

# **Lower Minnesota River Oxygen Dynamics Assessments**

## **APPENDIX D**

**TOTAL COMMUNITY OXYGEN METABOLISM**

**AND**

**COMMUNITY SUBSTRATE OXYGEN DEMAND**



Figure D1 , Community Metabolic Curve - MR 39.5 top sonde

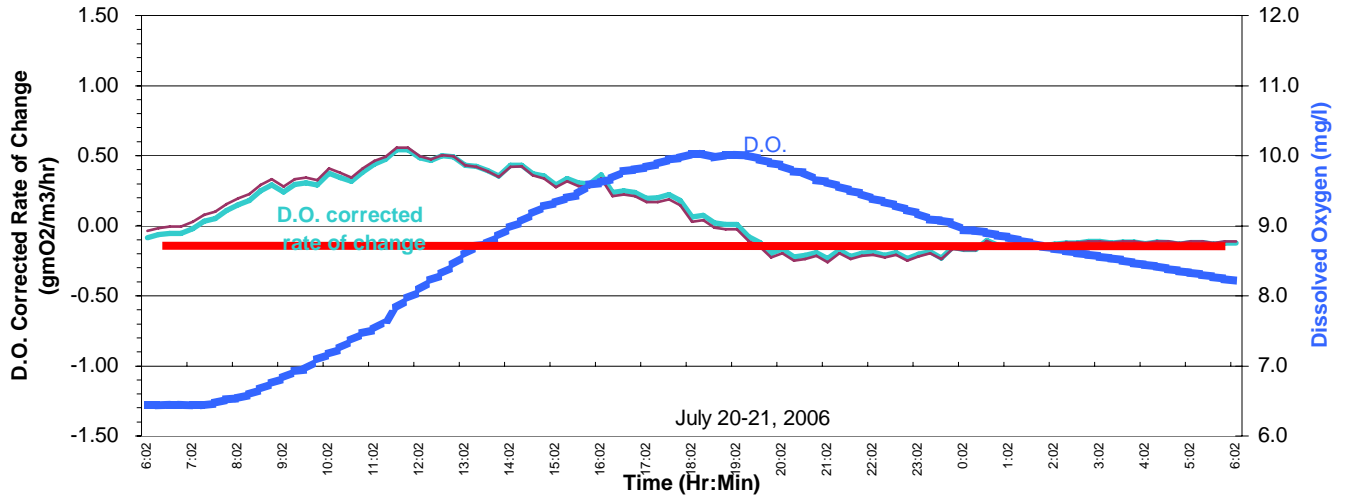


Figure D2 , Community Metabolic Curve - MR 39.5 bot sonde

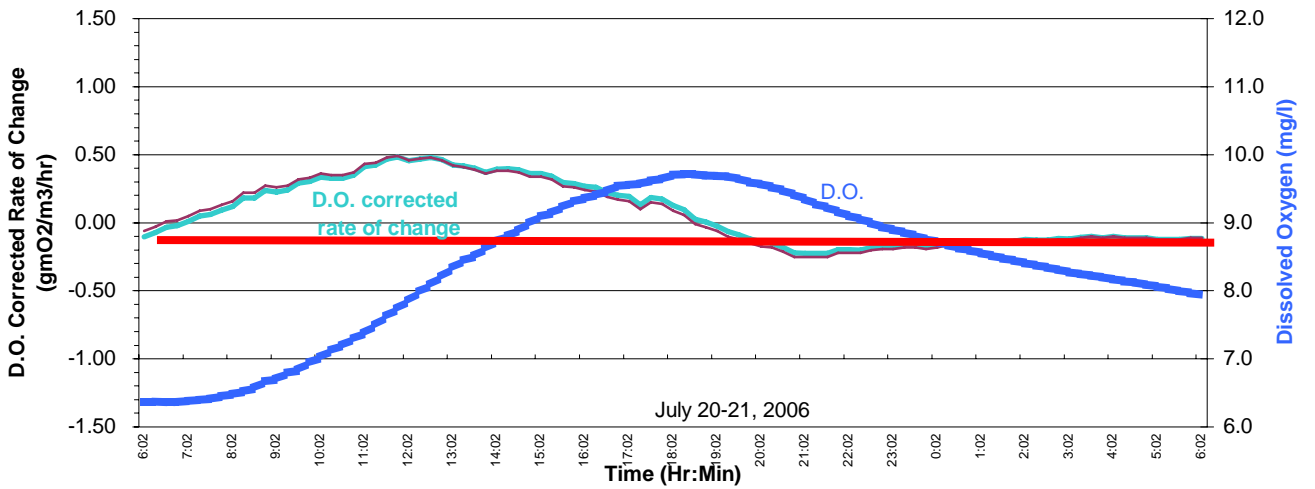


