2003 Body A Lease Area, Brevard County
Quality Assurance/Quality Control (QA/QC) Log

Key to Log:

File Name: Name of excel files containing the data for that month. File names have two or three parts: 1) the two-letter site abbreviation (GJ, HB, BA, etc.), 2) the year and month (ie. -0201), and 3) the nature of the file ("-raw" contains the raw, unaltered data; "-QAQC" contains the quality controlled data set as well as all corrections; the file name that ends with the year and month is the quality controlled file containing only the corrected and finalized data—this is the file sent to the archive)

Deployments: Number of different sondes that recorded data during the month and the periods of dates/times of each deployment.

Condition of Sonde: The post-deployment condition of each sonde deployed during the month. This includes information on fouling, equipment failures and whether post-deployment checks were performed.

Removed Data: Tabulation of all data points removed from a given month. "Trimming on ends of data sets" is a record of all data points removed from either the beginning or the end of the different files in order to create a seamless monthly record (most points removed here were data not recorded in the water, but rather, were point recorded prior to deployment or following retrieval); "Removal of bad data" is a record of data deemed to be of low quality (for example, data out of range of instrument, instrument or probe failures, etc… See Word file "QAQCGuidelines.doc" for criteria used). Table columns give the parameter values deleted, the reason for the deletion (see abbreviations) and the dates and times of points deleted.

Corrected data: This is a record of all data points that were corrected. This includes corrections due to instrument drift, fouling, incorrect instrument calibration, etc. Included are probe readings in the standard pre- and post-deployment and excel formulae used to calculate corrected values. Inability to correct data due to lack of proper post-deployment check procedures or substandard sonde condition (eg. heavily fouled) may also be noted here.

Missing data: This is a record of all missing data points not due to the QA/QC process (ie. not accounted for in "Removal of bad data"). A common cause for this missing data is a lag time between the retrieval of one sonde and the deployment of the second sonde or failure of the instrument to log data at a given time.

Problems and Anomalies: This is a record of troublesome trends or data points not removed from data set, but that could prove a problem in interpretation. Examples include sudden jumps in the data when sondes are changed out (reflecting drift in retrieved sonde or a lack of standardization between the two sondes). Notes regarding reliability of data (whether or not it is or may be faulty) may also be found here. **ALWAYS read this section before interpreting data.**

Abbreviations:

IF	=	Instrument Failure: Data logger returned values of –6999
PF	=	Probe Failure: Probe measuring individual parameter apparently malfunctioned.
ADL	=	Above Detection Limit: data logger returned a data point that is above the detection limit of the probe
BDL	=	Below Detection Limit: data logger returned a data point that is above the detection limit of the probe
SND	=	Sonde Not Deployed: evidence indicates that sonde was not in the water on-site when data was recorded
FOUL	=	Fouled: evidence indicates sonde was not functioning properly due to severe fouling
EXP	=	Exposed: Sonde was exposed to air due to low water level or some disturbance.
NMD	=	Next month's data: trimmed data belonged to next month
PMD	=	Previous month's data: trimmed data belonged to previous month

General Notes on Reliability of Data:
1) In general, measurements of temperature and depth are very reliable unless otherwise noted in "Problems and Anomalies".
2) Salinity is typically reliable, but this data can be compromised by bad calibrations and fouling. These effects are most obvious as sudden discontinuities in the trend when sondes are changed. If the discontinuity that occurs with a sonde change is more than +/- 2 ppt in magnitude, the discontinuity is noted as a faulty trend.
3) Measurements of dissolved oxygen are often not reliable. Typically, oxygen measurements taken soon after a sonde is deployed are reliable, but reliability decreases during the deployment period due to instrument drift and fouling. The most unreliable oxygen data is that collected near the time the sonde is retrieved. ALWAYS read "Problems and Anomalies" before interpreting dissolved oxygen! Dissolved oxygen discontinuities of +/- 25% or more coincident with sonde changes are noted as faulty if they do not fall within the actual rate of change occurring before and after the sonde change.
4) The reliability of turbidity measurements is much like that of oxygen. Turbidity measurements are best early and worst late in the deployment period.
5) The reliability of chlorophyll measurements is unknown. We do not currently know what the measurements mean in a biological context. Confirmation studies are underway.
6) If the word "**faulty**" appears regarding a trend or data period, the data should be considered highly unreliable. Do not use this data (if it wasn't deleted altogether) for anything but a general guideline to potential conditions. This designation is only used regarding data known to be of very poor quality.
7) If the phrase "**may be faulty**" appears regarding a trend or data period, the data may not be reliable. Typically, the data appears to be of reasonably good quality and probably does reflect the real trends in environmental condition, but very strict interpretation is not recommended.
8) If a proper post-deployment check was not performed, reliability of all data for that deployment period must be considered suspect.

