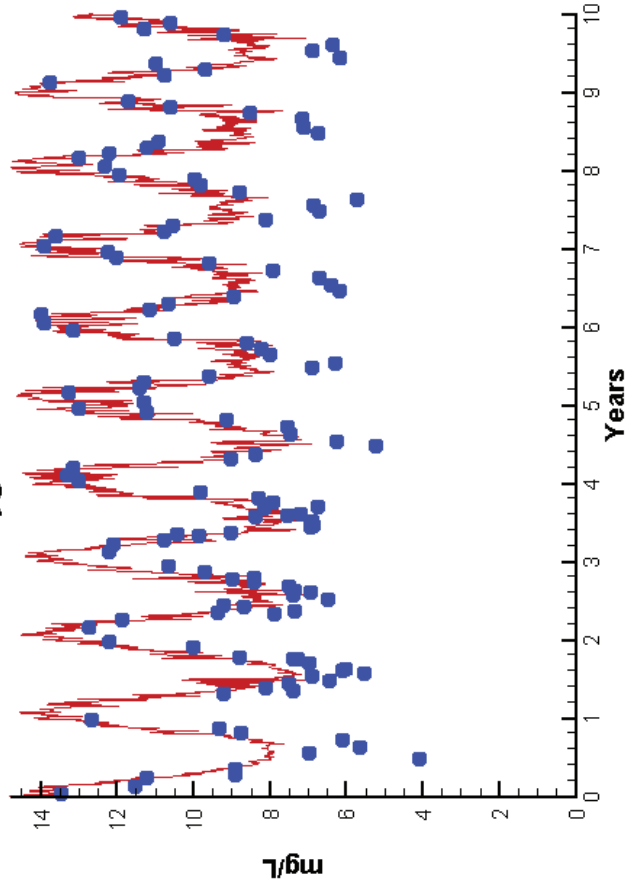
Chl
DIN
KE
DIP
TP
TN

-8.5253
-0.2368
0.6661
-0.0028
-0.0115
-0.2819

10.9572
0.3260
1.1569
0.0048
0.0300
0.3512

Station WT2.1

Run185 2002-2011
Dissolved Oxygen WT2.1 Surface



Top DO

0.9411

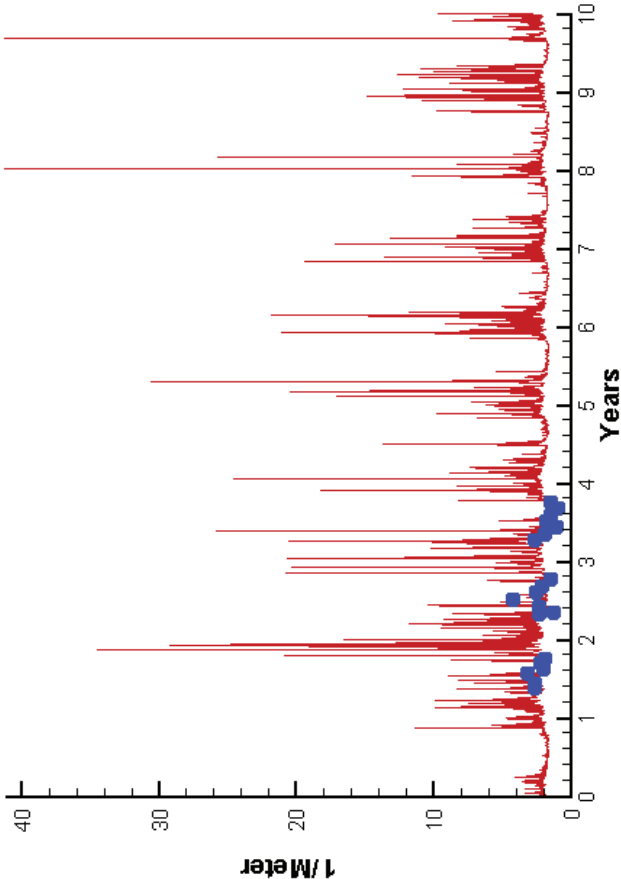
Mean Difference

Absolute Mean Difference

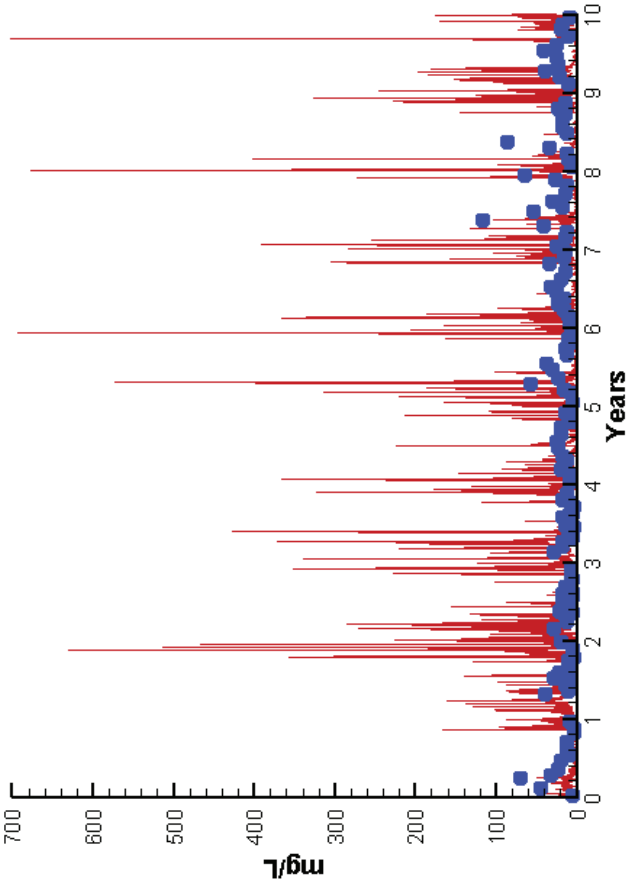
1.3067

Station WT2.1

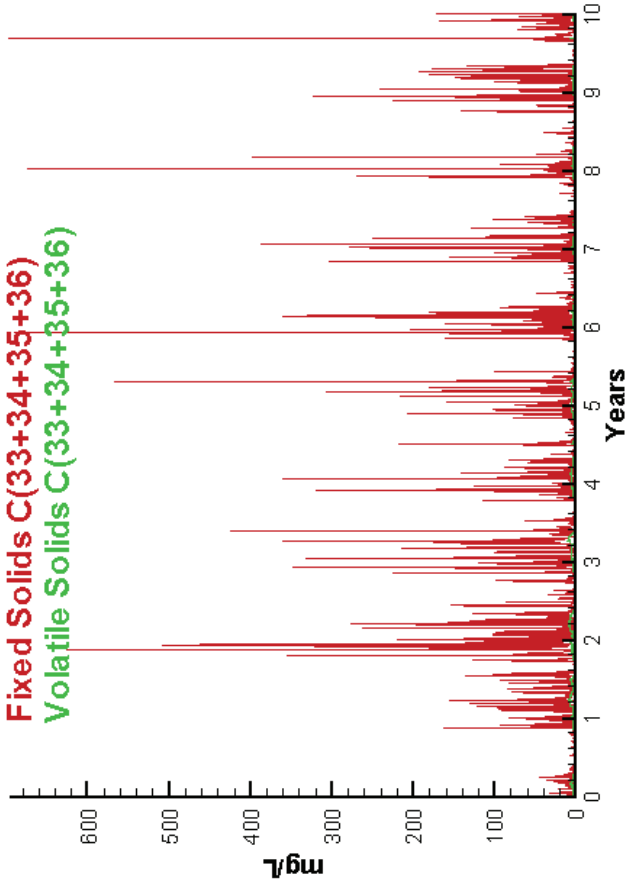
Run185 2002-2011
Light Extinction WT2.1 Surface



Run185 2002-2011
Total Solids WT2.1 Surface



Run185 2002-2011
Solids Surface

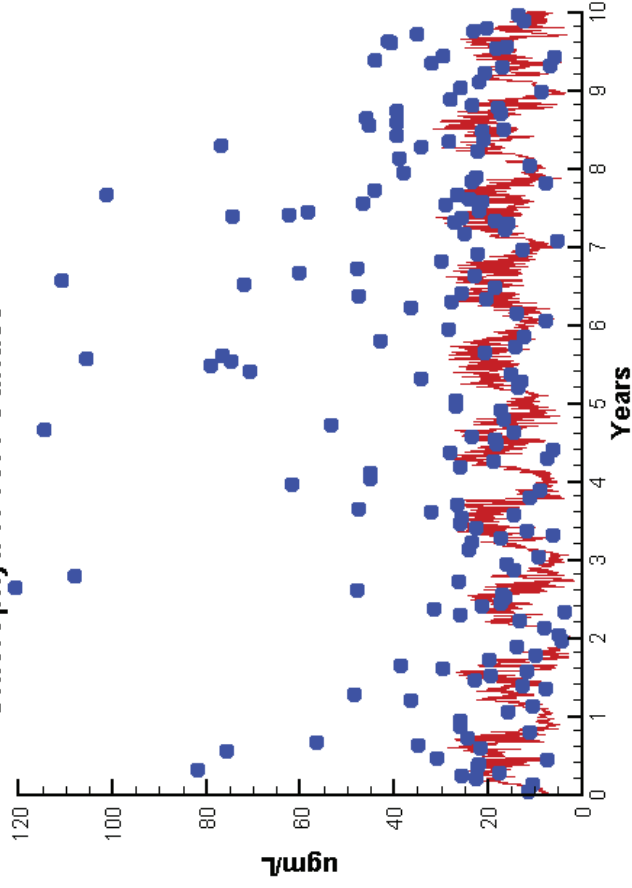


Fixed Solids C(33+34+35+36)
Volatile Solids C(33+34+35+36)

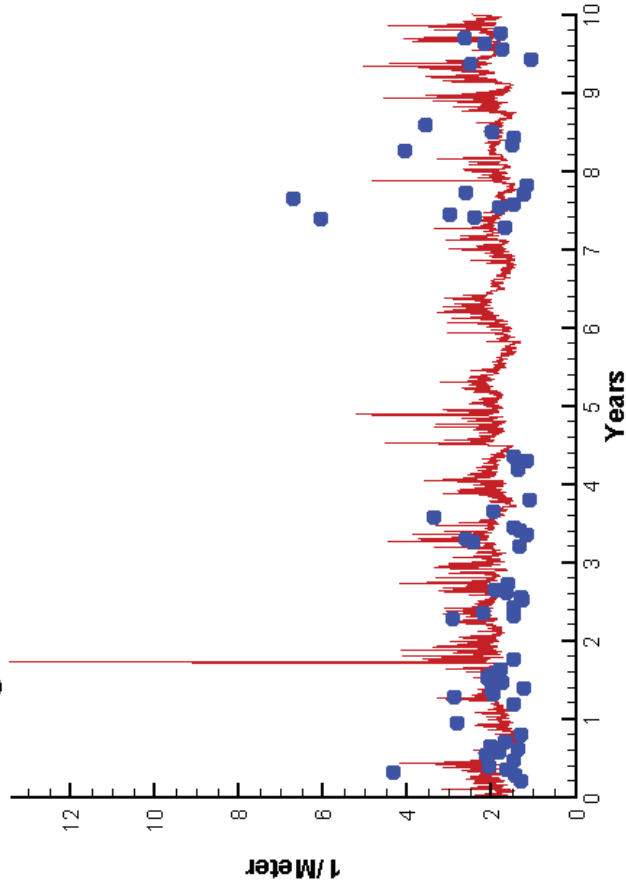
KE	0.6661	1.1569
TSS	-0.0672	20.8715
	Mean Difference	Absolute Mean Difference

Station WT5.1

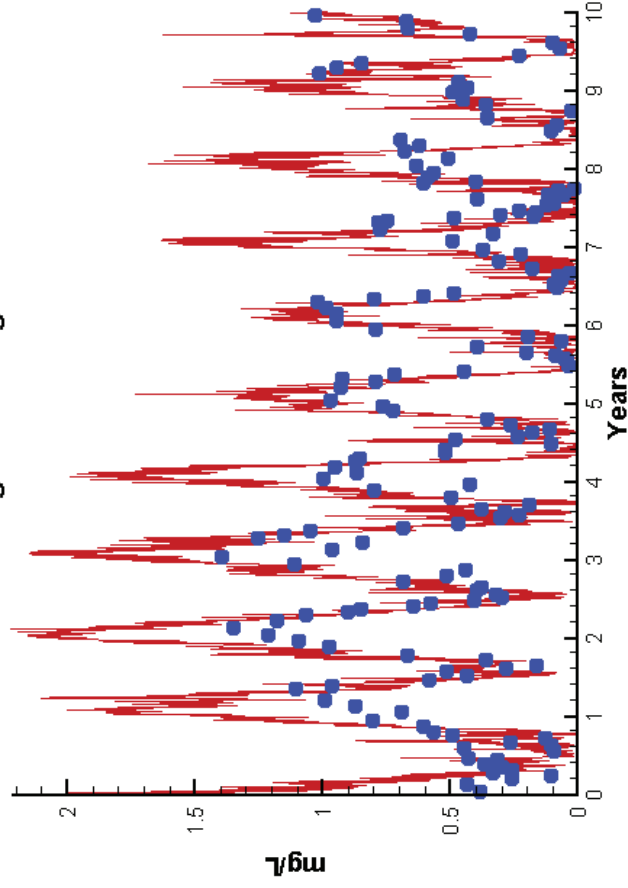
Run185 2002-2011
Chlorophyll WT5.1 Surface



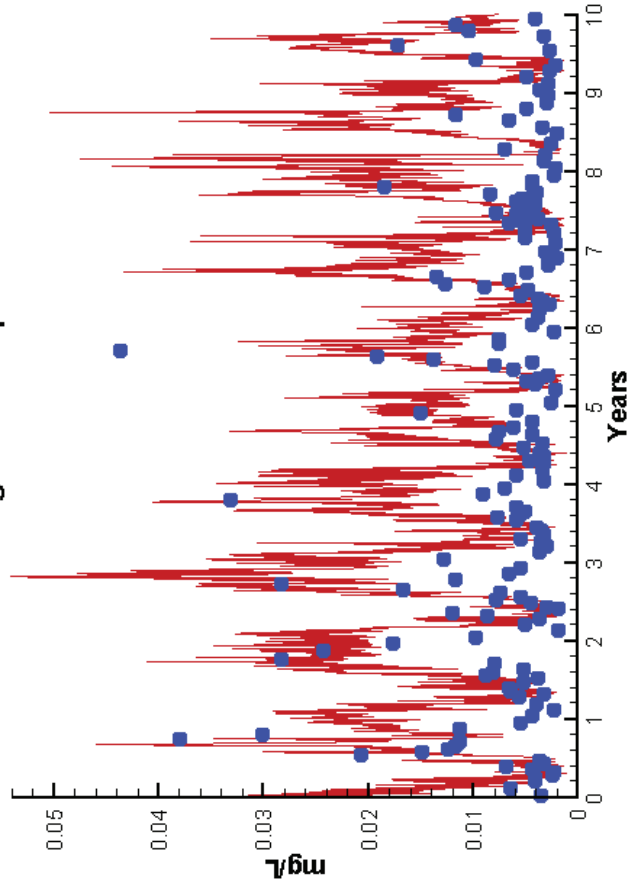
Run185 2002-2011
Light Extinction WT5.1 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen WT5.1 Surface

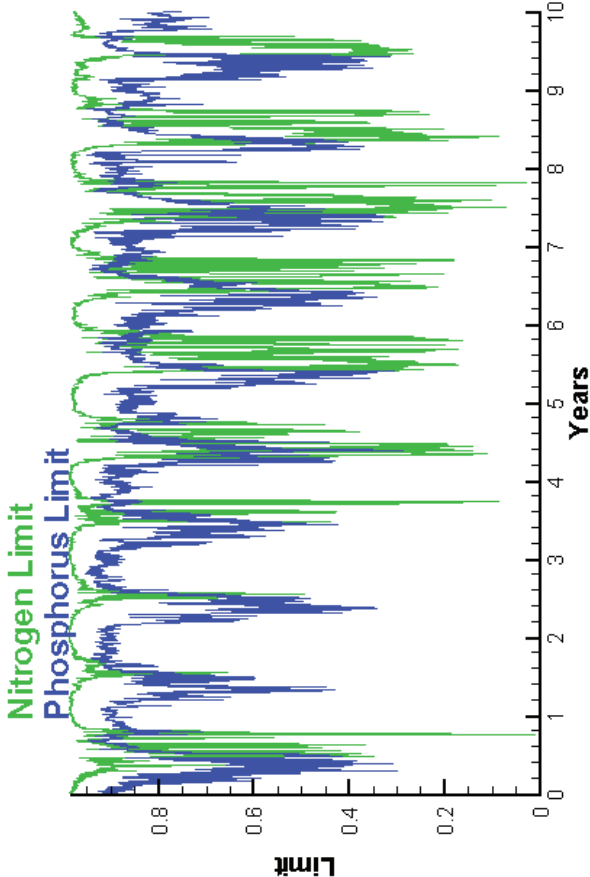


Run185 2002-2011
Dissolved Inorganic Phosphorus WT5.1 Surface

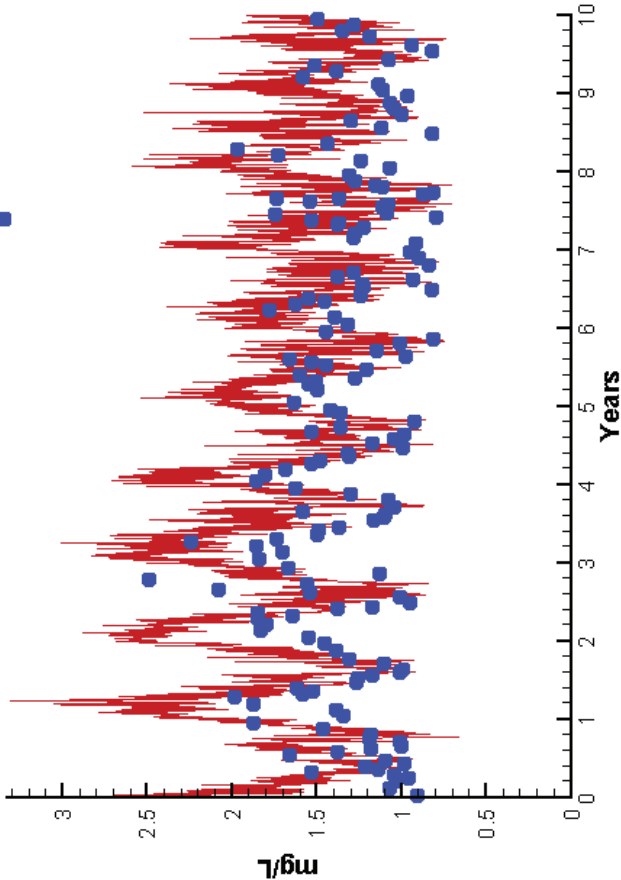


Station WT5.1

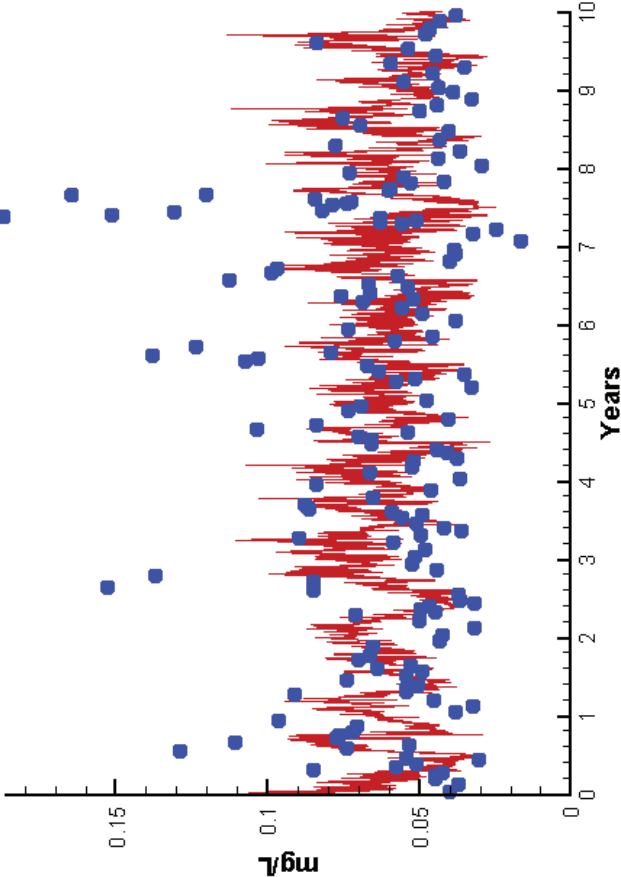
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen WT5.1 Surface



Run185 2002-2011
Total Phosphorus WT5.1 Surface



Mean Difference

Absolute Mean Difference

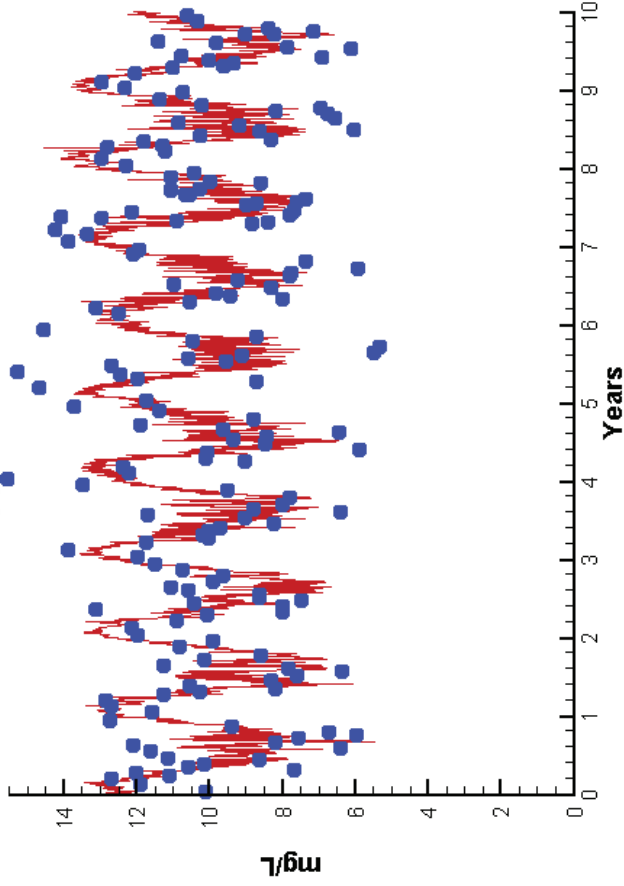
Chl
DIN
KE
DIP
TP
TN

-13.8791
0.0429
0.0281
0.0064
-0.0035
0.2797

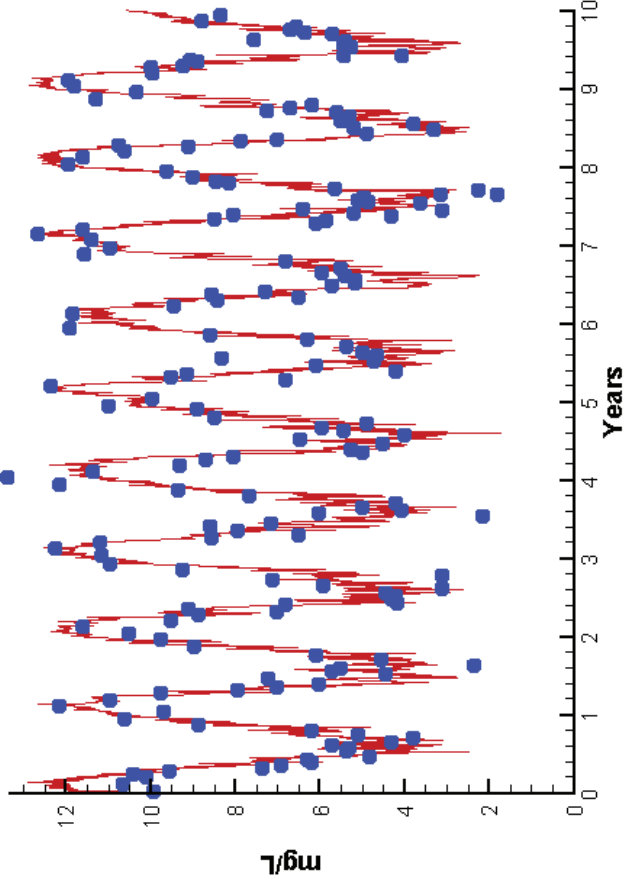
17.0761
0.2723
0.7673
0.0083
0.0214
0.4129

Station WT5.1

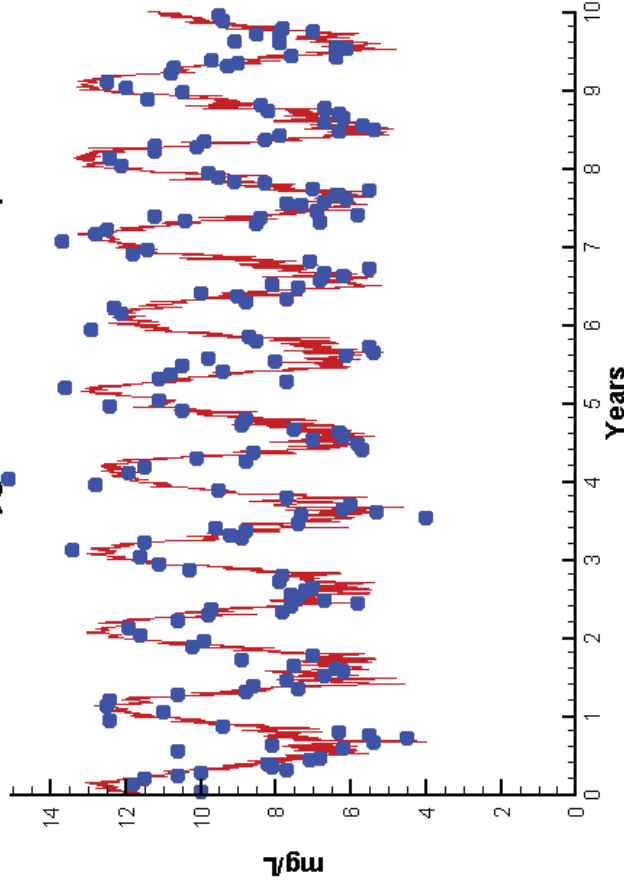
Run185 2002-2011
Dissolved Oxygen WT5.1 Surface



Run185 2002-2011
Dissolved Oxygen WT5.1 Bottom



Run185 2002-2011
Dissolved Oxygen WT5.1 Mid-Depth



Mean Difference

Absolute Mean Difference

Top DO
Mid DO
Bot DO

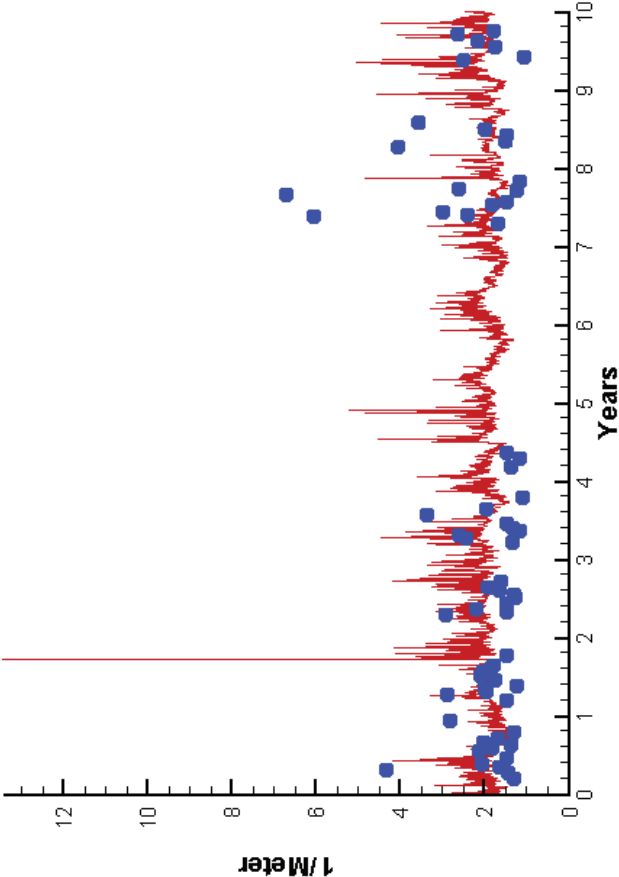
0.2372
-0.0301
-0.0357

1.5480
1.0669
1.0405

Station WT5.1

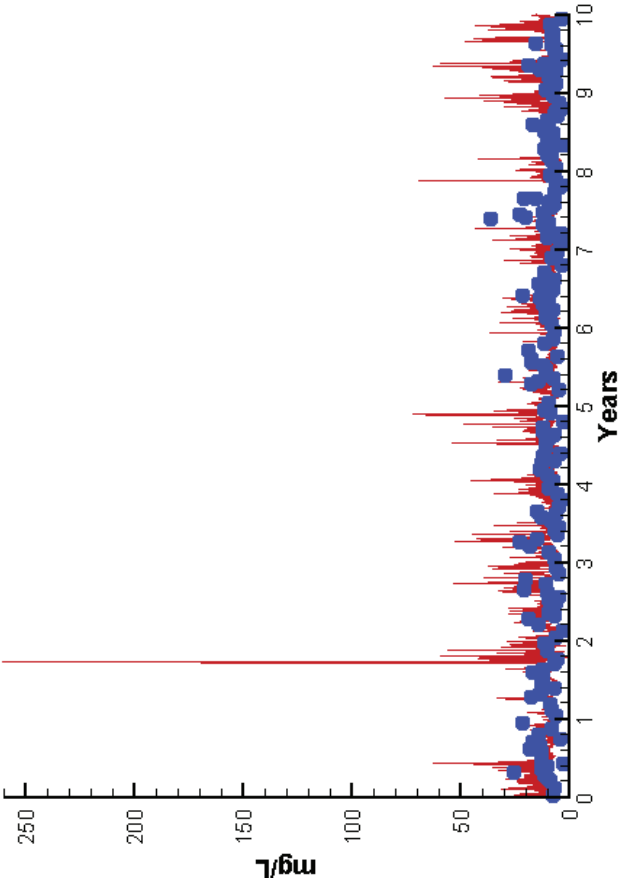
Run185 2002-2011

Light Extinction WT5.1 Surface



Run185 2002-2011

Total Solids WT5.1 Surface

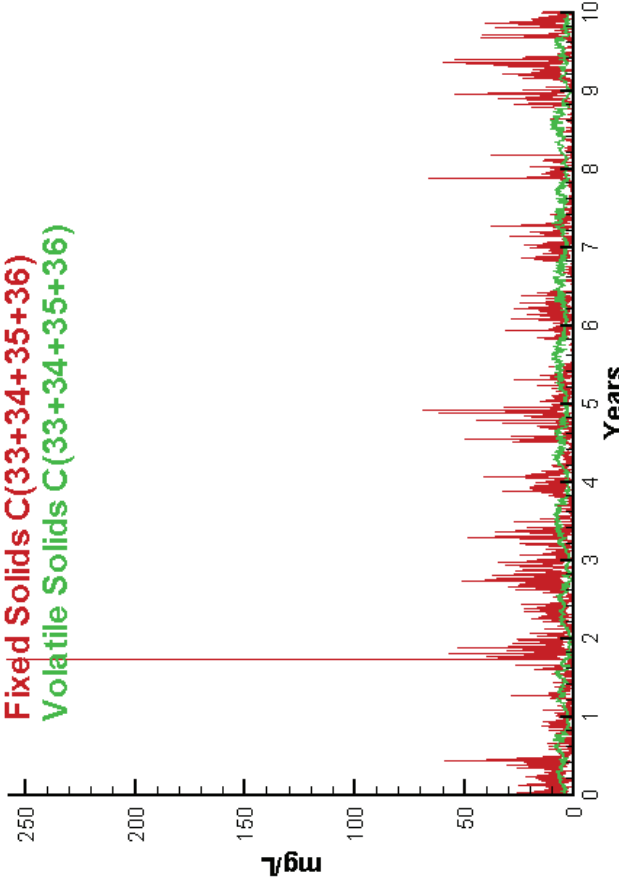


Run185 2002-2011

Solids Surface

Fixed Solids C(33+34+35+36)

Volatile Solids C(33+34+35+36)



Mean Difference

Absolute Mean Difference

KE

0.0281

TSS

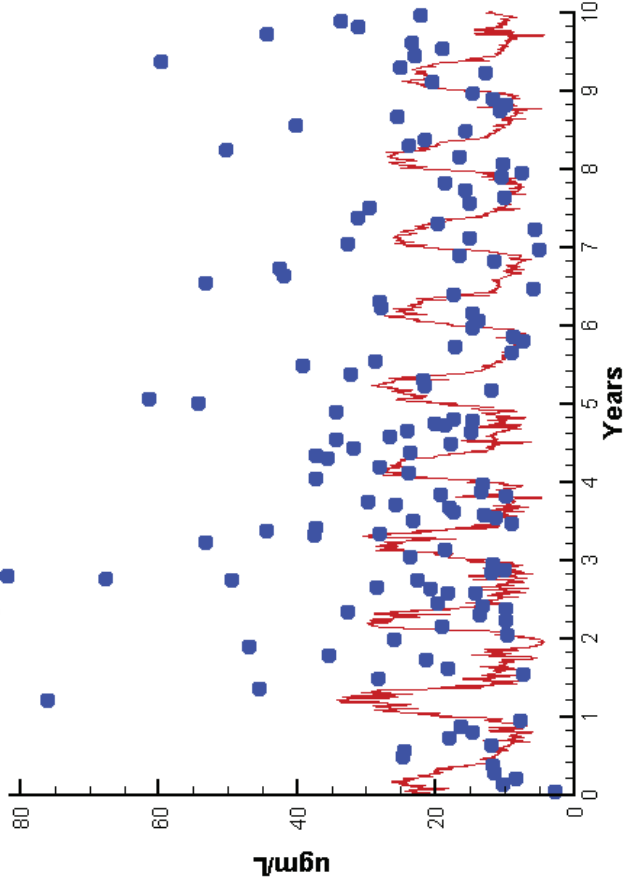
0.9829

0.7673

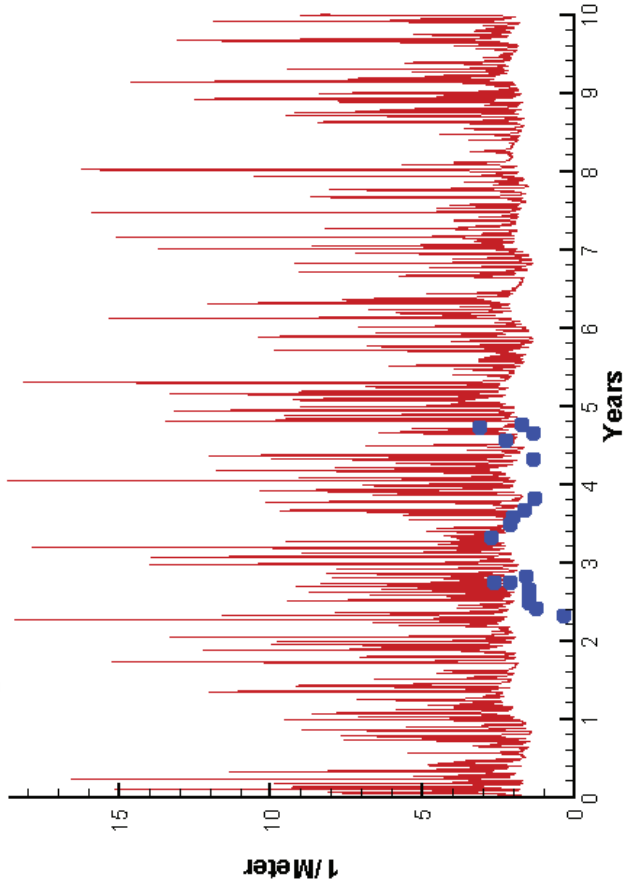
5.0410

Station WT8.1

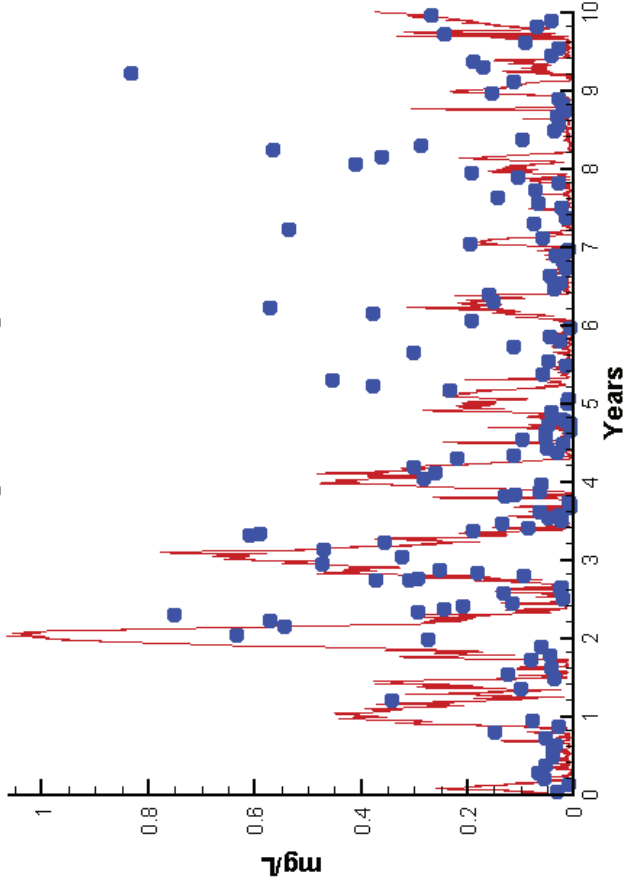
Run185 2002-2011
Chlorophyll WT8.1 Surface



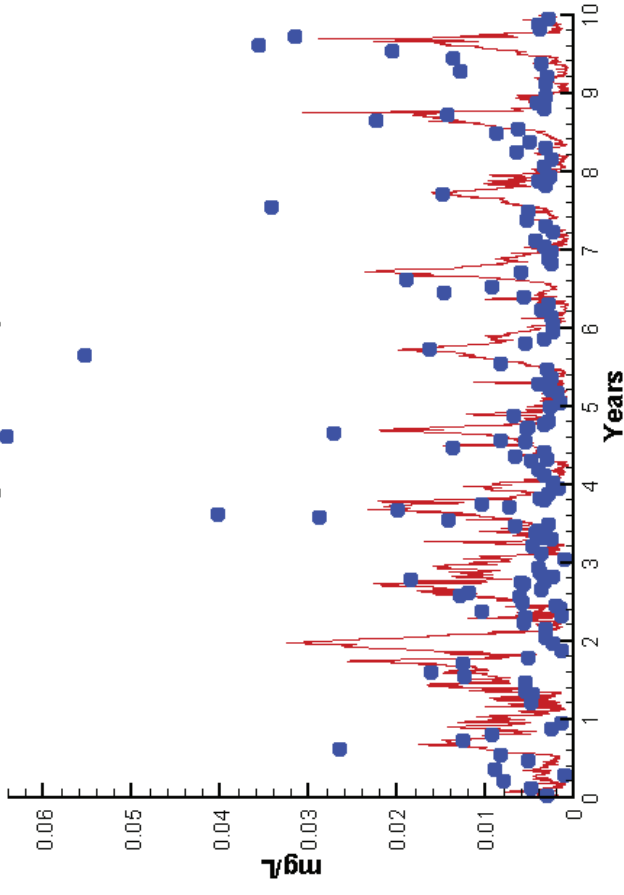
Run185 2002-2011
Light Extinction WT8.1 Surface