Figure D3 , Community Metabolic Curve - MR 21 upper sonde

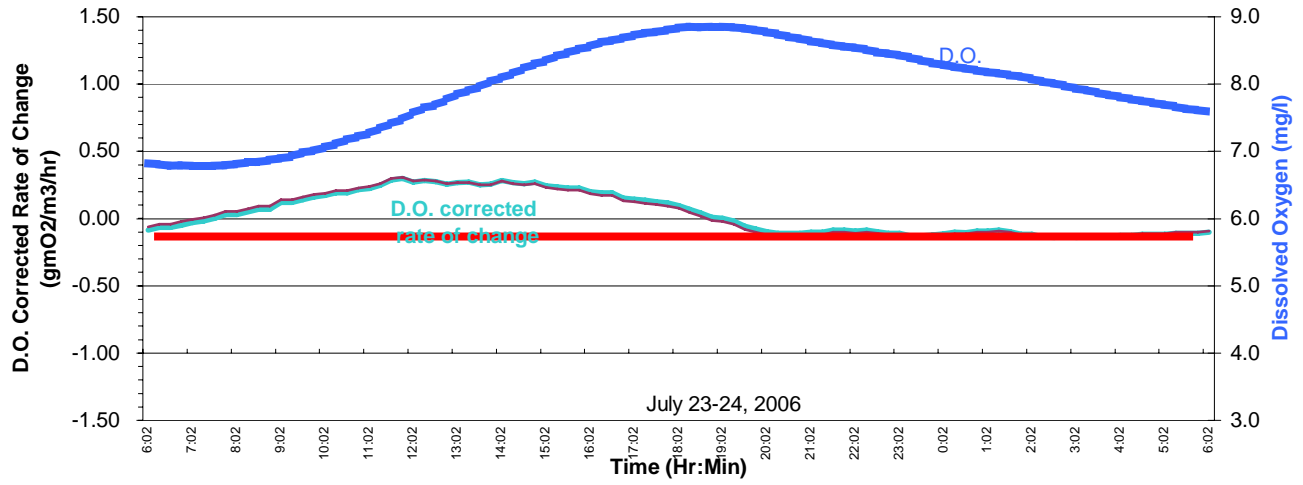


Figure D4 , Community Metabolic Curve - MR 21 lower sonde

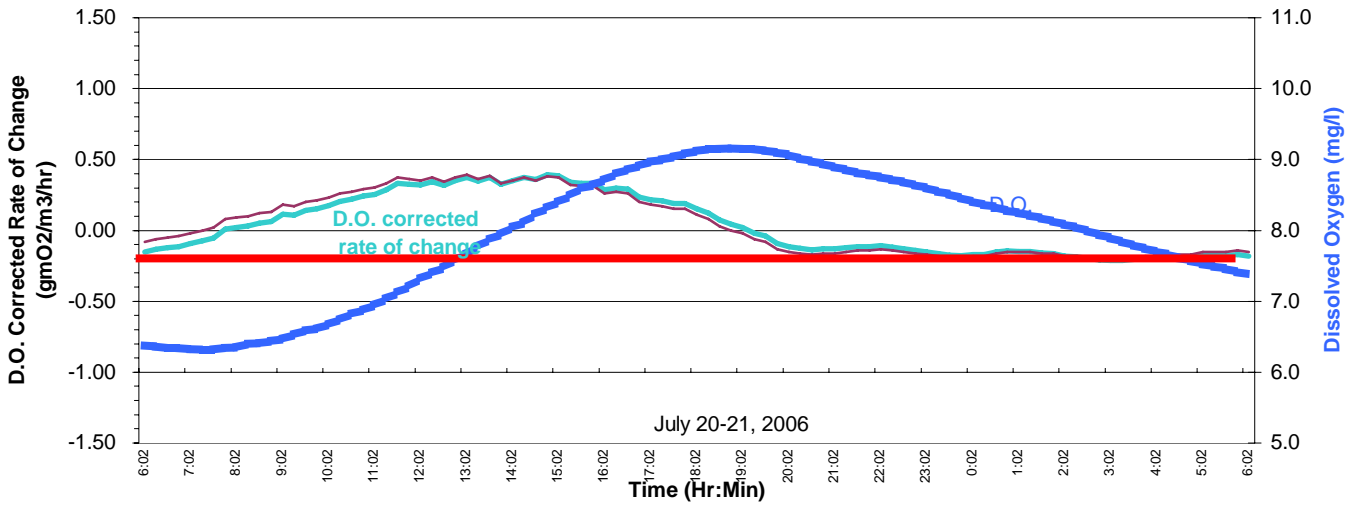


Figure D5 , Community Metabolic Curve - MR 15 lower sonde

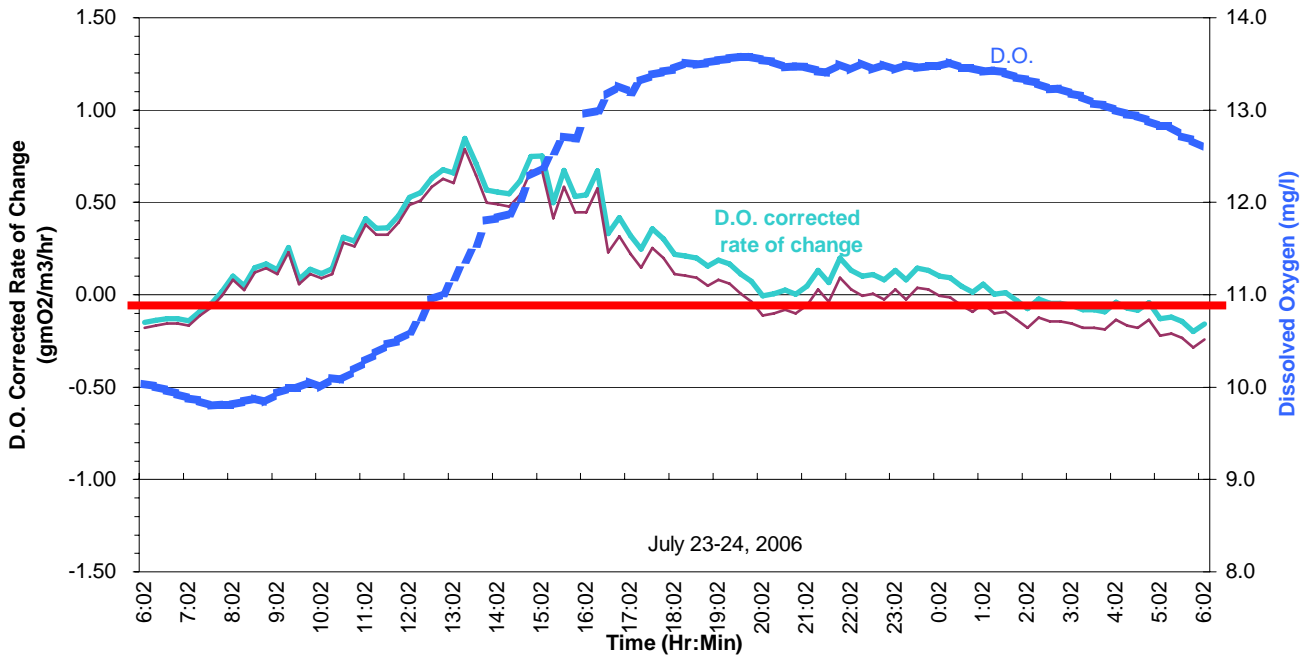


Figure D6 , Community Metabolic Curve - MR 11 lower sonde