JANUARY--2003
Files: Sondes: ;
     Data: BA -0301-raw, BA -0301-QAQC, BA -0306

Deployments: ();

Condition of Sondes:

Removed Data:
   Trimming on ends of data sets:

File	Reason	Data Points

Removal of bad data:

Parameter(s)	Problem	Data Points

Corrected Data:

    Specific Conductivity:
        standard, probe
        Formula:
        Salinity
    Oxygen:
        pre-deployment O2:
        post-deployment O2:
        standard 100, probe ; O2 correction =
        Formula:
        Conversion for O2 concentration:

    Turbidity:
        standard 0, probe; standard 100, probe
        Formula:
    Chlorophyll:
        standard 0.0, probe
        Formula:

Missing Data:

Problems and Anomalies:

FEBRUARY--2003
Files: Sondes: ;
     Data: BA -0302-raw, BA -0302-QAQC, BA-0302

Deployments: ();

Condition of Sondes:

Removed Data:
   Trimming on ends of data sets:

File	Reason	Data Points

   Removal of bad data:

Parameter(s)	Problem	Data Points

Corrected Data:

     Specific Conductivity:
         standard, probe
         Formula:
         Salinity
     Oxygen:
         pre-deployment O2:
         post-deployment O2:
         standard 100, probe ; O2 correction =
         Formula:
         Conversion for O2 concentration:

     Turbidity:
         standard 0, probe; standard 100, probe
         Formula:
     Chlorophyll:
         standard 0.0, probe
         Formula:

Missing Data:

Problems and Anomalies:

<u>MARCH--2003</u>
Files: Sondes: ;
    Data: BA-0303-raw, BA-0303-QAQC, BA-0303

Deployments: ();

Condition of Sondes:

Removed Data:
  Trimming on ends of data sets:

File	Reason	Data Points

Removal of bad data:

Parameter(s)	Problem	Data Points

Corrected Data:

    <u>Specific Conductivity</u>:
        standard, probe
        Formula:
        Salinity
    <u>Oxygen</u>:
        pre-deployment O2:
        post-deployment O2:
        standard 100, probe ; O2 correction =
        Formula:
        Conversion for O2 concentration:

    <u>Turbidity</u>:
        standard 0, probe; standard 100, probe
        Formula:
    <u>Chlorophyll</u>:
        standard 0.0, probe
        Formula:

Missing Data:

Problems and Anomalies:

APRIL--2003
Files: Sondes: ;
        Data: BA-0304-raw, BA-0304-QAQC, BA-0304

Deployments: ();

Condition of Sondes:

Removed Data:
    Trimming on ends of data sets:

File	Reason	Data Points

    Removal of bad data:

Parameter(s)	Problem	Data Points

Corrected Data:

    Specific Conductivity:
            standard, probe
            Formula:
            Salinity
    Oxygen:
            pre-deployment O2:
            post-deployment O2:
            standard 100, probe ; O2 correction =
            Formula:
            Conversion for O2 concentration:

    Turbidity:
            standard 0, probe; standard 100, probe
            Formula:
    Chlorophyll:
            standard 0.0, probe
            Formula:

Missing Data:

Problems and Anomalies:

MAY--2003

Files: Sondes: ;
        Data: BA-0305-raw, BA-0305-QAQC, BA-0305

Deployments: ();

Condition of Sondes:

Removed Data:
  Trimming on ends of data sets:

File	Reason	Data Points

  Removal of bad data:

Parameter(s)	Problem	Data Points

Corrected Data:

    Specific Conductivity:
        standard, probe
        Formula:
        Salinity
    Oxygen:
        pre-deployment O2:
        post-deployment O2:
        standard 100, probe ; O2 correction =
        Formula:
        Conversion for O2 concentration:

    Turbidity:
        standard 0, probe; standard 100, probe
        Formula:
    Chlorophyll:
        standard 0.0, probe
        Formula:

Missing Data:

Problems and Anomalies:

JUNE--2003
Files: Sondes: ;
  Data: BA-0306-raw, BA-0306-QAQC, BA-0306

Deployments: ();

Condition of Sondes:

Removed Data:
 Trimming on ends of data sets:

File	Reason	Data Points

 Removal of bad data:

Parameter(s)	Problem	Data Points

Corrected Data:

  Specific Conductivity:
   standard, probe
   Formula:
   Salinity
  Oxygen:
   pre-deployment O2:
   post-deployment O2:
   standard 100, probe ; O2 correction =
   Formula:
   Conversion for O2 concentration:

  Turbidity:
   standard 0, probe; standard 100, probe
   Formula:
  Chlorophyll:
   standard 0.0, probe
   Formula:

Missing Data:

Problems and Anomalies:

JULY-2003
Files: Sondes: ;
     Data: BA-0307-raw, BA-0307-QAQC, BA-0307

Deployments: (5); 6/23-7/2, 7/2-7/10, 7/10-7/21, 7/21-7/29, 7/29-8/11

Condition of Sondes: 6/23-7/2 (light probe and sonde fouling), 7/2-7/10 (light probe fouling), 7/10-7/21 (very light sonde and probe fouling), 7/21-7/29 (very light sonde and probe fouling), 7/29-8/11 ()

Removed Data:

Parameter(s)	Problem	Data Points

Corrected Data:
6/23-7/2

Specific Conductivity:
standard 0, 10, probe 1.503, 9.932
Formula:
Salinity =(0.7071*Q2)-2.8618

Oxygen:
pre-deployment O2: 103.75
post-deployment O2:107.53
standard 100, probe 108
Formula: =(-((107.53-103.75)/(B69-B2))*(B2-B2))+F2 +(100-103.75)
Conversion for O2 concentration: =3.31-(0.0859*D2)-(0.0312*R2)+(0.0664*O2)

Turbidity:
standard 0, probe –1.6; standard 123, probe na
Formula: =(-((-1.6-0)/(B69-B2))*(B2-B2))+J2

Chlorophyll:
standard 0.0, probe 0.2
Formula: =(-((0.2-0)/(B69-B2))*(B2-B2))+K2

7/2-7/10

Specific Conductivity:
standard 0 & 10, probe 0.9 & 9.753
Formula: =(-((9.753-10)/(B453-B70))*(B70-B70))+D70
Salinity =(0.7178*Q70)-3.317

Oxygen:
pre-deployment O2: 99.38
post-deployment O2: 85.45
standard 100, probe 86
Formula: =(-((85.45-99.38)/(B453-B70))*(B70-B70))+F70 +(100-99.38)
Conversion for O2 concentration:=2.78-(0.0733*D70)-(0.0219*R70)+(0.0654*O70)

Turbidity:
standard 0, probe –1.7; standard 100, probe 95.6
Formula: =((((((100/97.3)-1)*(J70))-(-1.7))*((B70-B70)/(B453-B70)))+J70

Chlorophyll:
standard 0.0, probe 0.1

Formula: =(-(((0.1-0)/(B453-B70))*(B70-B70))+K70

7/10-7/21

Specific Conductivity:
standard 0 & 10, probe 2.022 & 10.03
Formula: =(-(((10.03-10)/(B981-B454))*(B454-B454))+D454
Salinity =(0.6841*Q454)-1.9214

Oxygen:
pre-deployment O2: 84.55
post-deployment O2: 102.86
standard 100, probe 103.6
Formula: =(-(((102.86-84.55)/(B981-B454))*(B454-B454))+F454 +(100-84.55)
Conversion for O2 concentration:=3.28-(0.0807*D454)-(0.0341*R454)+(0.0658*O454)

Turbidity:
standard 0, probe –1.9; standard 100, probe na
Formula: =(-(((-1.9-0)/(B981-B454))*(A454-B454))+J454

Chlorophyll:
standard 0.0, probe 0.3
Formula: =(-(((0.3-0)/(B981-B454))*(B454-B454))+K454