Run185 2002-2011
Dissolved Inorganic Nitrogen WT8.1 Surface

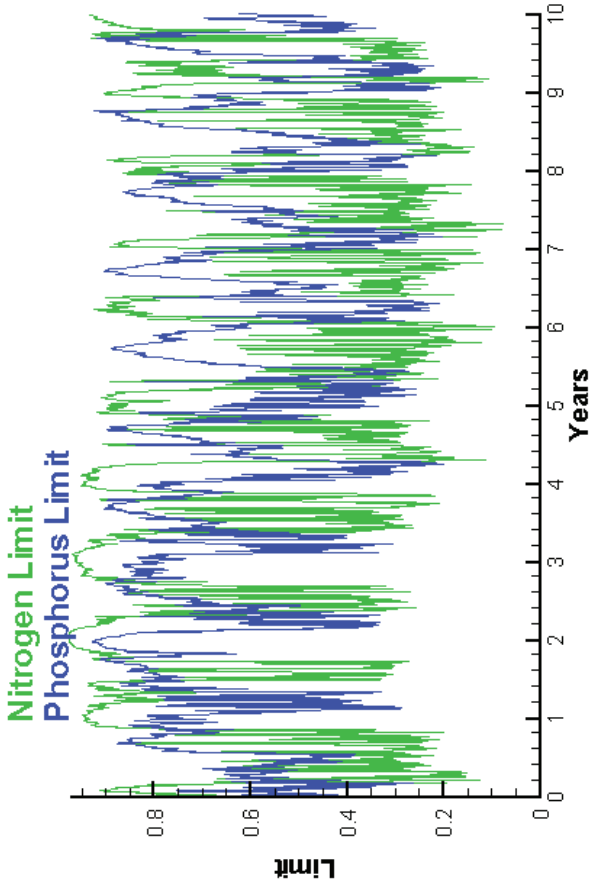


Run185 2002-2011
Dissolved Inorganic Phosphorus WT8.1 Surface

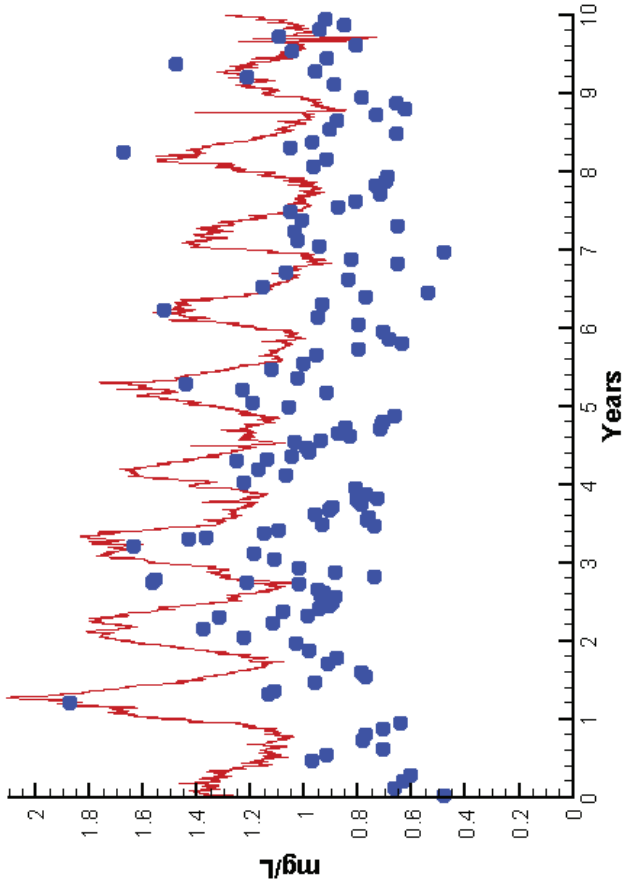


Station WT8.1

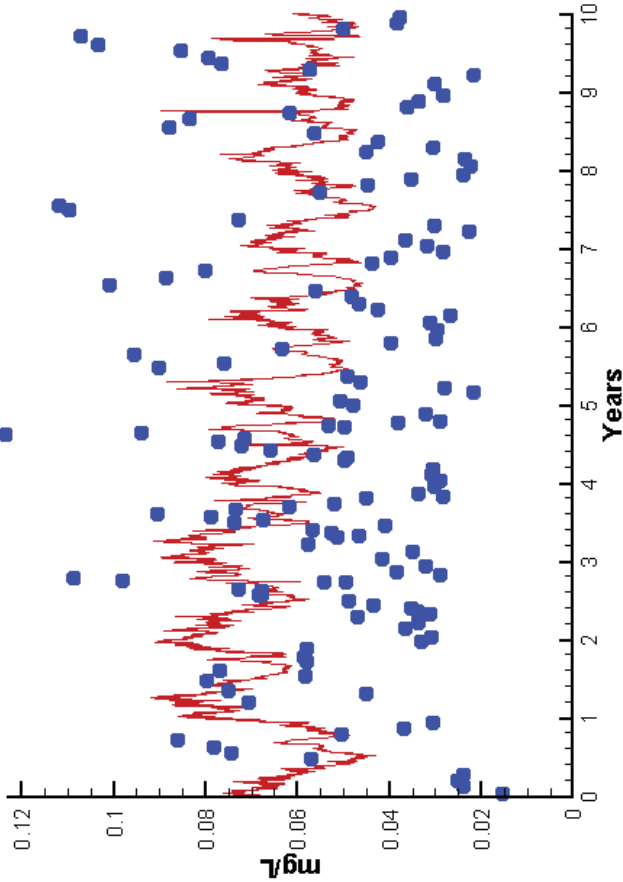
Run185 2002-2011
Algal Limits



Run185 2002-2011
Total Nitrogen WT8.1 Surface



Run185 2002-2011
Total Phosphorus WT8.1 Surface



Mean Difference

Absolute Mean Difference

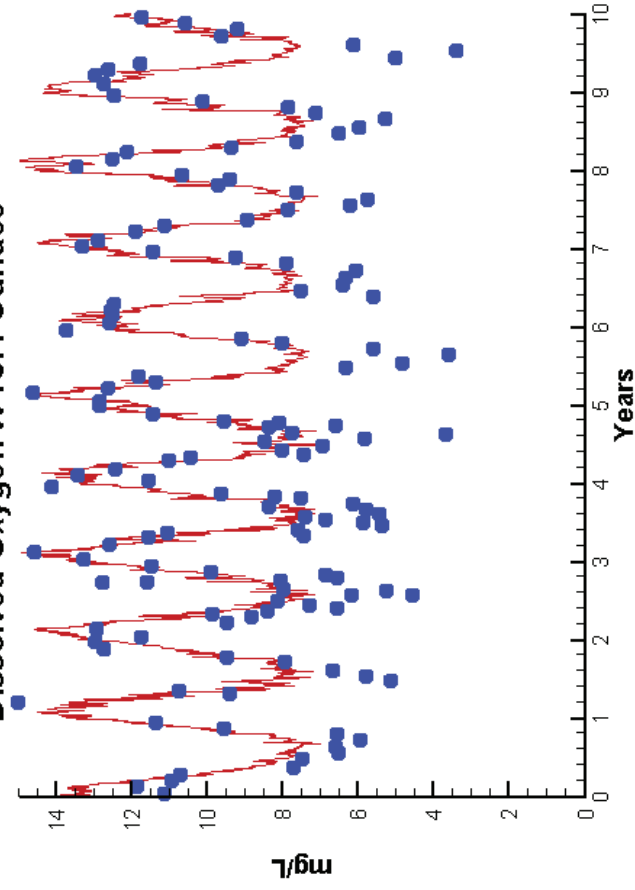
Chl
DIN
KE
DIP
TP
TN

-8.7885
-0.0443
1.2746
-0.0008
0.0107
0.3384

12.8334
0.1193
1.4465
0.0057
0.0251
0.3633

Station WT8.1

Run185 2002-2011
Dissolved Oxygen WT8.1 Surface



Mean Difference

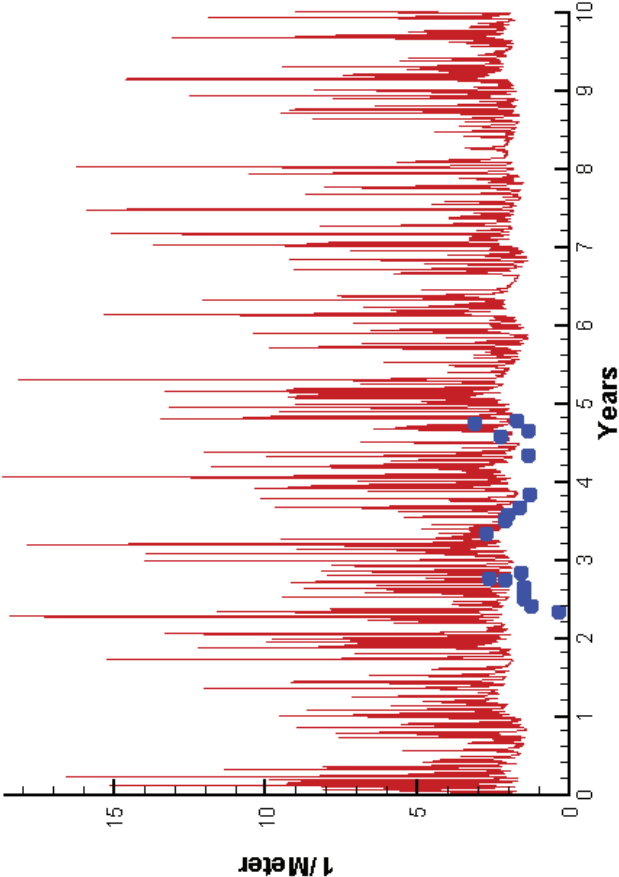
Top DO 0.8705

1.4387

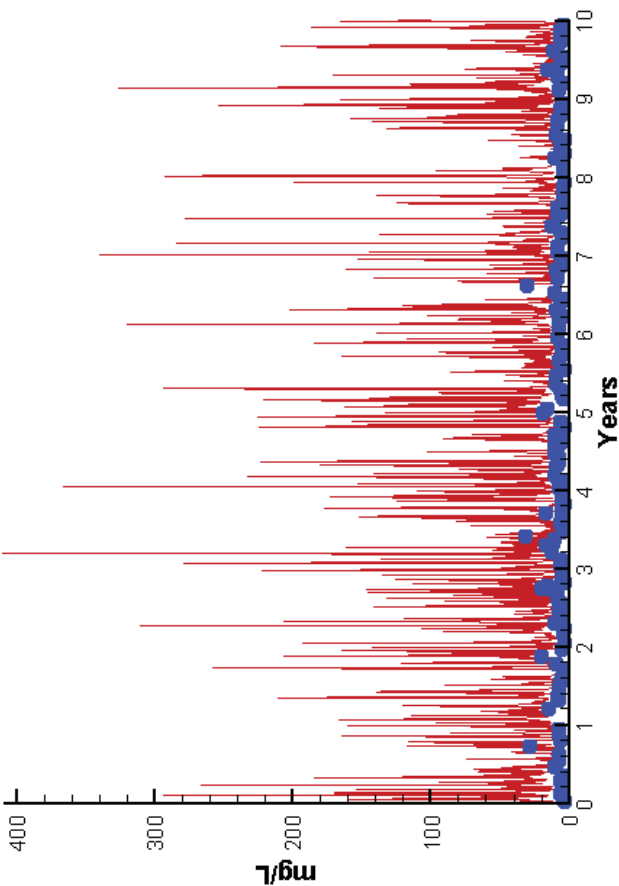
Absolute Mean Difference

Station WT8.1

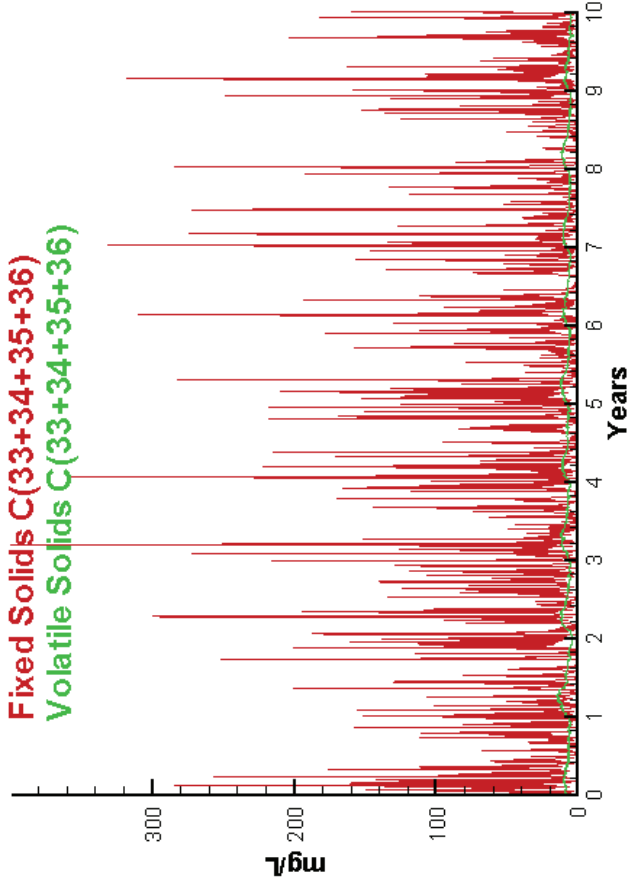
Run185 2002-2011
Light Extinction WT8.1 Surface



Run185 2002-2011
Total Solids WT8.1 Surface



Run185 2002-2011
Solids Surface



Fixed Solids C(33+34+35+36)
Volatile Solids C(33+34+35+36)

Mean Difference

Absolute Mean Difference

KE
TSS

1.2746
19.0185

1.4465
19.7479

Appendix C: Longitudinal Comparisons 1991-2000

The spatial distributions of observed and computed properties were compared in a series of plots along the axes of the bay and major tributaries (Figure 1). The calibration period encompassed more than 100 cruises. Reducing this number of surveys into a manageable volume of comparisons required selection and aggregation. Three years were selected for comparisons: 1994, 1996, and 1999. The year 1994 was considered a year of average flow in the Susquehanna River, the source of the majority of runoff to the bay. Flows in 1996 were characterized as above-average while 1999 was a year of below-average runoff.

Model results and observations were averaged into four seasons:

Winter - December through February
Spring - March through May
Summer - June through August
Fall - September through November

Conventional arithmetic means were calculated for the observations. Model results were subjected to a process denoted as “cruise averaging.” Within each season, model results were considered only during intervals coinciding with sample cruises. Cruise averaging diminished discrepancies between model and observations attributed to consideration of model results for periods when no data was collected. Daily averages of model results were computed within the model code. Cruise averaging was completed in a postprocessor. Arithmetic averages of modeled substance were computed during cruise periods except for light attenuation and total suspended solids. The variance of the computed values skewed arithmetic means to unrepresentative high values. For these two components, log averages were calculated. The postprocessor also extracted the maximum and minimum computed daily averages.

The mean and range of the observations, at surface and bottom, were compared to the cruise average and range of daily-average model results. The longitudinal axes largely followed the maximum depths represented on the model grid. Only stations located exactly on the transect were considered for comparison with the model. Comparisons were made for physical quantities (salinity, temperature, suspended solids, light attenuation), chlorophyll, dissolved oxygen, and multiple forms of carbon, nitrogen, and phosphorus.

We concentrate here on the components which correspond closely to chlorophyll, clarity, and dissolved oxygen in the critical summer period. Dissolved oxygen is shown at the surface and bottom. Surface samples are from the 1 m depth. Bottom samples are typically 1 m off the bottom and follow local bathymetry. Model values are from surface and bottom cells on the grid. Chlorophyll and light attenuation are presented for the surface only. For all substances, the blue circles and vertical bars indicate mean and range of the observations. The continuous red and green traces represent model mean and range, subject to the selection and averaging process described above.

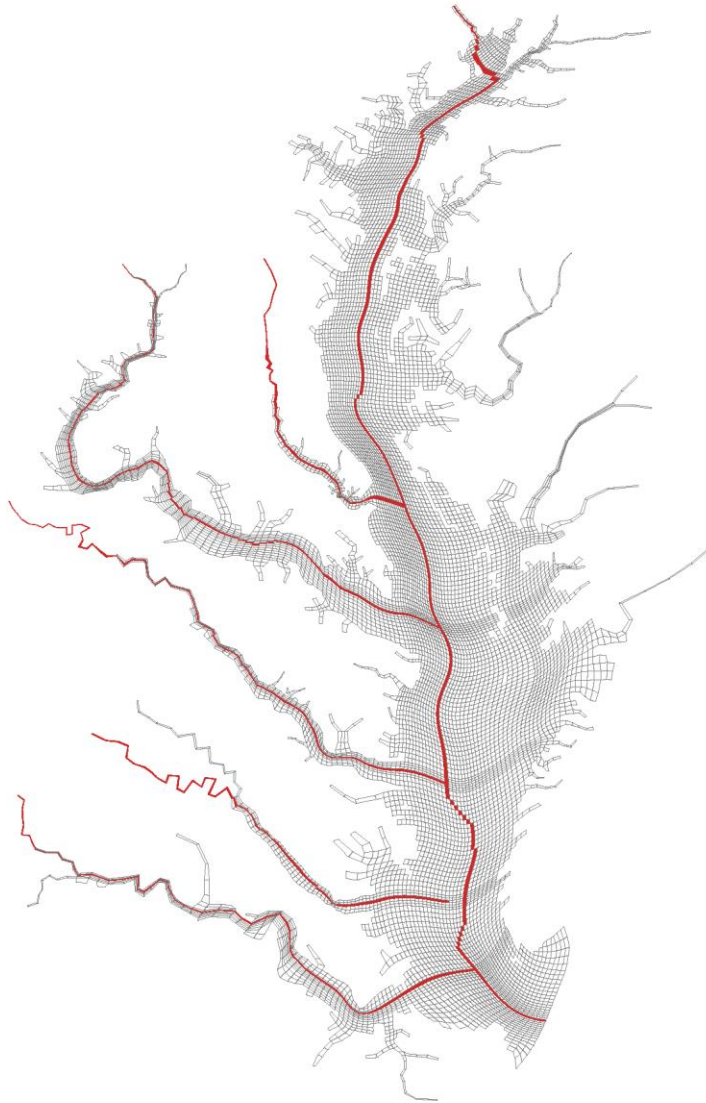
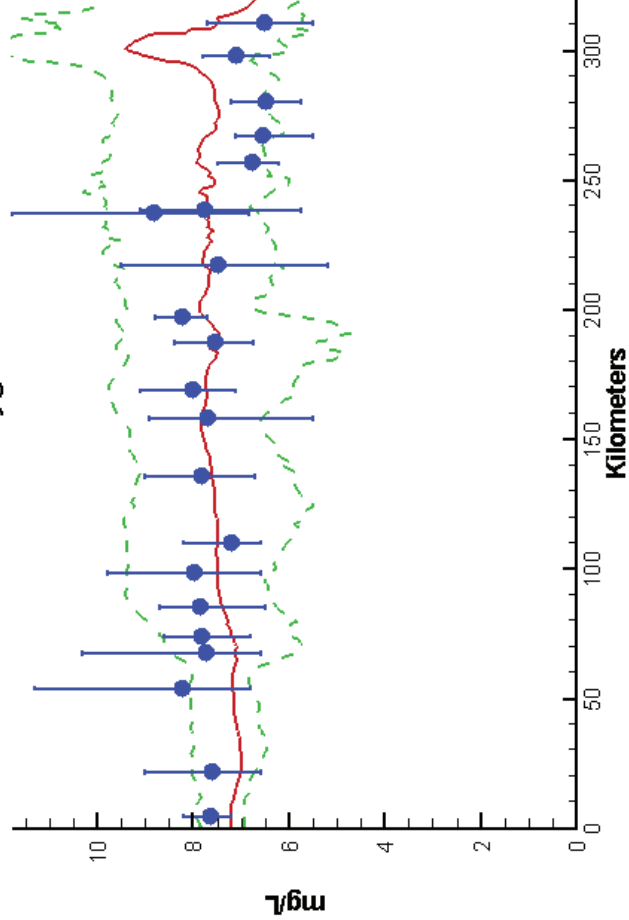


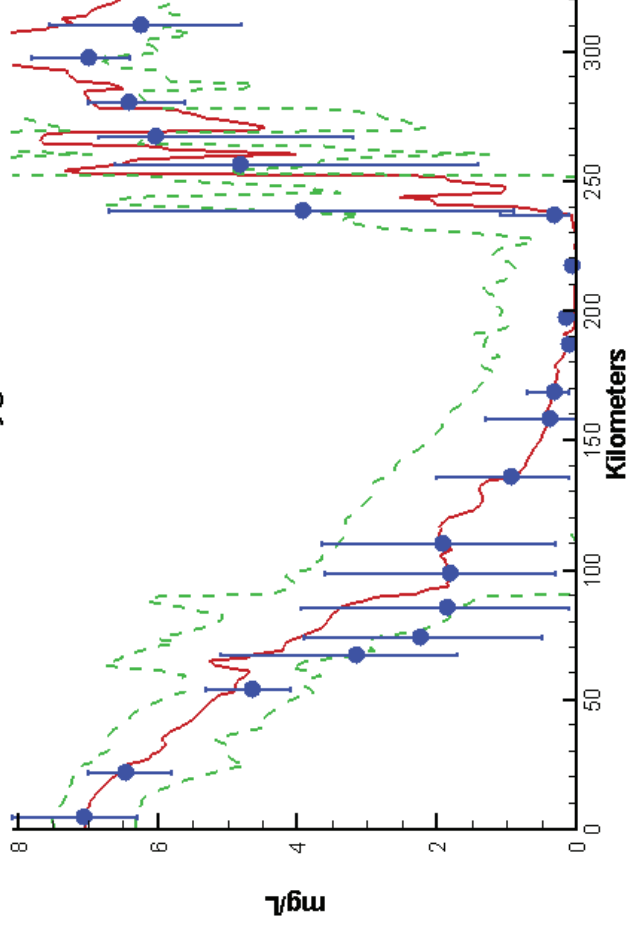
Figure 1. Longitudinal transects in the bay and major tributaries.

Mainstem Bay - Summer - 1994

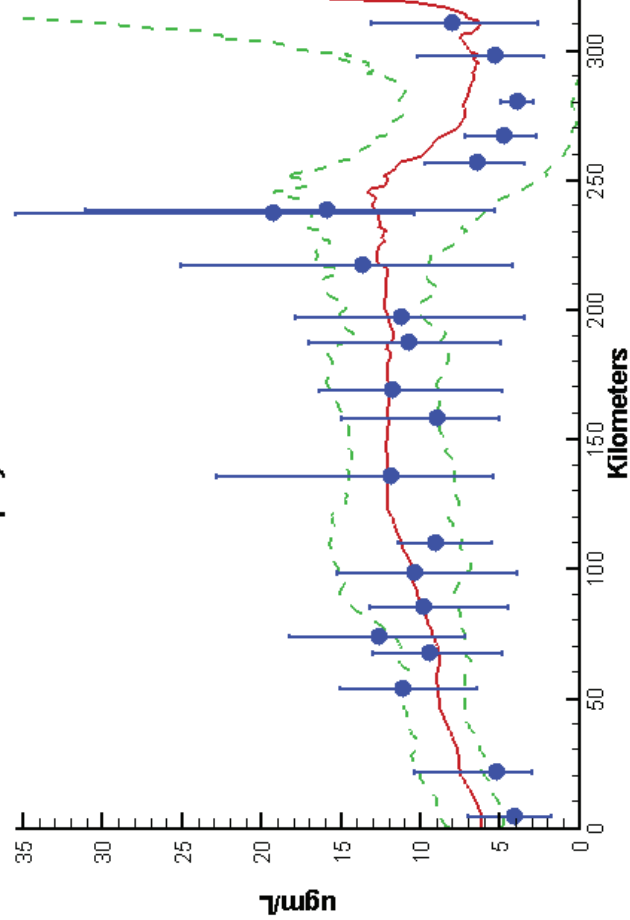
Mainstem Bay Ches2015 Run184
Surface Dissolved Oxygen Summer 1994



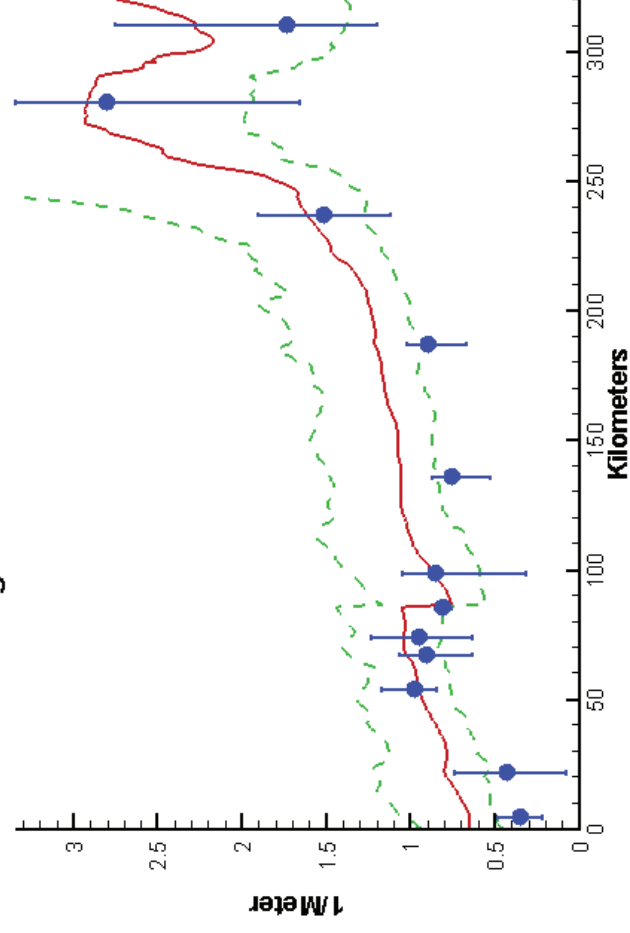
Mainstem Bay Ches2015 Run184
Bottom Dissolved Oxygen Summer 1994



Mainstem Bay Ches2015 Run184
Surface Chlorophyll Summer 1994

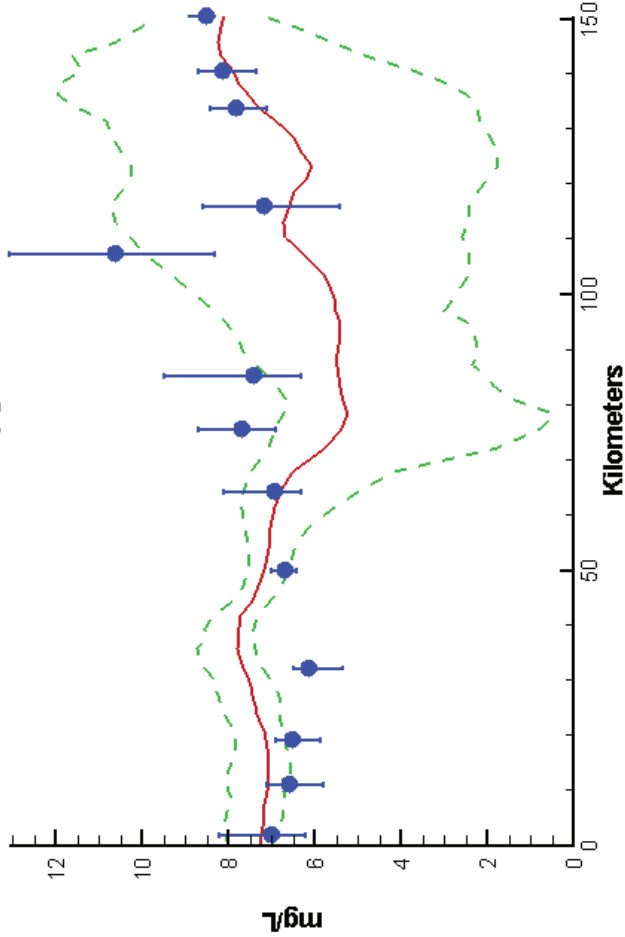


Mainstem Bay Ches2015 Run184
Surface Light Extinction Summer 1994

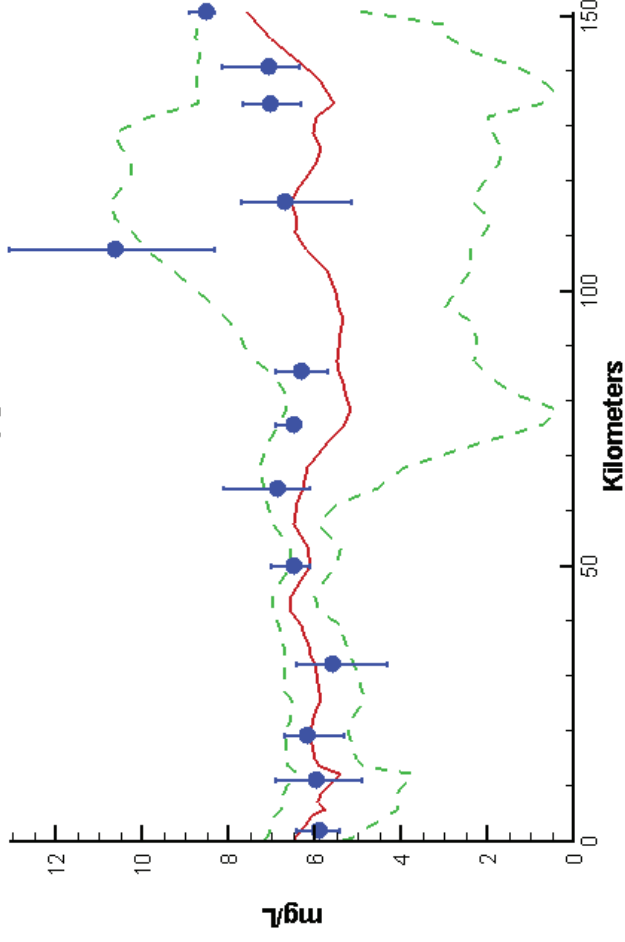


James River - Summer - 1994

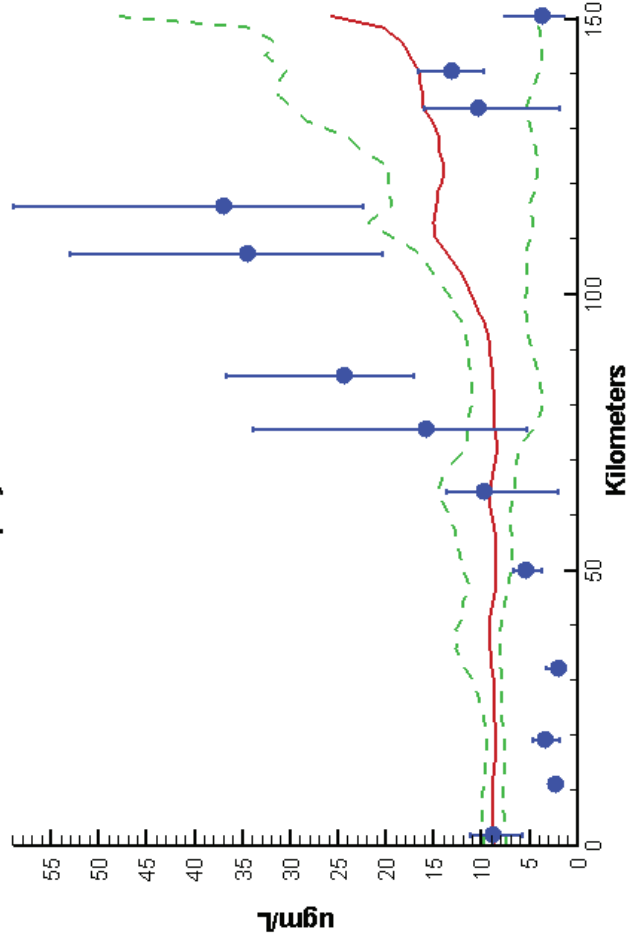
James River Ches2015 Run184
Surface Dissolved Oxygen Summer 1994



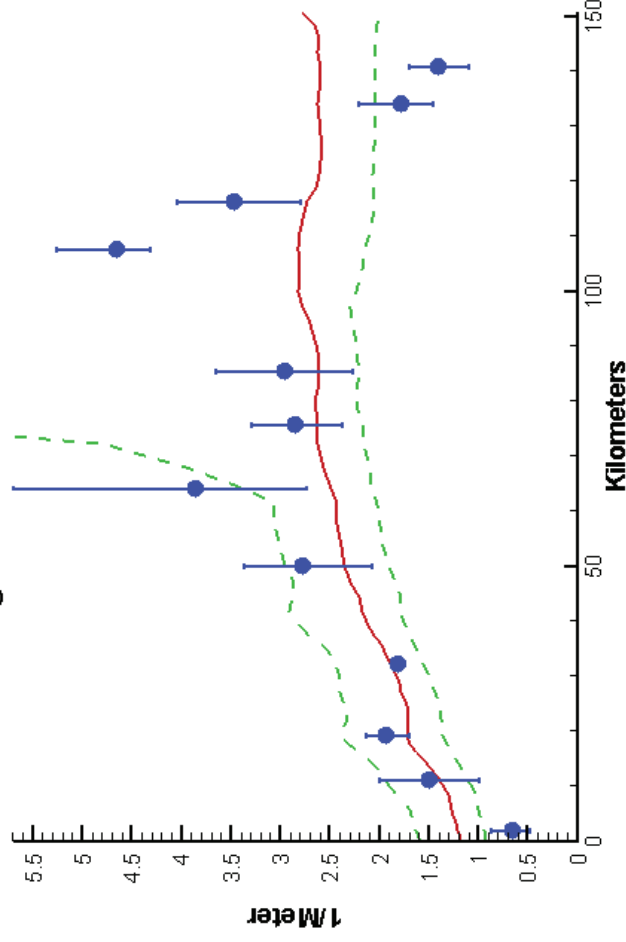
James River Ches2015 Run184
Bottom Dissolved Oxygen Summer 1994



James River Ches2015 Run184
Surface Chlorophyll Summer 1994

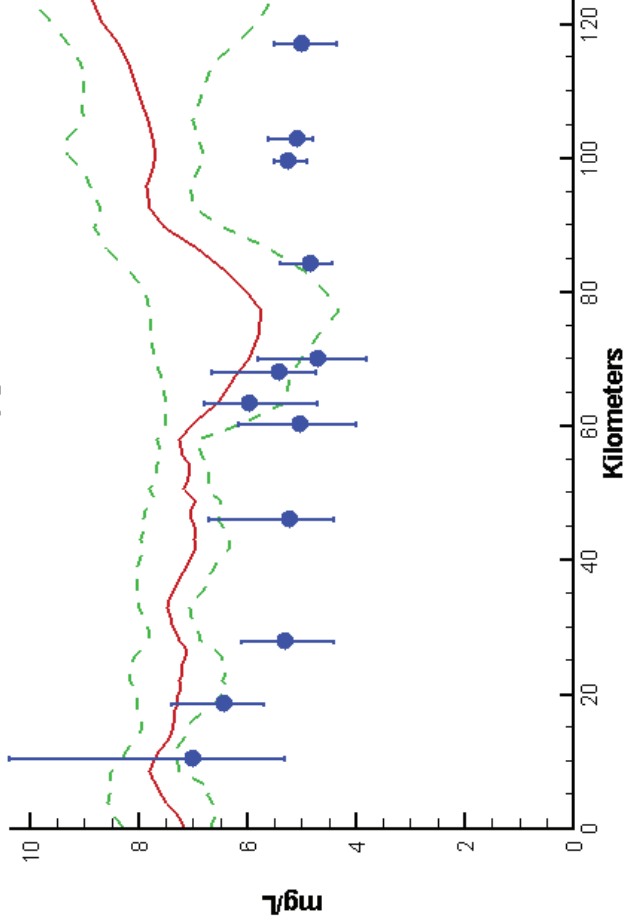


James River Ches2015 Run184
Surface Light Extinction Summer 1994

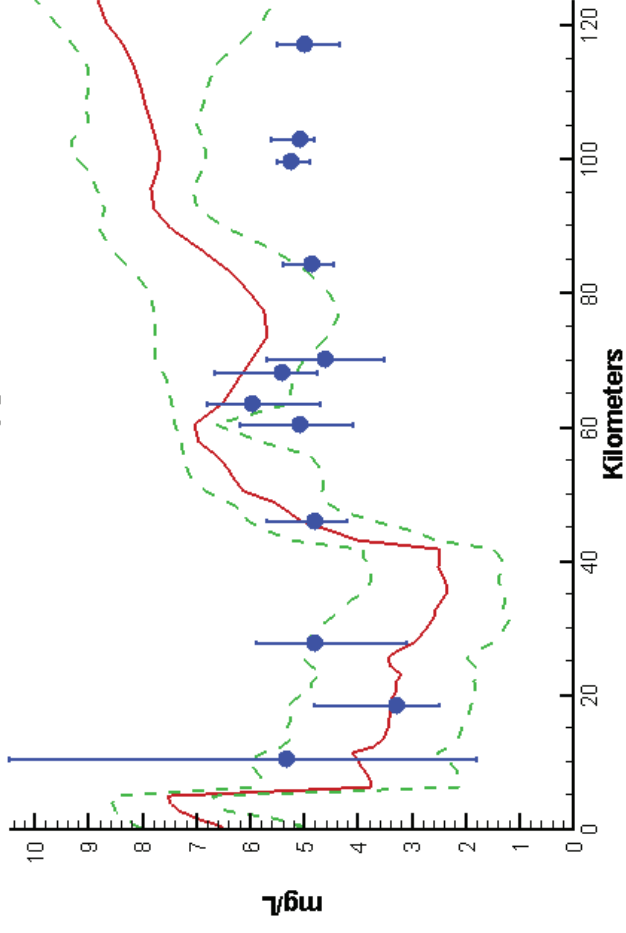


York River - Summer - 1994

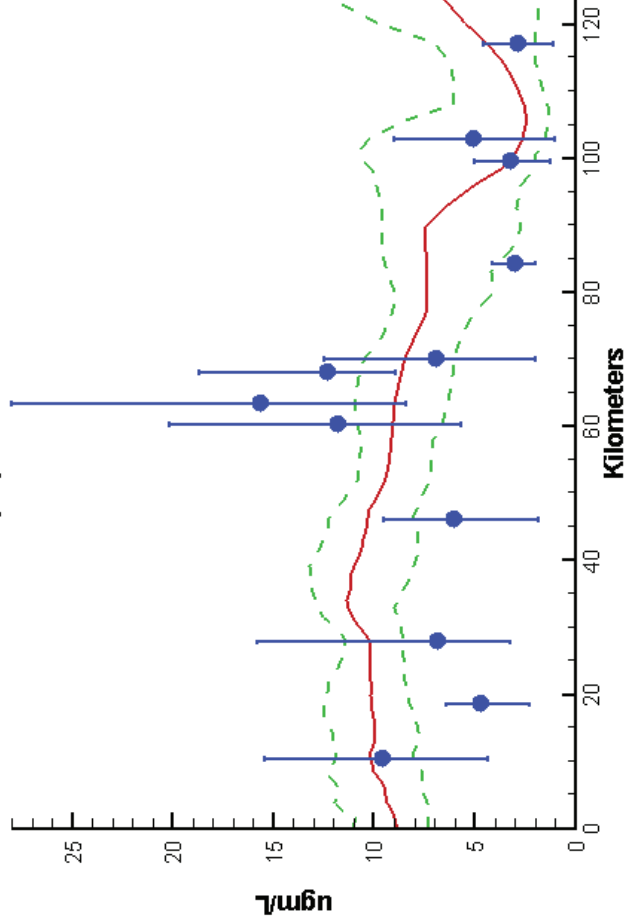
York River Ches2015 Run184
Surface Dissolved Oxygen Summer 1994



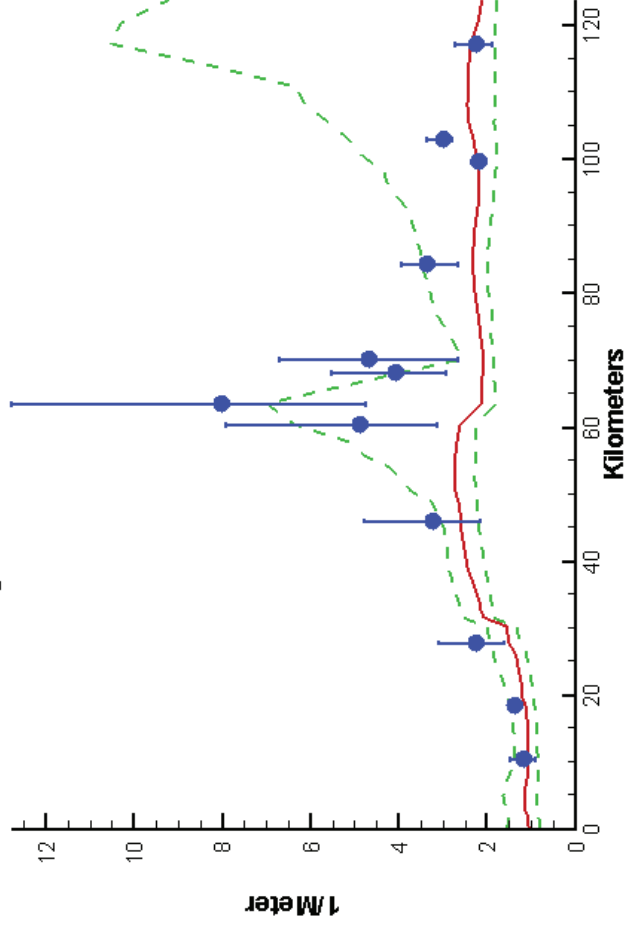
York River Ches2015 Run184
Bottom Dissolved Oxygen Summer 1994



York River Ches2015 Run184
Surface Chlorophyll Summer 1994

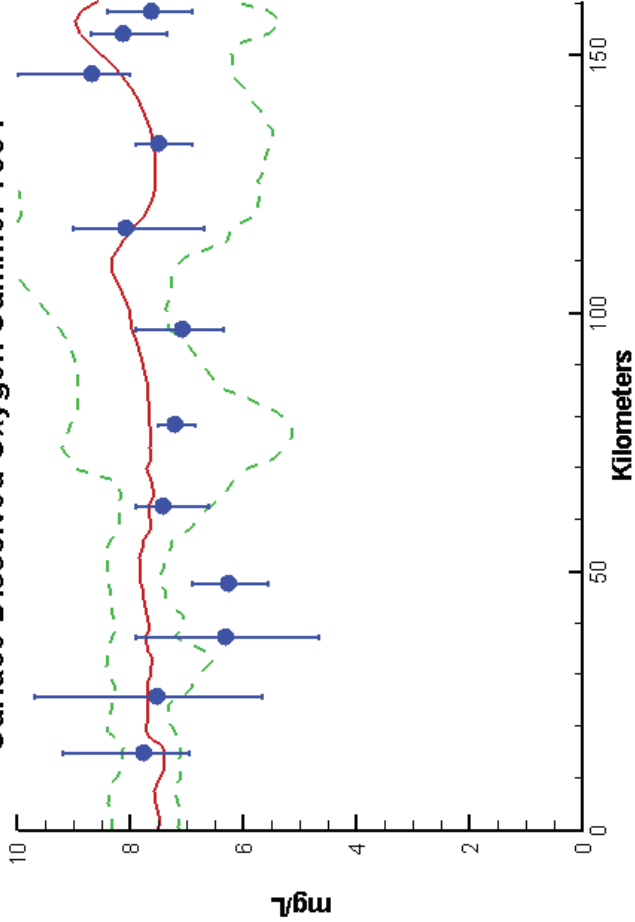


York River Ches2015 Run184
Surface Light Extinction Summer 1994

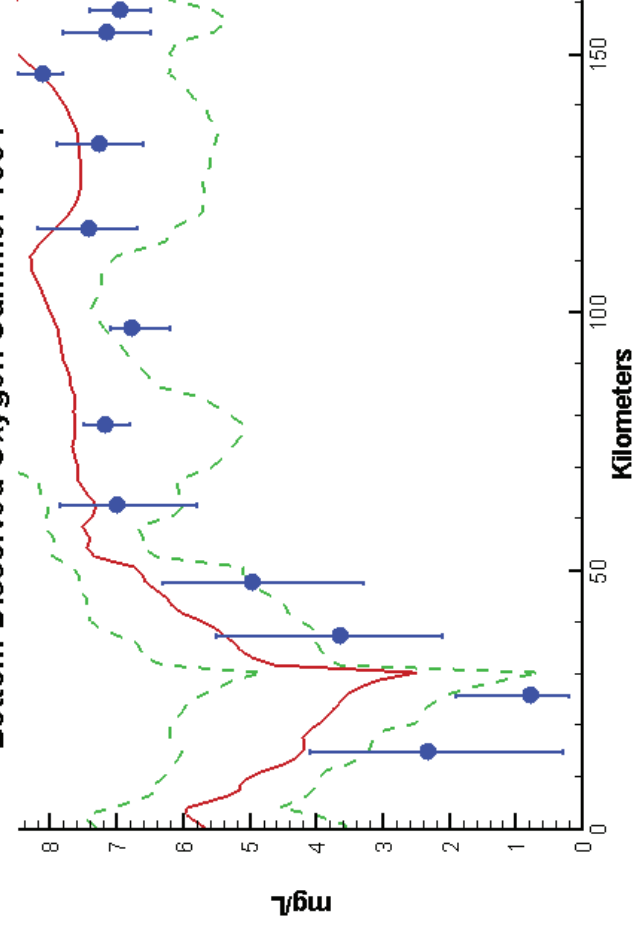


Rappahannock River - Summer - 1994

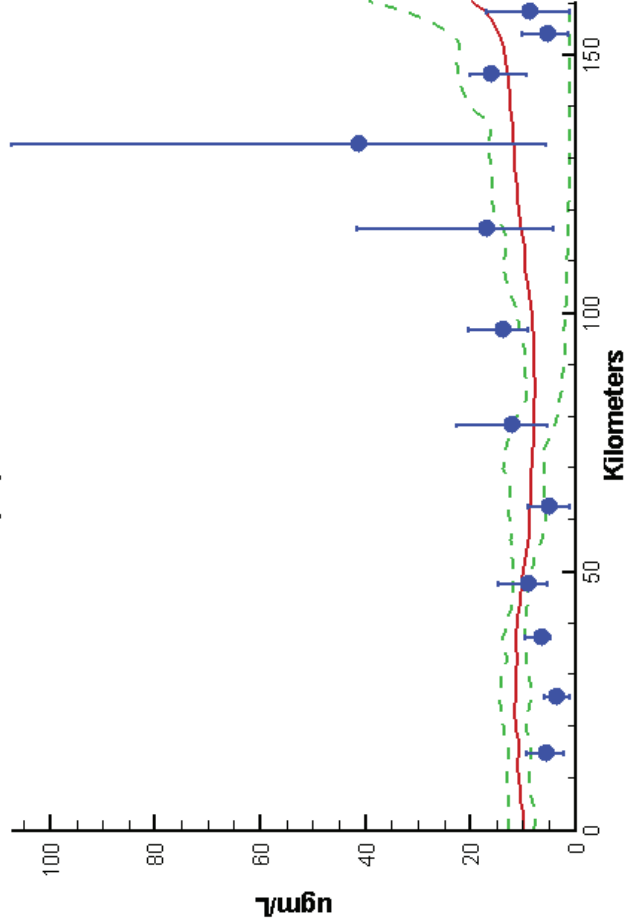
Rappahannock River Ches2015 Run184
Surface Dissolved Oxygen Summer 1994