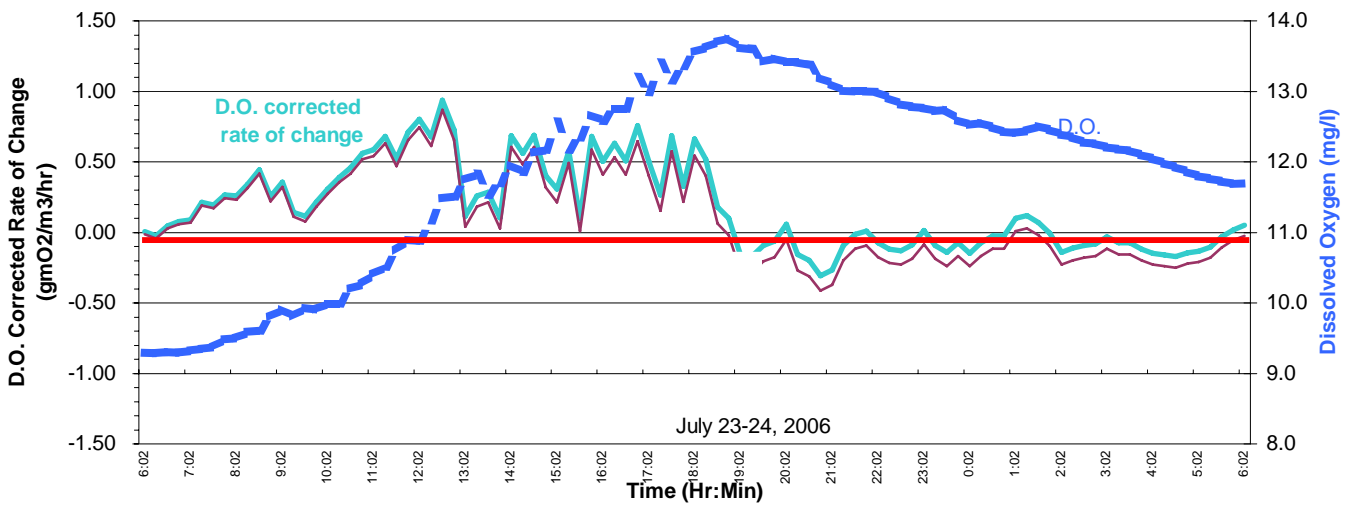


Figure D7 , Community Metabolic Curve - MR 6.7 top sonde

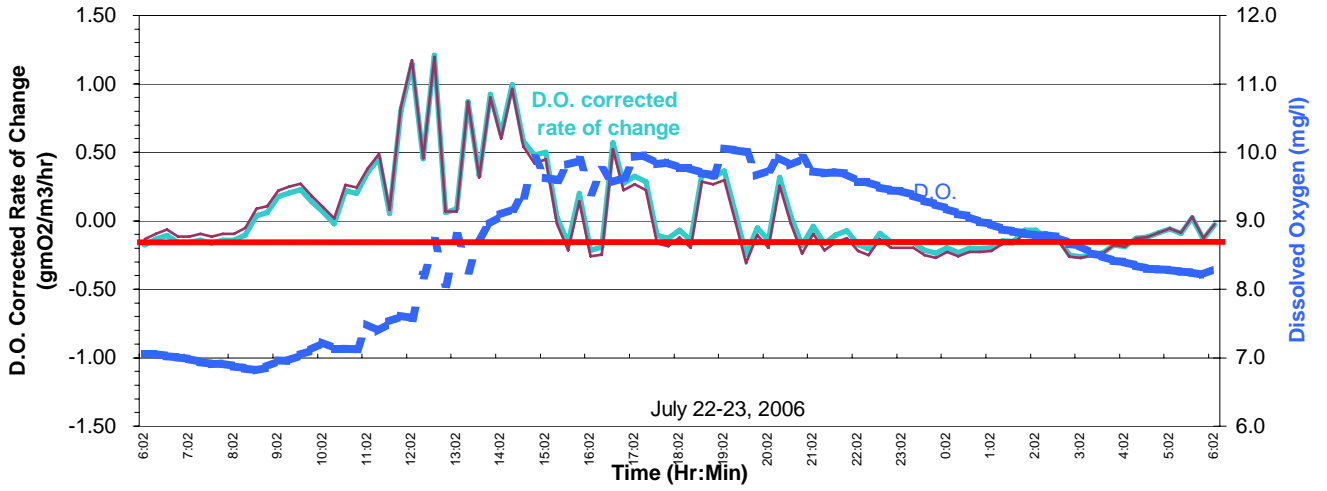


Figure D8 , Community Metabolic Curve - MR 6.7 lower sonde

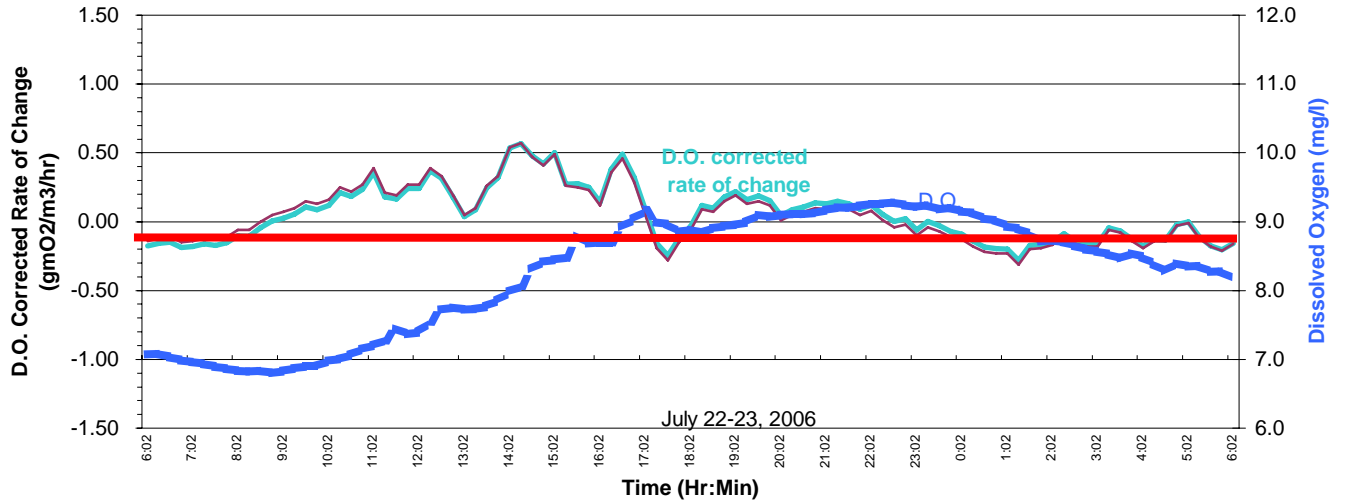


Figure , Community Metabolic Curve - MR 1.2 top sonde

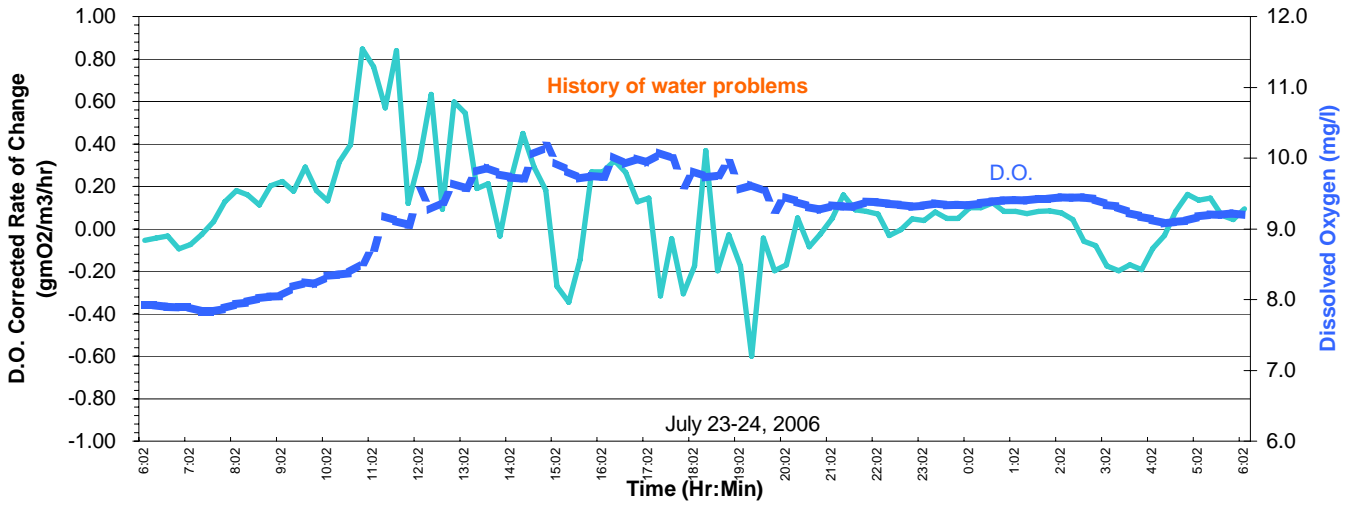


Figure , Community Metabolic Curve - MR 1.2 lower sonde