7/21-7/29

Specific Conductivity:
standard 0 & 10, probe 1.238 & 11.8
Formula: =(-(((11.8-10)/(B1361-B982))*(B982-B982))+D982
Salinity =(0.6867*Q982)-2.0601

Oxygen:
pre-deployment O2: 89.8
post-deployment O2: 87.72
standard 100, probe 86
Formula: =(-(((87.72-89.8)/(B1361-B982))*(B982-B982))+F982 +(100-89.8)
Conversion for O2 concentration:=2.77-(0.0693*D982)-(0.0267*R982)+(0.0656*O982)

Turbidity:
standard 0, probe –0.1; standard 100, probe na
Formula: =(-(((-0.1-0)/(B1361-B982))*(A982-B982))+J982

Chlorophyll:
standard 0.0, probe –0.4
Formula: =(-(((-0.4-0)/(B1361-B982))*(B982-B982))+K982

7/29-8/11

Specific Conductivity:
standard 0 & 10, probe 1.753 & 9.794
Formula: =(-(((9.794-10)/(B1989-B983))*(B1362-B983))+D1362
Salinity =(0.6878*Q1362)-2.1417

Oxygen:
pre-deployment O2: 92.48
post-deployment O2: 96.86
standard 100, probe 100.3
Formula: =(-(((96.86-92.48)/(B1989-B1362))*(B1362-B1362))+F1362 +(100-92.48)
Conversion for O2 concentration:=3.21-(0.097*D1362)-(0.0198*R1362)+(0.0687*O1362)

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<u>Turbidity:</u>
standard 0, probe 5.4; standard 100, probe na
Formula: =(-((-5.4-0)/(B1989-B1362))*(A1362-B1362))+J1362

<u>Chlorophyll</u>:
standard 0.0, probe 0.2
Formula: =(-((-0.2-0)/(B1989-B1362))*(B1363-B1362))+K1363

<u>Missing Data</u>:

<u>Problems and Anomalies</u>:
<u>Oxygen</u> 7/2 1000: Discontinuity. When sondes were changed on 7/2 oxygen went from 63% to 82%. This discontinuity is **<u>faulty</u>**.
<u>Oxygen</u> 7/10 1000: Discontinuity. When sondes were changed on 7/10 oxygen went from 61% to 90%. This discontinuity is **<u>faulty</u>**.
<u>Oxygen</u> 7/21 1000: Discontinuity. When sondes were changed on 7/21 oxygen went from 52% to 79%. This discontinuity is **<u>faulty</u>**.
<u>Oxygen</u> 7/29 800: Discontinuity. When sondes were changed on 7/29 oxygen went from 68% to 82%. This discontinuity is **<u>faulty</u>**.

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AUGUST--2003
Files: Sondes: Ba030729, Ba030811, Ba030825;
    Data: BA-0308-raw, BA-0308-QAQC, BA-0308

Deployments: (3) 7/29-8/11, 8/11-8/25, 8/25-9/8;

Condition of Sondes: 7/29-8/11 (), 8/11-8/25 (light fouling), 8/25-9/8 (very light fouling)

Removed Data:
  Removal of bad data:

Parameter(s)	Problem	Data Points

Corrected Data:
7/29-8/11
    **corrected as for July
8/11-8/25
    Specific Conductivity:
        standard 10, probe 9.94
        Formula: =(-((9.94-10)/(B1175-B502))*(B502-B502))+E502
        Salinity =(0.698*Q502)-2.5
    Oxygen:
        pre-deployment O2: 93.8
        post-deployment O2: 84
        Formula: =(-((84-93.88)/(B1175-B502))*(B502-B502))+G502 +(100-93.8)
        Conversion for O2 concentration:=3.22-(0.096*D502)-(0.0199*R502)+(0.0682*O502)
    Turbidity:
        standard 0, probe 2.7; standard 100, probe NA
        Formula: =(-((2.7)/(B1175-B502))*(B502-B502))+K502
    Chlorophyll:
        standard 0.0, probe 1.3
        Formula: =(-((1.3-0)/(B1175-B502))*(B502-B502))+L502
8/25-9/8
    Specific Conductivity:
        standard 10, probe 10.14
        Formula: =(-((10.14-10)/(B1845-B1176))*(B1176-B1176))+E1176
        Salinity =(0.6896*Q1176)-2.2189
    Oxygen:
        pre-deployment O2: 102.6
        post-deployment O2: 91.6
        Formula: =(-((91.6-102.6)/(B1845-B1176))*(B1176-B1176))+G1176 +(100-102.6)
        Conversion for O2 concentration:=3.62-(0.0968*D1176)-(0.0367*R1176)+(0.068*O1176)
    Turbidity:
        standard 0, probe 1.0; standard 100, probe NA
        Formula: =(-((1)/(B1845-B1176))*(B1176-B1176))+K1176
    Chlorophyll:
        standard 0.0, probe 0.4