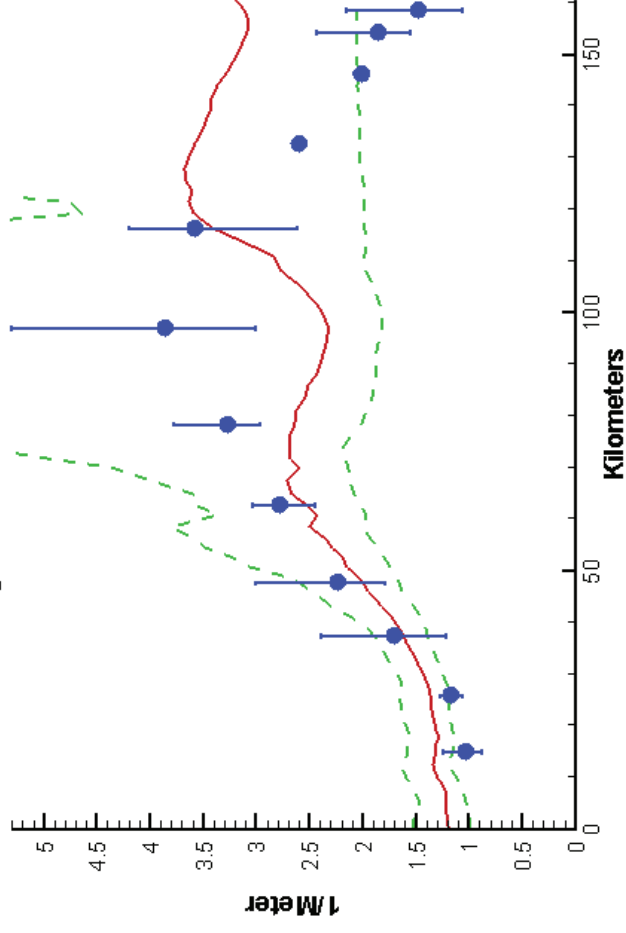
Rappahannock River Ches2015 Run184
Bottom Dissolved Oxygen Summer 1994



Rappahannock River Ches2015 Run184
Surface Chlorophyll Summer 1994

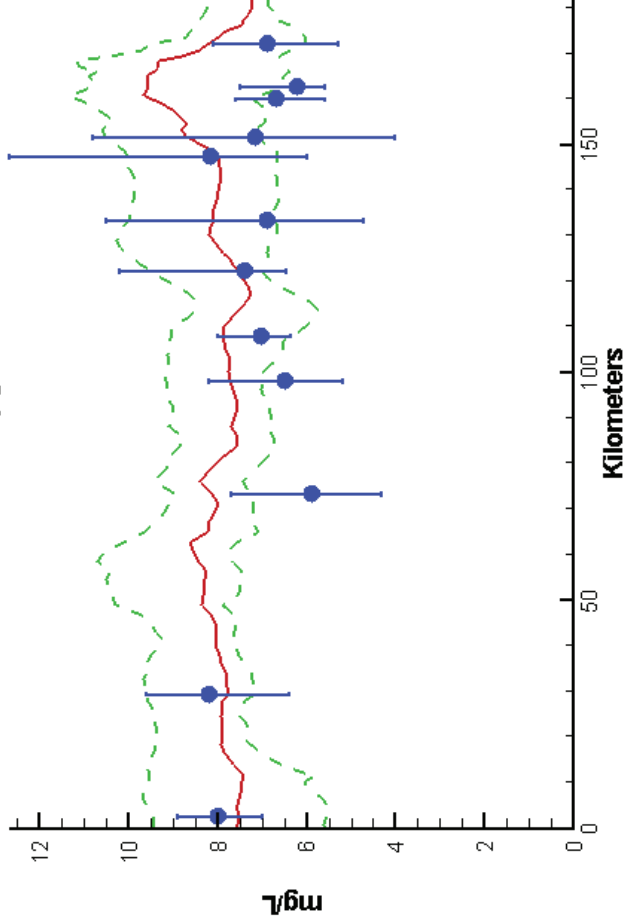


Rappahannock River Ches2015 Run184
Surface Light Extinction Summer 1994

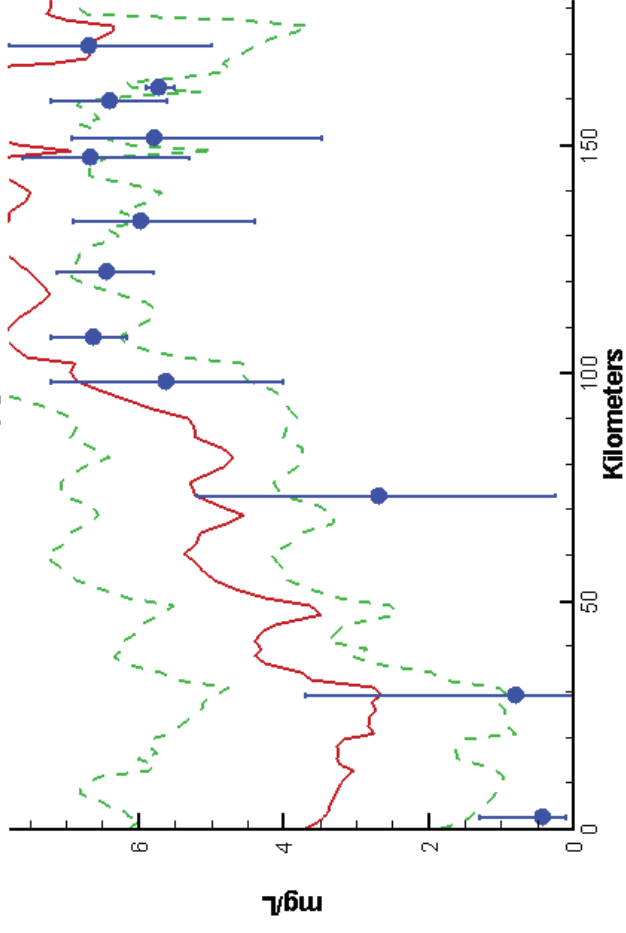


Potomac River - Summer - 1994

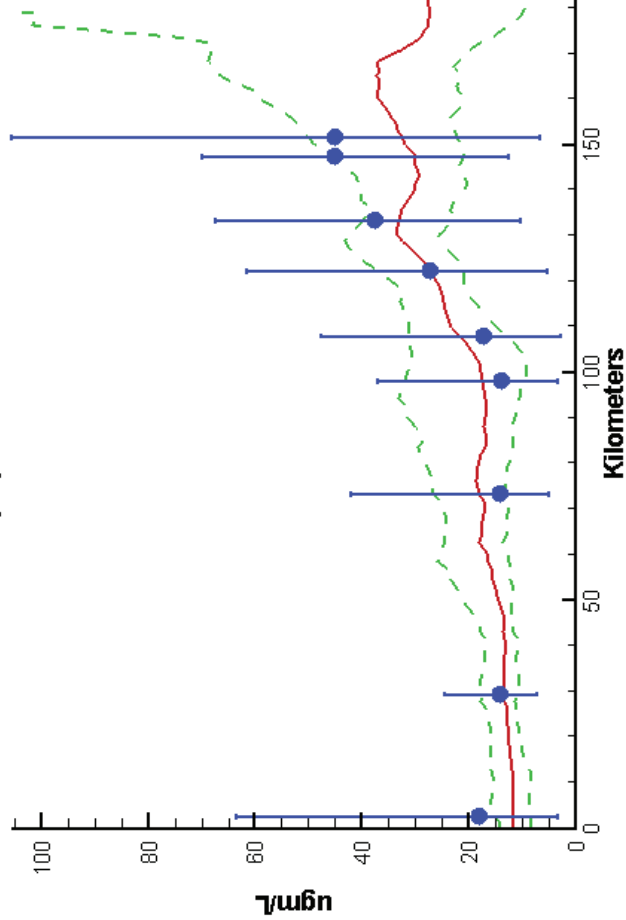
Potomac River Ches2015 Run184
Surface Dissolved Oxygen Summer 1994



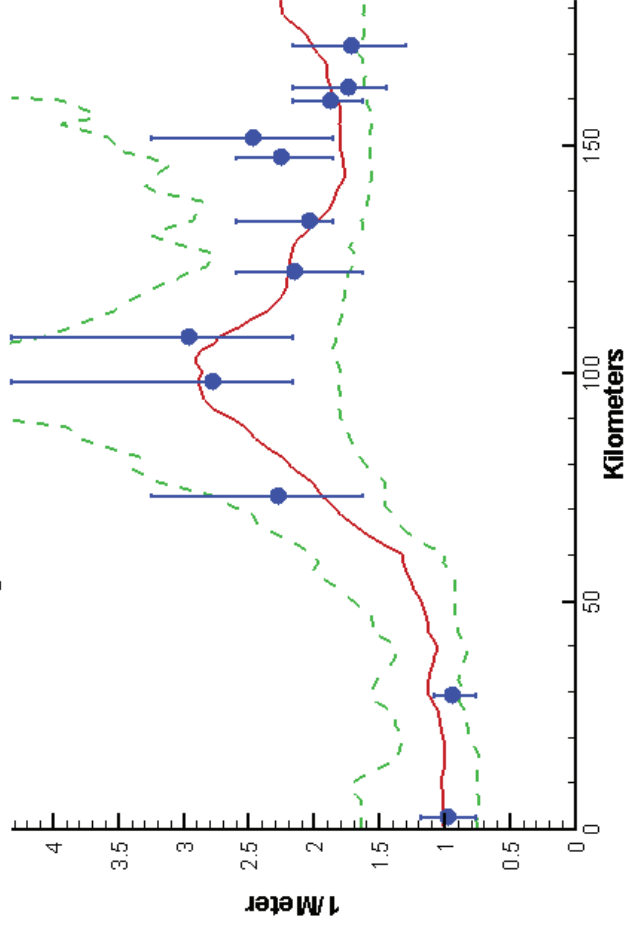
Potomac River Ches2015 Run184
Bottom Dissolved Oxygen Summer 1994



Potomac River Ches2015 Run184
Surface Chlorophyll Summer 1994

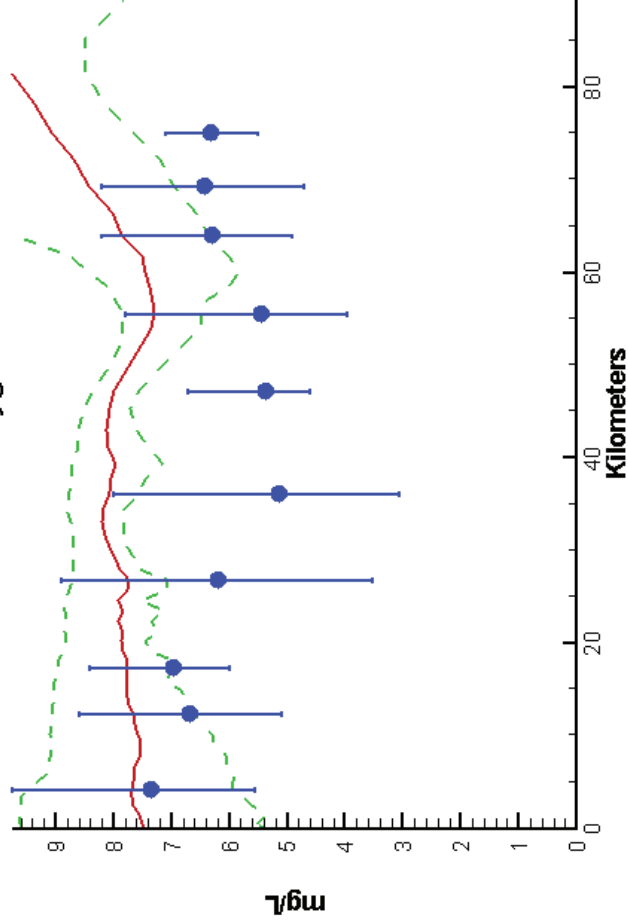


Potomac River Ches2015 Run184
Surface Light Extinction Summer 1994

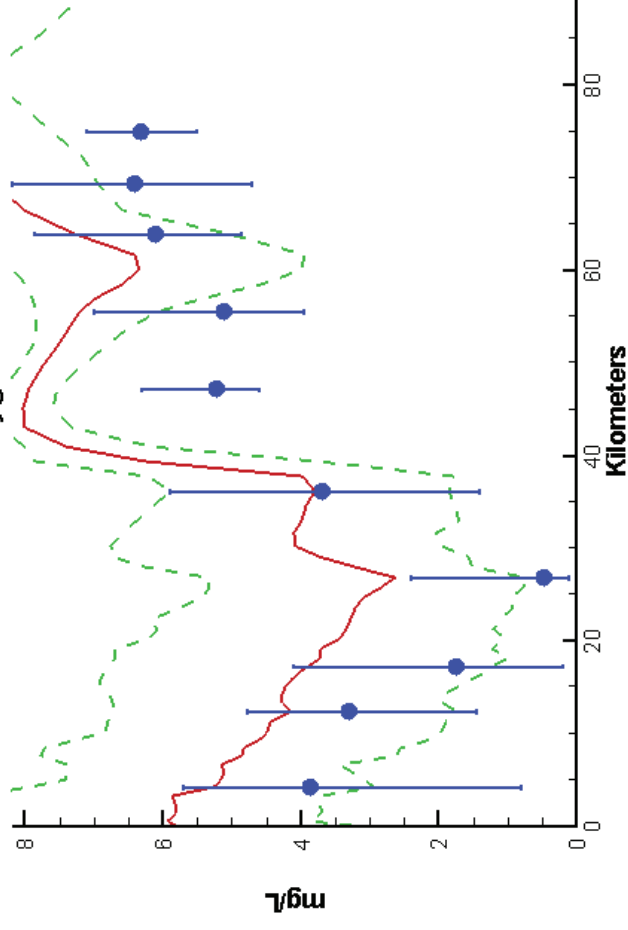


Patuxent River - Summer - 1994

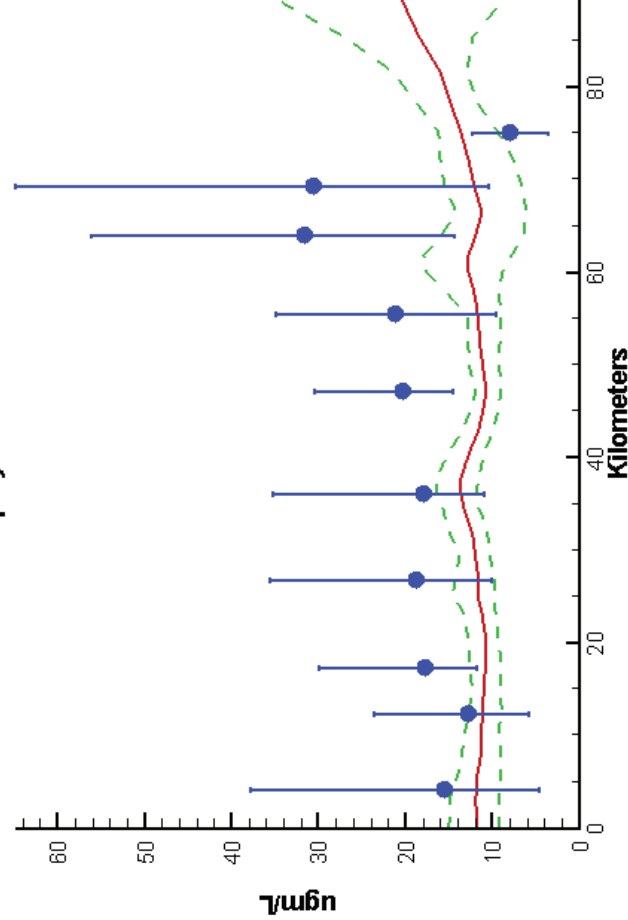
Patuxent River Ches2015 Run184
Surface Dissolved Oxygen Summer 1994



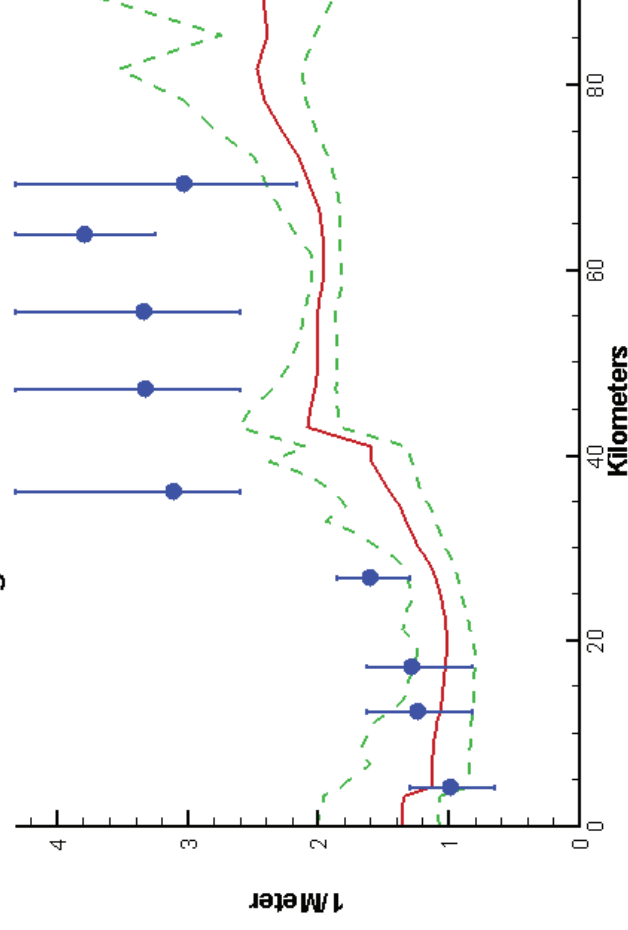
Patuxent River Ches2015 Run184
Bottom Dissolved Oxygen Summer 1994



Patuxent River Ches2015 Run184
Surface Chlorophyll Summer 1994

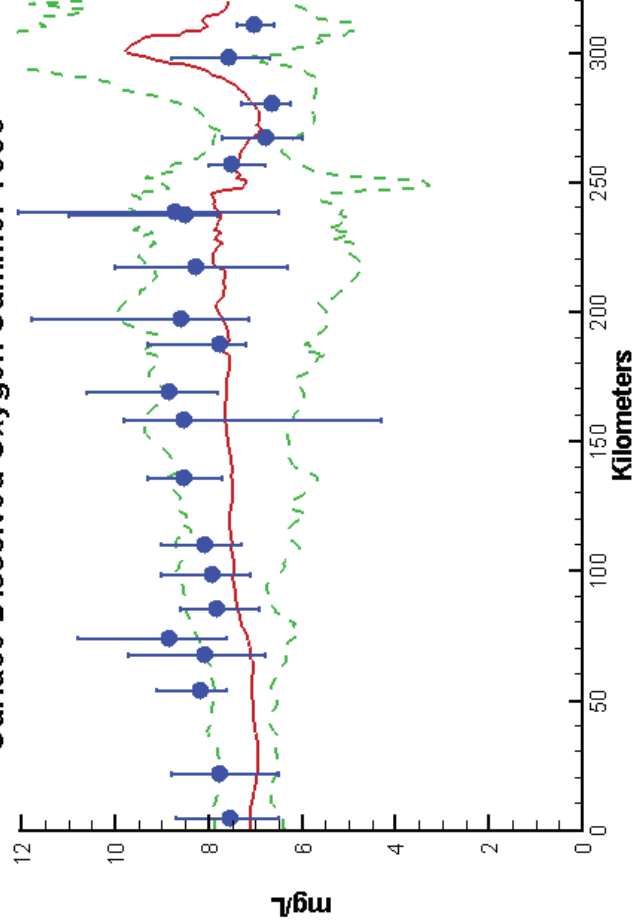


Patuxent River Ches2015 Run184
Surface Light Extinction Summer 1994

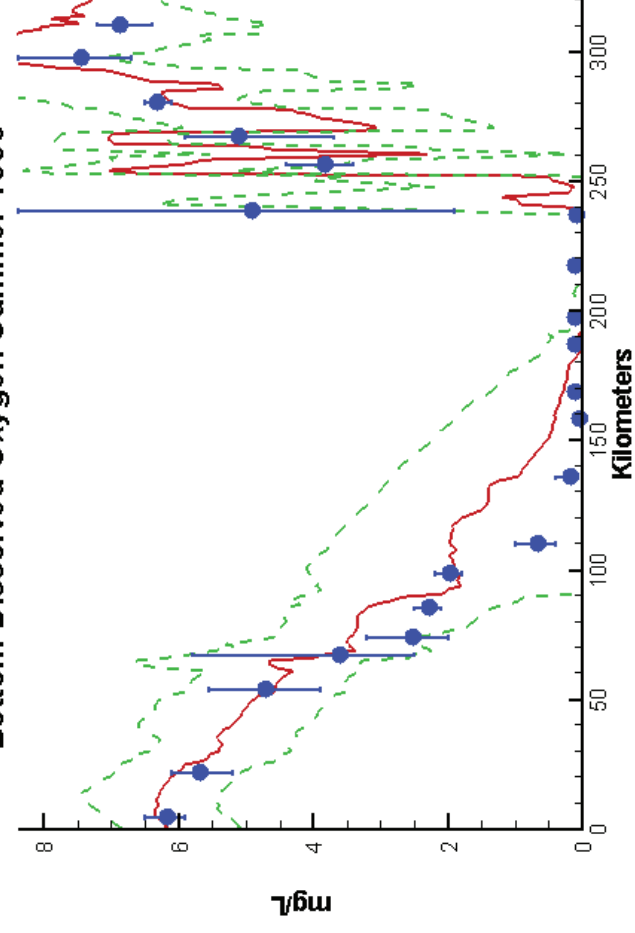


Mainstem Bay - Summer - 1996

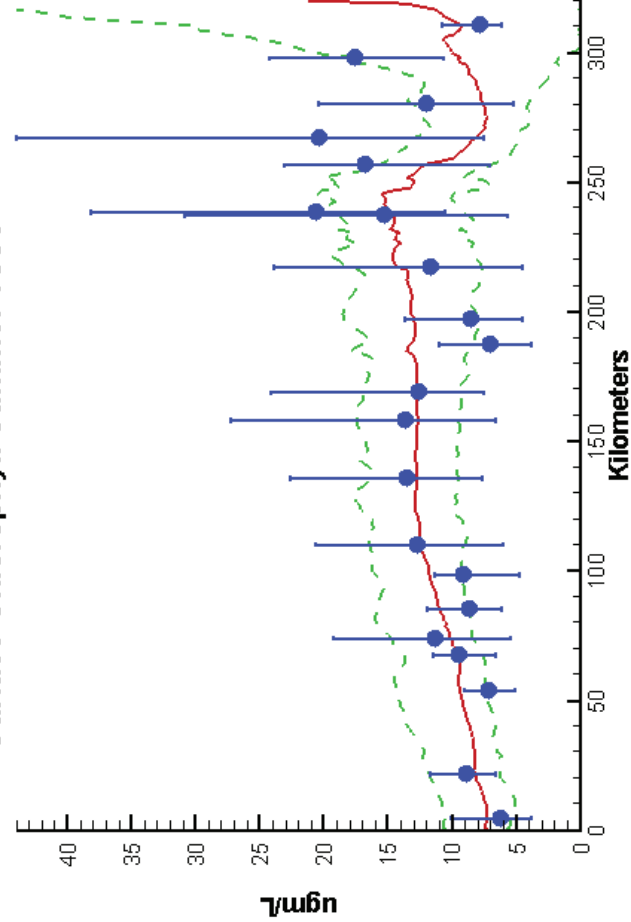
Mainstem Bay Ches2015 Run184
Surface Dissolved Oxygen Summer 1996



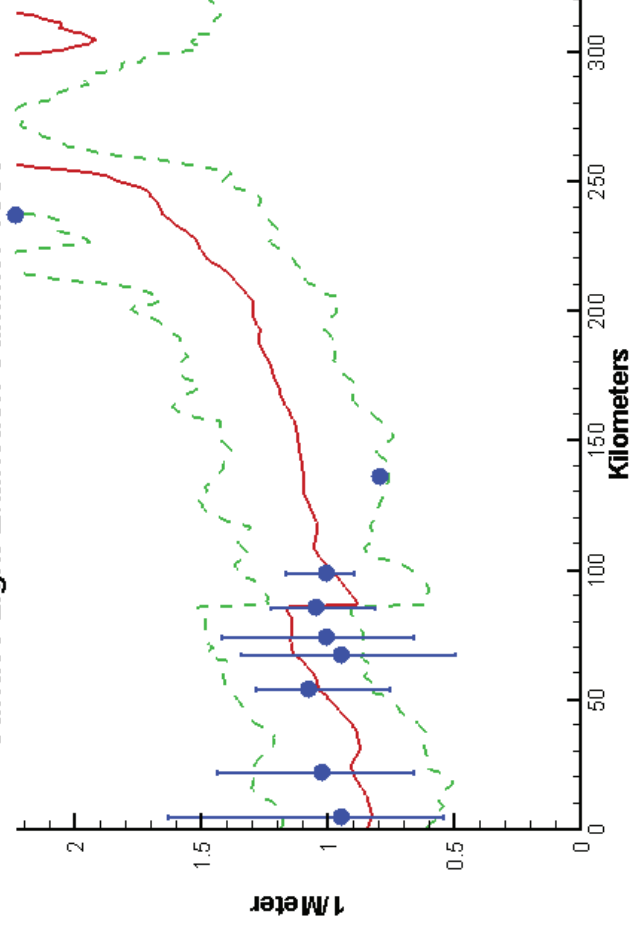
Mainstem Bay Ches2015 Run184
Bottom Dissolved Oxygen Summer 1996



Mainstem Bay Ches2015 Run184
Surface Chlorophyll Summer 1996

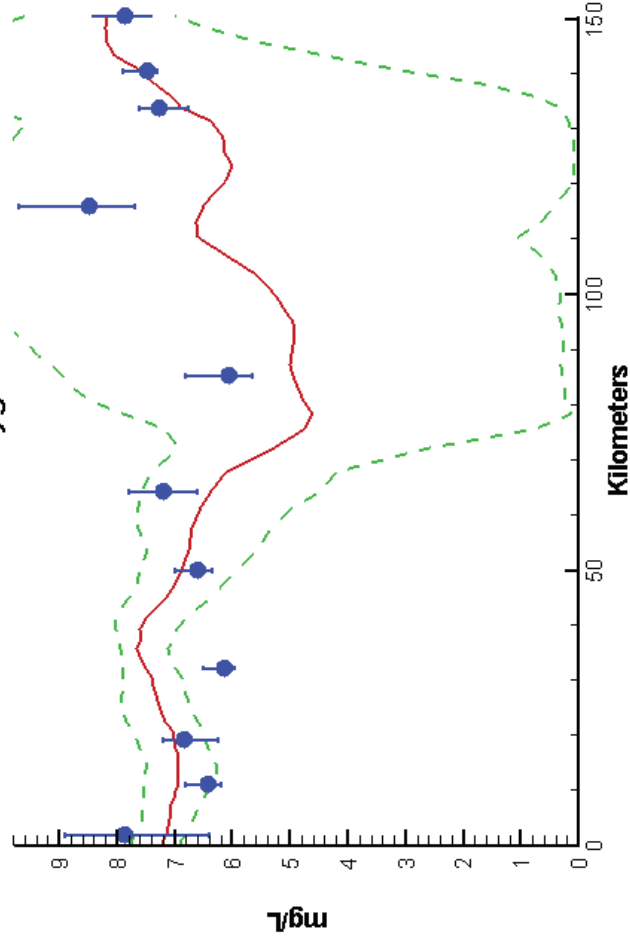


Mainstem Bay Ches2015 Run184
Surface Light Extinction Summer 1996

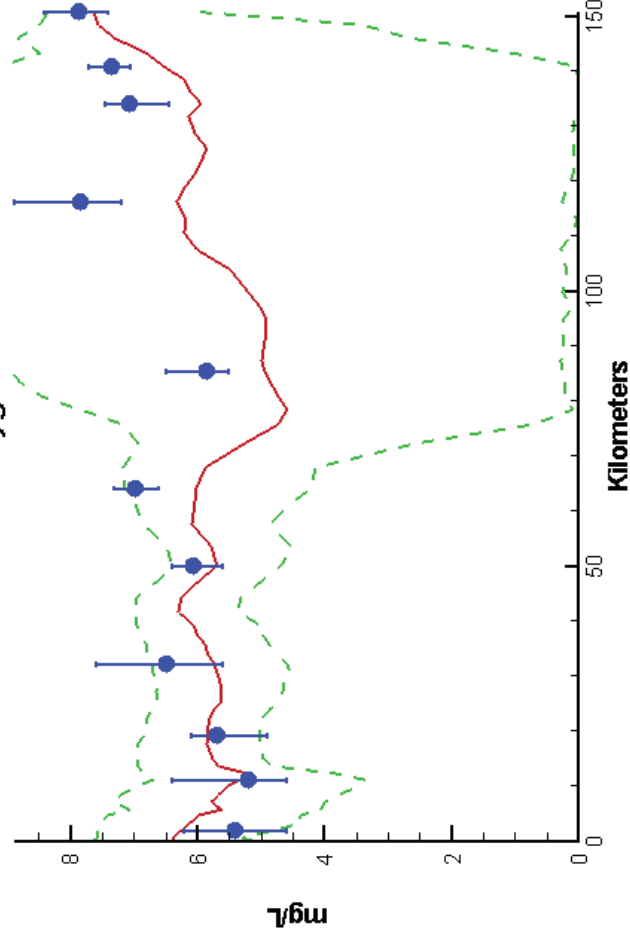


James River - Summer - 1996

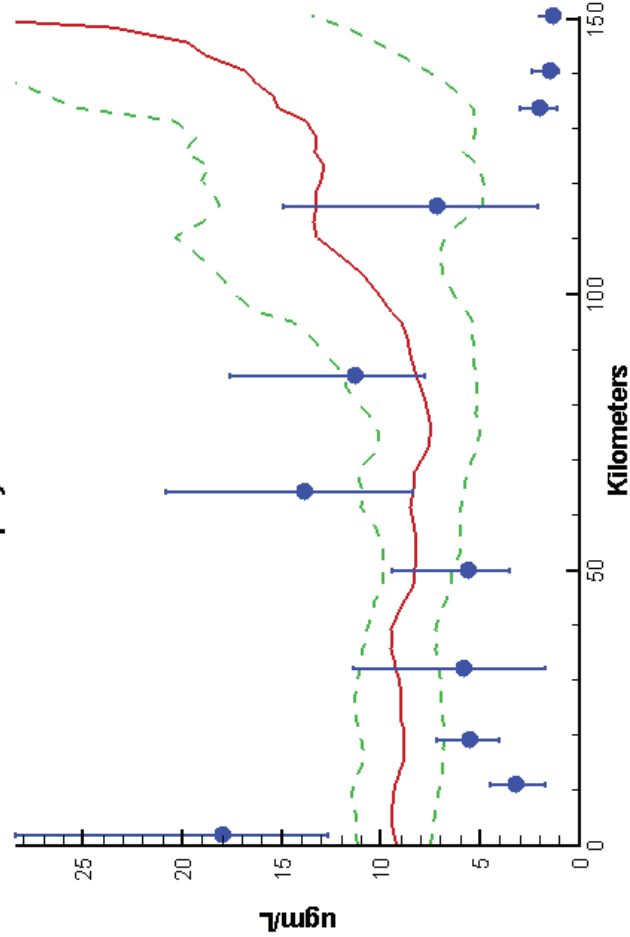
James River Ches2015 Run184
Surface Dissolved Oxygen Summer 1996



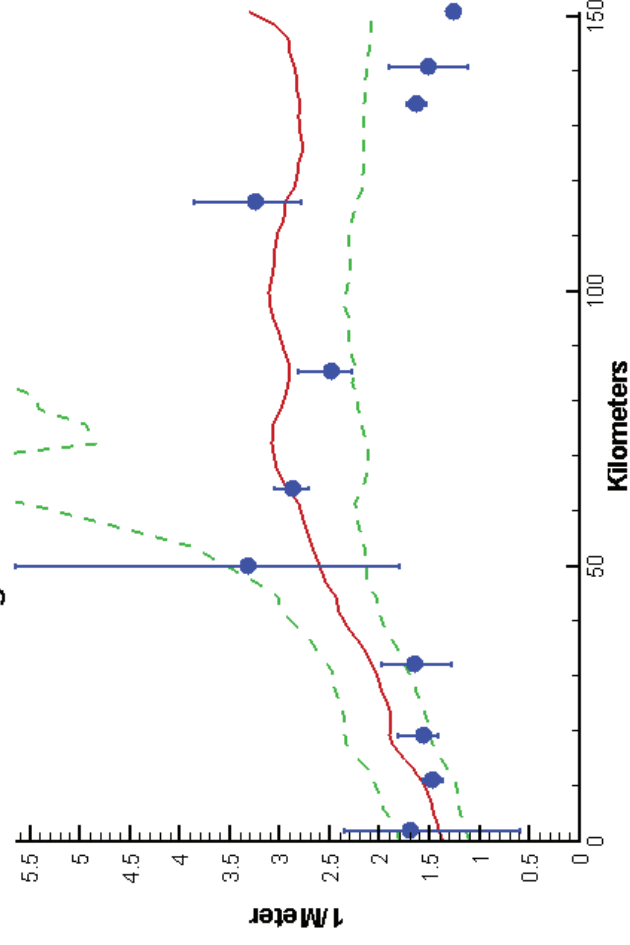
James River Ches2015 Run184
Bottom Dissolved Oxygen Summer 1996



James River Ches2015 Run184
Surface Chlorophyll Summer 1996

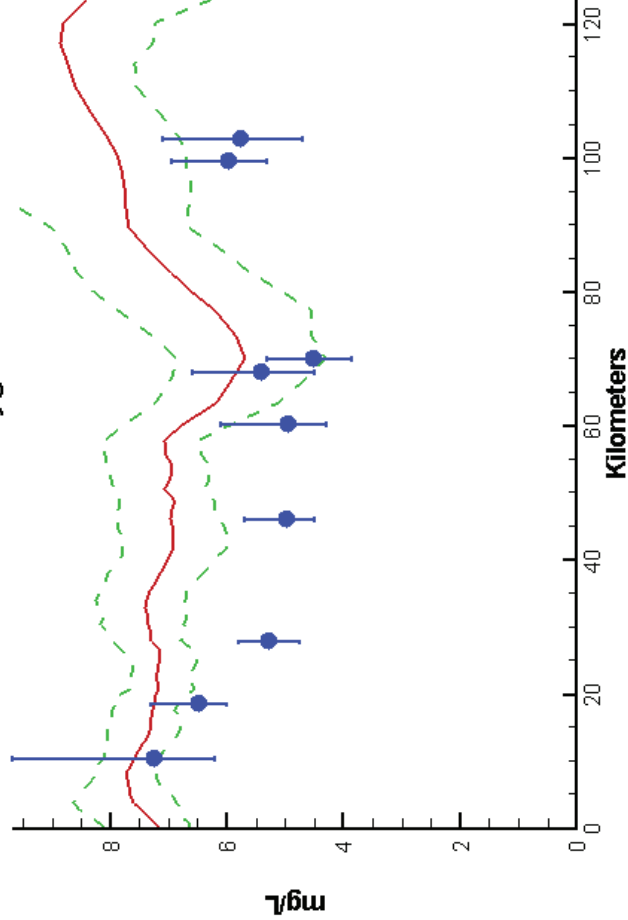


James River Ches2015 Run184
Surface Light Extinction Summer 1996

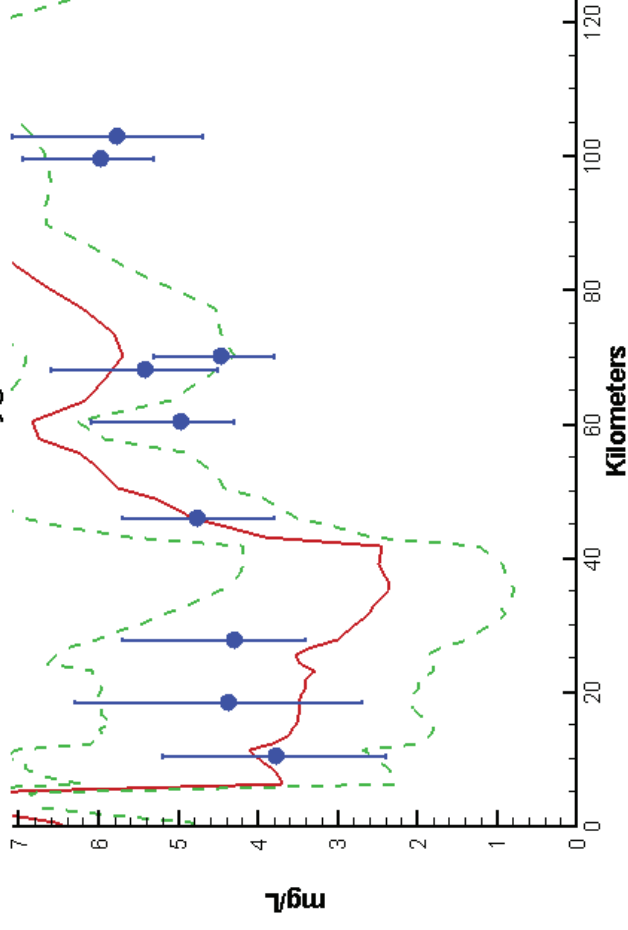


York River - Summer - 1996

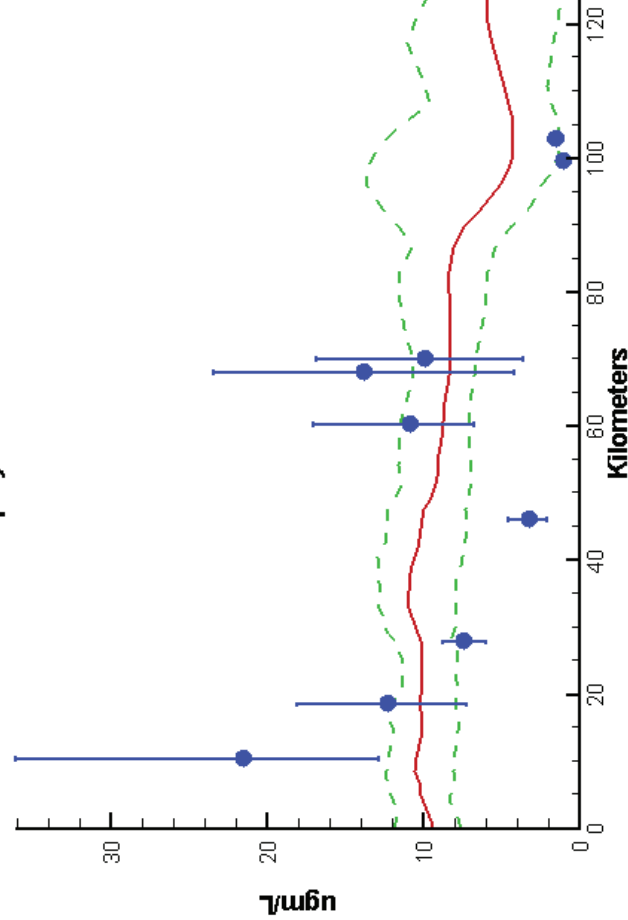
York River Ches2015 Run184
Surface Dissolved Oxygen Summer 1996



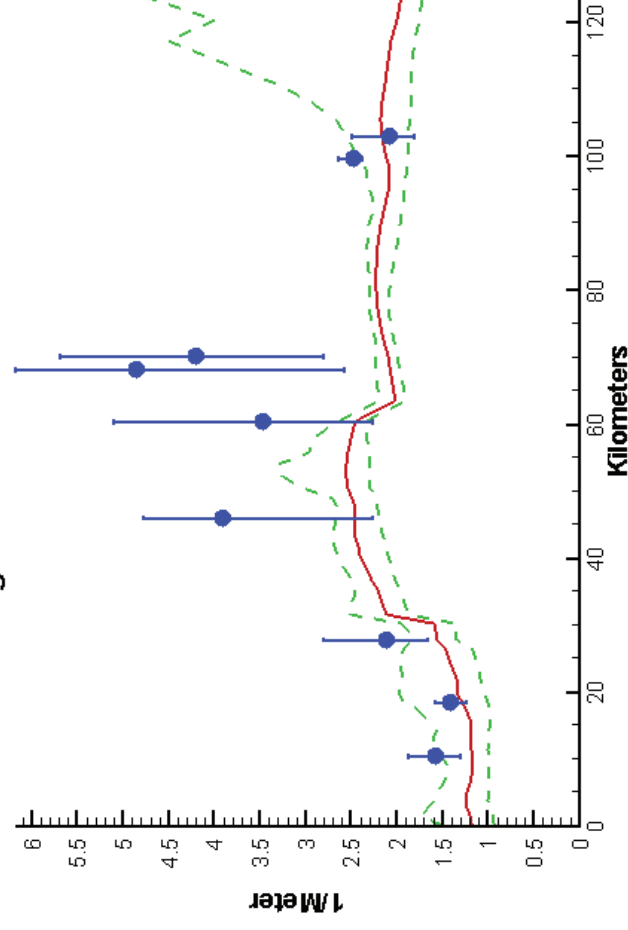
York River Ches2015 Run184
Bottom Dissolved Oxygen Summer 1996