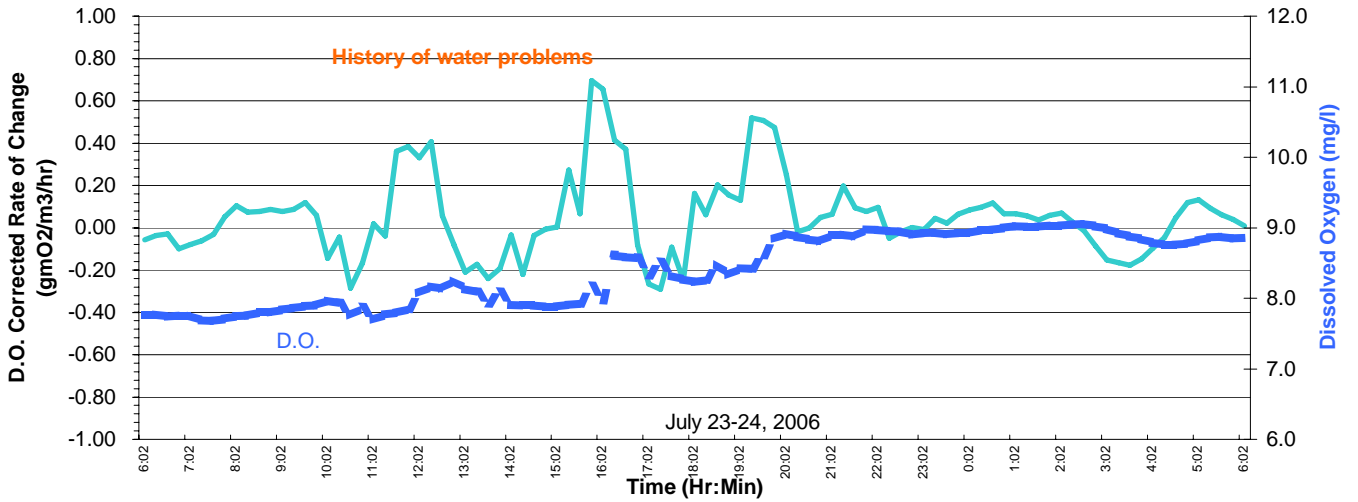


Figure D11 , Community Metabolic Curve - MR 22 lower sonde

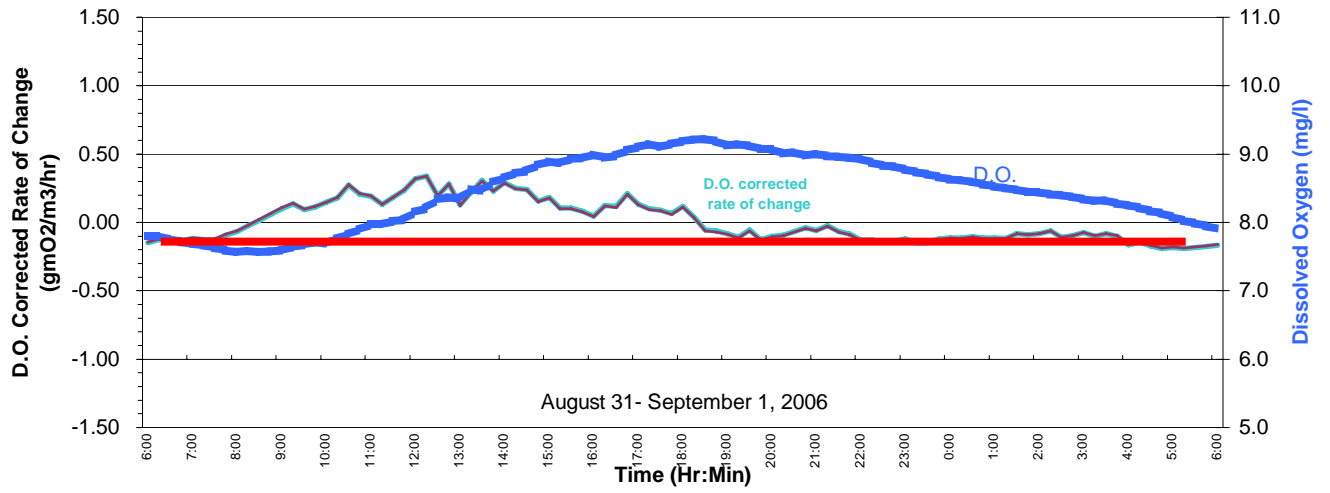


Figure D12 , Community Metabolic Curve - MR 21 lower sonde

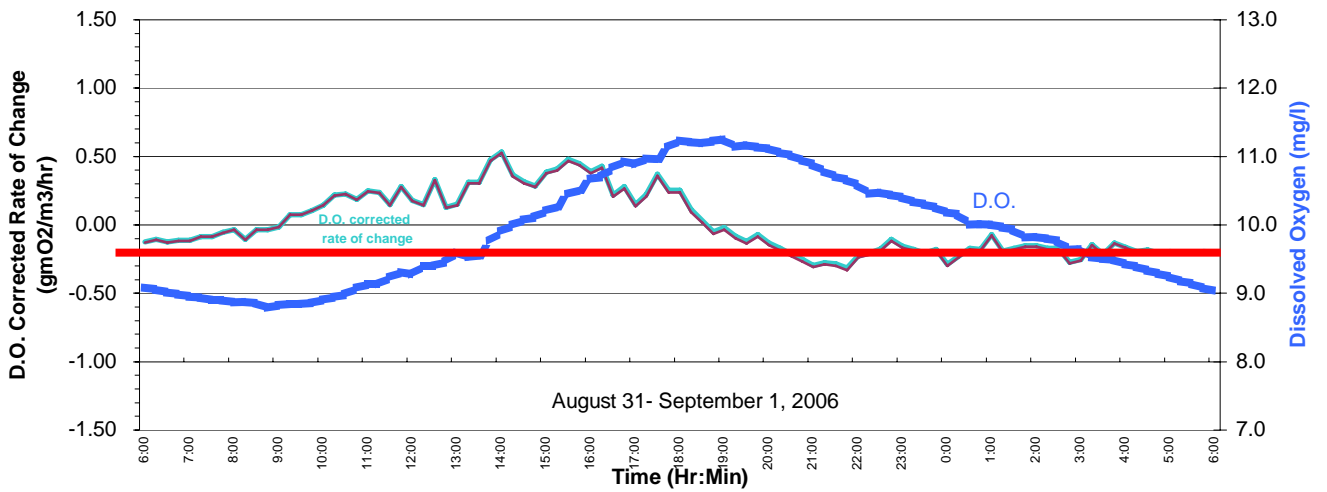


Figure D13 , Community Metabolic Curve - MR 15 lower sonde

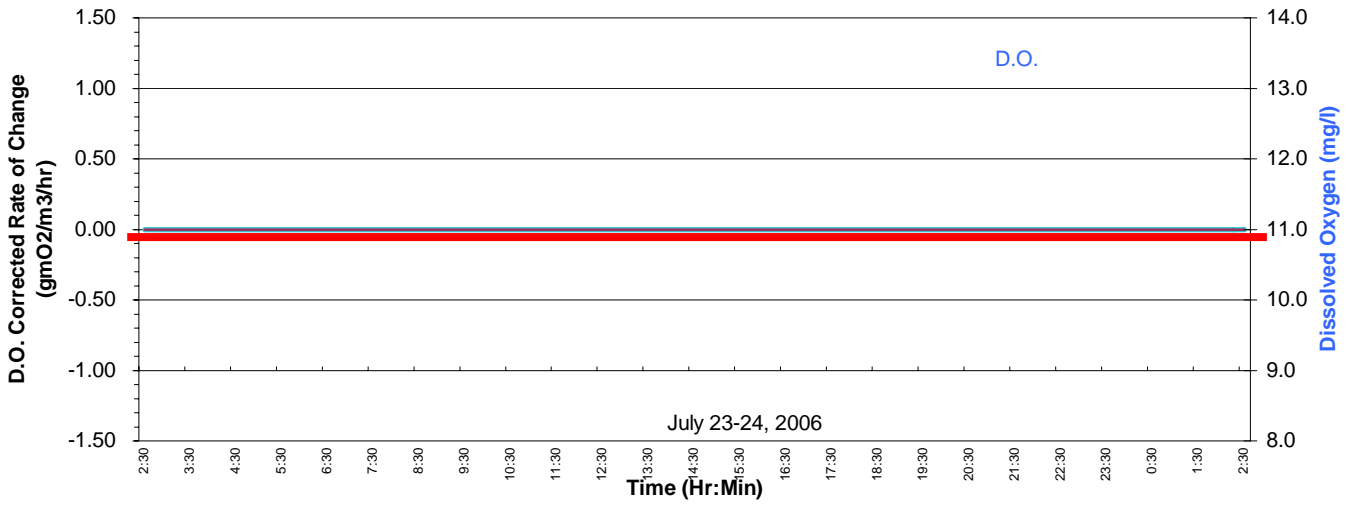