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Formula: =(-((0.4-0)/(B1845-B1176))*(B1176-B1176))+L1176

Problems and Anomalies:

Oxygen 8/11 1000: Discontinuity. When sondes were changed on 8/11 oxygen went from 84% to 92%. This discontinuity is **<u>faulty</u>**.

Oxygen 8/25 1100: Discontinuity. When sondes were changed on 8/25 oxygen went from 74% to 88%. This discontinuity is **<u>faulty</u>**.

Turbidity: Numerous spikes ADL. Turbidity spiked above detection limit of probe (1000NTU) numerous times, but these were individual spikes likely not resulting from fouling. These were retained, but actual values above 1000NTU are likely not correct.

SEPTEMBER--2003

Files: Data: BA-0309-raw, BA-0309-QAQC, BA-0309

Deployments: (3); 8/25-9/8, 9/8-9/19, 9/19-10/3

Condition of Sondes: 8/25-9/8 (very light fouling), 9/8-9/19 (very light fouling), 9/19-10/3 (light fouling)

Removed Data:

Parameter(s)	Problem	Data Points
Oxygen	PF	numerous between 9/19 and 10/3

Corrected Data:

8/25-9/8

    Specific Conductivity:
        standard 10, probe 10.14
        Formula: =(-((10.14-10)/(B1845-B1176))*(B1176-B1176))+E1176
        Salinity =(0.6896*Q1176)-2.2189

    Oxygen:
        pre-deployment O2: 102.6
        post-deployment O2: 91.6
        Formula: =(-((91.6-102.6)/(B1845-B1176))*(B1176-B1176))+G1176 +(100-102.6)
        Conversion for O2 concentration:=3.62-(0.0968*D1176)-(0.0367*R1176)+(0.068*O1176)

    Turbidity:
        standard 0, probe 1.0; standard 100, probe NA
        Formula: =(-((1)/(B1845-B1176))*(B1176-B1176))+K1176

    Chlorophyll:
        standard 0.0, probe 0.4
        Formula: =(-((0.4-0)/(B1845-B1176))*(B1176-B1176))+L1176

9/8-9/19

    Specific Conductivity:
        standard 10, probe 9.775
        Formula: =(-((9.775-10)/(B1200-B672))*(B672-B672))+E672
        Salinity =(0.7082*Q672)-2.863

    Oxygen:
        pre-deployment O2: 86.175
        post-deployment O2: 80.95
        Formula: =(-((80.95-86.175)/(B1200-B672))*(B672-B672))+G672 +(100-86.175)
        Conversion for O2 concentration:=3.14-(0.0863*D672)-(0.0296*R672)+(0.0683*O672)

    Turbidity:
        standard 0, probe 1.9; standard 100, probe na
        Formula: =(-((1.9)/(B1200-B672))*(B672-B672))+K672

    Chlorophyll:
        standard 0.0, probe 0.4
        Formula: =(-((0.4-0)/(B1200-B672))*(B672-B672))+L672

9/19-10/3

    Specific Conductivity:
        standard 10, probe 11.02
        Formula: =(-((11.02-10)/(B1871-B1201))*(B1201-B1201))+E1201

Salinity =(0.7036*Q1201)-2.6737

Oxygen:

pre-deployment O2: 102.825

post-deployment O2: 102.125

Formula: =(-((102.125-102.825)/(B1871-B1201))*(B1201-B1201))+G1201 +(100-102.825)

Conversion for O2 concentration:=3.08-(0.0912*D1201)-(0.0248*R1201)+(0.0695*O1201)

Turbidity:

standard 0, probe –2.3; standard 100, probe na

Formula: =(-((-2.3)/(B1871-B1201))*(B1201-B1201))+K1201

Chlorophyll:

standard 0.0, probe 45.4

**Not Corrected. See Below.

Problems and Anomalies:

Oxygen 9/19-10/3: DO charge went above acceptable limit (75) numerous times during deployment period. The corresponding oxygen values were deemed **faulty** and were deleted.