York River Ches2015 Run184
Surface Chlorophyll Summer 1996

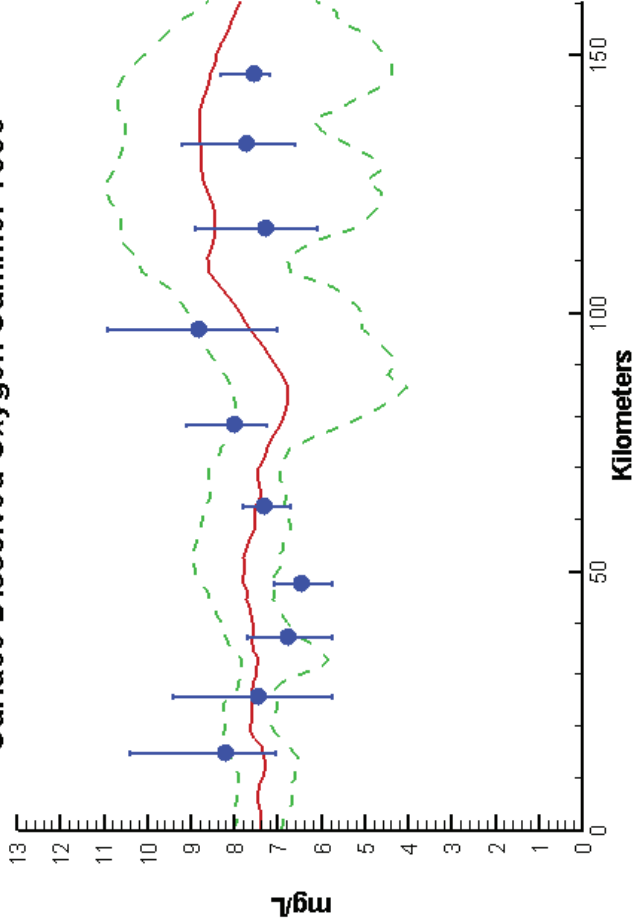


York River Ches2015 Run184
Surface Light Extinction Summer 1996

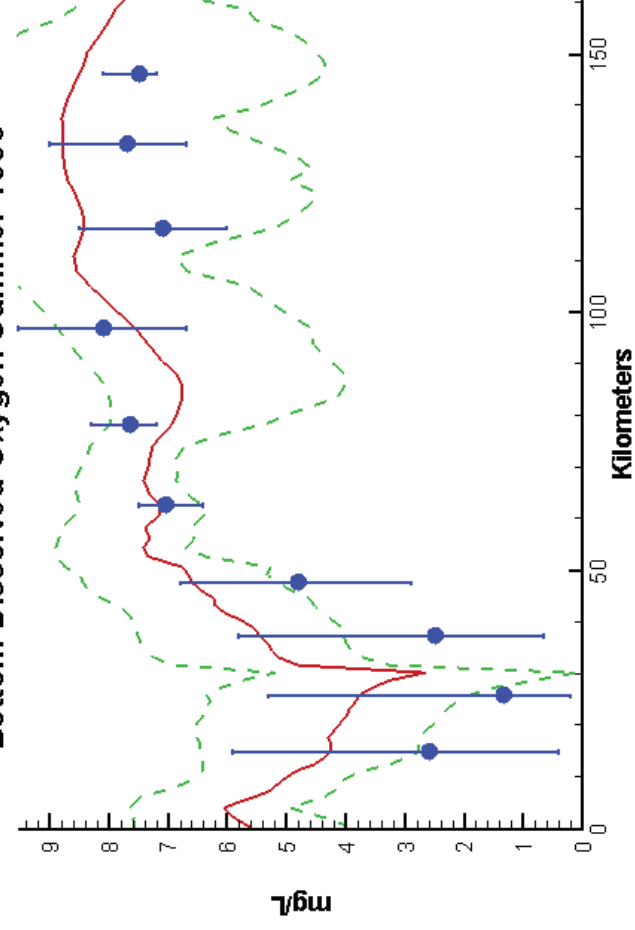


Rappahannock River - Summer - 1996

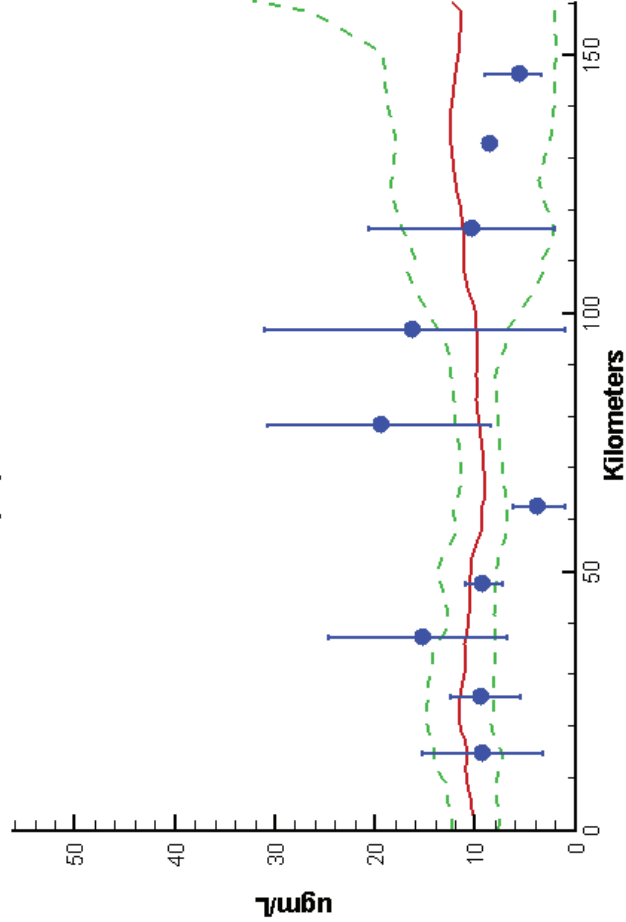
Rappahannock River Ches2015 Run184
Surface Dissolved Oxygen Summer 1996



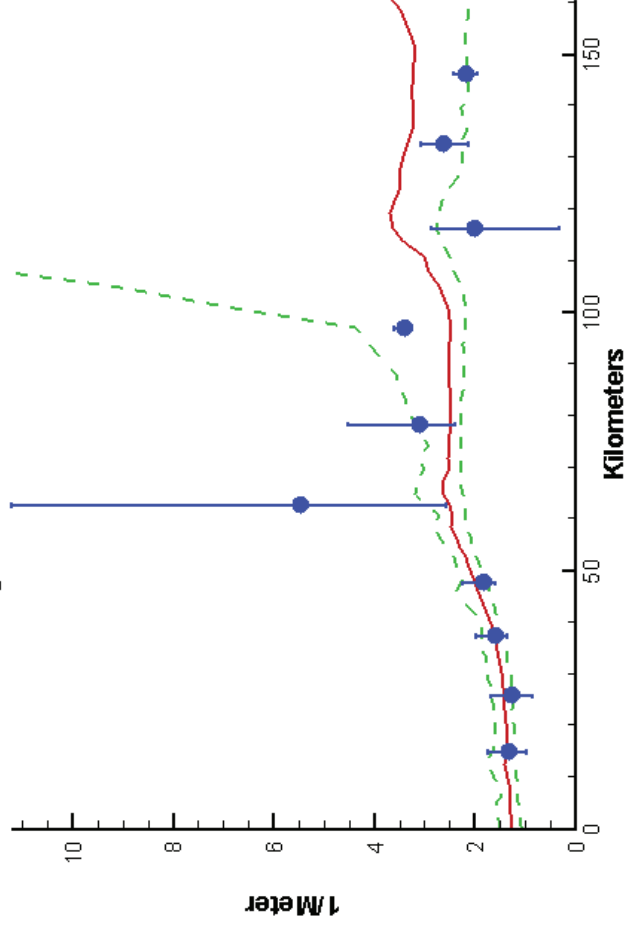
Rappahannock River Ches2015 Run184
Bottom Dissolved Oxygen Summer 1996



Rappahannock River Ches2015 Run184
Surface Chlorophyll Summer 1996

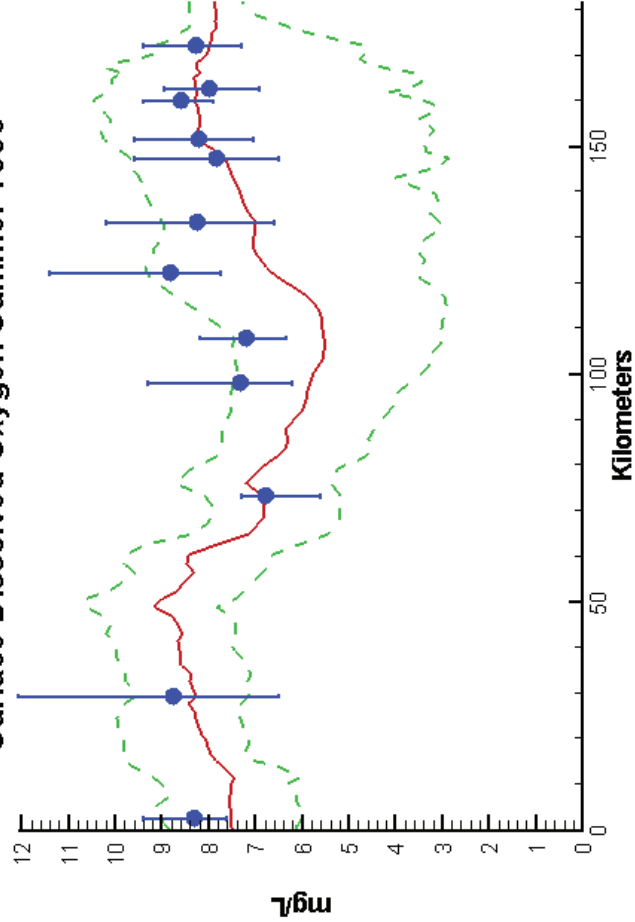


Rappahannock River Ches2015 Run184
Surface Light Extinction Summer 1996

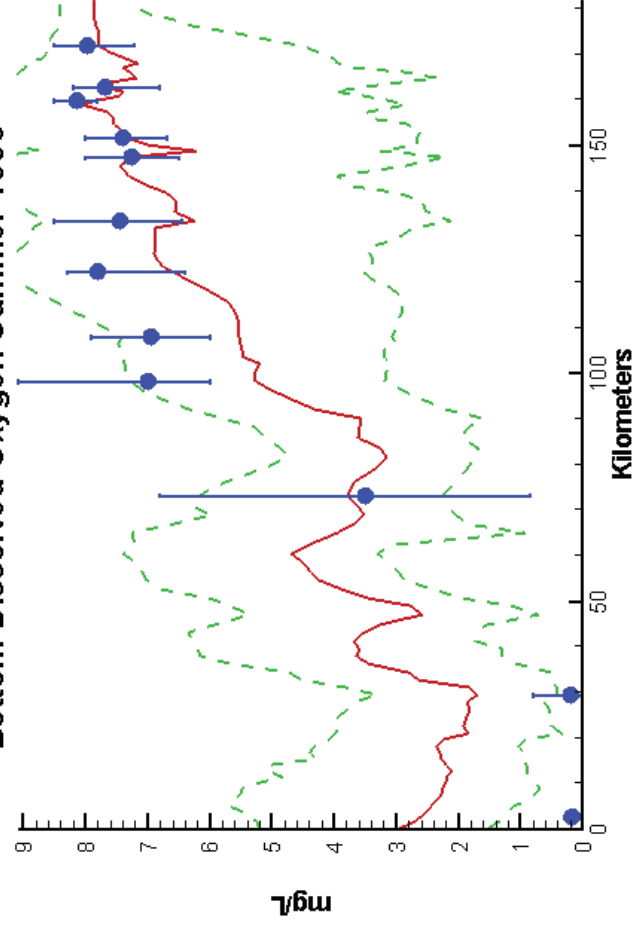


Potomac River - Summer - 1996

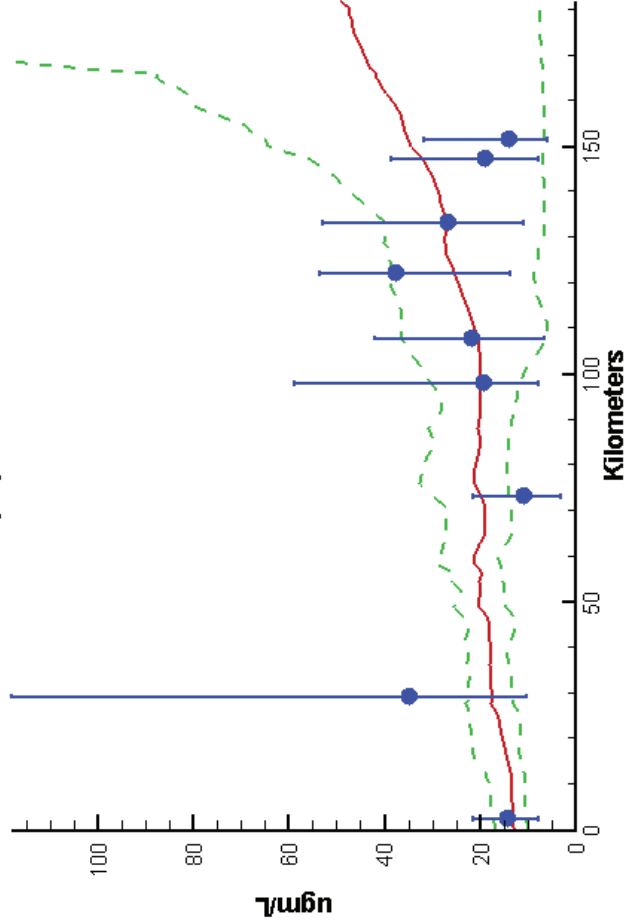
Potomac River Ches2015 Run184
Surface Dissolved Oxygen Summer 1996



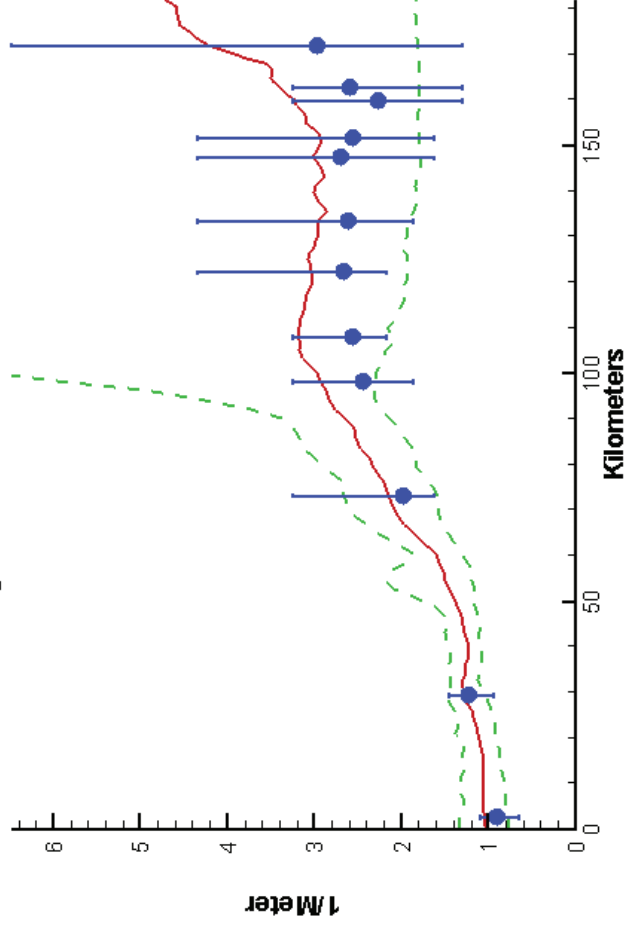
Potomac River Ches2015 Run184
Bottom Dissolved Oxygen Summer 1996



Potomac River Ches2015 Run184
Surface Chlorophyll Summer 1996

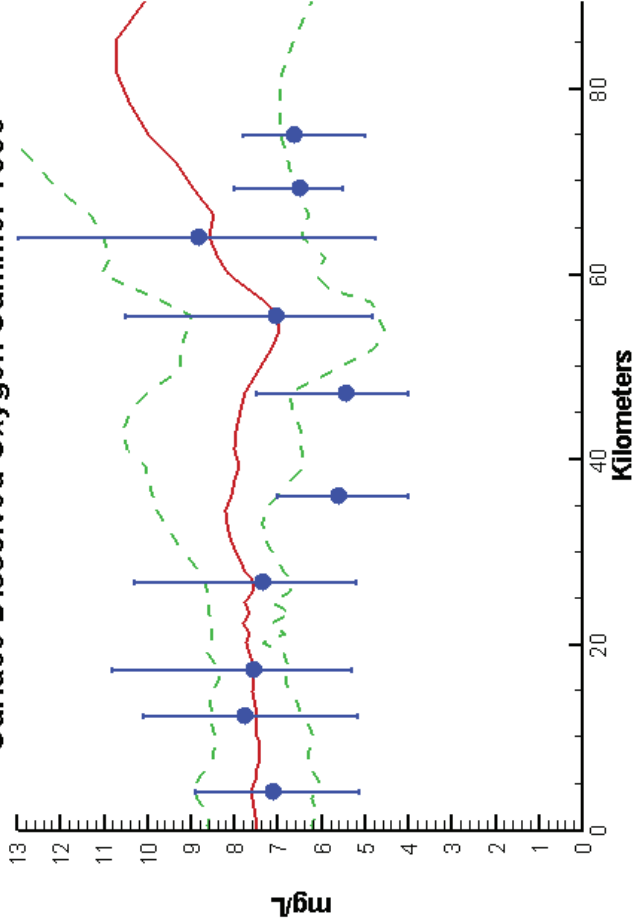


Potomac River Ches2015 Run184
Surface Light Extinction Summer 1996

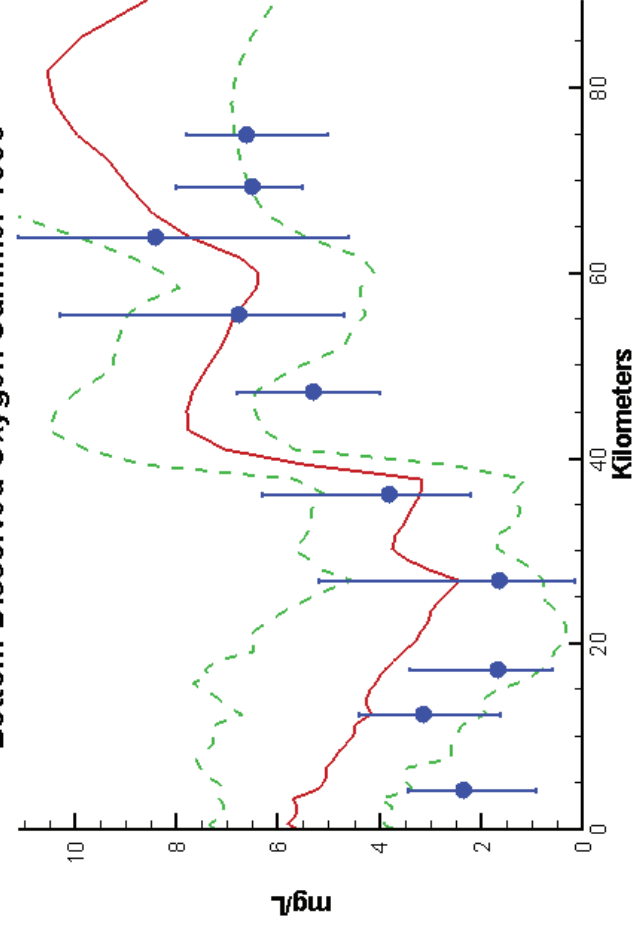


Patuxent River - Summer - 1996

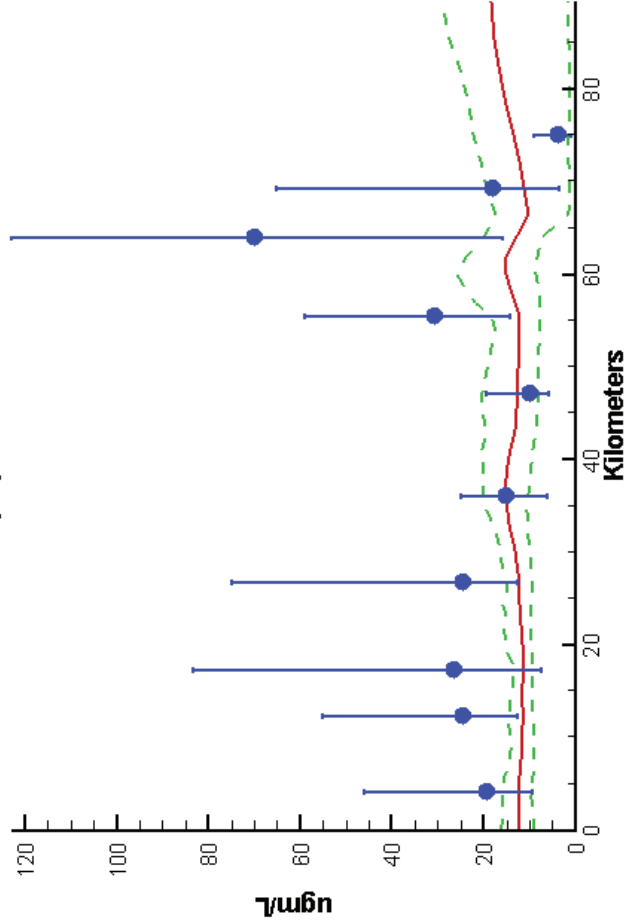
Patuxent River Ches2015 Run184
Surface Dissolved Oxygen Summer 1996



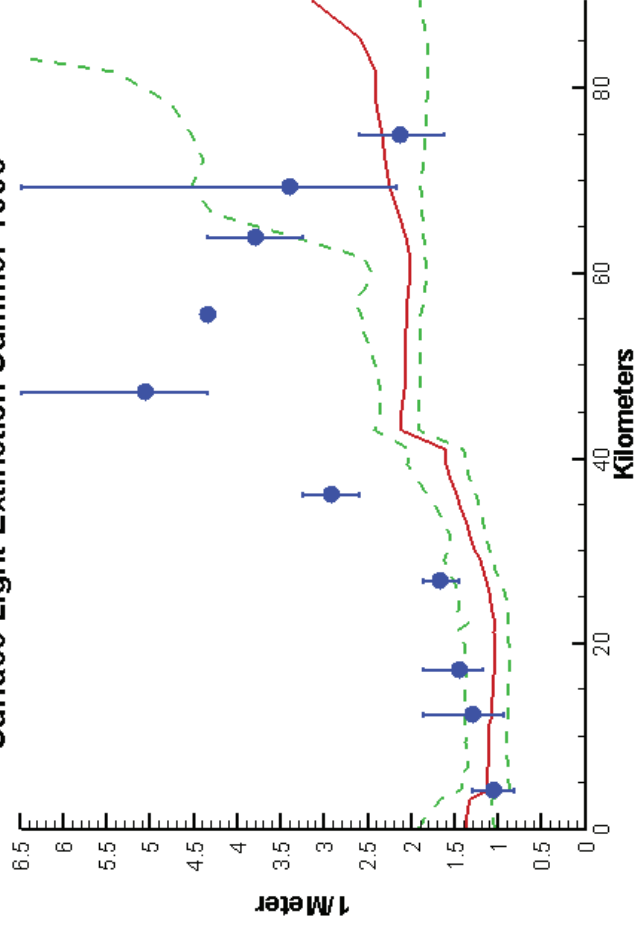
Patuxent River Ches2015 Run184
Bottom Dissolved Oxygen Summer 1996



Patuxent River Ches2015 Run184
Surface Chlorophyll Summer 1996

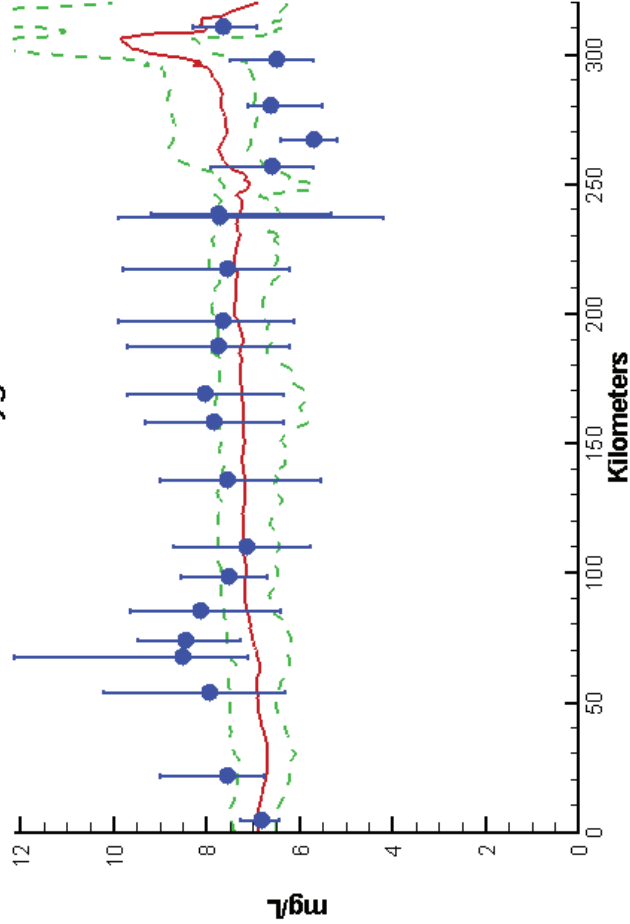


Patuxent River Ches2015 Run184
Surface Light Extinction Summer 1996

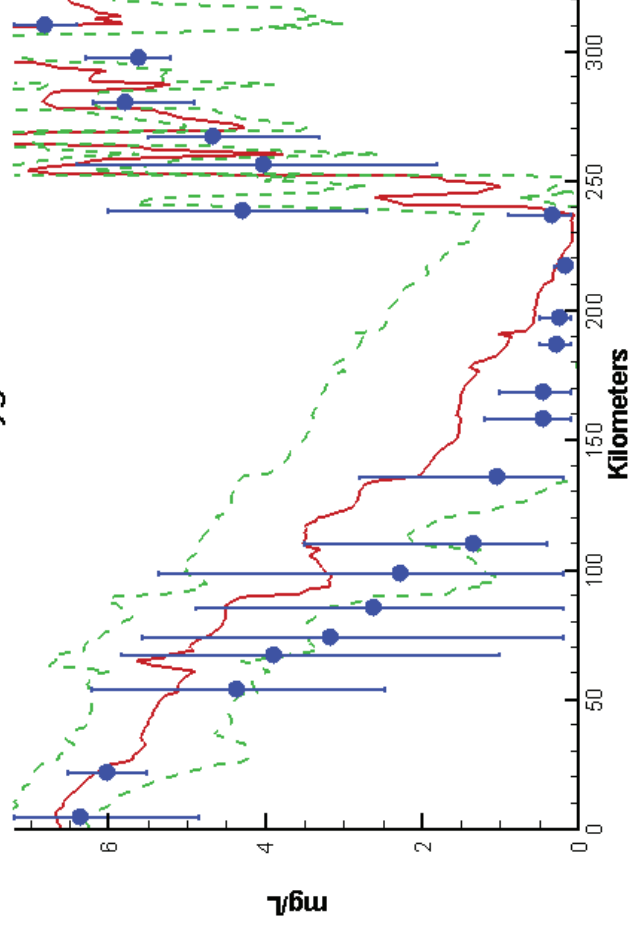


Mainstem Bay - Summer - 1999

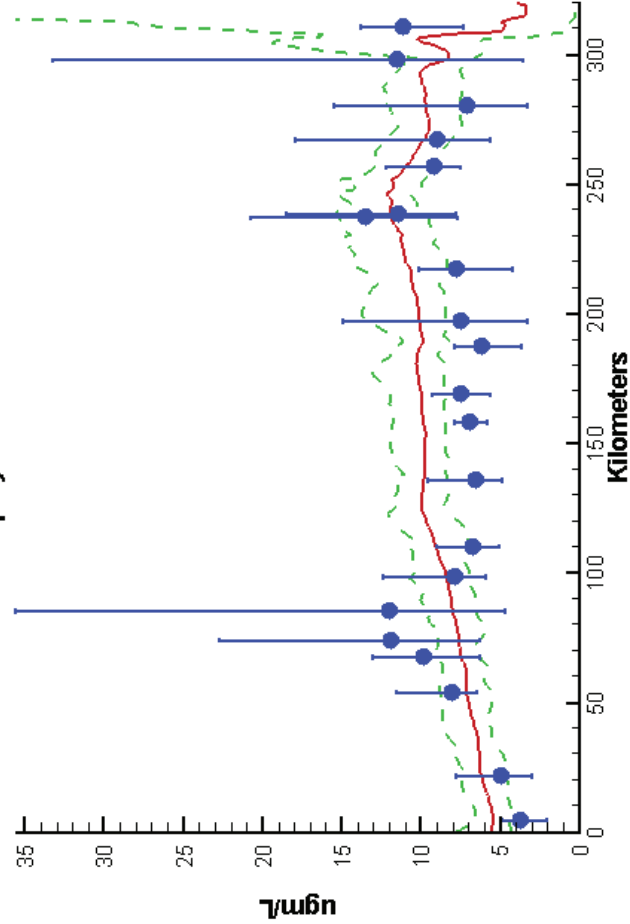
Mainstem Bay Ches2015 Run184
Surface Dissolved Oxygen Summer 1999



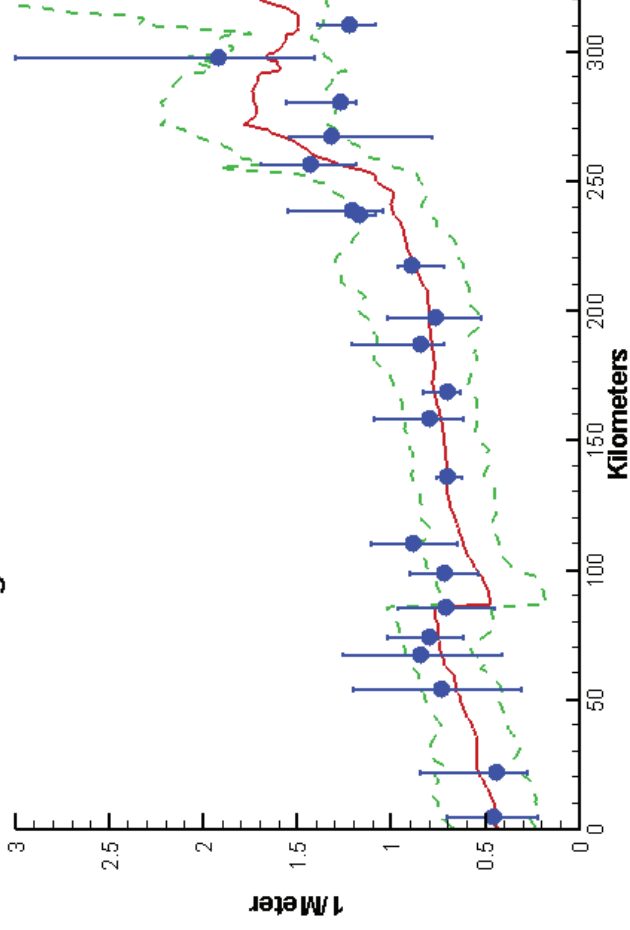
Mainstem Bay Ches2015 Run184
Bottom Dissolved Oxygen Summer 1999



Mainstem Bay Ches2015 Run184
Surface Chlorophyll Summer 1999

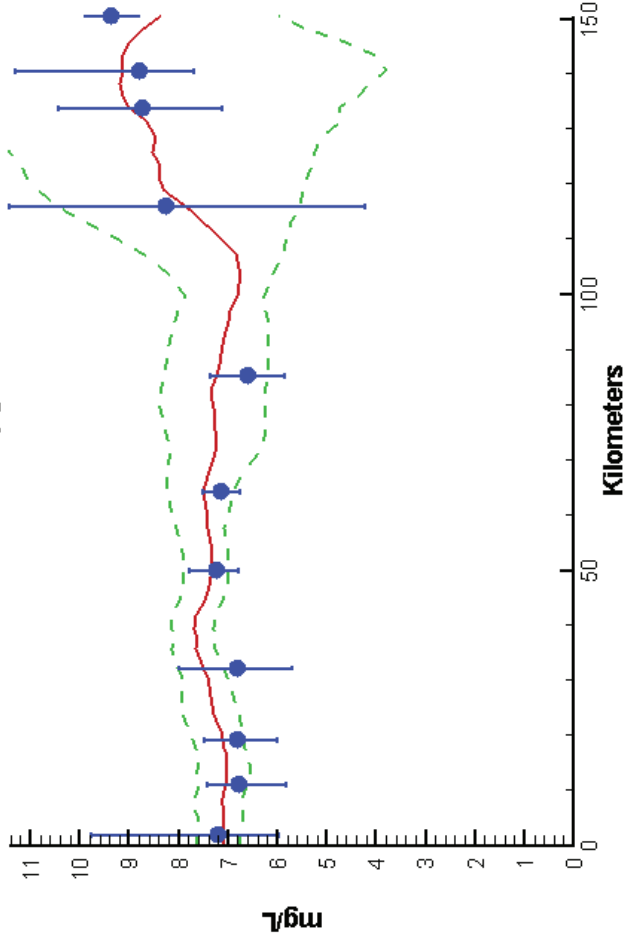


Mainstem Bay Ches2015 Run184
Surface Light Extinction Summer 1999

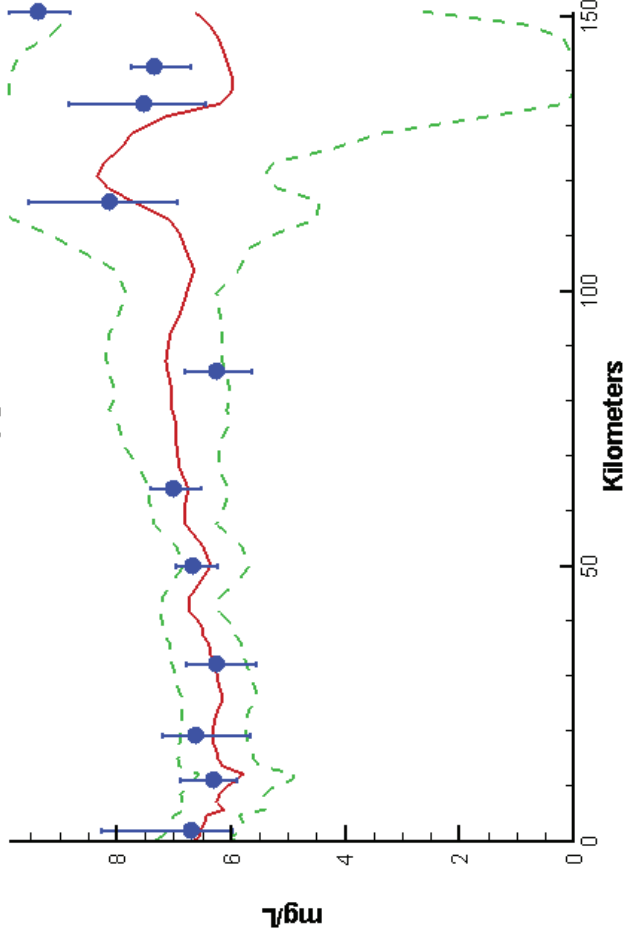


James River - Summer - 1999

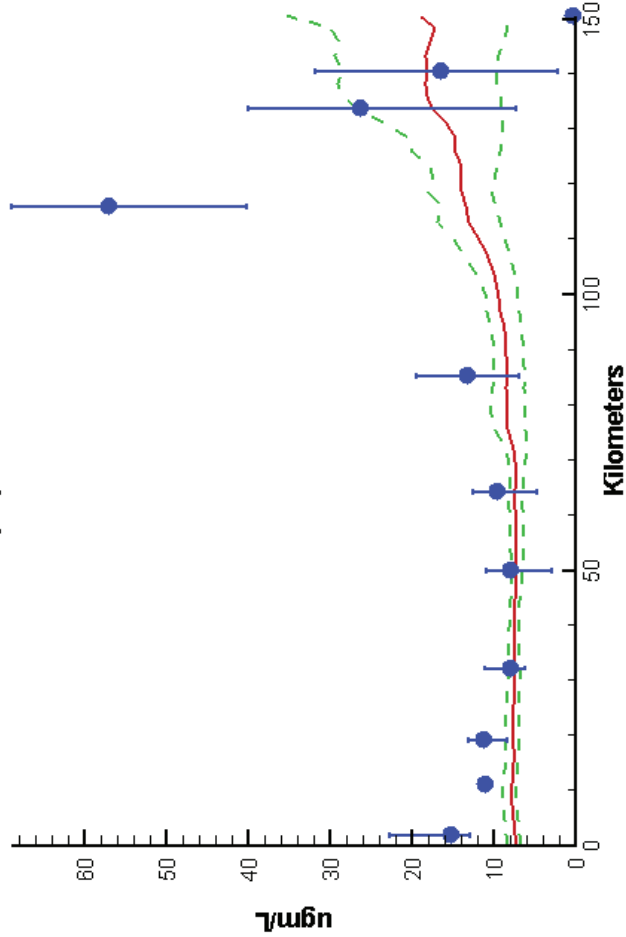
James River Ches2015 Run184
Surface Dissolved Oxygen Summer 1999



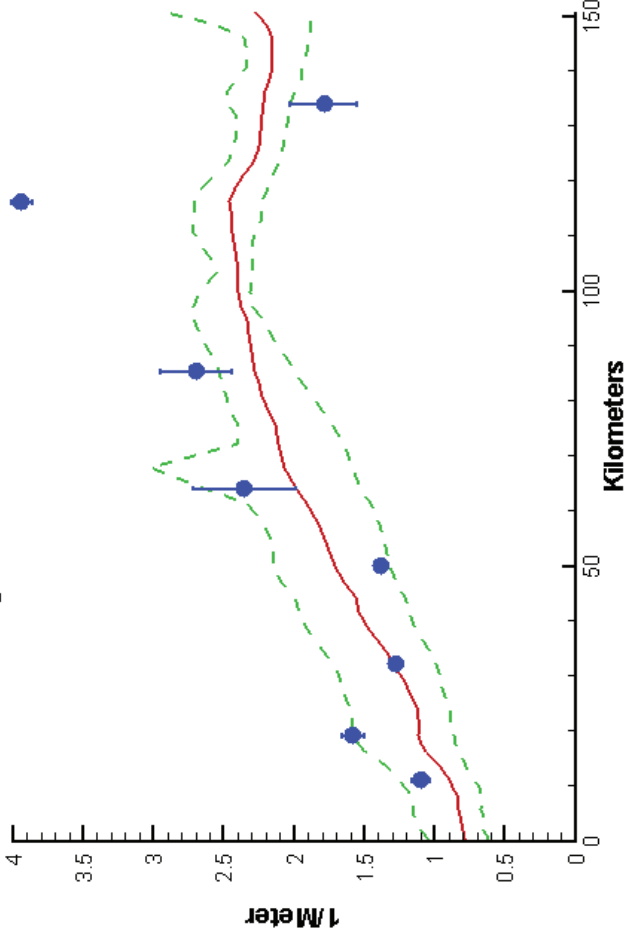
James River Ches2015 Run184
Bottom Dissolved Oxygen Summer 1999



James River Ches2015 Run184
Surface Chlorophyll Summer 1999

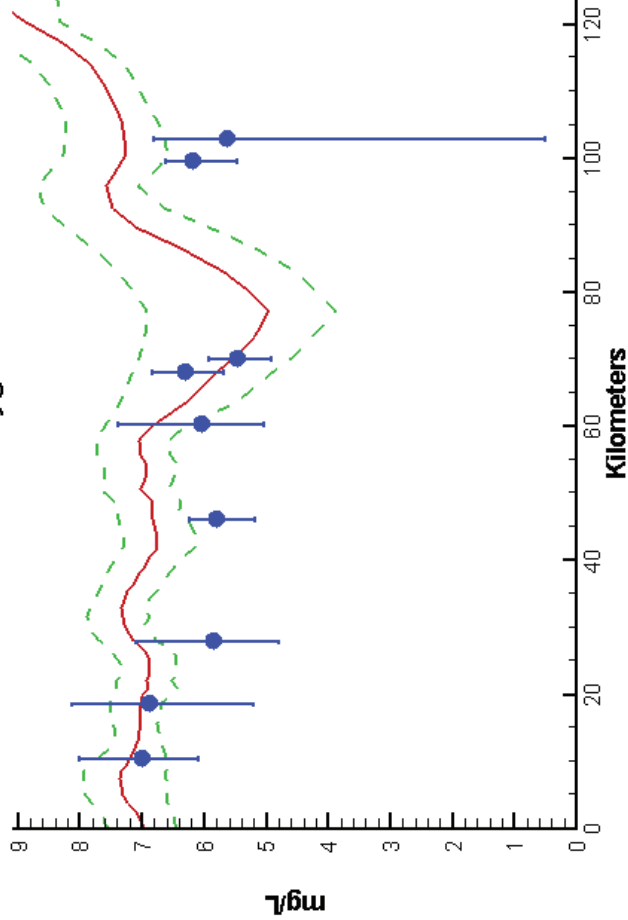


James River Ches2015 Run184
Surface Light Extinction Summer 1999

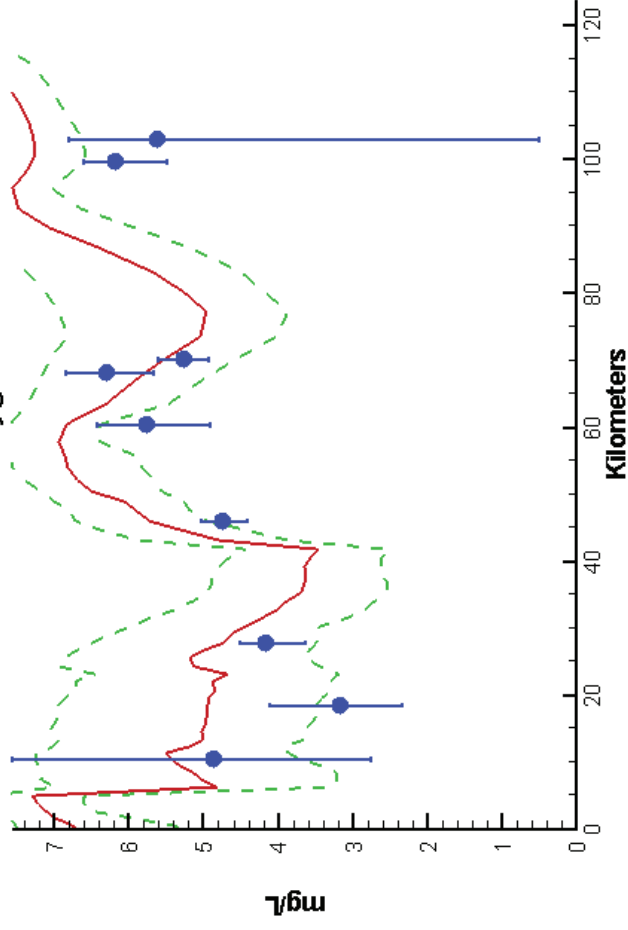


York River - Summer - 1999

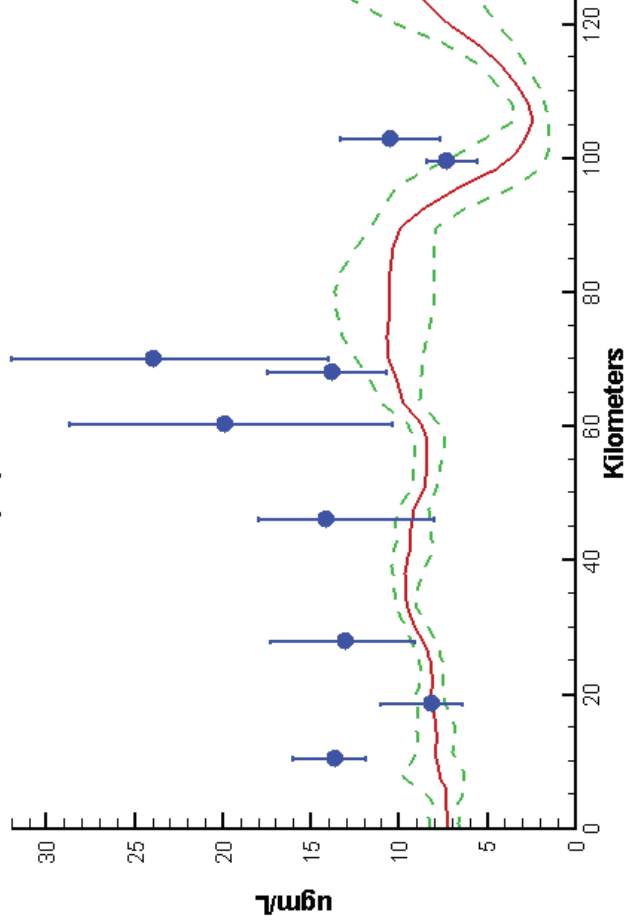
York River Ches2015 Run184
Surface Dissolved Oxygen Summer 1999