Figure D14 , Community Metabolic Curve - MR 11 lower sonde

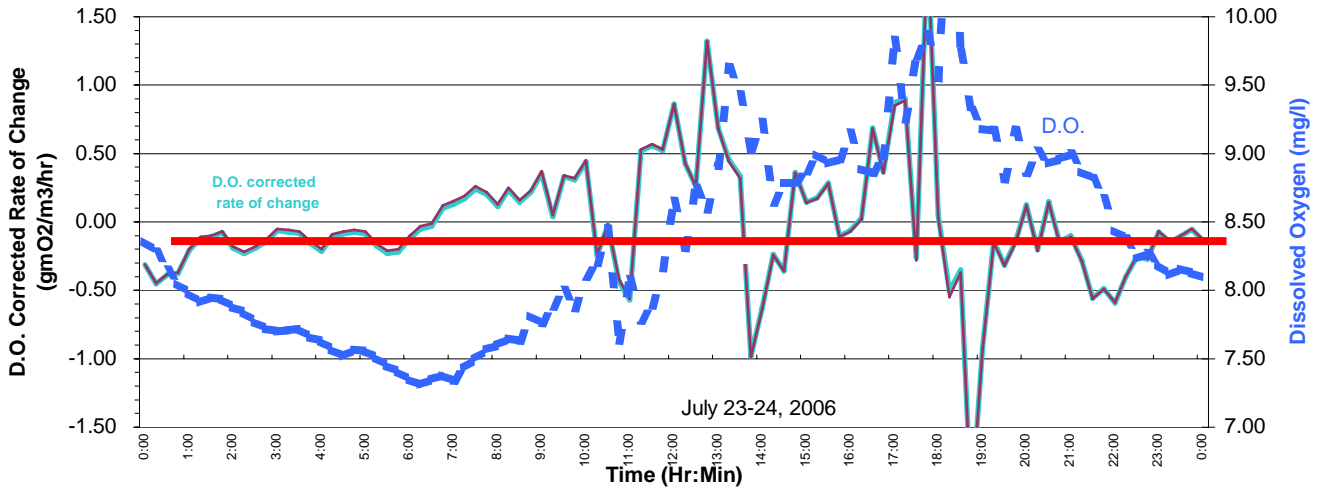


Figure D15 , Community Metabolic Curve - MR 6.7 top sonde

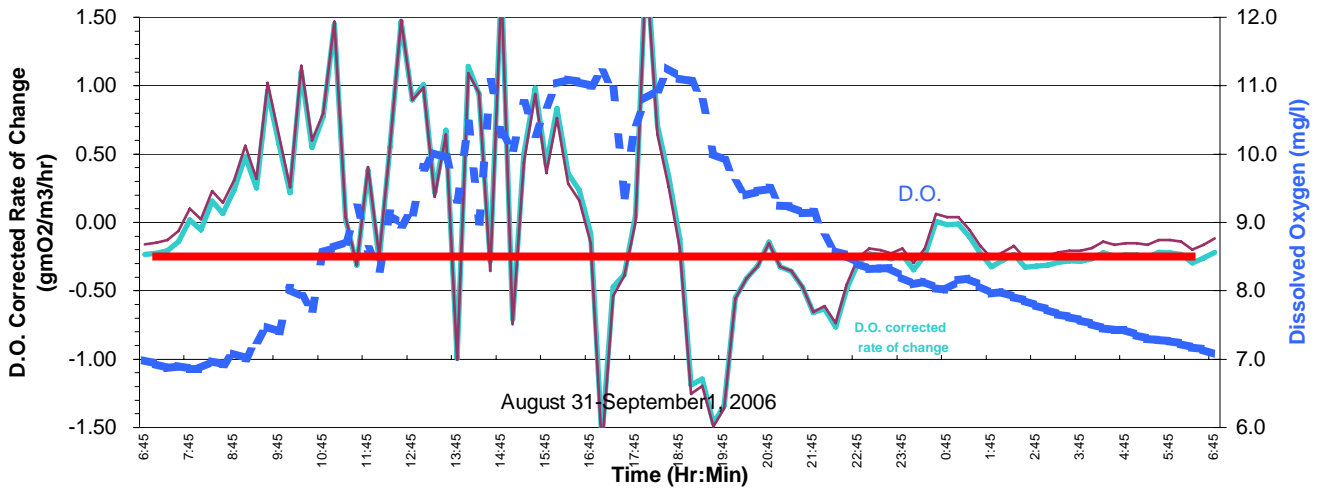


Figure D16 , Community Metabolic Curve - MR 6.7 lower sonde

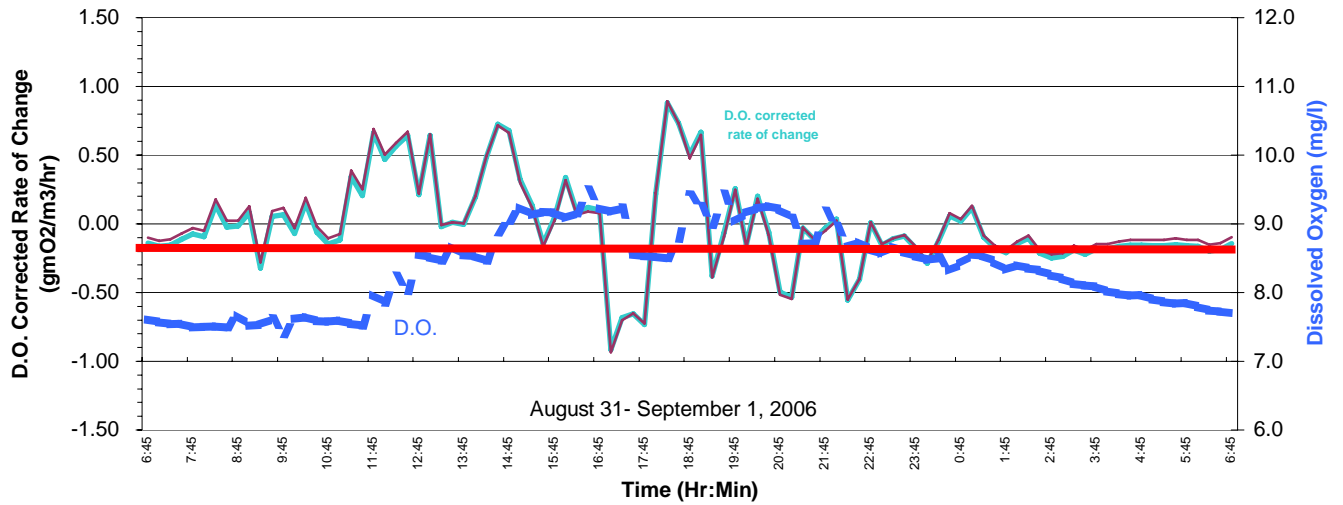
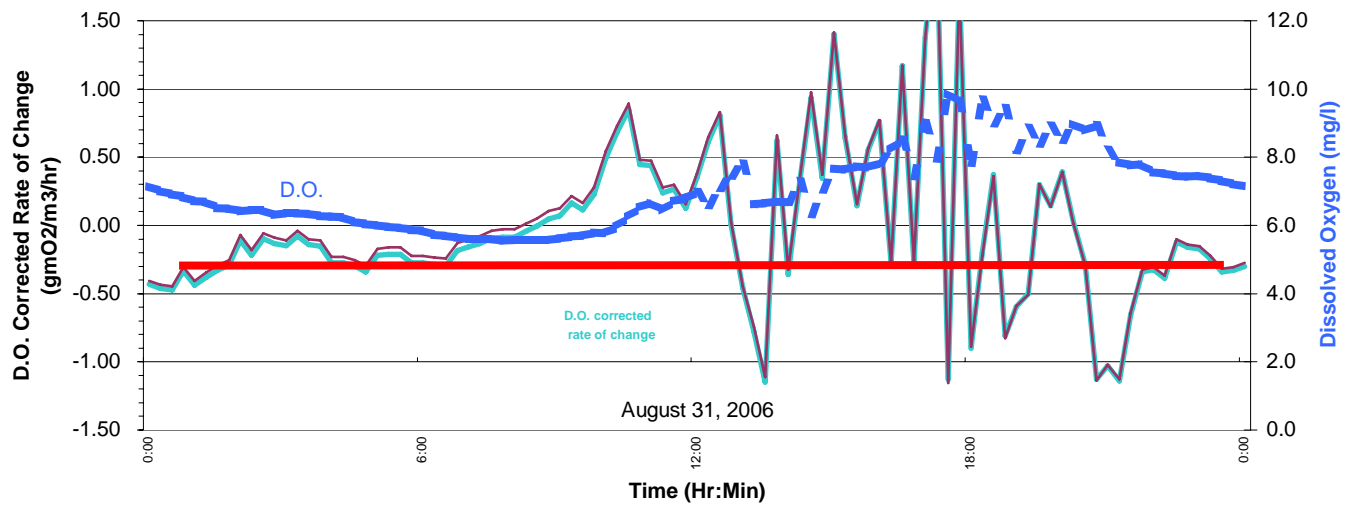
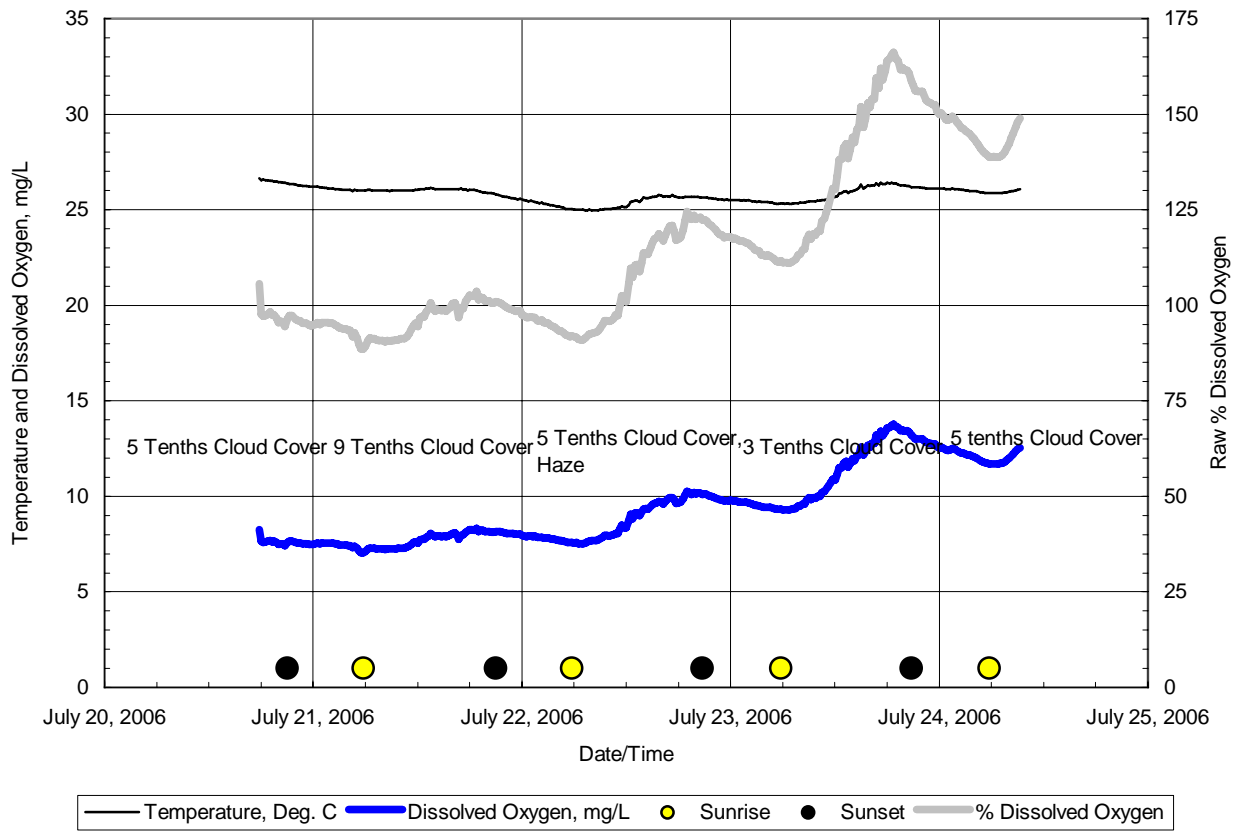