Chlorophyll 9/19-10/3: Probe read 45.4 in 0.0 standard. Values recorded by probe in the field were in the single digits, thus if correction were applied to data, values would be strongly negative. This suggests some malfunction during the post-deployment check. Correction was not applied and original data were retained, but data **may be faulty** due to drift or fouling.

OCTOBER--2003

Files: BA-0310-raw, BA-0310-QAQC, BA-0310

Deployments: (4); 9/19-10/3, 10/3-10/13, 10/13-10/27, 10/27-11/7

Condition of Sondes: 9/19-10/3 (light fouling), 10/3-10/13 (light fouling), 10/13-10/27 (moderate fouling), 10/27-11/7 (very light fouling)

Removed Data:

Parameter(s)	Problem	Data Points
Oxygen	PF	numerous between 9/19 and 10/3

Corrected Data:

9/19-10/3

    <u>Specific Conductivity</u>:

        standard 10, probe 11.02

        Formula: =(-((11.02-10)/(B1871-B1201))*(B1201-B1201))+E1201

        Salinity =(0.7036*Q1201)-2.6737

    <u>Oxygen</u>:

        pre-deployment O2: 102.825

        post-deployment O2: 102.125

        Formula: =(-((102.125-102.825)/(B1871-B1201))*(B1201-B1201))+G1201 +(100-102.825)

        Conversion for O2 concentration:=3.08-(0.0912*D1201)-(0.0248*R1201)+(0.0695*O1201)

    <u>Turbidity</u>:

        standard 0, probe –2.3; standard 100, probe na

        Formula: =(-((-2.3)/(B1871-B1201))*(B1201-B1201))+K1201

    <u>Chlorophyll</u>:

        standard 0.0, probe 45.4

        **Not Corrected. See Below.

10/3-10/13

    <u>Specific Conductivity</u>:

        standard 10, probe 11.4

        Formula: =(-((11.4-10)/(B1152-B673))*(B673-B673))+E673

        Salinity =(0.7227*Q673)-3.4398

    <u>Oxygen</u>:

        pre-deployment O2: 89.97

        post-deployment O2: 77.14

        standard 100, probe 76.1

        Formula: =(-((77.14-89.97)/(B1152-B673))*(B673-B673))+G673 +(100-89.97)

        Conversion for O2 concentration:=3.43-(0.0952*D673)-(0.0331*R673)+(0.0689*O673)

    <u>Turbidity</u>:

        standard 0, probe 0.2; standard 100, probe na

        Formula: =(((((100/100)-1)*(J673))-(0.2))*((B673-B673)/(B1152-B673)))+K673

    <u>Chlorophyll</u>:

        standard 0.0, probe 0.9

        Formula: =(-((0.9-0)/(B1152-B673))*(B673-B673))+L673

10/13-10/27

Specific Conductivity:
      standard 10, probe 10.6
      Formula: =(-((10.6-10)/(B1826-B1153))*(B1153-B1153))+E1153
      Salinity =(0.7297*Q1153)-3.717

Oxygen:
      pre-deployment O2: 98.8
      post-deployment O2: 100.45
      standard 100, probe 93.5
      Formula: =(-((98.8-100.45)/(B1826-B1153))*(B1153-B1153))+G1153 +(100-100.45)
      Conversion for O2 concentration:=3.56-(0.105*D1153)-(0.0339*R1153)+(0.0706*O1153)

Turbidity:
      standard 0, probe 25.8; standard 100, probe na
      Formula: =(((((100/100)-1)*(J1153))-(0))*((B1153-B673)/(B1152-B673)))+K1153-25.8

Chlorophyll:
      standard 0.0, probe 0
      Formula: =(-((0-0)/(B1826-B1153))*(B1153-B1153))+L1153