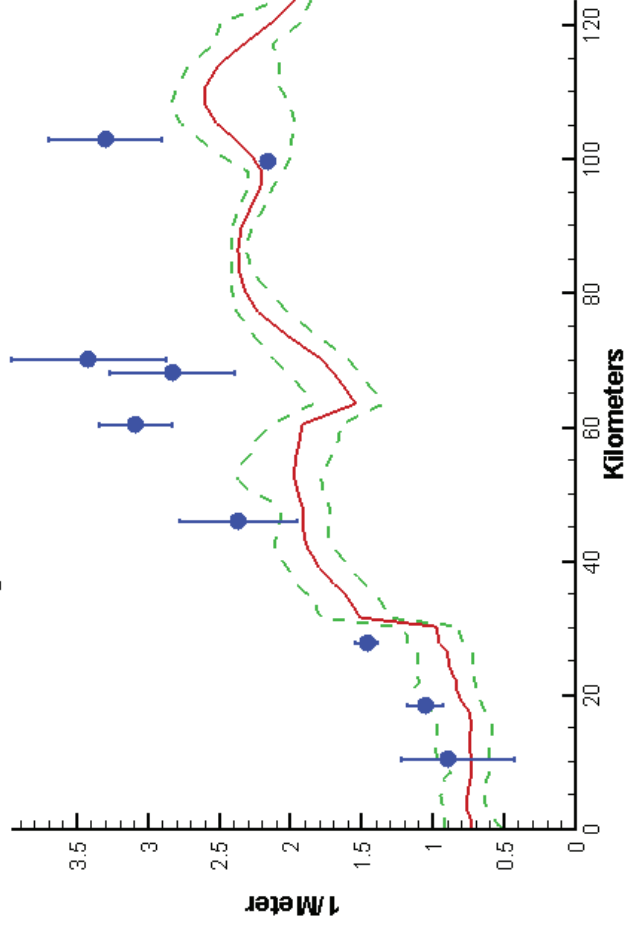
York River Ches2015 Run184
Bottom Dissolved Oxygen Summer 1999



York River Ches2015 Run184
Surface Chlorophyll Summer 1999

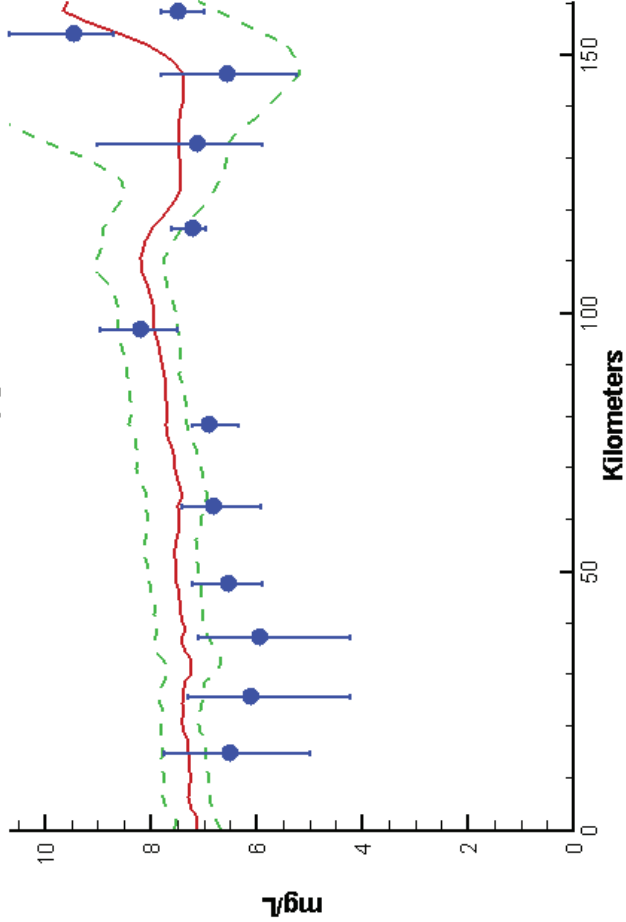


York River Ches2015 Run184
Surface Light Extinction Summer 1999

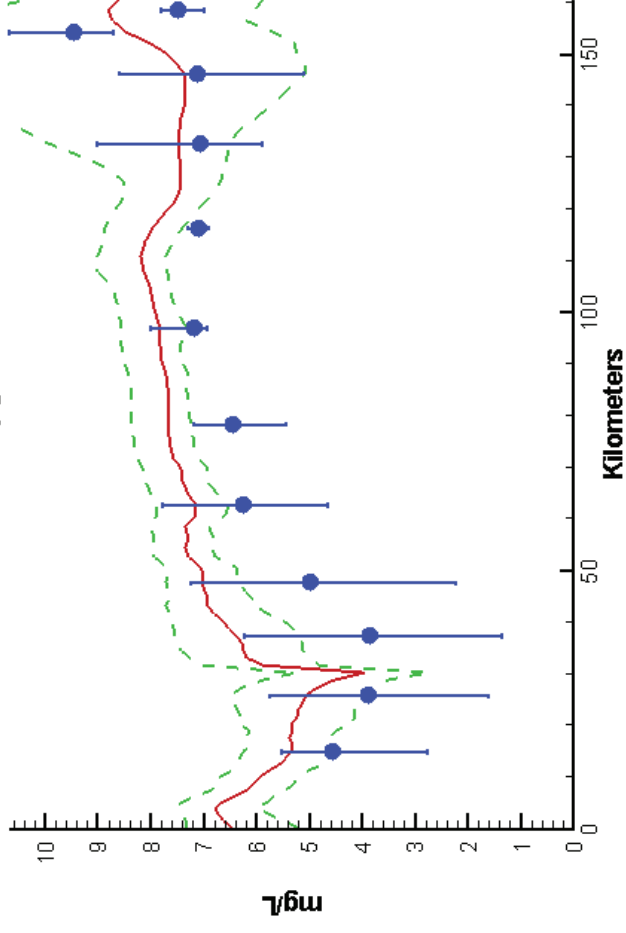


Rappahannock River - Summer - 1999

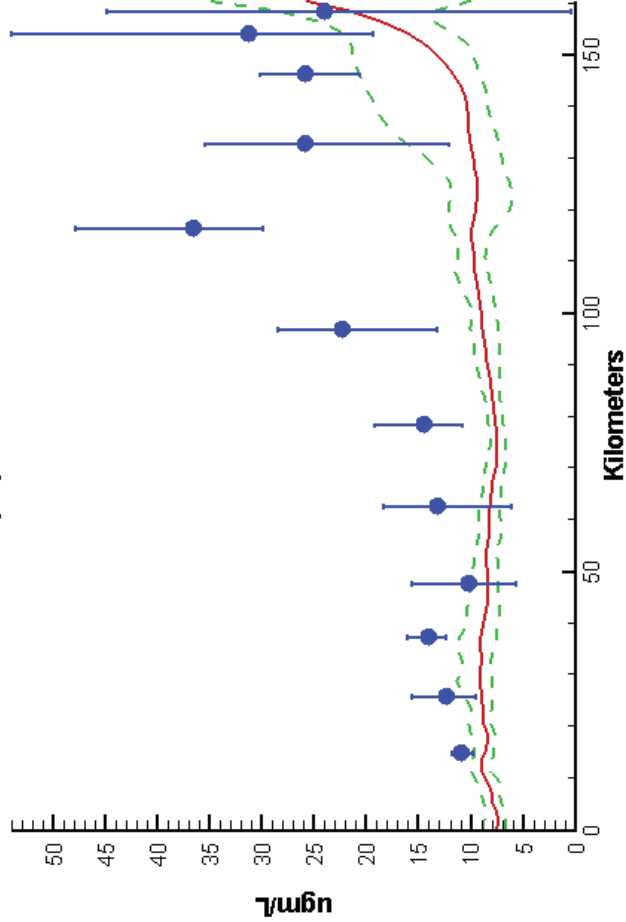
Rappahannock River Ches2015 Run184
Surface Dissolved Oxygen Summer 1999



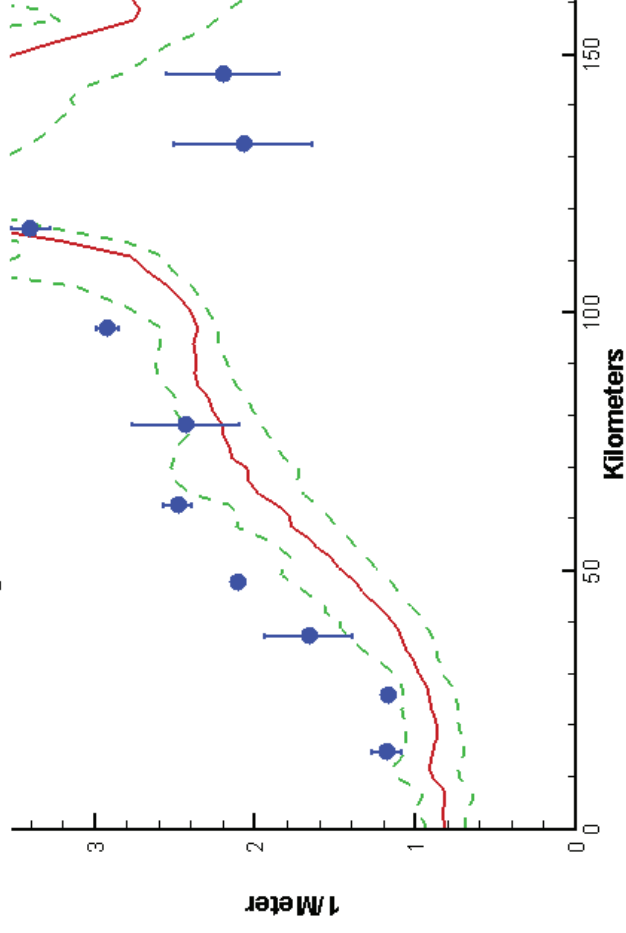
Rappahannock River Ches2015 Run184
Bottom Dissolved Oxygen Summer 1999



Rappahannock River Ches2015 Run184
Surface Chlorophyll Summer 1999

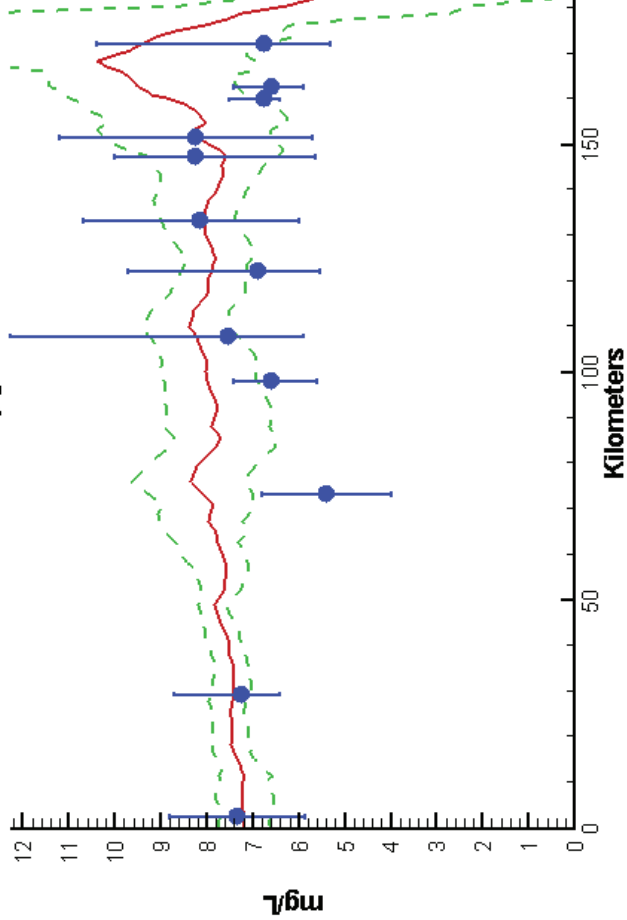


Rappahannock River Ches2015 Run184
Surface Light Extinction Summer 1999

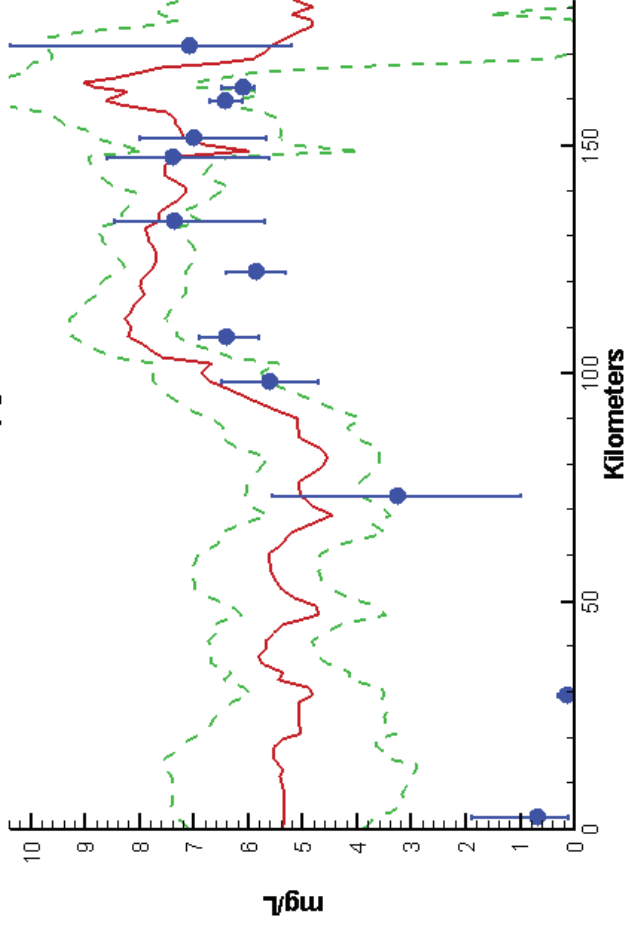


Potomac River - Summer - 1999

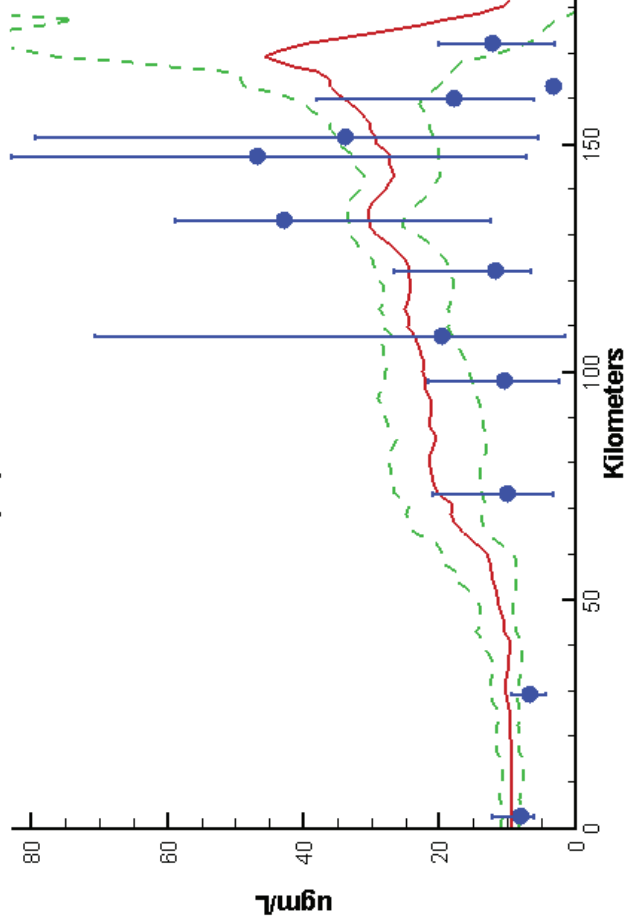
Potomac River Ches2015 Run184
Surface Dissolved Oxygen Summer 1999



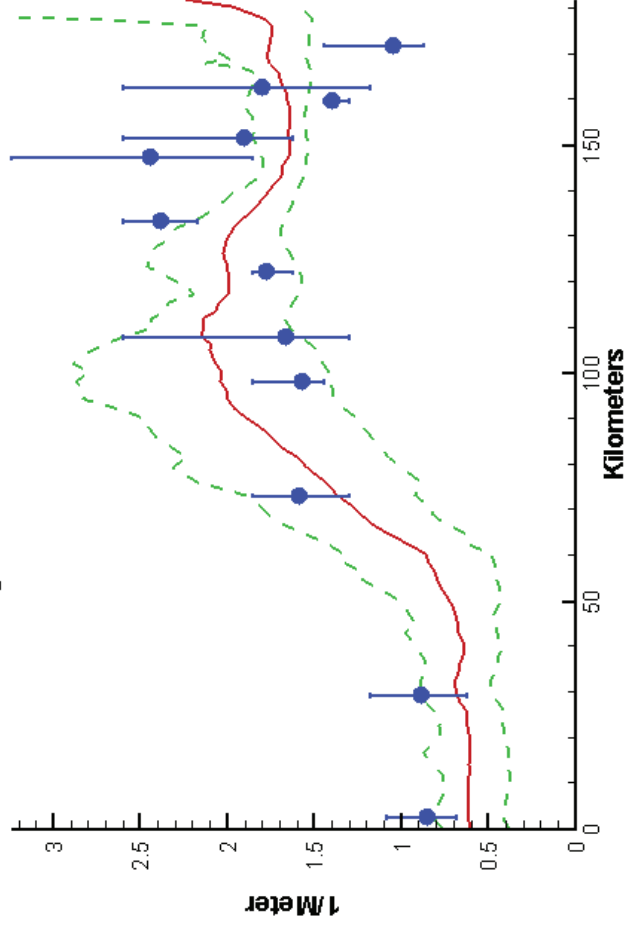
Potomac River Ches2015 Run184
Bottom Dissolved Oxygen Summer 1999



Potomac River Ches2015 Run184
Surface Chlorophyll Summer 1999

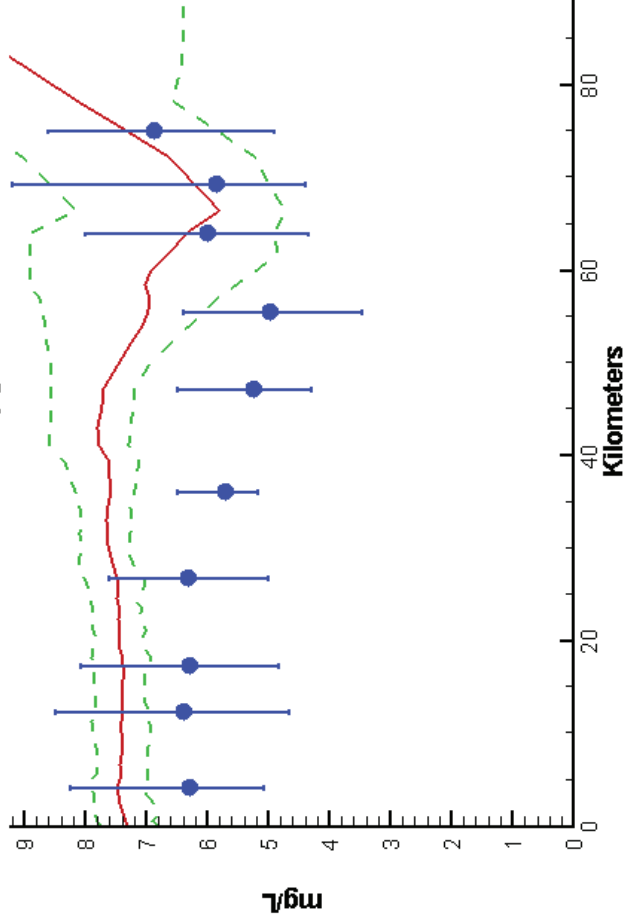


Potomac River Ches2015 Run184
Surface Light Extinction Summer 1999

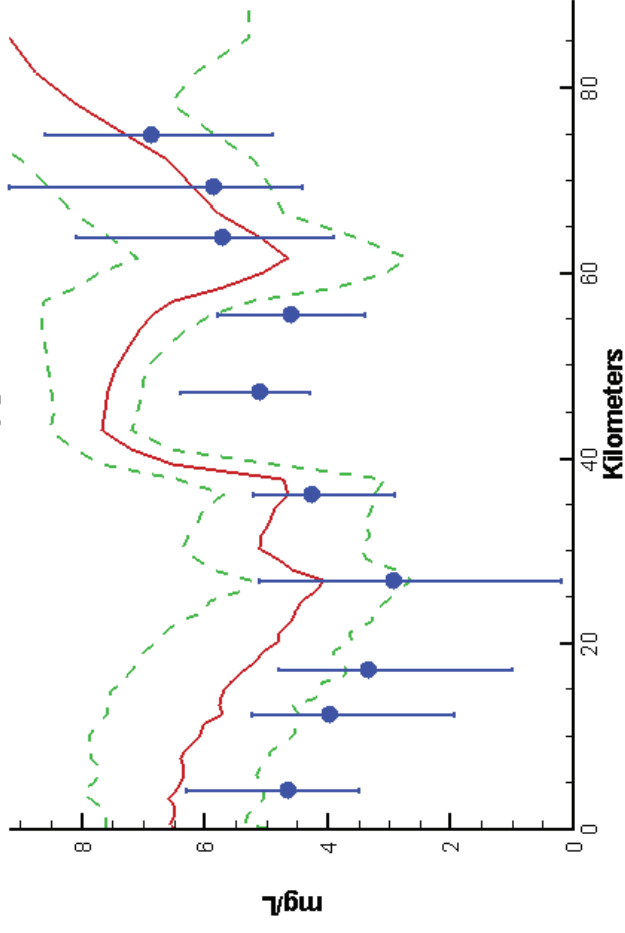


Patuxent River - Summer - 1999

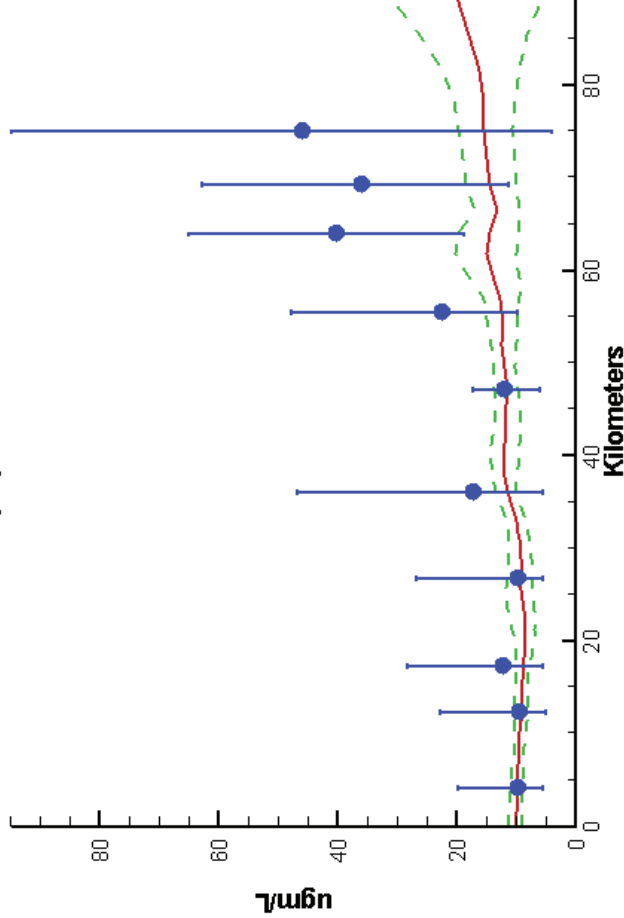
Patuxent River Ches2015 Run184
Surface Dissolved Oxygen Summer 1999



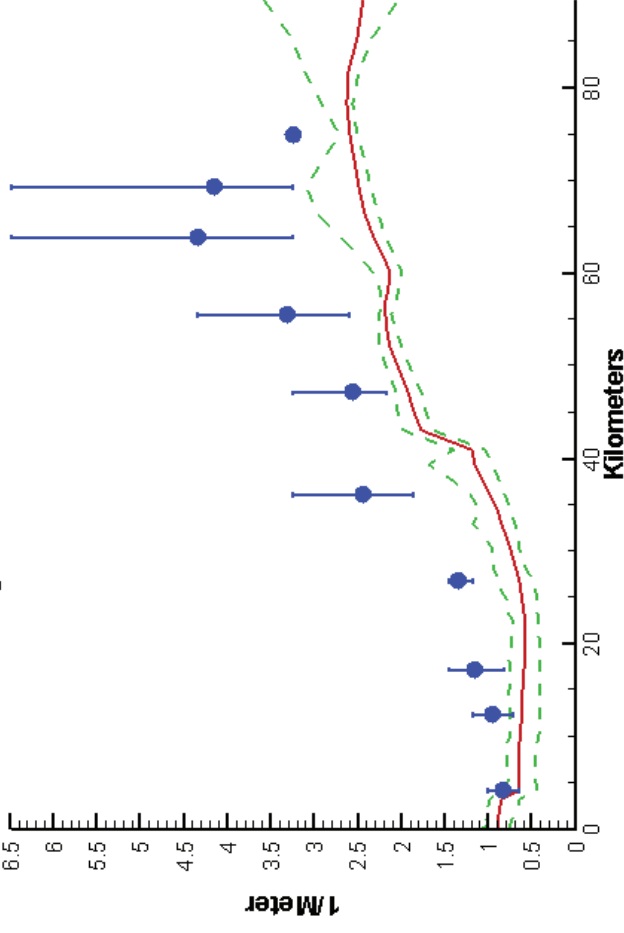
Patuxent River Ches2015 Run184
Bottom Dissolved Oxygen Summer 1999



Patuxent River Ches2015 Run184
Surface Chlorophyll Summer 1999



Patuxent River Ches2015 Run184
Surface Light Extinction Summer 1999



Appendix D: Longitudinal Comparisons 2002-2011

The spatial distributions of observed and computed properties were compared in a series of plots along the axes of the bay and major tributaries (Figure 1). The calibration period encompassed more than 100 cruises. Reducing this number of surveys into a manageable volume of comparisons required selection and aggregation. Three years were selected for comparisons: 2004, 2007, and 2010. These years are not so readily characterized by flow as the earlier sequence. Susquehanna River flows for all three years fall between the 1999 (dry) and 2004 (average) flows of the earlier sequence.

Model results and observations were averaged into four seasons:

Winter - December through February
Spring - March through May
Summer - June through August
Fall - September through November

Conventional arithmetic means were calculated for the observations. Model results were subjected to a process denoted as “cruise averaging.” Within each season, model results were considered only during intervals coinciding with sample cruises. Cruise averaging diminished discrepancies between model and observations attributed to consideration of model results for periods when no data was collected. Daily averages of model results were computed within the model code. Cruise averaging was completed in a postprocessor. Arithmetic averages of modeled substance were computed during cruise periods except for light attenuation and total suspended solids. The variance of the computed values skewed arithmetic means to unrepresentative high values. For these two components, log averages were calculated. The postprocessor also extracted the maximum and minimum computed daily averages.

The mean and range of the observations, at surface and bottom, were compared to the cruise average and range of daily-average model results. The longitudinal axes largely followed the maximum depths represented on the model grid. Only stations located exactly on the transect were considered for comparison with the model. Comparisons were made for physical quantities (salinity, temperature, suspended solids, light attenuation), chlorophyll, dissolved oxygen, and multiple forms of carbon, nitrogen, and phosphorus.

We concentrate here on the components which correspond closely to chlorophyll, clarity, and dissolved oxygen in the critical summer period. Dissolved oxygen is shown at the surface and bottom. Surface samples are from the 1 m depth. Bottom samples are typically 1 m off the bottom and follow local bathymetry. Model values are from surface and bottom cells on the grid. Chlorophyll and light attenuation are presented for the surface only. For all substances, the blue circles and vertical bars indicate mean and range of the observations. The continuous red and green traces represent model mean and range, subject to the selection and averaging process described above.

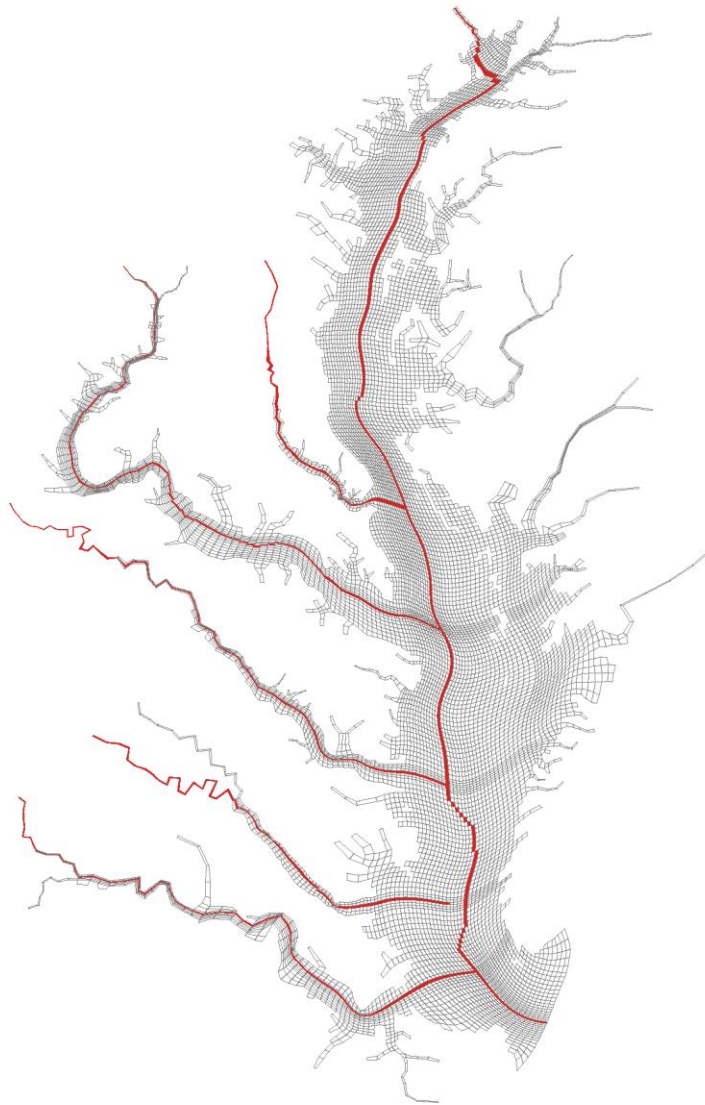
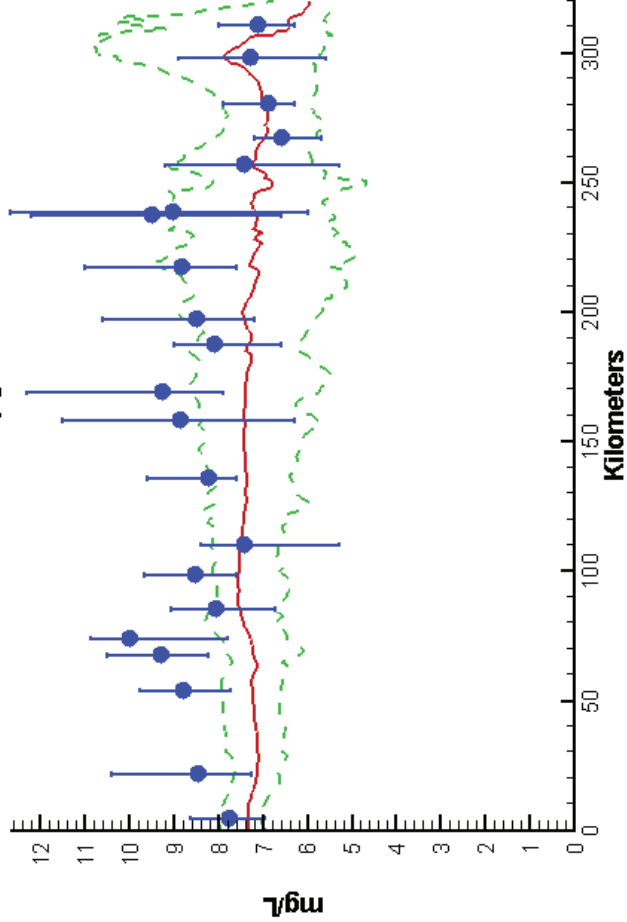


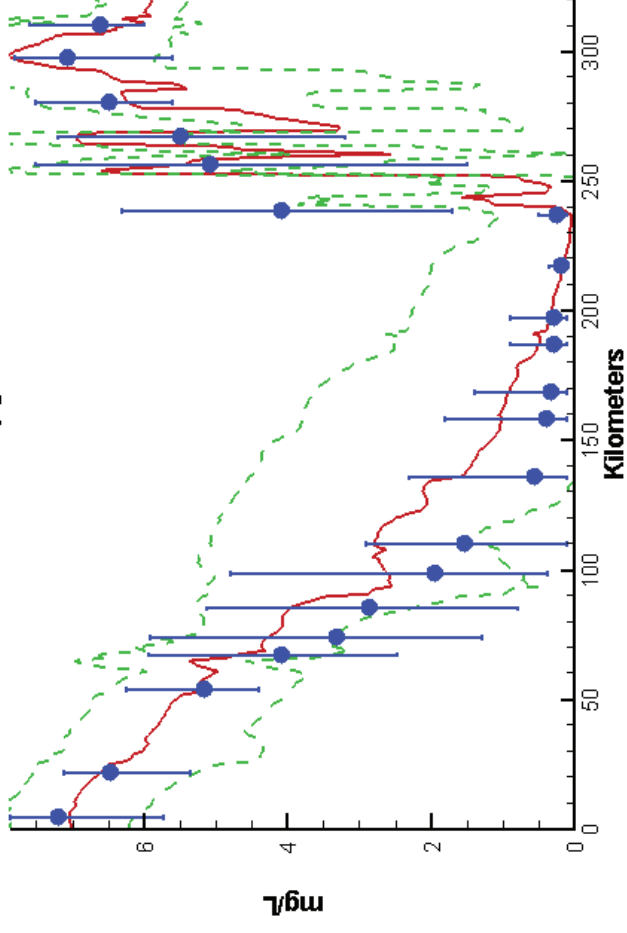
Figure 1. Longitudinal transects in the bay and major tributaries.

Mainstem Bay - Summer - 2004

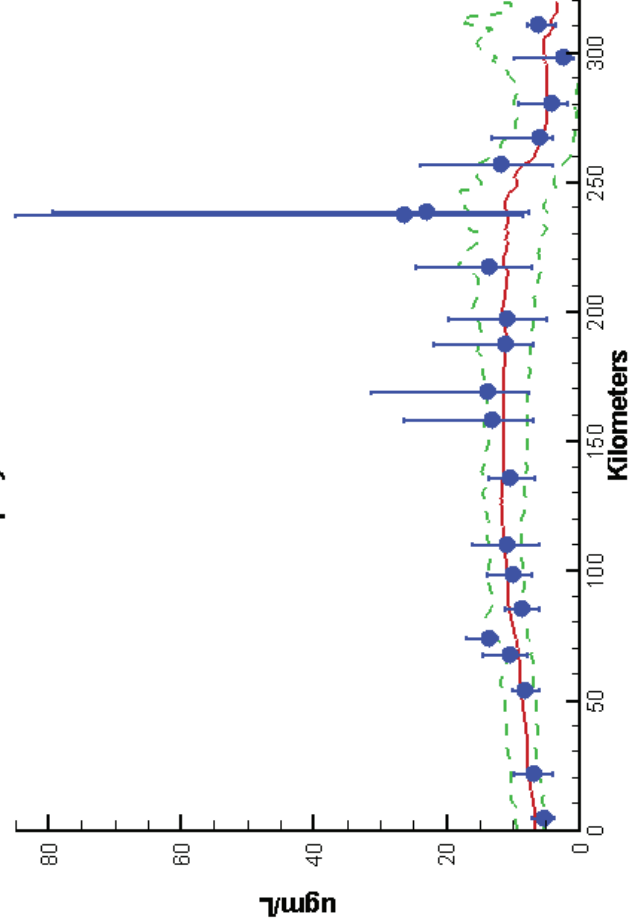
Mainstem Bay 2002-2011 Run185
Surface Dissolved Oxygen Summer 2004



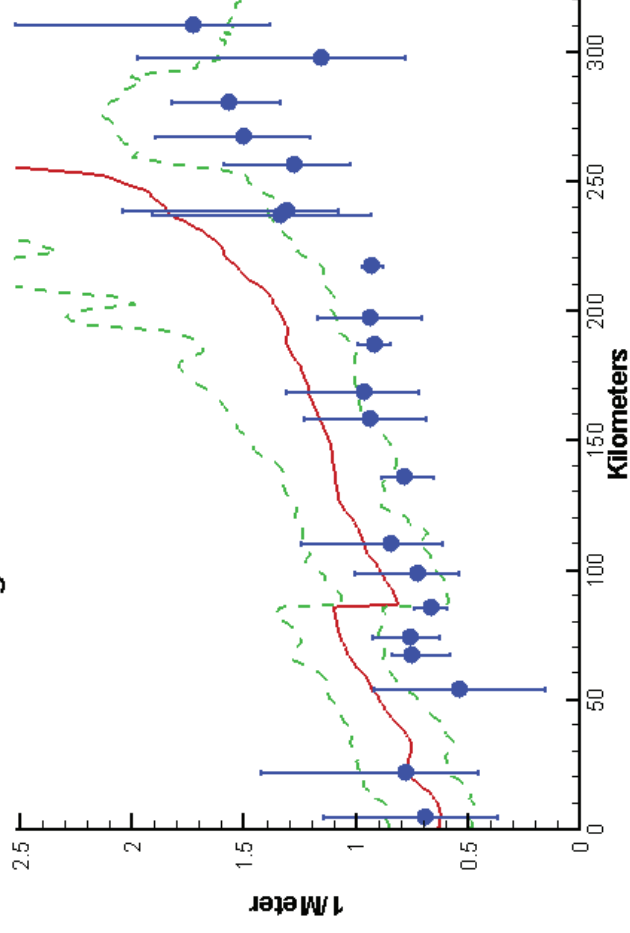
Mainstem Bay 2002-2011 Run185
Bottom Dissolved Oxygen Summer 2004



Mainstem Bay 2002-2011 Run185
Surface Chlorophyll Summer 2004

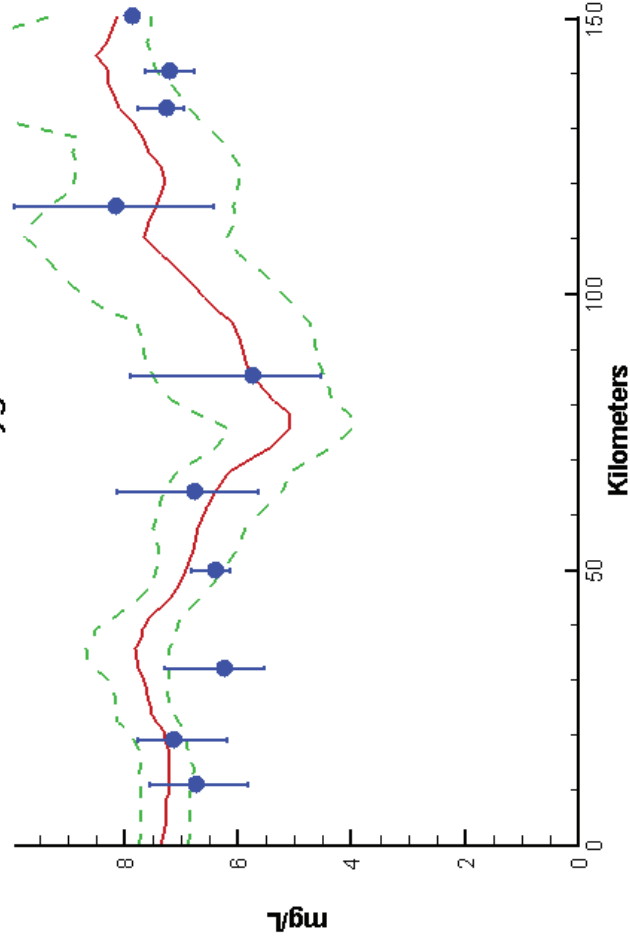


Mainstem Bay 2002-2011 Run185
Surface Light Extinction Summer 2004

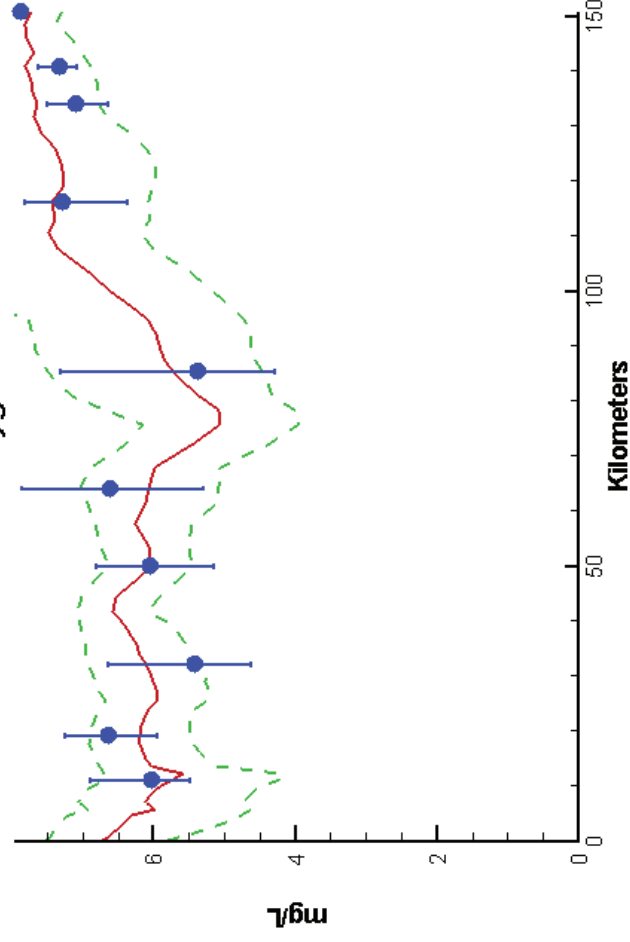


James River - Summer - 2004

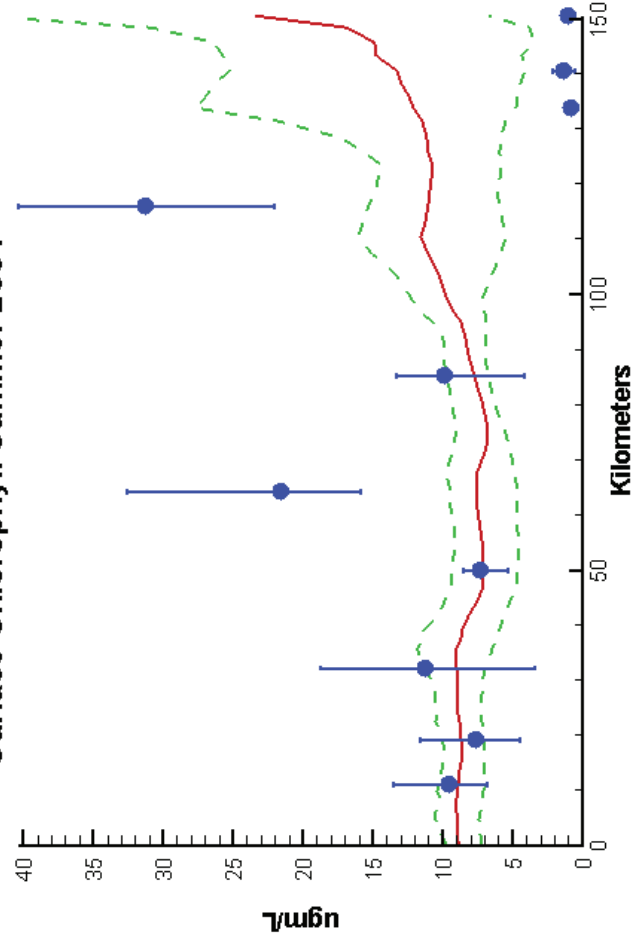
James River 2002-2011 Run185
Surface Dissolved Oxygen Summer 2004