Figure D17 , Community Metabolic Curve - MR 1.2 lower sonde



**FIGURE D-18**  
**Minnesota River RM-11, Half Way between the Center of the Photic Zone and the Channel Bottom**



**FIGURE D-19**  
**Minnesota River at RM-15, Readings from the Bottom Sonde**

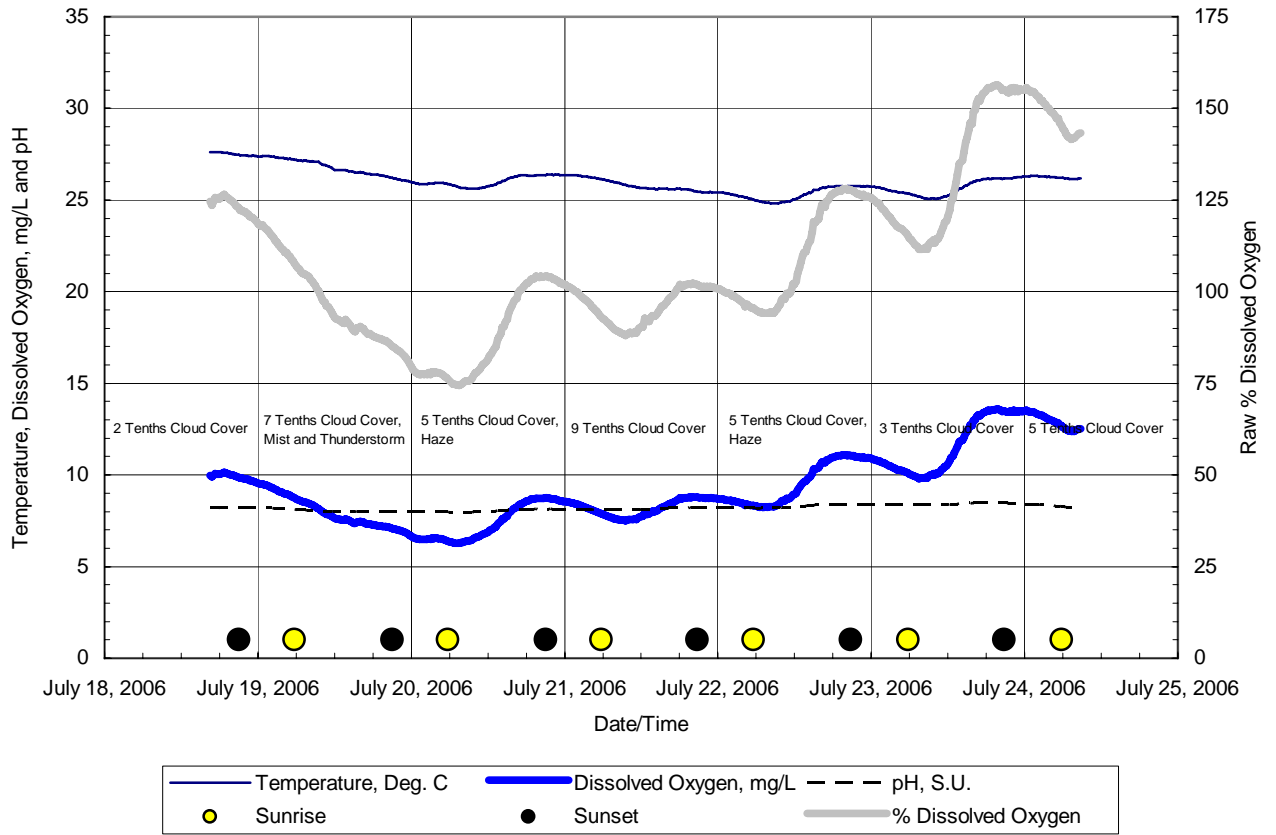


Table D-1  
 Top Sonde community Metabolic Data @ Station 39.5  
 Minnesota River  
 Minneapolis, Minnesota  
 July, 2006

===== Date m/d/y -----	===== Time hh:mm:ss -----	===== Temp C -----	===== DOsat % -----	===== DO mg/L -----
7/20/2006	6:02:00	25.4	75	6.4
7/20/2006	6:17:00	25.4	75	6.4
7/20/2006	6:32:00	25.4	75	6.4
7/20/2006	6:47:00	25.3	75	6.4
7/20/2006	7:02:00	25.3	74	6.4
7/20/2006	7:17:00	25.3	74	6.4
7/20/2006	7:32:00	25.3	75	6.5
7/20/2006	7:47:00	25.3	75	6.5
7/20/2006	8:02:00	25.3	75	6.5
7/20/2006	8:17:00	25.3	76	6.6
7/20/2006	8:32:00	25.3	77	6.7
7/20/2006	8:47:00	25.3	78	6.8
7/20/2006	9:02:00	25.3	79	6.8
7/20/2006	9:17:00	25.4	80	6.9
7/20/2006	9:32:00	25.4	80	6.9
7/20/2006	9:47:00	25.4	82	7.1
7/20/2006	10:02:00	25.4	83	7.2
7/20/2006	10:17:00	25.5	84	7.3
7/20/2006	10:32:00	25.5	85	7.4
7/20/2006	10:47:00	25.6	86	7.5
7/20/2006	11:02:00	25.6	87	7.5
7/20/2006	11:17:00	25.7	89	7.7
7/20/2006	11:32:00	25.7	91	7.8
7/20/2006	11:47:00	25.8	92	8.0
7/20/2006	12:02:00	25.8	94	8.1
7/20/2006	12:17:00	25.9	96	8.2
7/20/2006	12:32:00	25.9	97	8.3
7/20/2006	12:47:00	26.0	98	8.4
7/20/2006	13:02:00	26.1	100	8.6
7/20/2006	13:17:00	26.1	102	8.7
7/20/2006	13:32:00	26.2	102	8.7
7/20/2006	13:47:00	26.2	104	8.9

7/20/2006	14:02:00	26.3	105	9.0
7/20/2006	14:17:00	26.3	106	9.1
7/20/2006	14:32:00	26.4	107	9.2
7/20/2006	14:47:00	26.4	109	9.3
7/20/2006	15:02:00	26.5	110	9.3
7/20/2006	15:17:00	26.5	110	9.4
7/20/2006	15:32:00	26.5	111	9.4
7/20/2006	15:47:00	26.6	113	9.6
7/20/2006	16:02:00	26.6	113	9.6
7/20/2006	16:17:00	26.6	114	9.7
7/20/2006	16:32:00	26.7	115	9.8
7/20/2006	16:47:00	26.7	115	9.8
7/20/2006	17:02:00	26.7	116	9.8
7/20/2006	17:17:00	26.7	116	9.9
7/20/2006	17:32:00	26.7	117	9.9
7/20/2006	17:47:00	26.7	117	10.0
7/20/2006	18:02:00	26.7	118	10.0
7/20/2006	18:17:00	26.7	118	10.0
7/20/2006	18:32:00	26.7	117	10.0
7/20/2006	18:47:00	26.7	118	10.0
7/20/2006	19:02:00	26.7	117	10.0
7/20/2006	19:17:00	26.7	117	10.0
7/20/2006	19:32:00	26.7	117	10.0
7/20/2006	19:47:00	26.6	116	9.9
7/20/2006	20:02:00	26.6	115	9.9
7/20/2006	20:17:00	26.6	114	9.8
7/20/2006	20:32:00	26.6	114	9.8
7/20/2006	20:47:00	26.5	113	9.7
7/20/2006	21:02:00	26.5	112	9.6
7/20/2006	21:17:00	26.5	112	9.6
7/20/2006	21:32:00	26.4	111	9.5
7/20/2006	21:47:00	26.4	110	9.5
7/20/2006	22:02:00	26.4	109	9.4
7/20/2006	22:17:00	26.3	109	9.3
7/20/2006	22:32:00	26.3	108	9.3
7/20/2006	22:47:00	26.3	107	9.2
7/20/2006	23:02:00	26.3	107	9.2
7/20/2006	23:17:00	26.3	105	9.1
7/20/2006	23:32:00	26.2	105	9.1
7/20/2006	23:47:00	26.2	105	9.0
7/21/2006	0:02:00	26.2	104	8.9
7/21/2006	0:17:00	26.2	103	8.9
7/21/2006	0:32:00	26.1	103	8.9
7/21/2006	0:47:00	26.1	102	8.9
7/21/2006	1:02:00	26.1	102	8.8
7/21/2006	1:17:00	26.1	101	8.8

7/21/2006	1:32:00	26.1	101	8.8
7/21/2006	1:47:00	26.1	100	8.7
7/21/2006	2:02:00	26.0	100	8.7
7/21/2006	2:17:00	26.0	100	8.7
7/21/2006	2:32:00	26.0	99	8.6
7/21/2006	2:47:00	26.0	99	8.6
7/21/2006	3:02:00	26.0	99	8.6
7/21/2006	3:17:00	26.0	98	8.5
7/21/2006	3:32:00	26.0	98	8.5
7/21/2006	3:47:00	25.9	97	8.5
7/21/2006	4:02:00	25.9	97	8.4
7/21/2006	4:17:00	25.9	97	8.4
7/21/2006	4:32:00	25.9	96	8.4
7/21/2006	4:47:00	25.9	96	8.4
7/21/2006	5:02:00	25.9	96	8.3
7/21/2006	5:17:00	25.8	95	8.3
7/21/2006	5:32:00	25.8	95	8.3
7/21/2006	5:47:00	25.8	94	8.2
7/21/2006	6:02:00	25.8	94	8.2

Table D-2  
 Lower Sonde community Metabolic Data @ Station 39.5  
 Minnesota River  
 Minneapolis, Minnesota  
 July, 2006