10/27-11/7

Specific Conductivity:
      standard 10, probe 10.66
      Formula: =(-((10.66-10)/(B2355-B1827))*(B1827-B1827))+E1827
      Salinity =(0.7214*Q1827)-3.3504

Oxygen:
      pre-deployment O2: 89.475
      post-deployment O2: 88.22
      standard 100, probe 87.6
      Formula: =(-((88.2-89.457)/(B2355-B1827))*(B1827-B1827))+G1827 +(100-89.475)
      Conversion for O2 concentration:=2.76-(0.0822*D1827)-(0.0253*R1827)+(0.0706*O1827)

Turbidity:
      standard 0, probe 1.3; standard 100, probe na
      Formula: =(((((100/100)-1)*(J1827))-(1.3))*((B1827-B1827)/(B2355-B1827)))+K1827

Chlorophyll:
      standard 0.0, probe 2.8
      Formula: =(-((0-0)/(B1826-B1153))*(B1827-B1153))+L1827

Problems and Anomalies:

Oxygen 9/19-10/3: DO charge went above acceptable limit (75) numerous times during deployment period. The corresponding oxygen values were deemed **faulty** and were deleted.

Chlorophyll 9/19-10/3: Probe read 45.4 in 0.0 standard. Values recorded by probe in the field were in the single digits, thus if correction were applied to data, values would be strongly negative. This suggests some malfunction during the post-deployment check. Correction was not applied and original data were retained, but data **may be faulty** due to drift or fouling.

NOVEMBER--2003
Files: BA-0311-raw, BA-0311-QAQC, BA-0311

Deployments: (3); 10/27-11/7, 11/7-11/17, 11/17-12/8

Condition of Sondes: 10/27-11/7 (very light fouling), 11/7-11/17 (very light fouling), 11/17-12/8 (no data)

Removed Data:

Parameter(s)	Problem	Data Points

Corrected Data:
10/27-11/7
    Specific Conductivity:
        standard 10, probe 10.66
        Formula: =(-((10.66-10)/(B2355-B1827))*(B1827-B1827))+E1827
        Salinity =(0.7214*Q1827)-3.3504
    Oxygen:
        pre-deployment O2: 89.475
        post-deployment O2: 88.22
        standard 100, probe 87.6
        Formula: =(-((88.2-89.457)/(B2355-B1827))*(B1827-B1827))+G1827 +(100-89.475)
        Conversion for O2 concentration:=2.76-(0.0822*D1827)-(0.0253*R1827)+(0.0706*O1827)
    Turbidity:
        standard 0, probe 1.3; standard 100, probe na
        Formula: =(((((100/100)-1)*(J1827))-(1.3))*((B1827-B1827)/(B2355-B1827)))+K1827
    Chlorophyll:
        standard 0.0, probe 2.8
        Formula: =(-((0-0)/(B1826-B1153))*(B1827-B1153))+L1827
11/7-11/17
    Specific Conductivity:
        standard 10, probe 11.22
        Formula: =(-((11.22-10)/(B1013-B531))*(B531-B531))+E531
        Salinity =(0.741*Q531)-4.2544
    Oxygen:
        pre-deployment O2: 108.74
        post-deployment O2: 110.23
        standard 100, probe 94.6
        Formula: =(-((110.23-108.74)/(B1014-B531))*(B531-B531))+G531 +(100-108.74)
        Conversion for O2 concentration:=3.54-(0.104*D531)-(0.0356*R531)+(0.0713*O531)

    Turbidity:
        standard 0, probe 0.1; standard 100, probe na
        Formula: =(((((100/100)-1)*(J531))-(0.1))*((B531-B531)/(B1013-B531)))+K531
    Chlorophyll:
        standard 0.0, probe 0.2
        Formula: =(-((0-0.2)/(B1013-B531))*(B531-B531))+L531
11/17-12/8

**No data.

Problems and Anomalies:
Oxygen and Turbidity 11/15-11/17: Oxygen suddenly decreased and turbidity suddenly increased above detection limit during this period. Cause is unknown. The probes were not fouled upon retrieval. The turbidity probe did not calibrate correctly but does appear to have functioned properly up until 11/15. This anomaly could be a real event. Unfortunately, no data was available for period proceeding this deployment from which this trend could be confirmed.
All parameters 11/17-12/8: No data recorded by sonde.