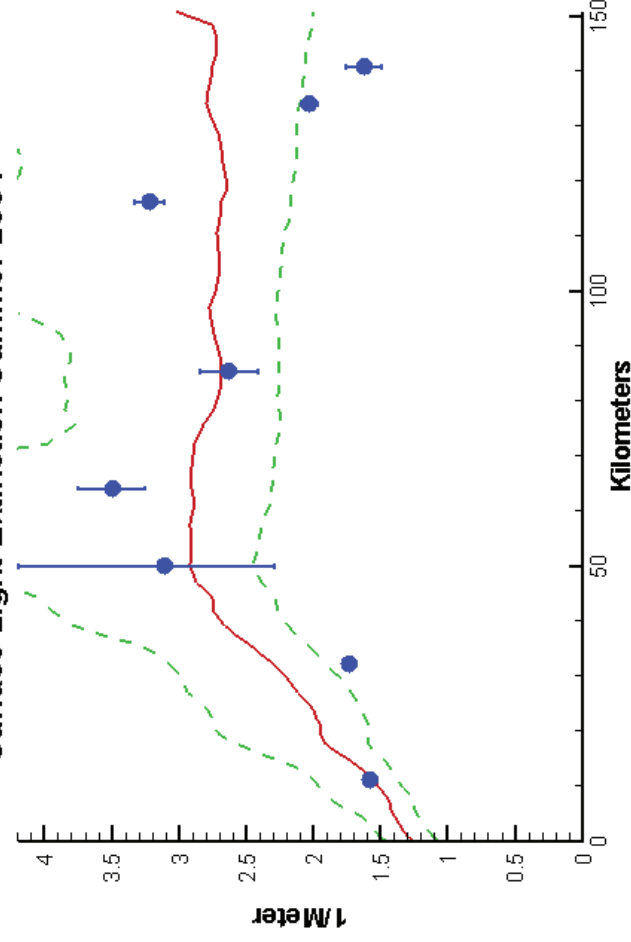
James River 2002-2011 Run185
Bottom Dissolved Oxygen Summer 2004



James River 2002-2011 Run185
Surface Chlorophyll Summer 2004

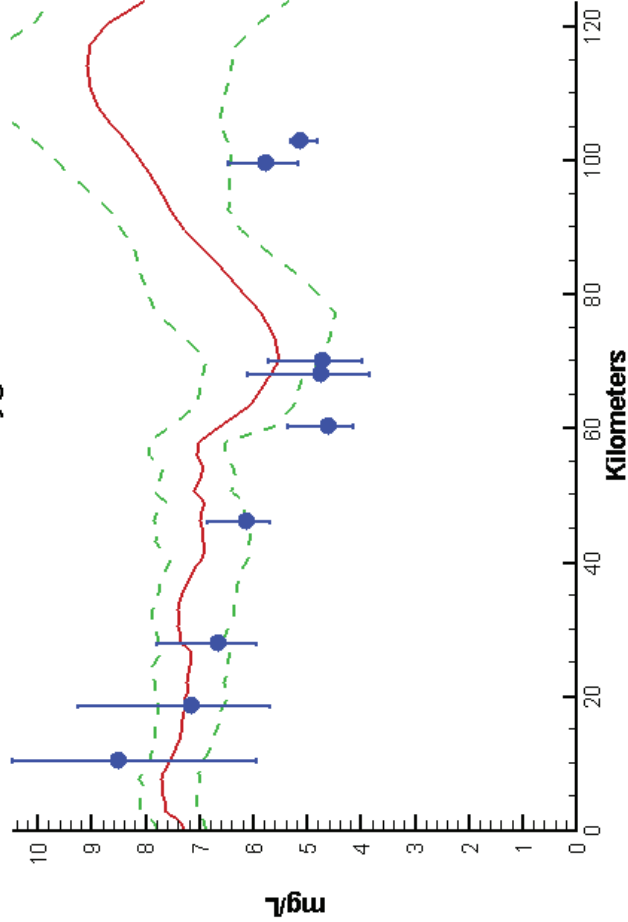


James River 2002-2011 Run185
Surface Light Extinction Summer 2004

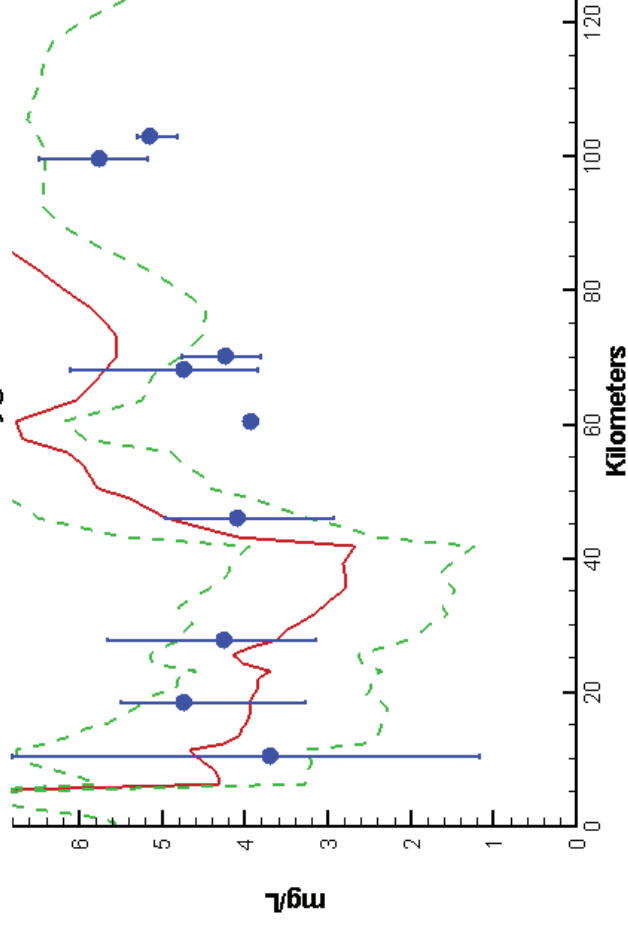


York River - Summer - 2004

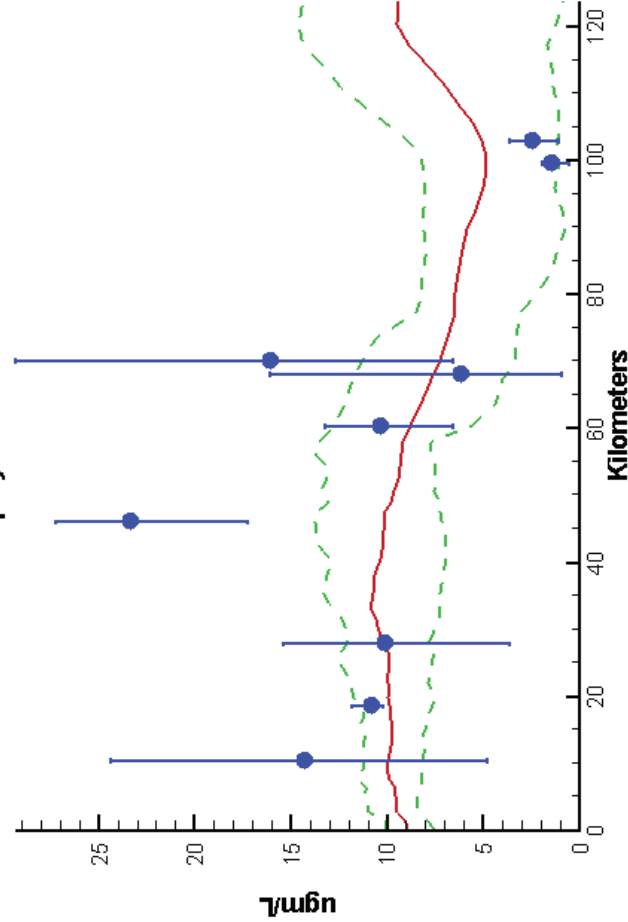
York River 2002-2011 Run185
Surface Dissolved Oxygen Summer 2004



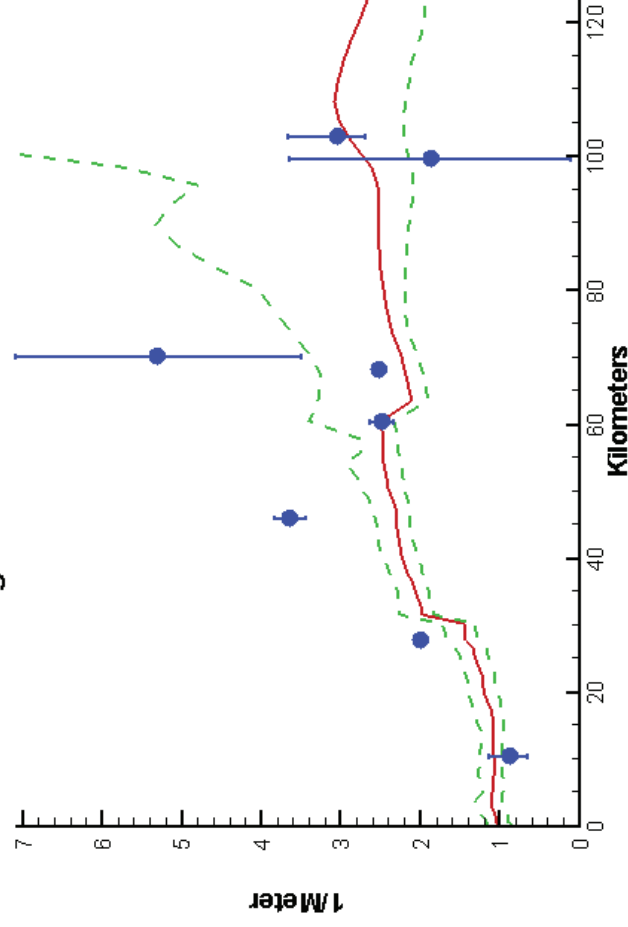
York River 2002-2011 Run185
Bottom Dissolved Oxygen Summer 2004



York River 2002-2011 Run185
Surface Chlorophyll Summer 2004

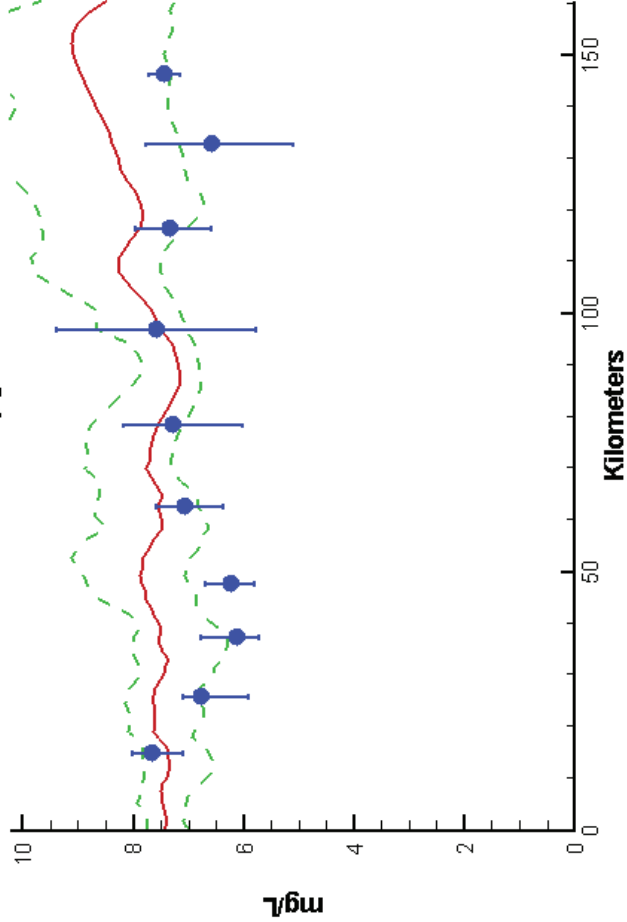


York River 2002-2011 Run185
Surface Light Extinction Summer 2004

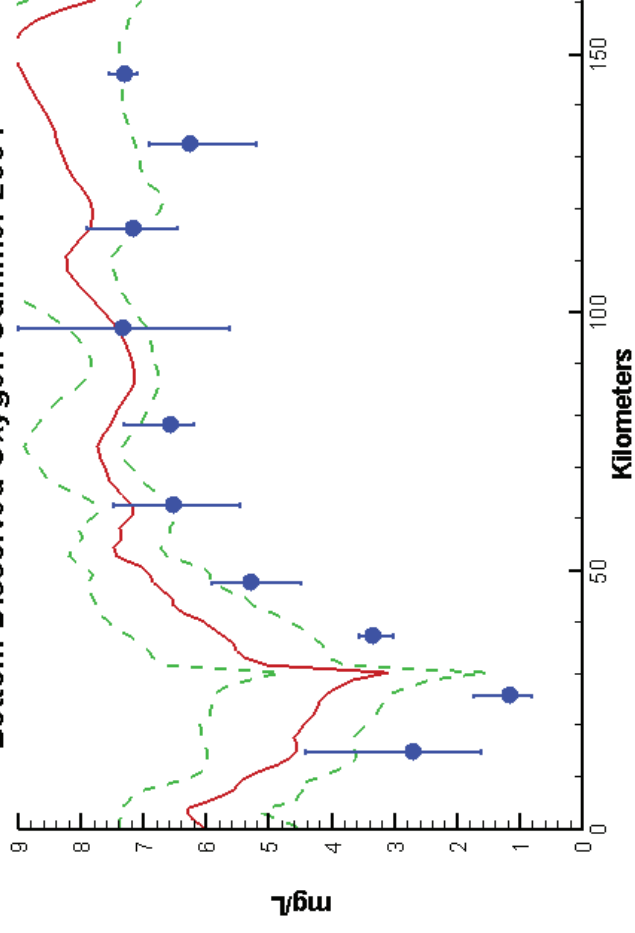


Rappahannock River - Summer - 2004

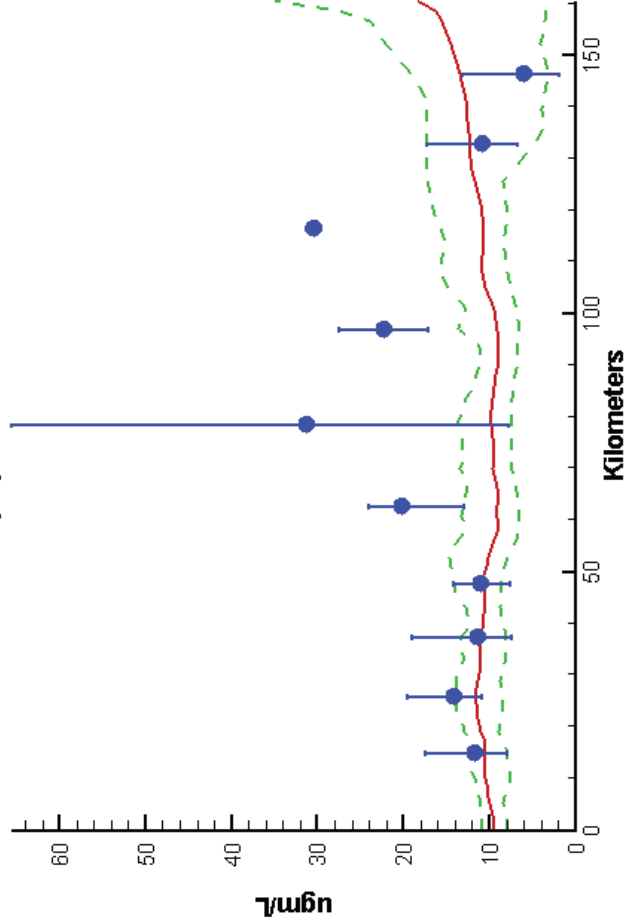
Rappahannock River 2002-2011 Run185
Surface Dissolved Oxygen Summer 2004



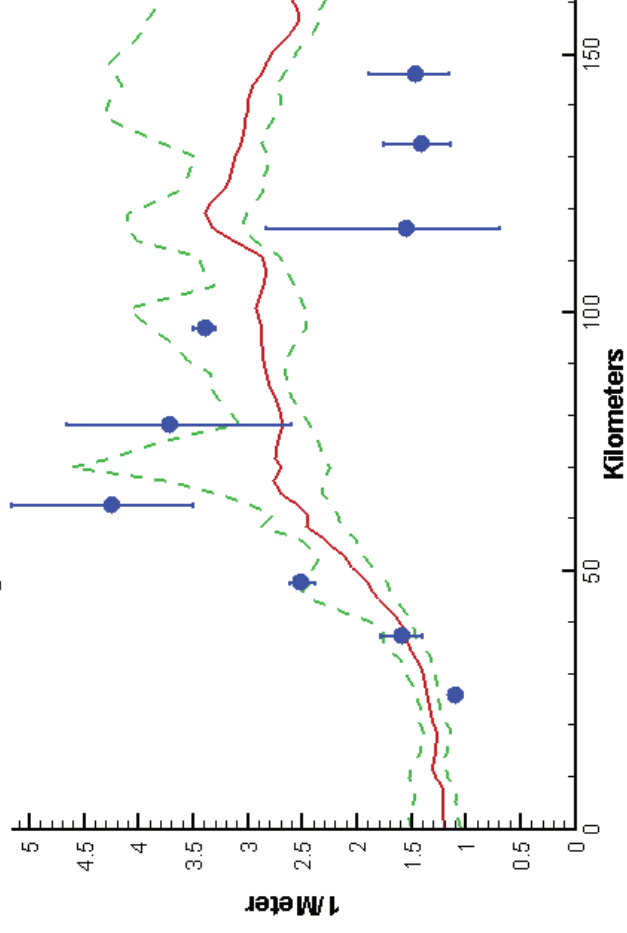
Rappahannock River 2002-2011 Run185
Bottom Dissolved Oxygen Summer 2004



Rappahannock River 2002-2011 Run185
Surface Chlorophyll Summer 2004

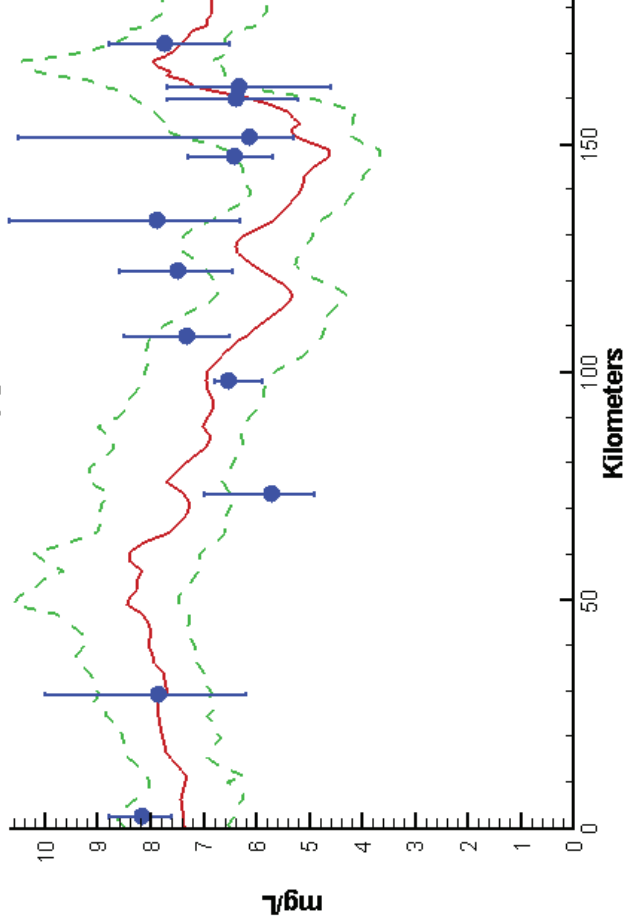


Rappahannock River 2002-2011 Run185
Surface Light Extinction Summer 2004

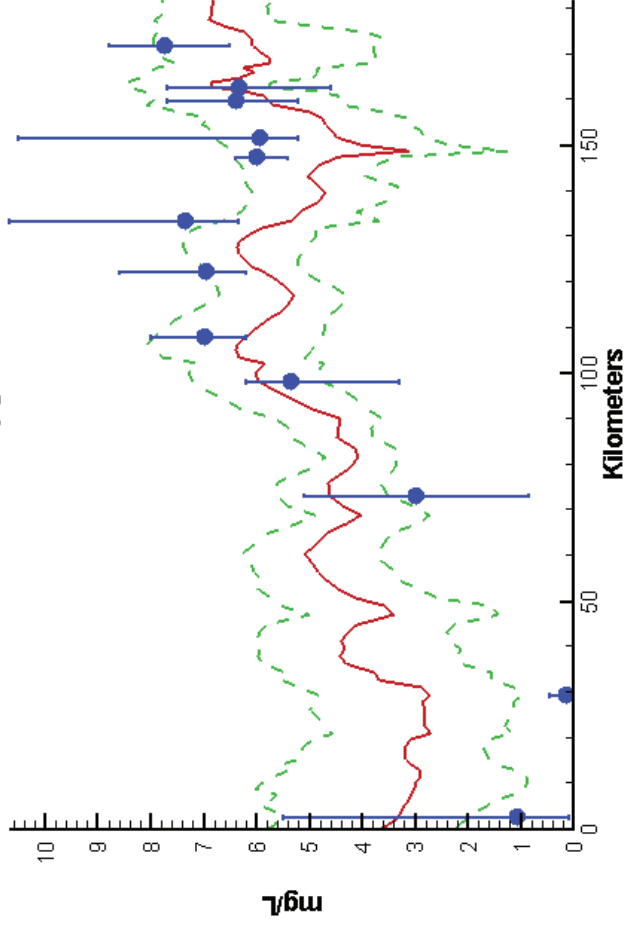


Potomac River - Summer - 2004

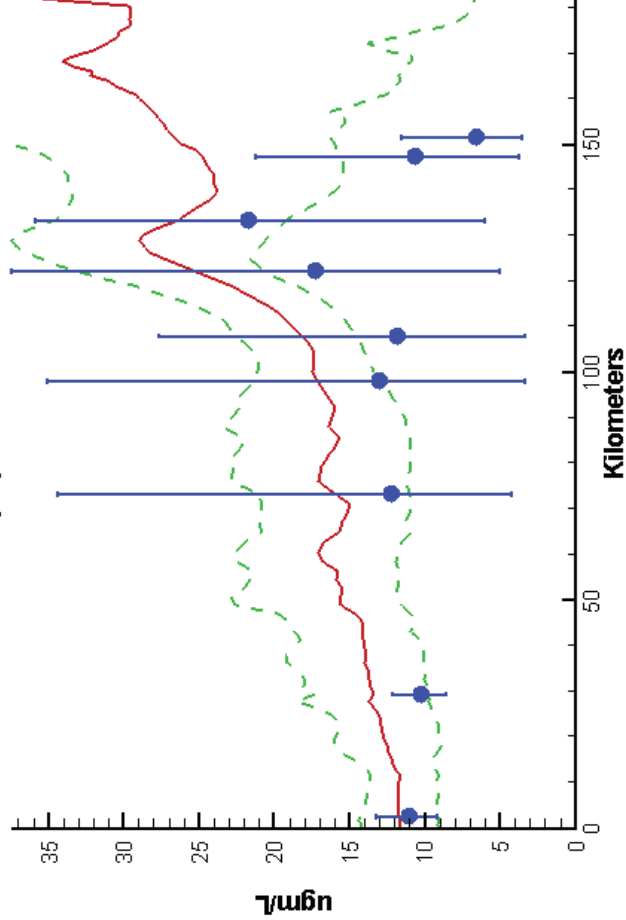
Potomac River 2002-2011 Run185
Surface Dissolved Oxygen Summer 2004



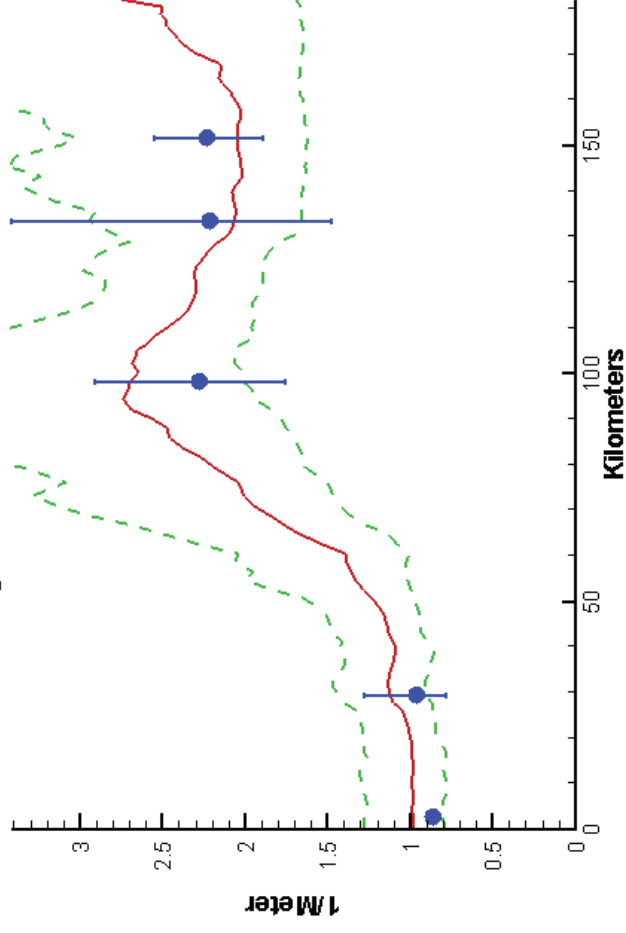
Potomac River 2002-2011 Run185
Bottom Dissolved Oxygen Summer 2004



Potomac River 2002-2011 Run185
Surface Chlorophyll Summer 2004

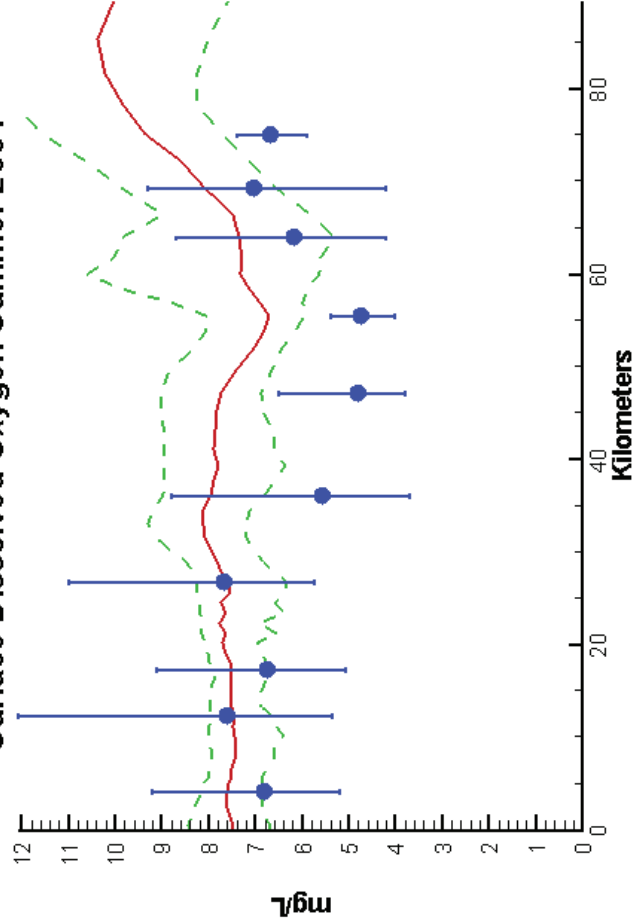


Potomac River 2002-2011 Run185
Surface Light Extinction Summer 2004

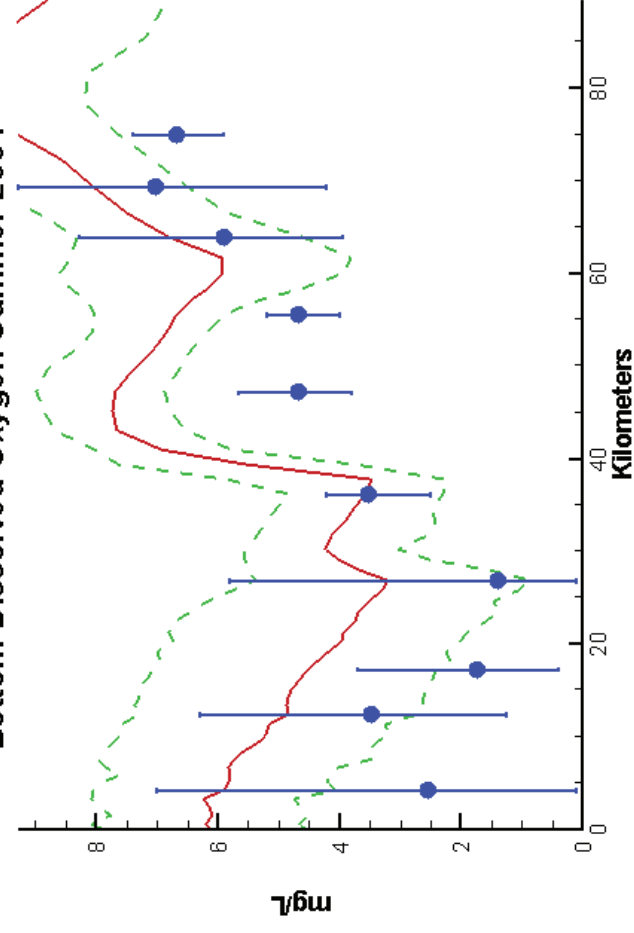


Patuxent River - Summer - 2004

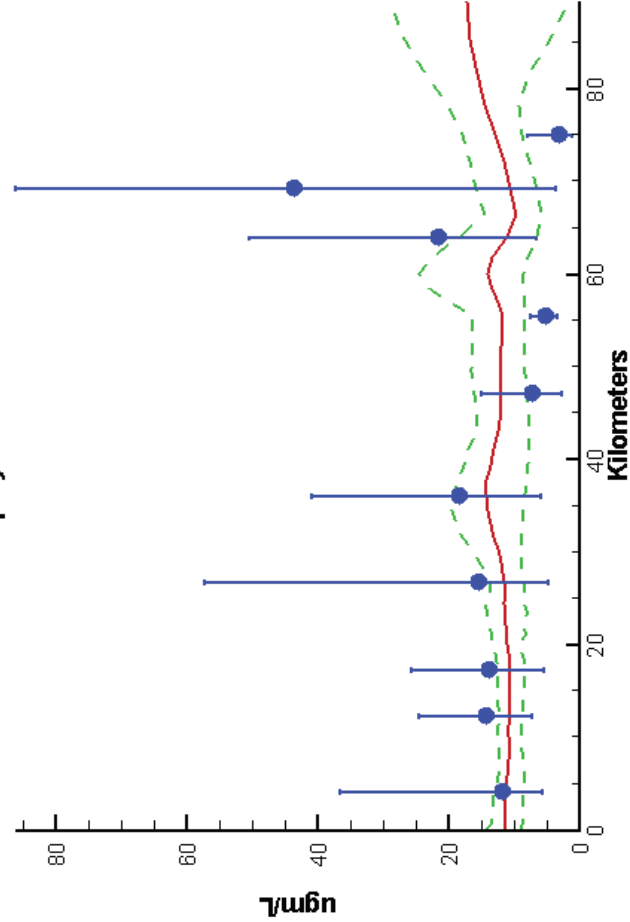
Patuxent River 2002-2011 Run185
Surface Dissolved Oxygen Summer 2004



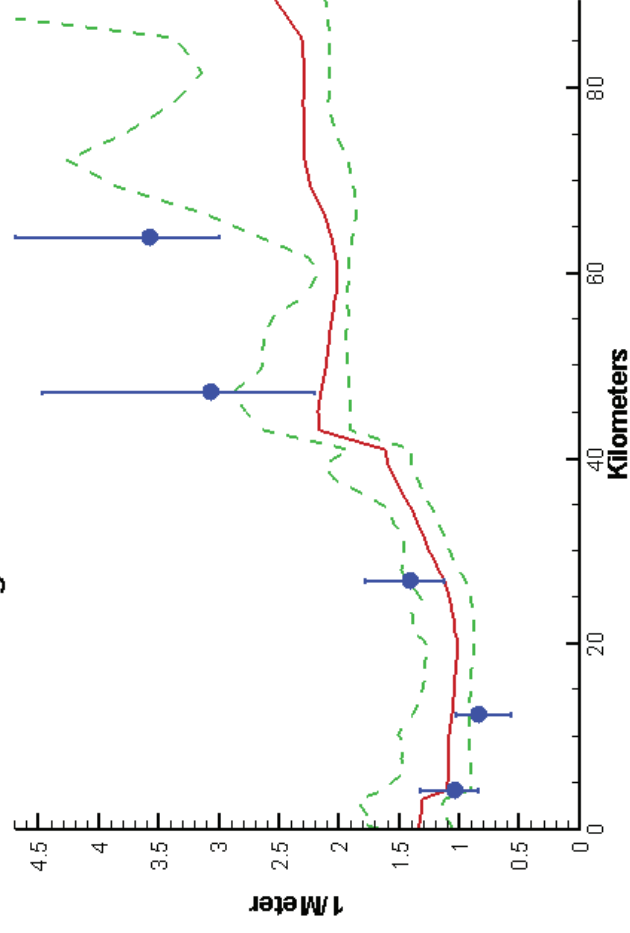
Patuxent River 2002-2011 Run185
Bottom Dissolved Oxygen Summer 2004



Patuxent River 2002-2011 Run185
Surface Chlorophyll Summer 2004

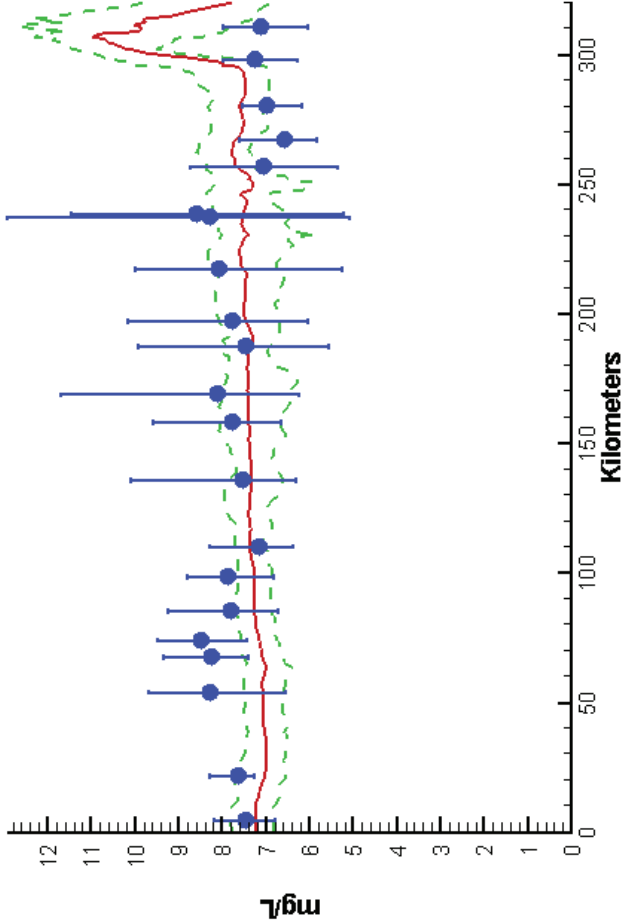


Patuxent River 2002-2011 Run185
Surface Light Extinction Summer 2004

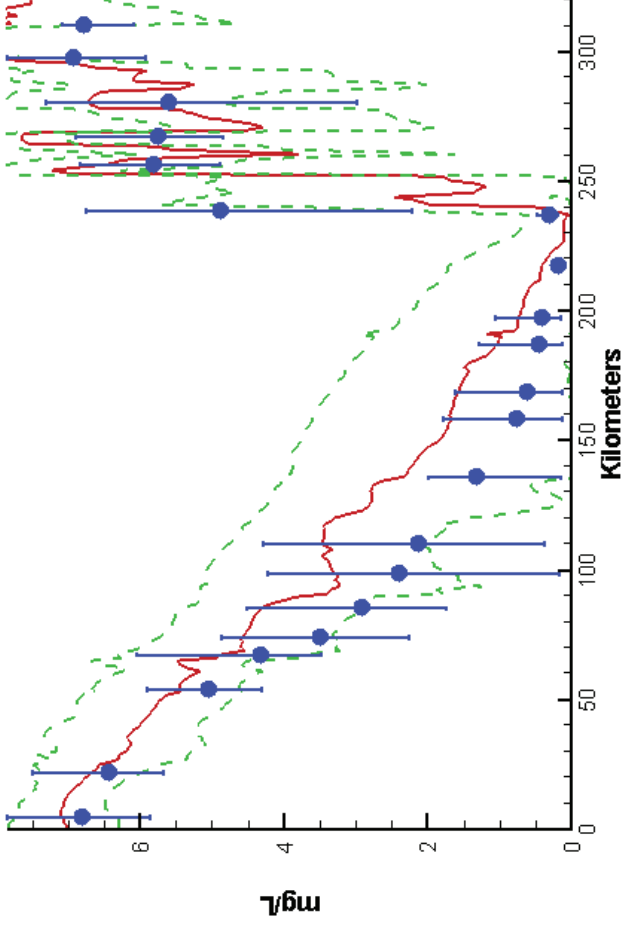


Mainstem Bay - Summer - 2007

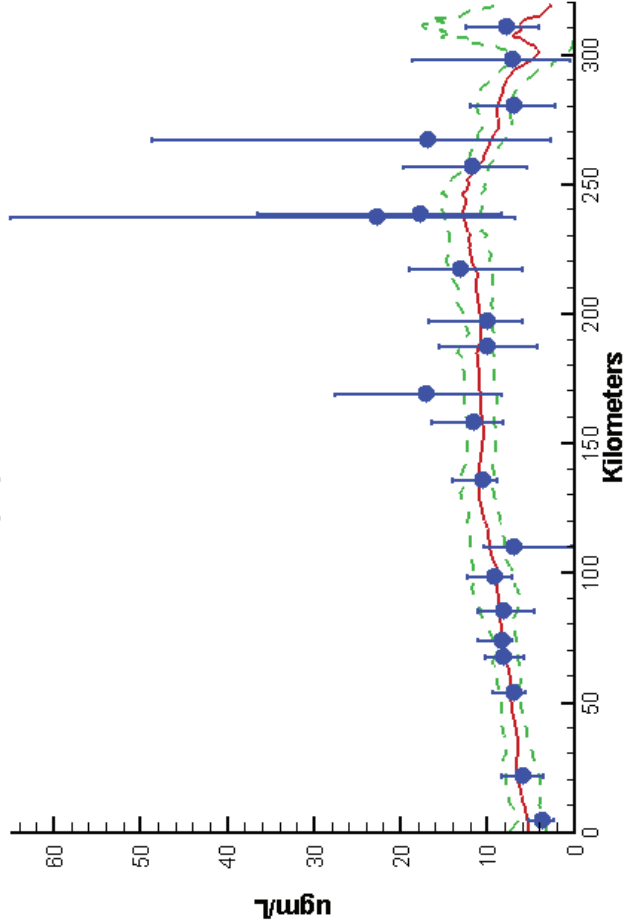
Mainstem Bay 2002-2011 Run185
Surface Dissolved Oxygen Summer 2007