===== Date m/d/y -----	===== Time hh:mm:ss -----	===== Temp C -----	===== DOsat % -----	===== DO mg/L -----
7/20/2006	6:02:00	25.4	77.5	6.4
7/20/2006	6:17:00	25.4	77.4	6.4
7/20/2006	6:32:00	25.4	77.3	6.4
7/20/2006	6:47:00	25.4	77.3	6.4
7/20/2006	7:02:00	25.4	77.5	6.4
7/20/2006	7:17:00	25.3	77.7	6.4
7/20/2006	7:32:00	25.3	77.8	6.4
7/20/2006	7:47:00	25.3	78.3	6.5
7/20/2006	8:02:00	25.3	78.7	6.5
7/20/2006	8:17:00	25.3	79.1	6.5
7/20/2006	8:32:00	25.3	79.8	6.6
7/20/2006	8:47:00	25.4	81.0	6.7
7/20/2006	9:02:00	25.4	81.5	6.7
7/20/2006	9:17:00	25.4	82.6	6.8
7/20/2006	9:32:00	25.4	83.0	6.8
7/20/2006	9:47:00	25.4	84.5	6.9
7/20/2006	10:02:00	25.5	85.6	7.0
7/20/2006	10:17:00	25.5	86.8	7.1
7/20/2006	10:32:00	25.5	87.7	7.2
7/20/2006	10:47:00	25.6	89.0	7.3
7/20/2006	11:02:00	25.6	90.0	7.4
7/20/2006	11:17:00	25.7	91.6	7.5
7/20/2006	11:32:00	25.7	93.3	7.6
7/20/2006	11:47:00	25.8	94.8	7.7
7/20/2006	12:02:00	25.8	96.3	7.9
7/20/2006	12:17:00	25.9	98.0	8.0
7/20/2006	12:32:00	25.9	99.4	8.1
7/20/2006	12:47:00	26.0	100.8	8.2
7/20/2006	13:02:00	26.1	102.7	8.3
7/20/2006	13:17:00	26.2	104.1	8.4
7/20/2006	13:32:00	26.2	104.9	8.5
7/20/2006	13:47:00	26.2	106.4	8.6
7/20/2006	14:02:00	26.3	108.0	8.7
7/20/2006	14:17:00	26.4	109.0	8.8

7/20/2006	14:32:00	26.4	110.2	8.9
7/20/2006	14:47:00	26.5	111.6	9.0
7/20/2006	15:02:00	26.5	112.9	9.1
7/20/2006	15:17:00	26.5	113.6	9.1
7/20/2006	15:32:00	26.6	114.7	9.2
7/20/2006	15:47:00	26.6	115.9	9.3
7/20/2006	16:02:00	26.6	116.5	9.4
7/20/2006	16:17:00	26.7	117.0	9.4
7/20/2006	16:32:00	26.7	117.9	9.5
7/20/2006	16:47:00	26.7	118.9	9.5
7/20/2006	17:02:00	26.7	119.1	9.6
7/20/2006	17:17:00	26.7	119.3	9.6
7/20/2006	17:32:00	26.7	120.0	9.6
7/20/2006	17:47:00	26.7	120.3	9.6
7/20/2006	18:02:00	26.8	121.0	9.7
7/20/2006	18:17:00	26.7	121.1	9.7
7/20/2006	18:32:00	26.7	121.2	9.7
7/20/2006	18:47:00	26.7	121.1	9.7
7/20/2006	19:02:00	26.7	120.9	9.7
7/20/2006	19:17:00	26.7	120.7	9.7
7/20/2006	19:32:00	26.7	120.2	9.7
7/20/2006	19:47:00	26.7	119.6	9.6
7/20/2006	20:02:00	26.6	119.2	9.6
7/20/2006	20:17:00	26.6	118.7	9.5
7/20/2006	20:32:00	26.6	118.0	9.5
7/20/2006	20:47:00	26.6	117.1	9.4
7/20/2006	21:02:00	26.5	116.3	9.4
7/20/2006	21:17:00	26.5	115.3	9.3
7/20/2006	21:32:00	26.5	114.6	9.2
7/20/2006	21:47:00	26.4	113.8	9.2
7/20/2006	22:02:00	26.4	113.0	9.1
7/20/2006	22:17:00	26.4	112.3	9.1
7/20/2006	22:32:00	26.4	111.7	9.0
7/20/2006	22:47:00	26.3	110.8	8.9
7/20/2006	23:02:00	26.3	110.3	8.9
7/20/2006	23:17:00	26.3	109.7	8.9
7/20/2006	23:32:00	26.3	109.1	8.8
7/20/2006	23:47:00	26.2	108.5	8.8
7/21/2006	0:02:00	26.2	107.8	8.7
7/21/2006	0:17:00	26.2	107.2	8.7
7/21/2006	0:32:00	26.2	106.7	8.6
7/21/2006	0:47:00	26.2	106.3	8.6
7/21/2006	1:02:00	26.1	105.7	8.6
7/21/2006	1:17:00	26.1	105.2	8.5
7/21/2006	1:32:00	26.1	104.7	8.5
7/21/2006	1:47:00	26.1	104.3	8.4

7/21/2006	2:02:00	26.1	103.8	8.4
7/21/2006	2:17:00	26.1	103.4	8.4
7/21/2006	2:32:00	26.0	103.0	8.3
7/21/2006	2:47:00	26.0	102.5	8.3
7/21/2006	3:02:00	26.0	102.1	8.3
7/21/2006	3:17:00	26.0	101.8	8.3
7/21/2006	3:32:00	26.0	101.4	8.2
7/21/2006	3:47:00	26.0	101.1	8.2
7/21/2006	4:02:00	26.0	100.7	8.2
7/21/2006	4:17:00	25.9	100.3	8.1
7/21/2006	4:32:00	25.9	100.0	8.1
7/21/2006	4:47:00	25.9	99.6	8.1
7/21/2006	5:02:00	25.9	99.2	8.1
7/21/2006	5:17:00	25.9	98.8	8.0
7/21/2006	5:32:00	25.9	98.5	8.0
7/21/2006	5:47:00	25.9	98.1	8.0
7/21/2006	6:02:00	25.8	97.7	7.9

Table D-3  
 Top Sonde Community Metabolic Data @ Station 21  
 Minnesota River  
 Minneapolis, Minnesota  
 July, 2006

Date m/d/y	Time hh:mm:ss	Temp C	DOsat %	DO mg/L
7/20/2006	6:02:00	25.7	87	6.8
7/20/2006	6:17:00	25.7	86	6.8
7/20/2006	6:32:00	25.7	86	6.8
7/20/2006	6:47:00	25.7	86	6.8
7/20/2006	7:02:00	25.6	86	6.8
7/20/2006	7:17:00	25.6	86	6.8
7/20/2006	7:32:00	25.6	86	6.8
7/20/2006	7:47:00	25.6	86	6.8
7/20/2006	8:02:00	25.6	86	6.8
7/20/2006	8:17:00	25.6	87	6.8
7/20/2006	8:32:00	25.6	87	6.8
7/20/2006	8:47:00	25.7	87	6.9
7/20/2006	9:02:00	25.7	87	6.9
7/20/2006	9:17:00	25.7	88	6.9
7/20/2006	9:32:00	25.7	88	7.0
7/20/2006	9:47:00	25.7	89	7.0
7/20/2006	10:02:00	25.7	89	7.1
7/20/2006	10:17:00	25.8	90	7.1
7/20/2006	10:32:00	25.8	91	7.2
7/20/2006	10:47:00	25.8	92	7.2
7/20/2006	11:02:00	25.8	92	7.3
7/20/2006	11:17:00	25.9	93	7.3
7/20/2006	11:32:00	25.9	94	7.4
7/20/2006	11:47:00	26.0	95	7.5
7/20/2006	12:02:00	26.0	96	7.6
7/20/2006	12:17:00	26.1	97	7.7
7/20/2006	12:32:00	26.1	98	7.7
7/20/2006	12:47:00	26.2	99	7.8
7/20/2006	13:02:00	26.2	100	7.8
7/20/2006	13:17:00	26.3	101	7.9
7/20/2006	13:32:00	26.3	102	8.0
7/20/2006	13:47:00	26.4	103	8.0
7/20/2006	14:02:00	26.4	104	8.1