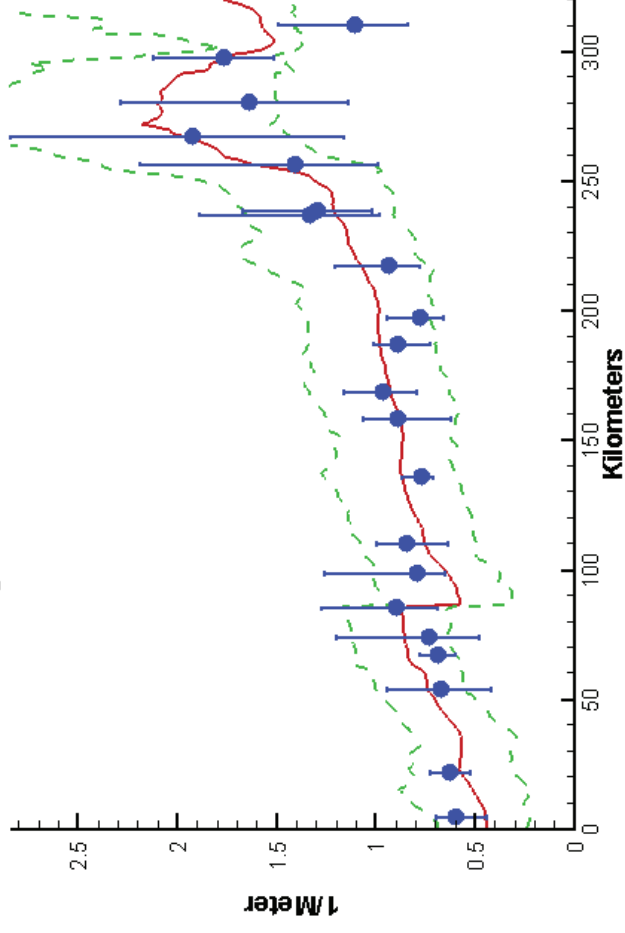
Mainstem Bay 2002-2011 Run185
Bottom Dissolved Oxygen Summer 2007



Mainstem Bay 2002-2011 Run185
Surface Chlorophyll Summer 2007

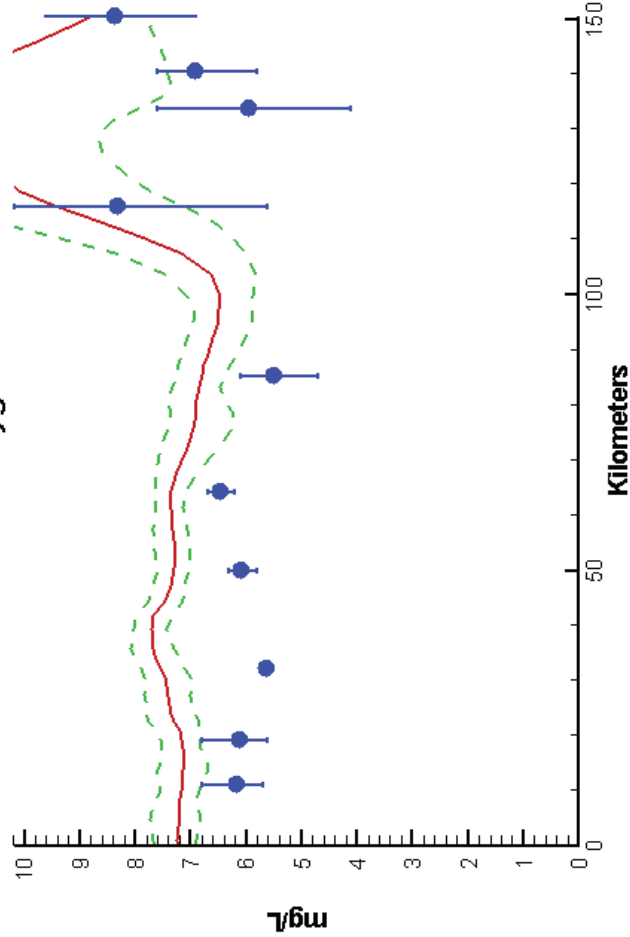


Mainstem Bay 2002-2011 Run185
Surface Light Extinction Summer 2007

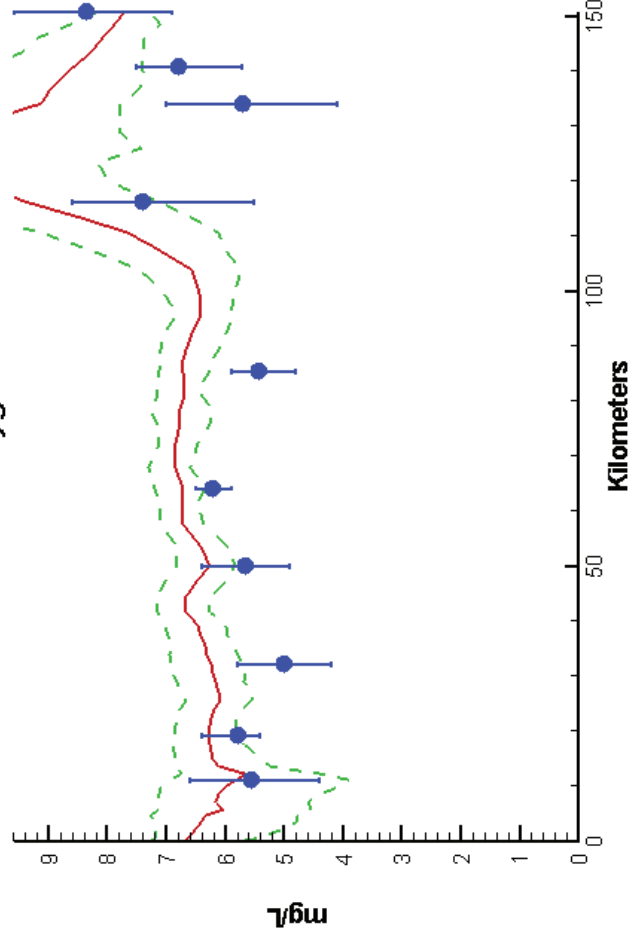


James River - Summer - 2007

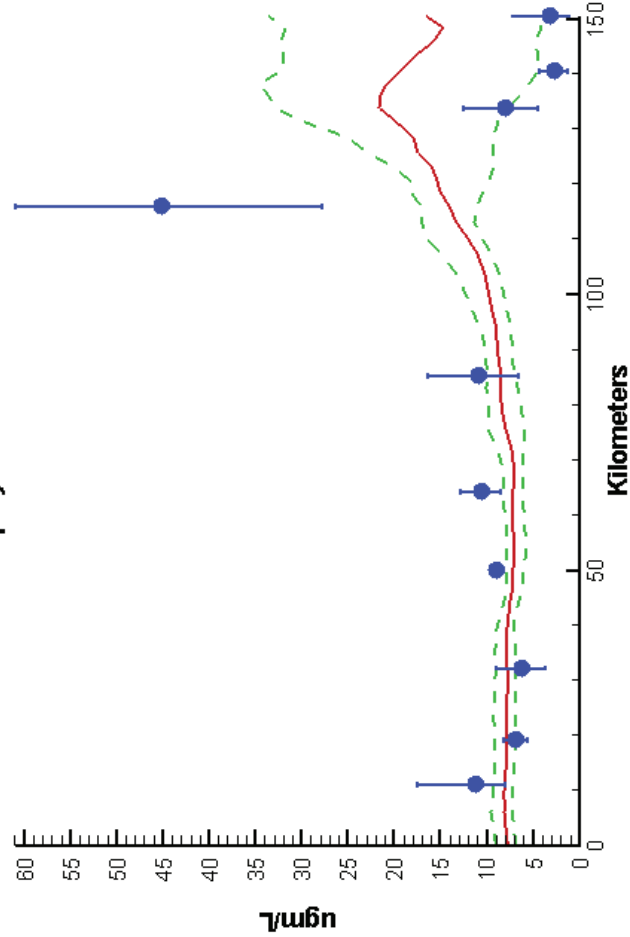
James River 2002-2011 Run185
Surface Dissolved Oxygen Summer 2007



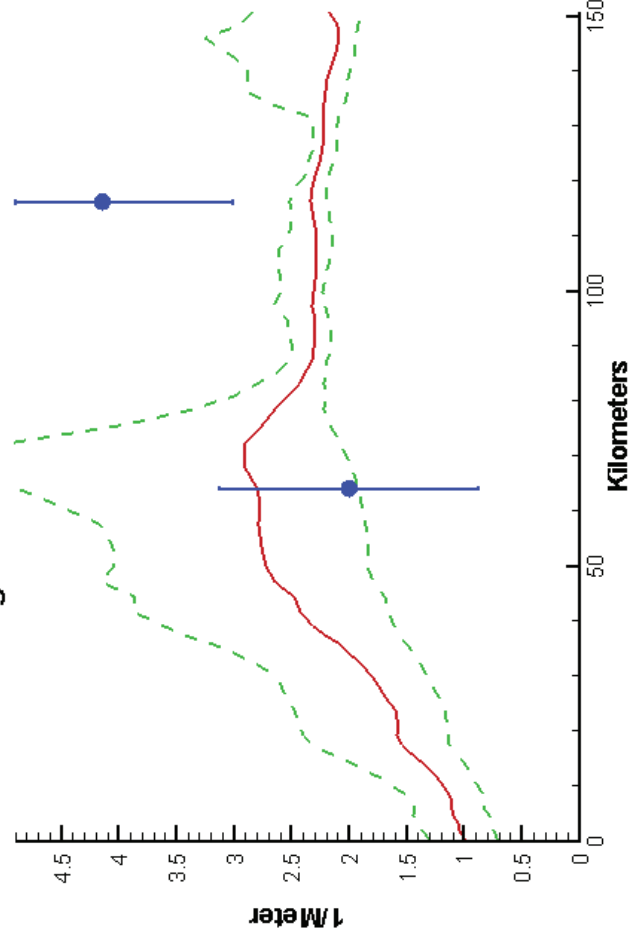
James River 2002-2011 Run185
Bottom Dissolved Oxygen Summer 2007



James River 2002-2011 Run185
Surface Chlorophyll Summer 2007

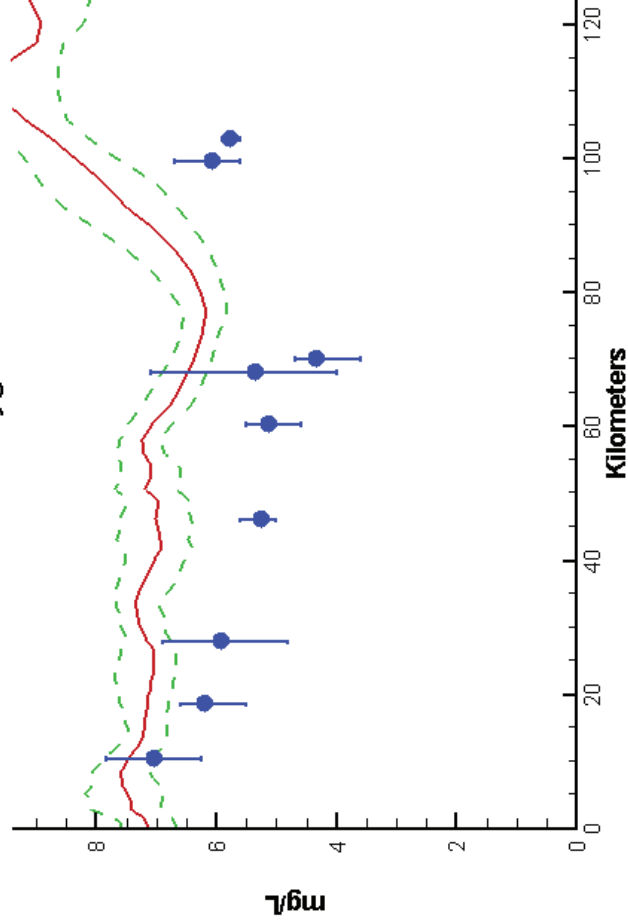


James River 2002-2011 Run185
Surface Light Extinction Summer 2007

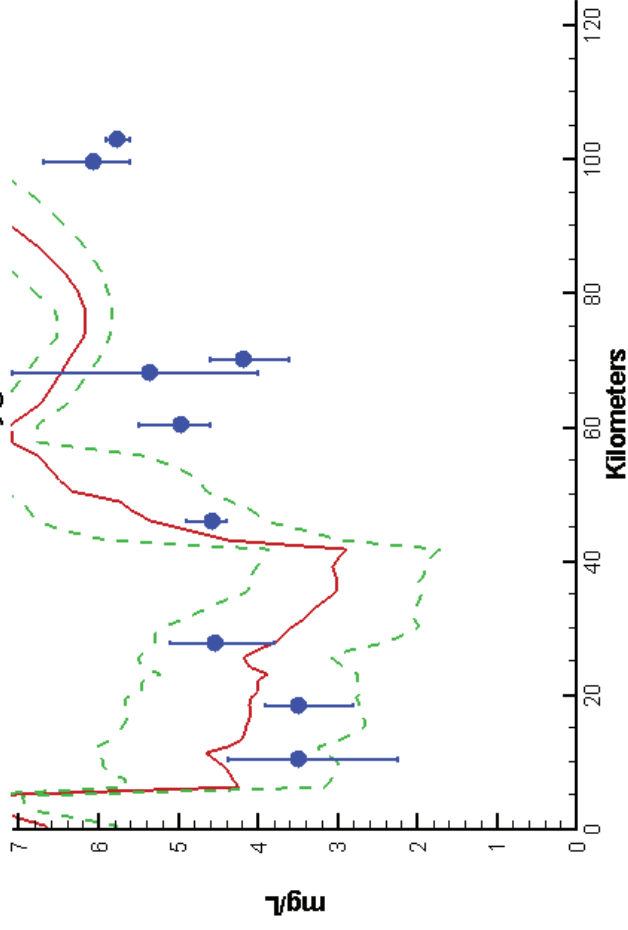


York River - Summer - 2007

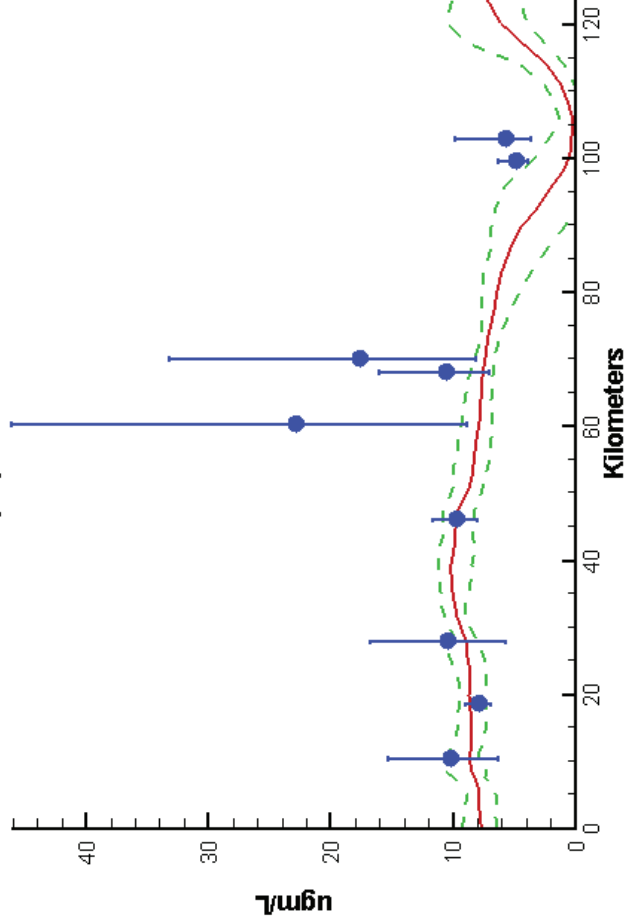
York River 2002-2011 Run185
Surface Dissolved Oxygen Summer 2007



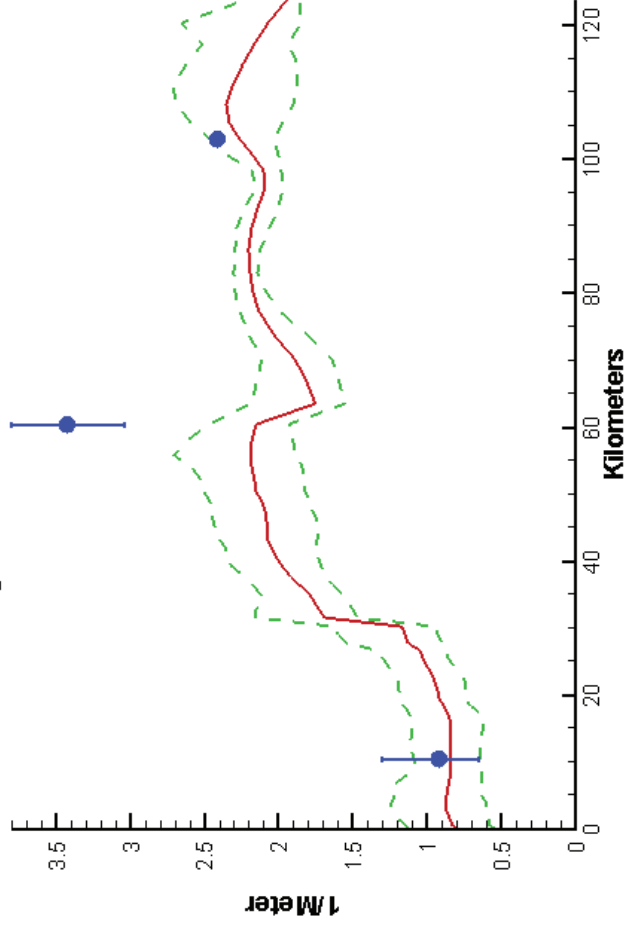
York River 2002-2011 Run185
Bottom Dissolved Oxygen Summer 2007



York River 2002-2011 Run185
Surface Chlorophyll Summer 2007

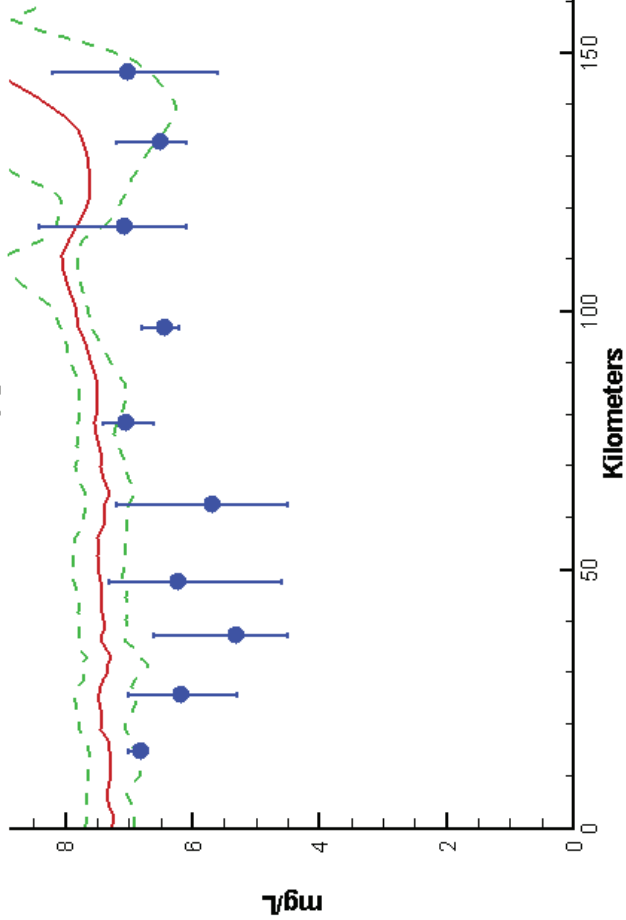


York River 2002-2011 Run185
Surface Light Extinction Summer 2007

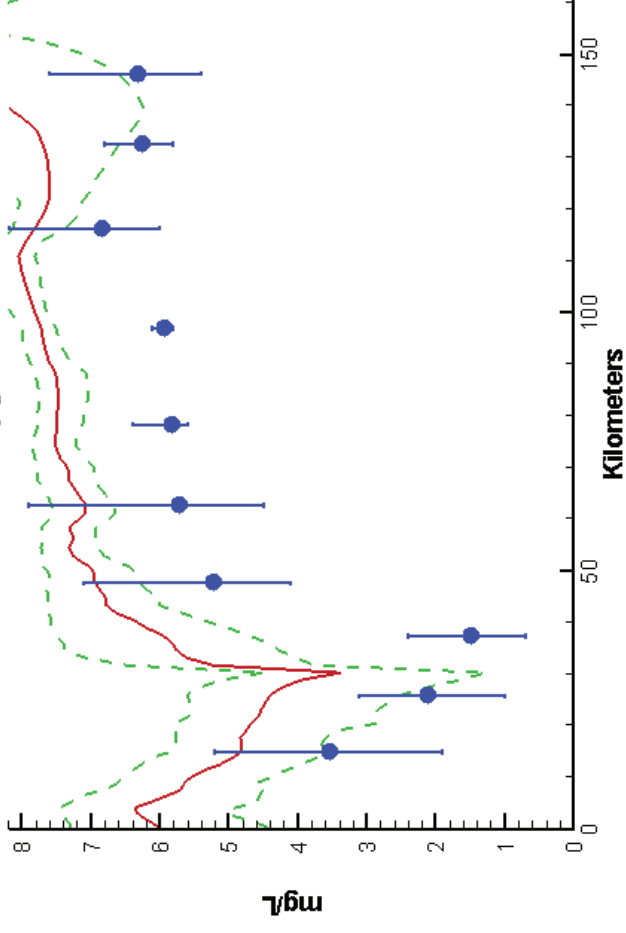


Rappahannock River - Summer - 2007

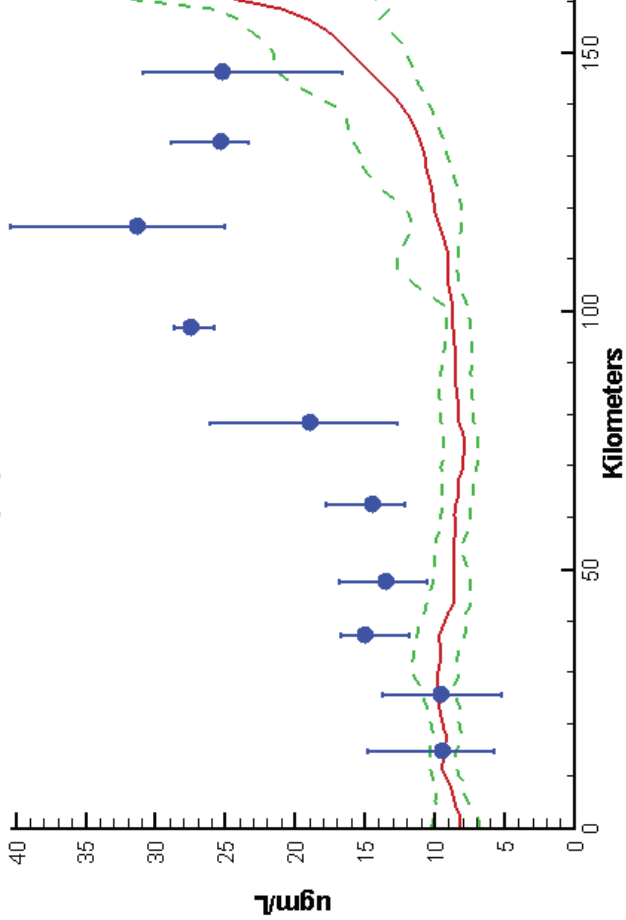
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Surface Dissolved Oxygen Summer 2007



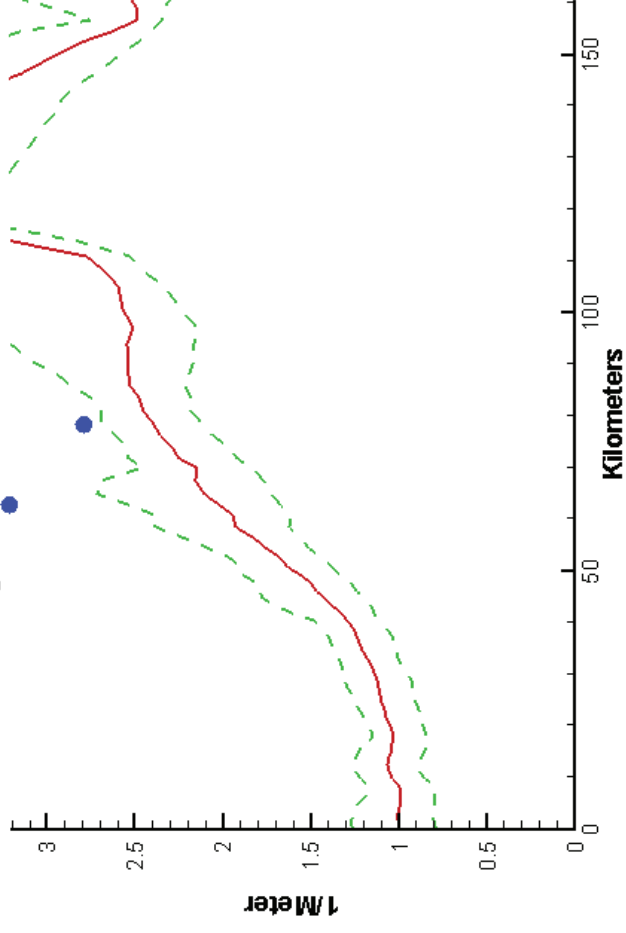
Rappahannock River 2002-2011 Run185
Bottom Dissolved Oxygen Summer 2007



Rappahannock River 2002-2011 Run185
Surface Chlorophyll Summer 2007

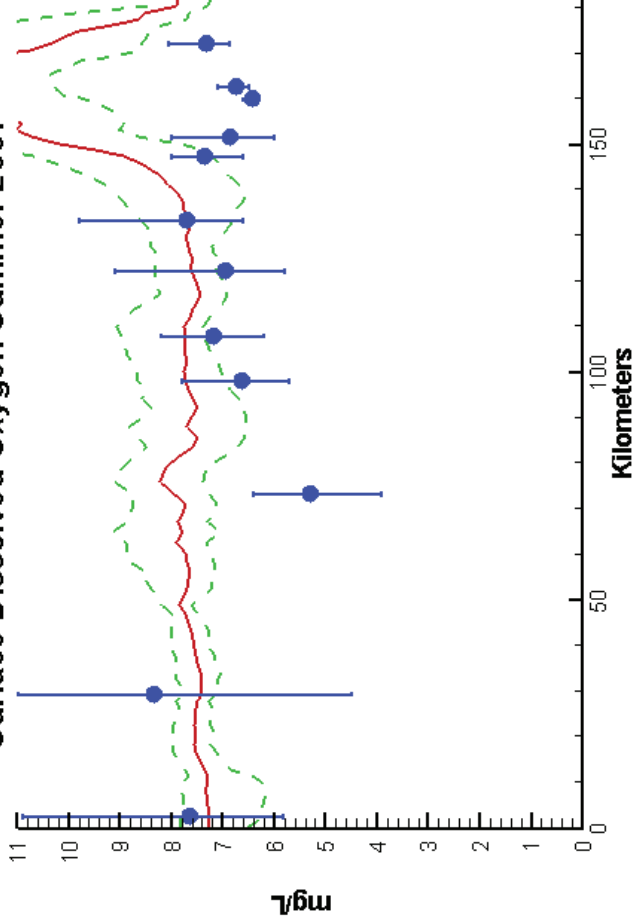


Rappahannock River 2002-2011 Run185
Surface Light Extinction Summer 2007

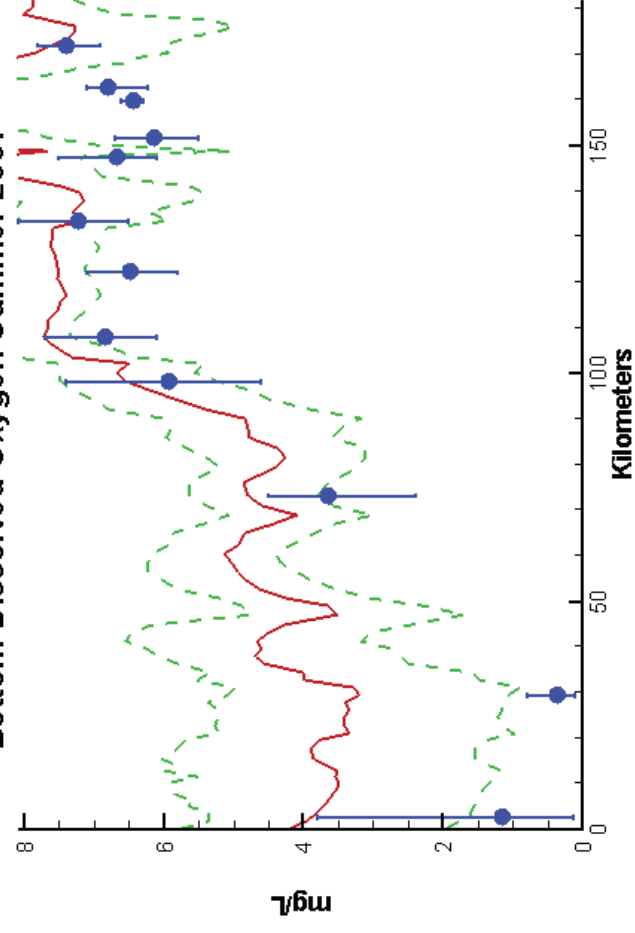


Potomac River - Summer - 2007

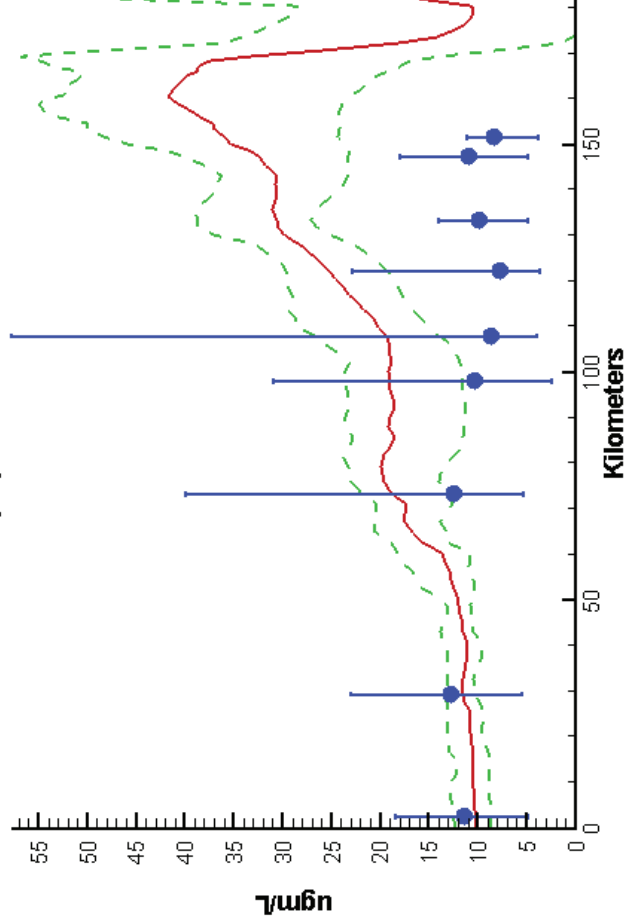
Potomac River 2002-2011 Run185
Surface Dissolved Oxygen Summer 2007



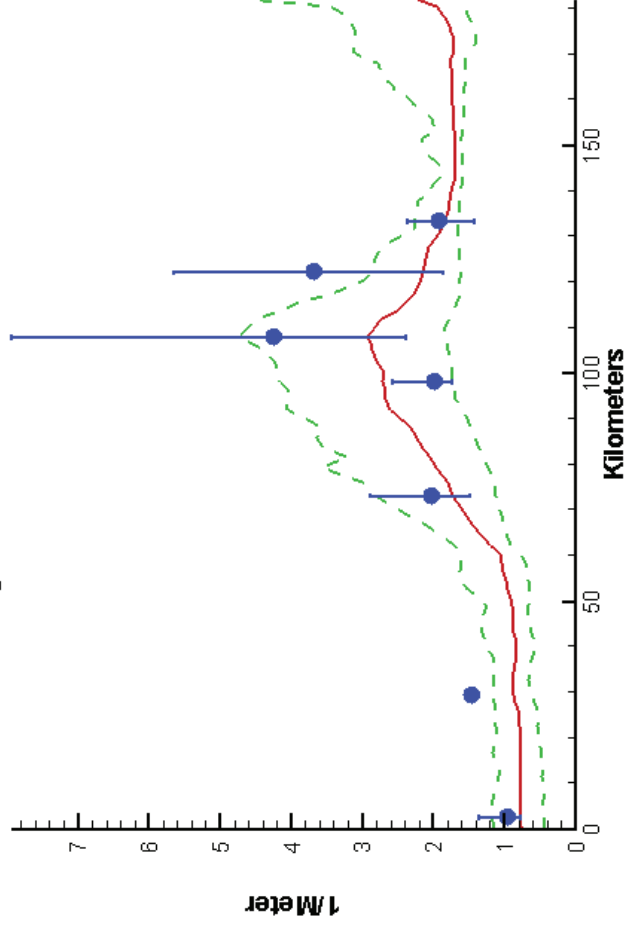
Potomac River 2002-2011 Run185
Bottom Dissolved Oxygen Summer 2007



Potomac River 2002-2011 Run185
Surface Chlorophyll Summer 2007

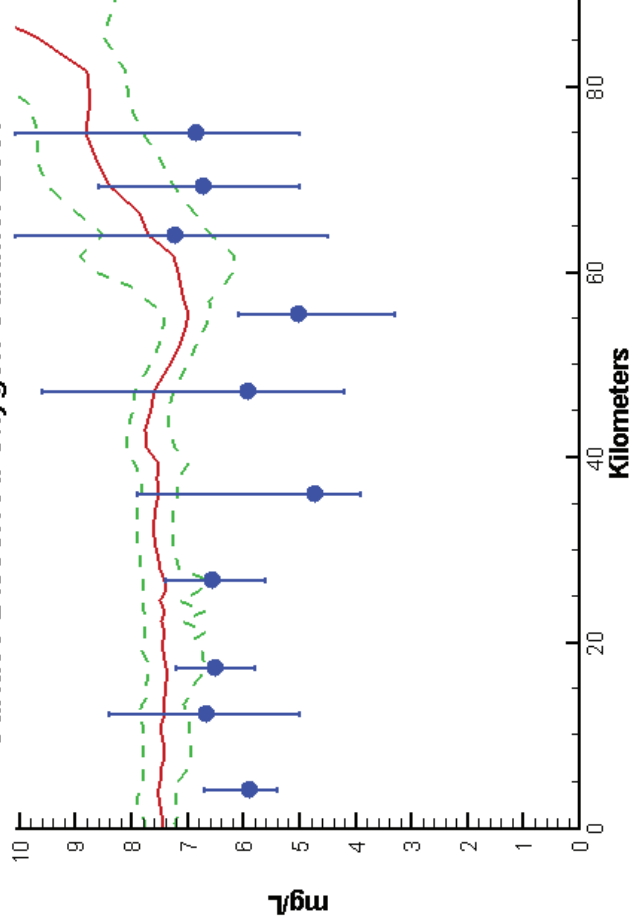


Potomac River 2002-2011 Run185
Surface Light Extinction Summer 2007

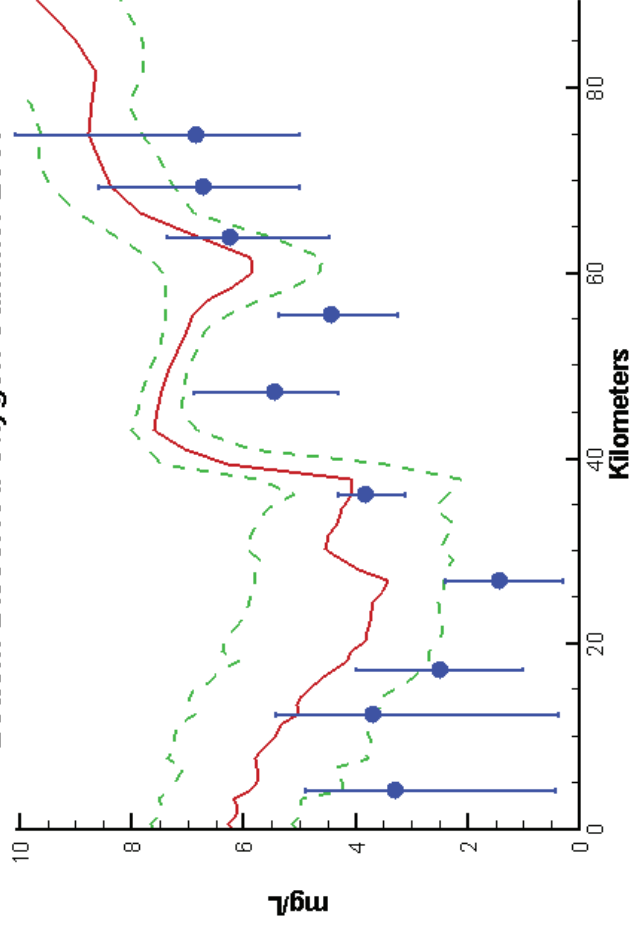


Patuxent River - Summer - 2007

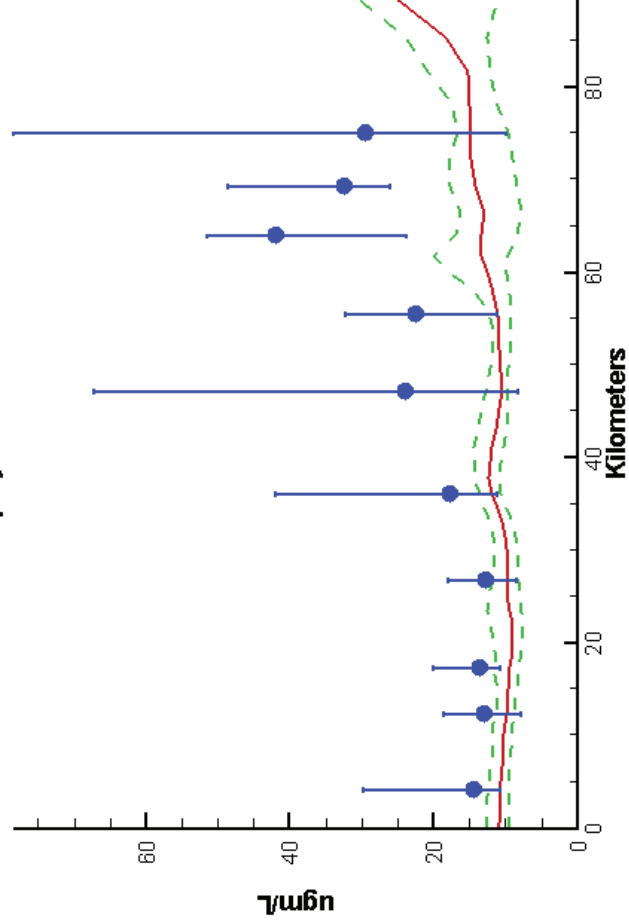
Patuxent River 2002-2011 Run185
Surface Dissolved Oxygen Summer 2007



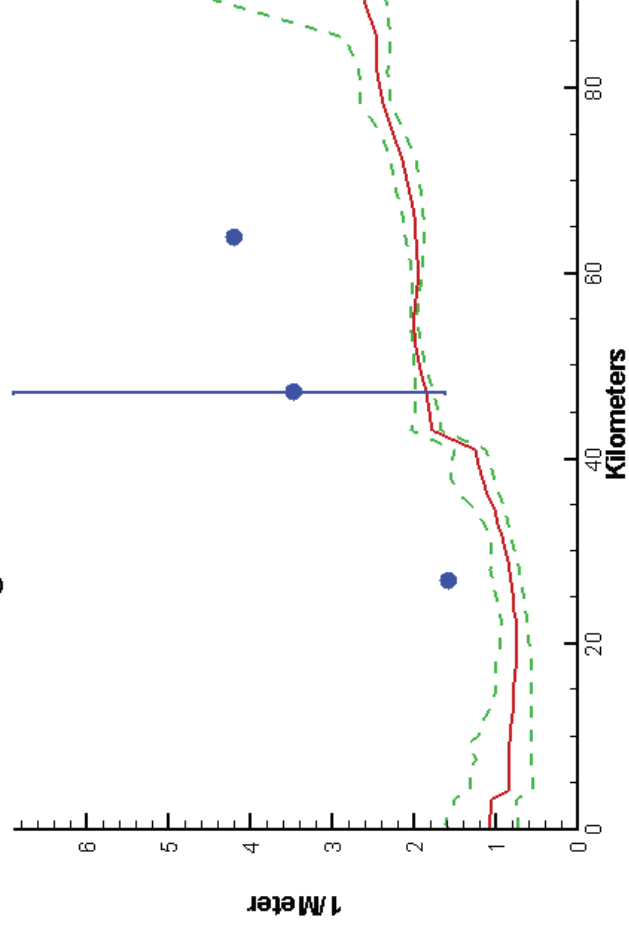
Patuxent River 2002-2011 Run185
Bottom Dissolved Oxygen Summer 2007



Patuxent River 2002-2011 Run185
Surface Chlorophyll Summer 2007

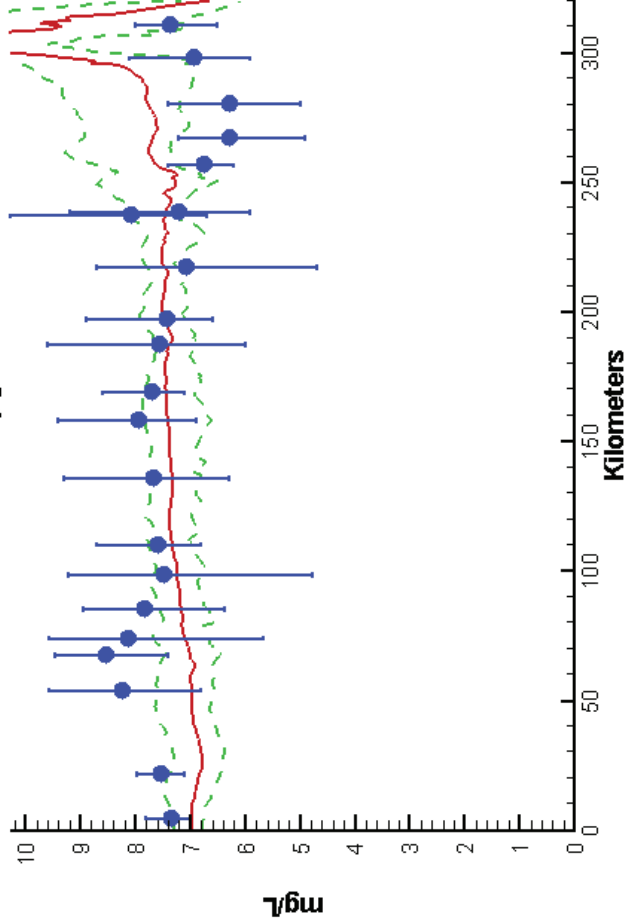


Patuxent River 2002-2011 Run185
Surface Light Extinction Summer 2007

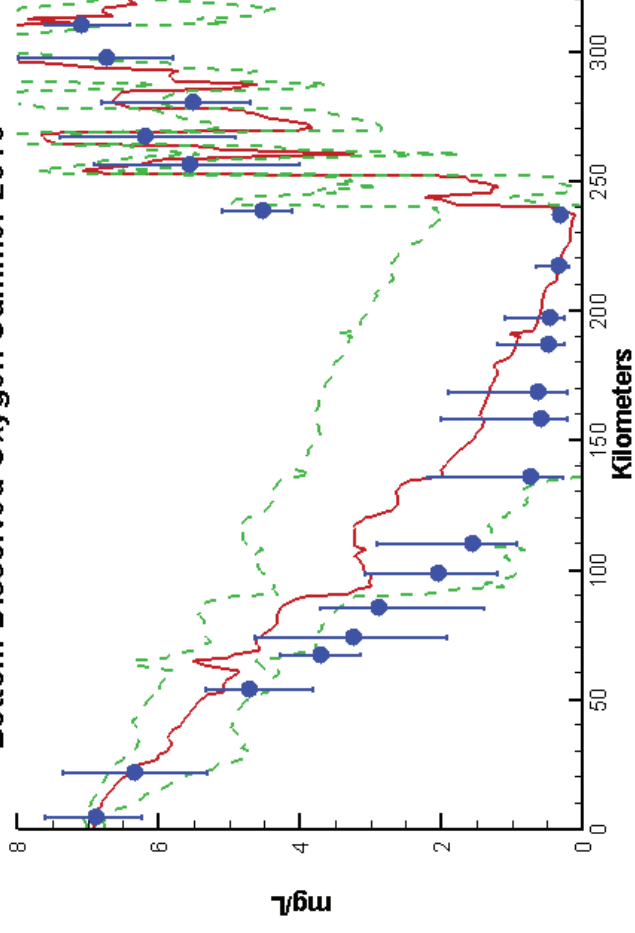


Mainstem Bay - Summer - 2010

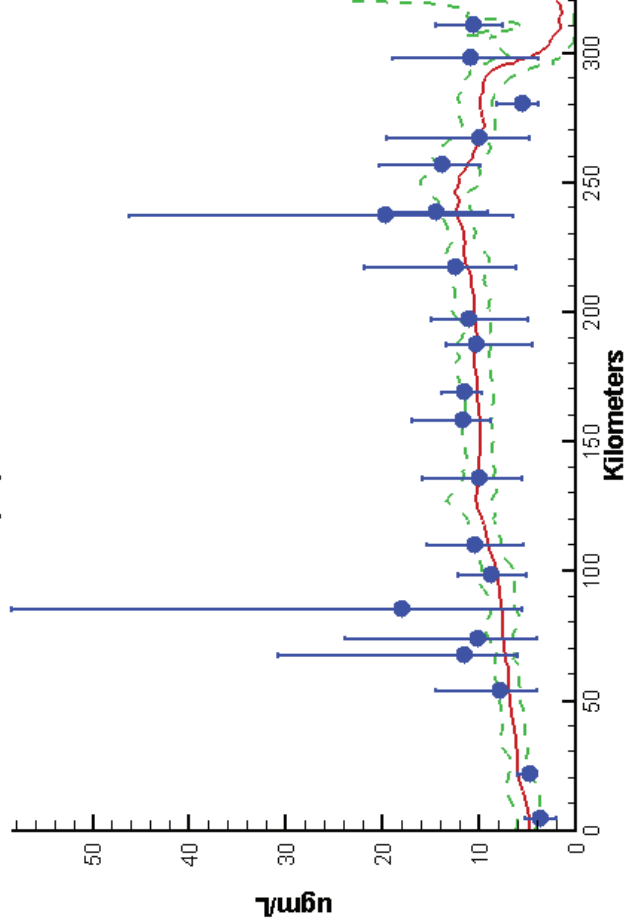
Mainstem Bay 2002-2011 Run185
Surface Dissolved Oxygen Summer 2010



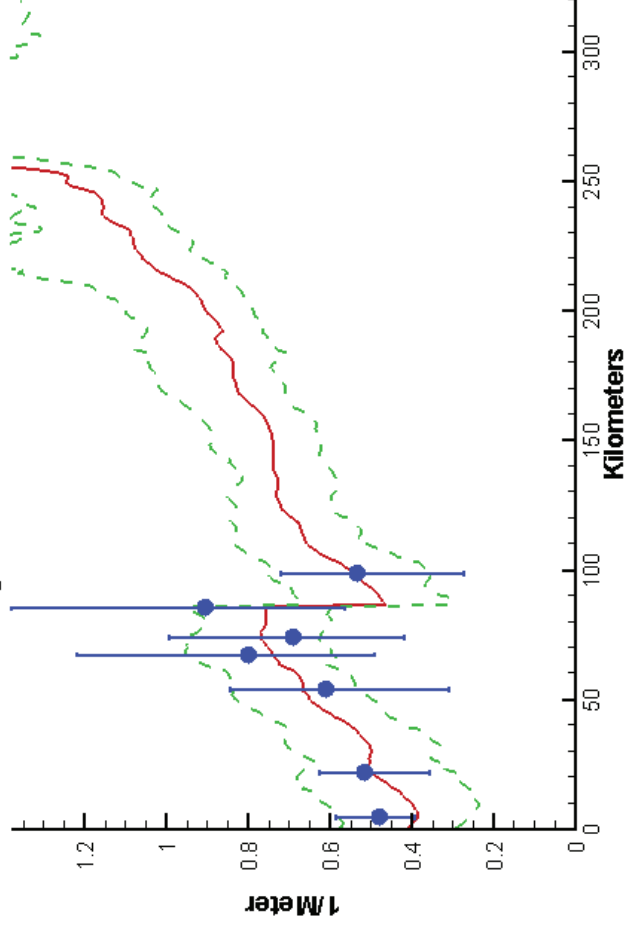
Mainstem Bay 2002-2011 Run185
Bottom Dissolved Oxygen Summer 2010



Mainstem Bay 2002-2011 Run185
Surface Chlorophyll Summer 2010

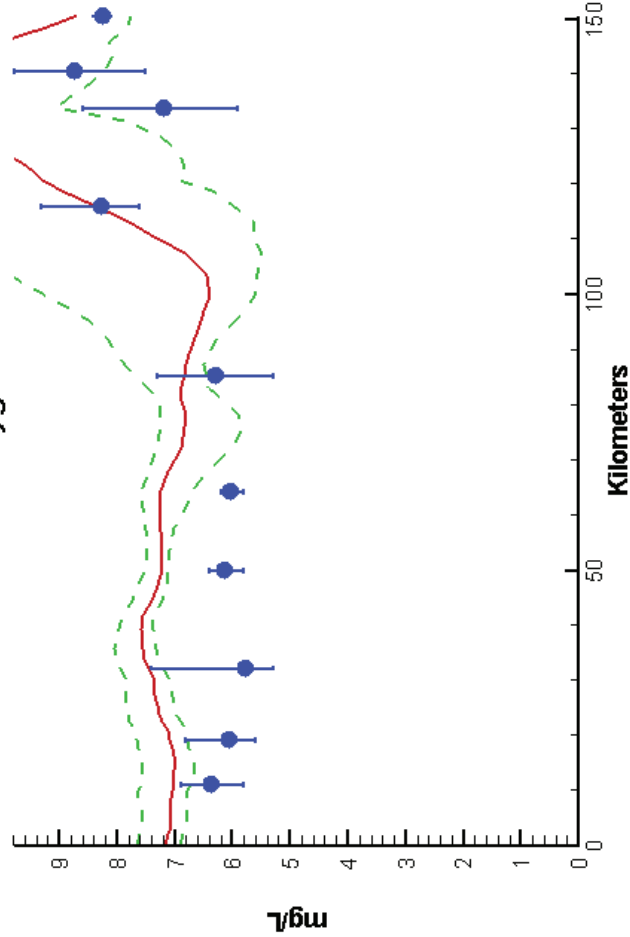


Mainstem Bay 2002-2011 Run185
Surface Light Extinction Summer 2010

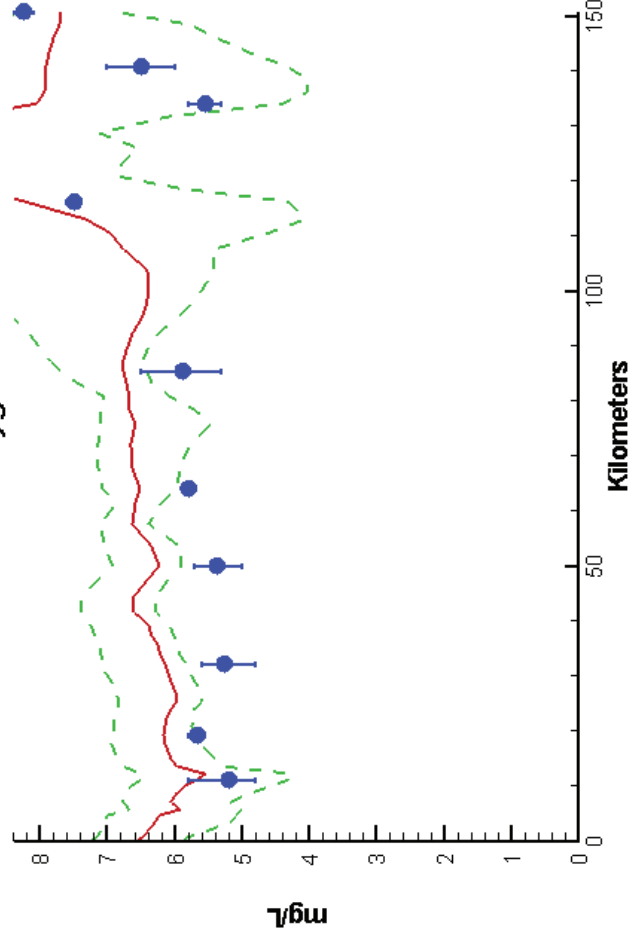


James River - Summer - 2010

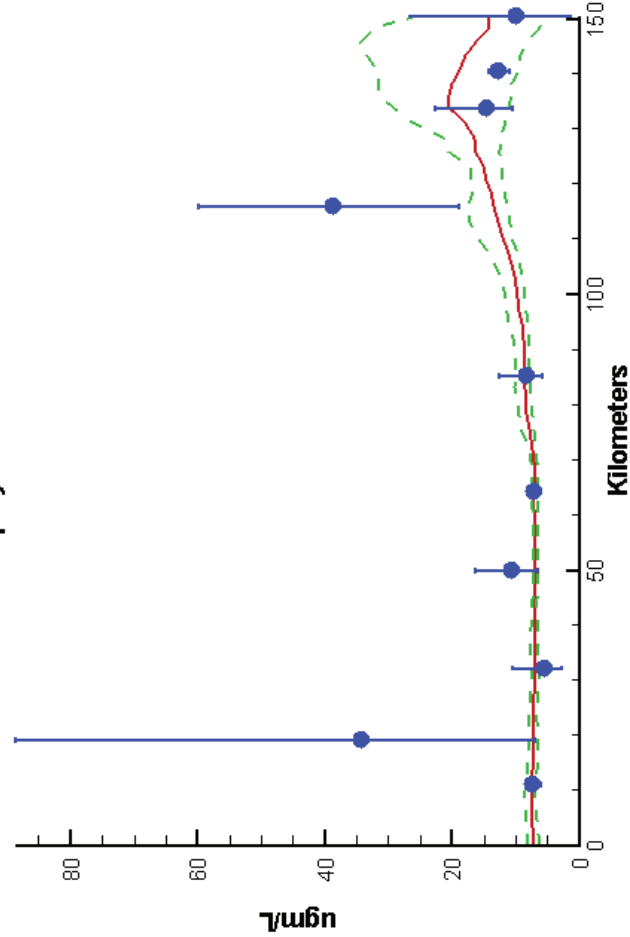
James River 2002-2011 Run185
Surface Dissolved Oxygen Summer 2010



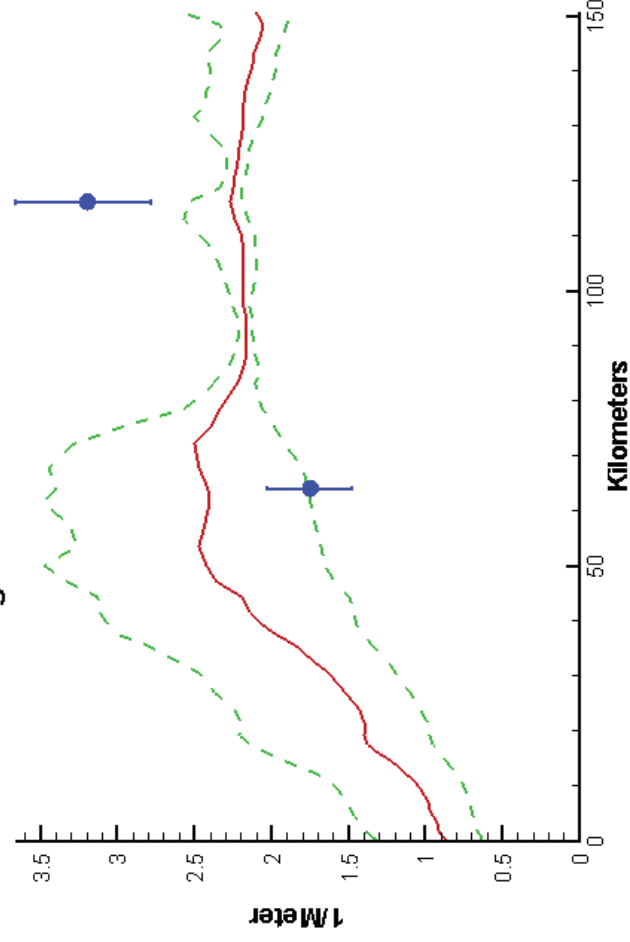
James River 2002-2011 Run185
Bottom Dissolved Oxygen Summer 2010



James River 2002-2011 Run185
Surface Chlorophyll Summer 2010

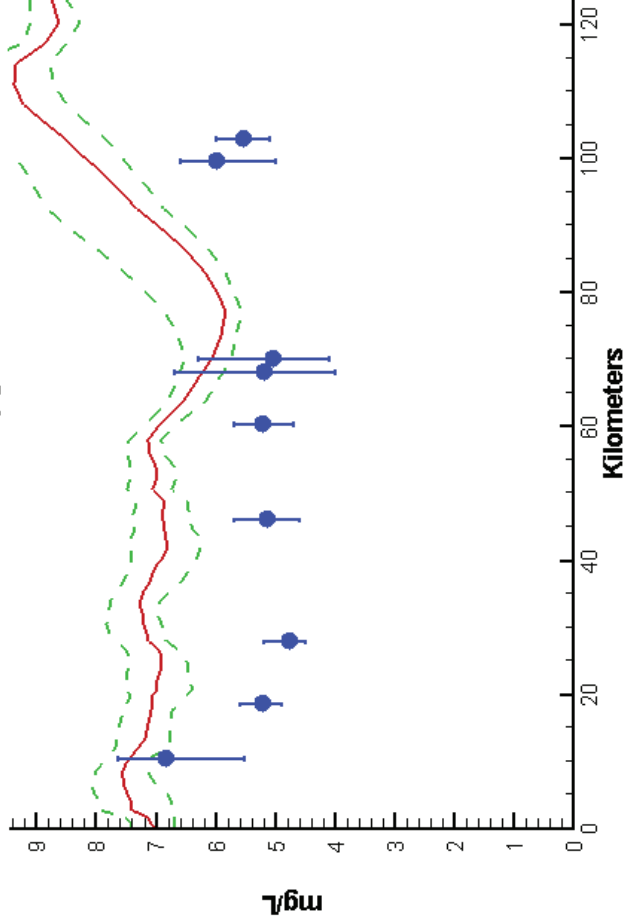


James River 2002-2011 Run185
Surface Light Extinction Summer 2010

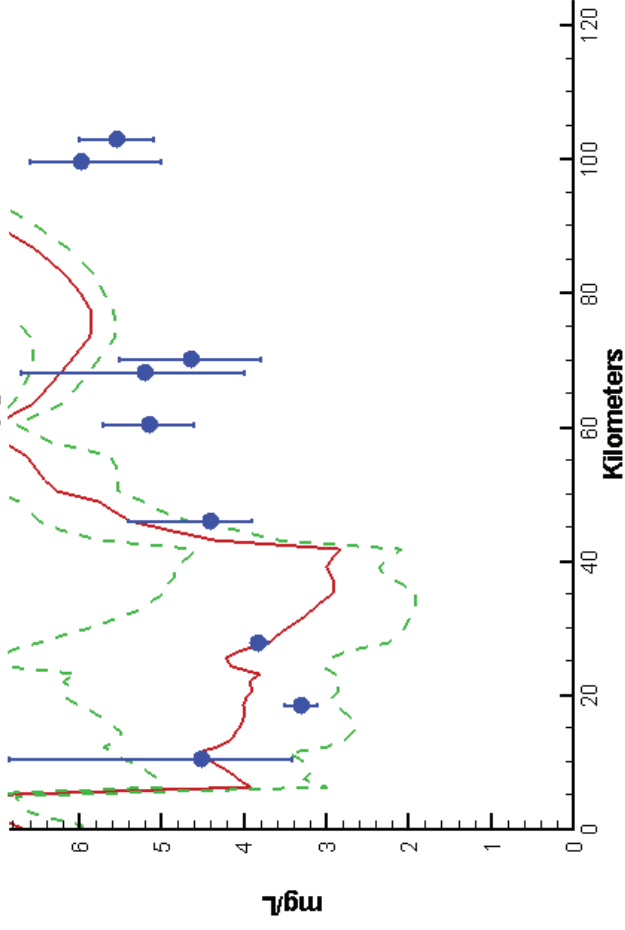


York River - Summer - 2010

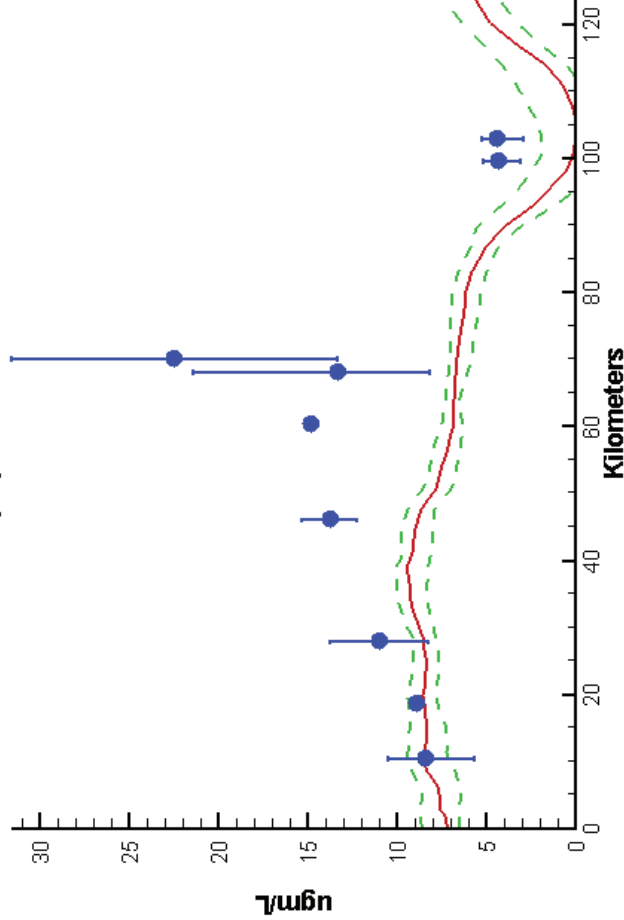
York River 2002-2011 Run185
Surface Dissolved Oxygen Summer 2010



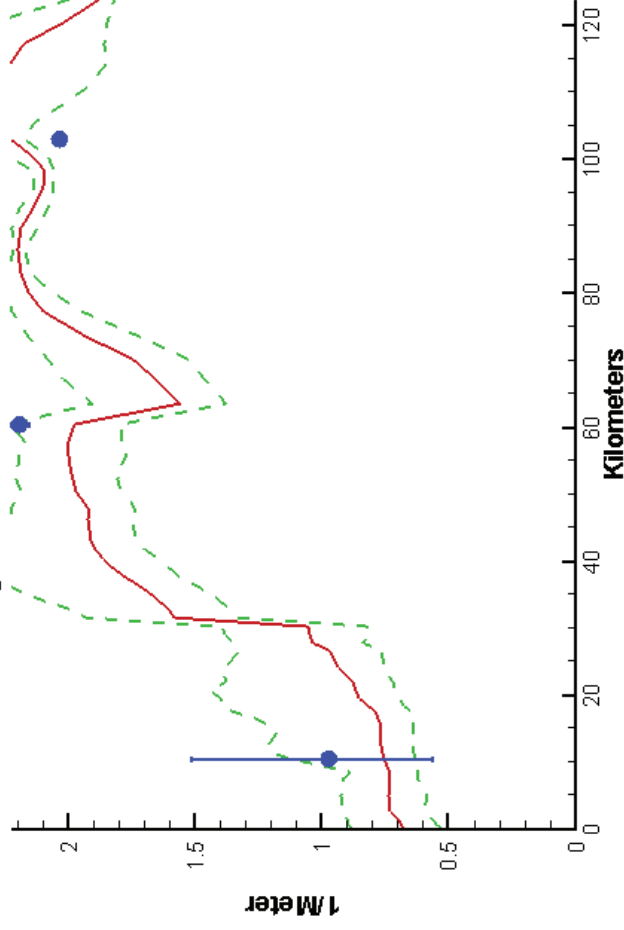
York River 2002-2011 Run185
Bottom Dissolved Oxygen Summer 2010



York River 2002-2011 Run185
Surface Chlorophyll Summer 2010

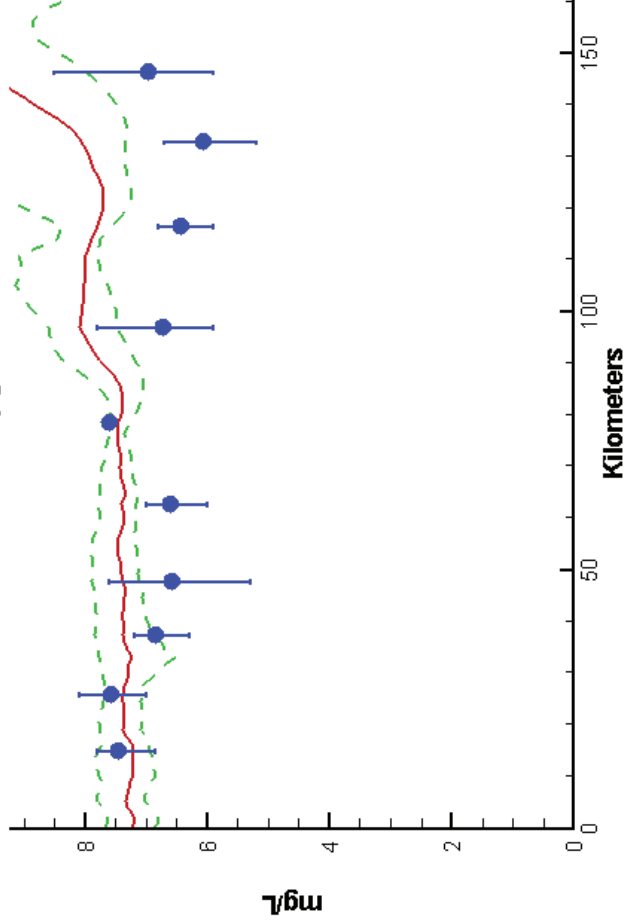


York River 2002-2011 Run185
Surface Light Extinction Summer 2010

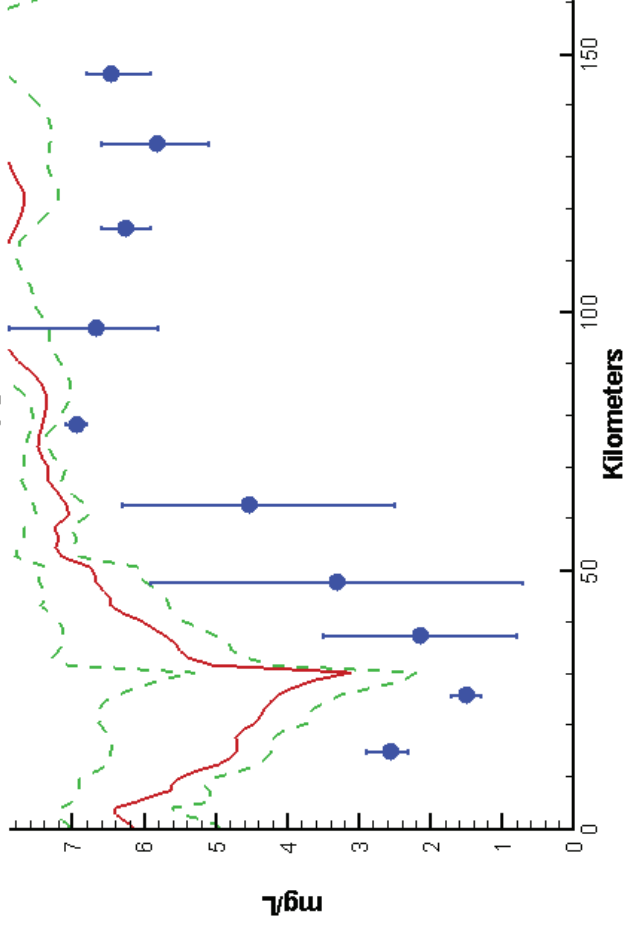


Rappahannock River - Summer - 2010

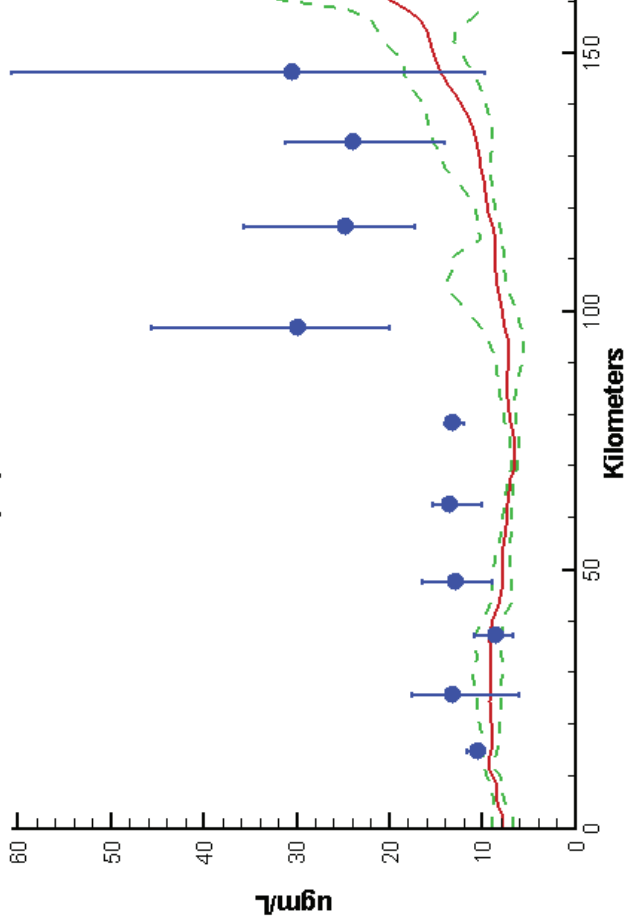
Rappahannock River 2002-2011 Run185
Surface Dissolved Oxygen Summer 2010



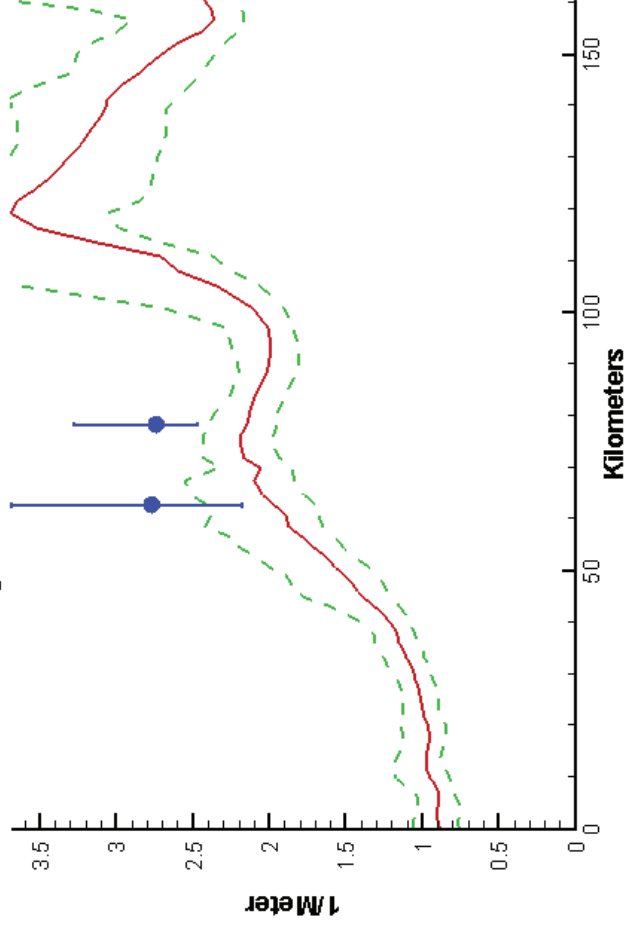
Rappahannock River 2002-2011 Run185
Bottom Dissolved Oxygen Summer 2010



Rappahannock River 2002-2011 Run185
Surface Chlorophyll Summer 2010

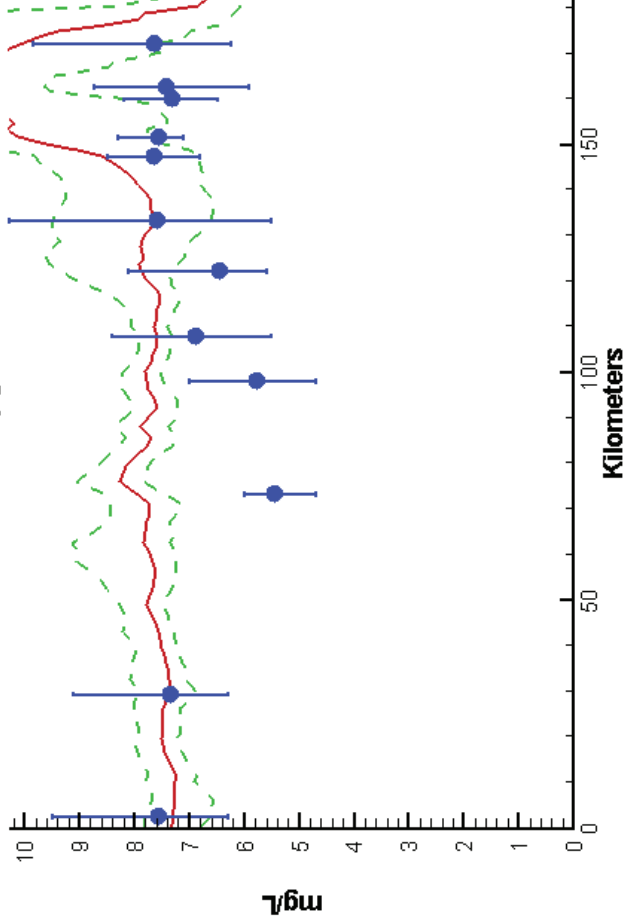


Rappahannock River 2002-2011 Run185
Surface Light Extinction Summer 2010

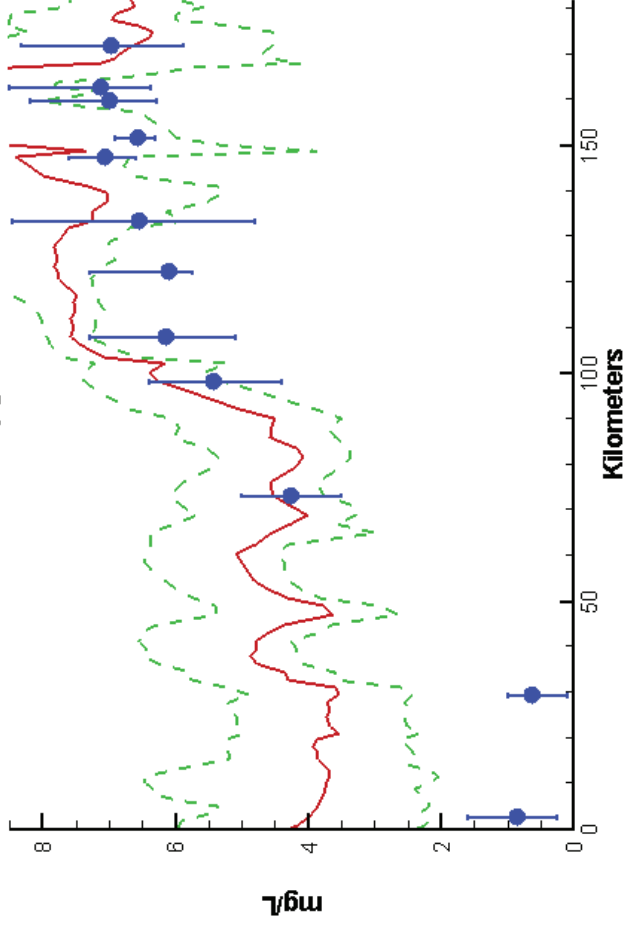


Potomac River - Summer - 2010

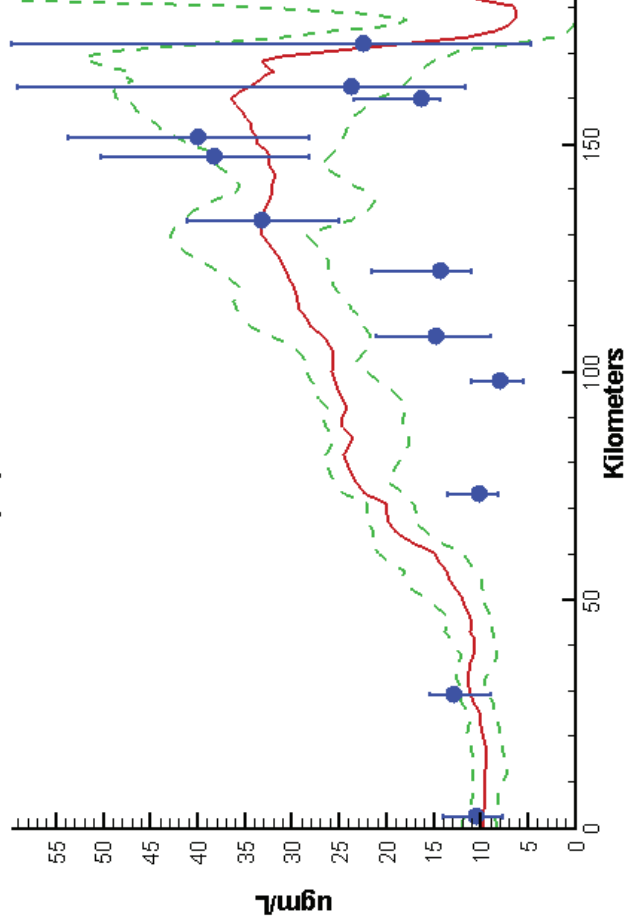
Potomac River 2002-2011 Run185
Surface Dissolved Oxygen Summer 2010



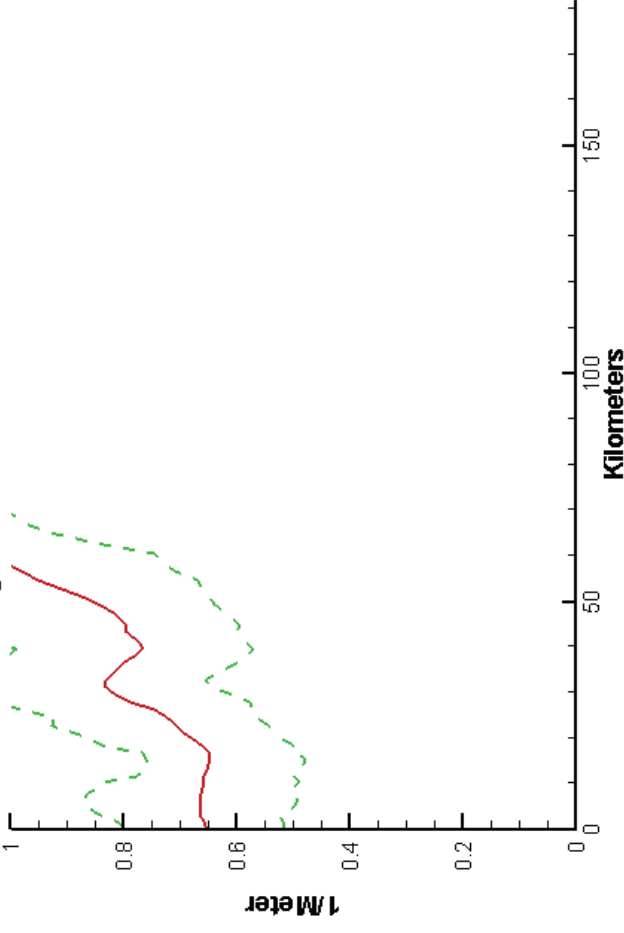
Potomac River 2002-2011 Run185
Bottom Dissolved Oxygen Summer 2010



Potomac River 2002-2011 Run185
Surface Chlorophyll Summer 2010

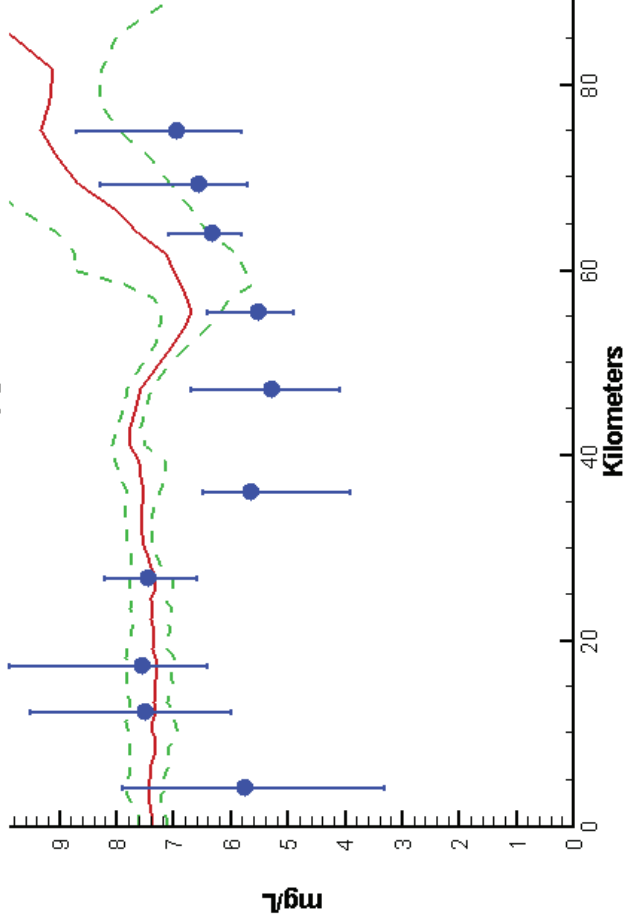


Potomac River 2002-2011 Run185
Surface Light Extinction Summer 2010

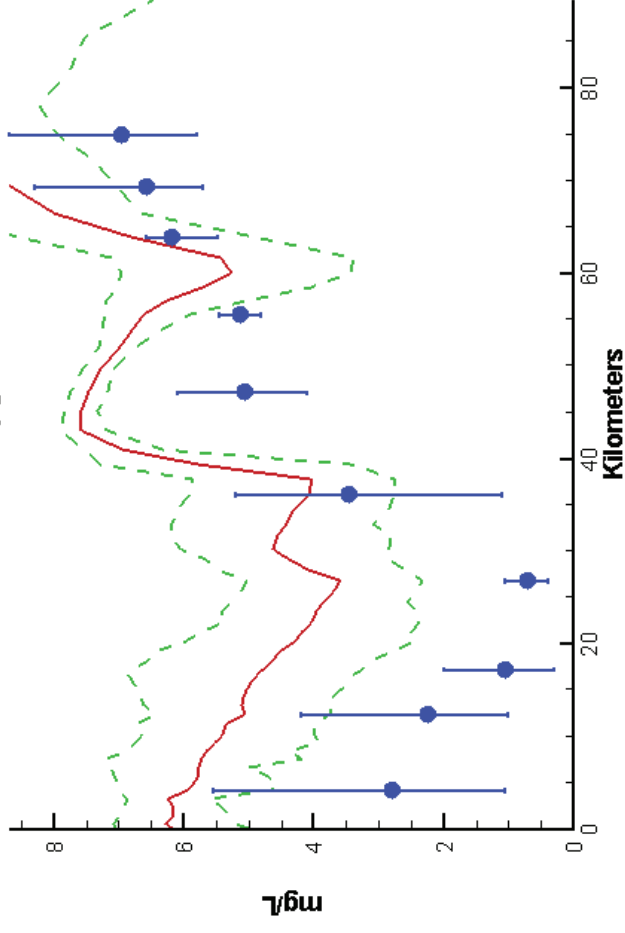


Patuxent River - Summer - 2010

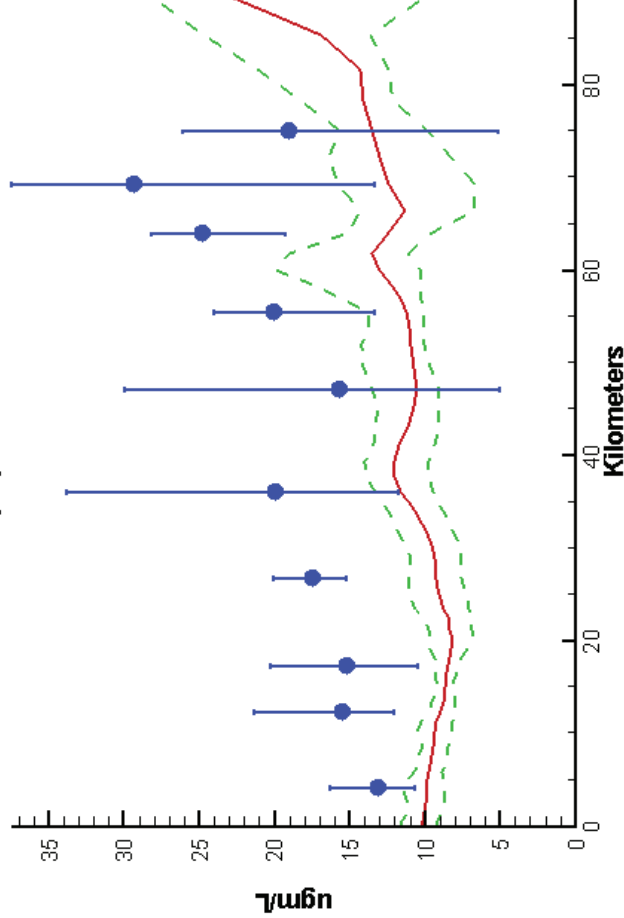
Patuxent River 2002-2011 Run185
Surface Dissolved Oxygen Summer 2010



Patuxent River 2002-2011 Run185
Bottom Dissolved Oxygen Summer 2010



Patuxent River 2002-2011 Run185
Surface Chlorophyll Summer 2010



Patuxent River 2002-2011 Run185
Surface Light Extinction Summer 2010