7/20/2006	14:17:00	26.5	104	8.2
7/20/2006	14:32:00	26.5	105	8.2
7/20/2006	14:47:00	26.6	106	8.3
7/20/2006	15:02:00	26.6	107	8.3
7/20/2006	15:17:00	26.6	108	8.4
7/20/2006	15:32:00	26.7	109	8.5
7/20/2006	15:47:00	26.7	109	8.5
7/20/2006	16:02:00	26.8	110	8.6
7/20/2006	16:17:00	26.8	111	8.6
7/20/2006	16:32:00	26.8	111	8.7
7/20/2006	16:47:00	26.9	112	8.7
7/20/2006	17:02:00	26.9	112	8.7
7/20/2006	17:17:00	26.9	113	8.8
7/20/2006	17:32:00	26.9	113	8.8
7/20/2006	17:47:00	26.9	113	8.8
7/20/2006	18:02:00	26.9	114	8.8
7/20/2006	18:17:00	26.9	114	8.9
7/20/2006	18:32:00	26.9	114	8.9
7/20/2006	18:47:00	27.0	114	8.9
7/20/2006	19:02:00	27.0	114	8.9
7/20/2006	19:17:00	27.0	114	8.8
7/20/2006	19:32:00	26.9	113	8.8
7/20/2006	19:47:00	26.9	113	8.8
7/20/2006	20:02:00	26.9	113	8.8
7/20/2006	20:17:00	26.9	112	8.7
7/20/2006	20:32:00	26.9	112	8.7
7/20/2006	20:47:00	26.9	111	8.7
7/20/2006	21:02:00	26.8	111	8.6
7/20/2006	21:17:00	26.8	110	8.6
7/20/2006	21:32:00	26.8	110	8.6
7/20/2006	21:47:00	26.8	110	8.6
7/20/2006	22:02:00	26.8	109	8.5
7/20/2006	22:17:00	26.7	109	8.5
7/20/2006	22:32:00	26.7	108	8.5
7/20/2006	22:47:00	26.7	108	8.5
7/20/2006	23:02:00	26.7	107	8.4
7/20/2006	23:17:00	26.6	107	8.4
7/20/2006	23:32:00	26.6	106	8.4
7/20/2006	23:47:00	26.6	106	8.3
7/21/2006	0:02:00	26.5	105	8.3
7/21/2006	0:17:00	26.5	105	8.3
7/21/2006	0:32:00	26.5	105	8.2
7/21/2006	0:47:00	26.5	104	8.2
7/21/2006	1:02:00	26.4	104	8.2
7/21/2006	1:17:00	26.4	103	8.2
7/21/2006	1:32:00	26.4	103	8.1

7/21/2006	1:47:00	26.3	103	8.1
7/21/2006	2:02:00	26.3	102	8.1
7/21/2006	2:17:00	26.3	102	8.0
7/21/2006	2:32:00	26.2	101	8.0
7/21/2006	2:47:00	26.2	101	8.0
7/21/2006	3:02:00	26.2	100	7.9
7/21/2006	3:17:00	26.1	100	7.9
7/21/2006	3:32:00	26.1	99	7.9
7/21/2006	3:47:00	26.1	99	7.8
7/21/2006	4:02:00	26.1	98	7.8
7/21/2006	4:17:00	26.0	98	7.8
7/21/2006	4:32:00	26.0	97	7.8
7/21/2006	4:47:00	26.0	97	7.7
7/21/2006	5:02:00	26.0	96	7.7
7/21/2006	5:17:00	25.9	96	7.7
7/21/2006	5:32:00	25.9	96	7.6
7/21/2006	5:47:00	25.9	95	7.6
7/21/2006	6:02:00	25.9	95	7.6

Table D-4  
 Lower Sonde Community Metabolic Data @ Station 21  
 Minnesota River  
 Minneapolis, Minnesota  
 July, 2006

===== Date m/d/y -----	===== Time hh:mm:ss -----	===== Temp C -----	===== DOsat % -----	===== DO mg/L -----
7/20/2006	6:02:00	25.7	78	6.4
7/20/2006	6:17:00	25.6	77	6.4
7/20/2006	6:32:00	25.6	77	6.3
7/20/2006	6:47:00	25.6	77	6.3
7/20/2006	7:02:00	25.6	77	6.3
7/20/2006	7:17:00	25.6	77	6.3
7/20/2006	7:32:00	25.6	77	6.3
7/20/2006	7:47:00	25.6	77	6.3
7/20/2006	8:02:00	25.6	77	6.4
7/20/2006	8:17:00	25.6	78	6.4
7/20/2006	8:32:00	25.6	78	6.4
7/20/2006	8:47:00	25.6	78	6.4
7/20/2006	9:02:00	25.6	79	6.5
7/20/2006	9:17:00	25.6	79	6.5
7/20/2006	9:32:00	25.7	80	6.6
7/20/2006	9:47:00	25.7	80	6.6
7/20/2006	10:02:00	25.7	81	6.7
7/20/2006	10:17:00	25.7	82	6.7
7/20/2006	10:32:00	25.8	83	6.8
7/20/2006	10:47:00	25.8	84	6.9
7/20/2006	11:02:00	25.8	85	6.9
7/20/2006	11:17:00	25.9	86	7.0
7/20/2006	11:32:00	25.9	87	7.1
7/20/2006	11:47:00	25.9	88	7.2
7/20/2006	12:02:00	26.0	90	7.3
7/20/2006	12:17:00	26.0	91	7.4
7/20/2006	12:32:00	26.1	92	7.5
7/20/2006	12:47:00	26.1	93	7.6
7/20/2006	13:02:00	26.2	94	7.7
7/20/2006	13:17:00	26.3	96	7.8
7/20/2006	13:32:00	26.3	97	7.9
7/20/2006	13:47:00	26.3	98	7.9
7/20/2006	14:02:00	26.4	99	8.0
7/20/2006	14:17:00	26.4	100	8.1
7/20/2006	14:32:00	26.5	102	8.2
7/20/2006	14:47:00	26.5	103	8.3
7/20/2006	15:02:00	26.6	104	8.4
7/20/2006	15:17:00	26.6	105	8.5
7/20/2006	15:32:00	26.7	107	8.6
7/20/2006	15:47:00	26.7	107	8.6

Table D-5  
 Mid Sonde Community Metabolic Data @ Station 21  
 Minnesota River  
 Minneapolis, Minnesota  
 September, 2006

Date m/d/y	Time hh:mm:ss	Temp C	DOsat %	DO mg/L
8/31/06	6:00	23.2	106	9.1
8/31/06	6:15	23.2	106	9.1
8/31/06	6:30	23.2	105	9.0
8/31/06	6:45	23.2	105	9.0
8/31/06	7:00	23.2	105	9.0
8/31/06	7:15	23.2	104	8.9
8/31/06	7:30	23.2	104	8.9
8/31/06	7:45	23.2	104	8.9
8/31/06	8:00	23.2	104	8.9
8/31/06	8:15	23.2	104	8.9
8/31/06	8:30	23.2	103	8.9
8/31/06	8:45	23.2	103	8.8
8/31/06	9:00	23.2	103	8.8
8/31/06	9:15	23.2	103	8.8
8/31/06	9:30	23.2	103	8.8
8/31/06	9:45	23.2	103	8.9
8/31/06	10:00	23.2	104	8.9
8/31/06	10:15	23.2	104	8.9
8/31/06	10:30	23.2	105	9.0
8/31/06	10:45	23.3	106	9.1
8/31/06	11:00	23.3	107	9.1
8/31/06	11:15	23.3	107	9.1
8/31/06	11:30	23.3	108	9.2
8/31/06	11:45	23.4	109	9.3
8/31/06	12:00	23.4	109	9.3
8/31/06	12:15	23.4	110	9.4
8/31/06	12:30	23.4	110	9.4
8/31/06	12:45	23.5	111	9.5
8/31/06	13:00	23.5	113	9.6
8/31/06	13:15	23.5	112	9.5
8/31/06	13:30	23.5	112	9.6
8/31/06	13:45	23.6	115	9.8

8/31/06	14:00	23.6	116	9.9
8/31/06	14:15	23.7	118	10.0
8/31/06	14:30	23.7	119	10.1
8/31/06	14:45	23.7	119	10.1
8/31/06	15:00	23.8	120	10.2
8/31/06	15:15	23.8	121	10.3
8/31/06	15:30	23.9	123	10.5
8/31/06	15:45	23.9	124	10.5
8/31/06	16:00	23.9	126	10.7
8/31/06	16:15	23.9	126	10.7
8/31/06	16:30	23.9	128	10.8
8/31/06	16:45	23.9	129	10.9
8/31/06	17:00	23.9	128	10.9
8/31/06	17:15	23.9	130	11.0
8/31/06	17:30	23.9	129	11.0
8/31/06	17:45	24.0	132	11.1
8/31/06	18:00	23.9	133	11.2
8/31/06	18:15	24.0	132	11.2
8/31/06	18:30	24.0	132	11.2
8/31/06	18:45	24.0	133	11.2
8/31/06	19:00	23.9	133	11.3
8/31/06	19:15	23.9	131	11.1
8/31/06	19:30	23.9	132	11.2
8/31/06	19:45	23.9	131	11.1
8/31/06	20:00	23.9	131	11.1
8/31/06	20:15	23.8	130	11.1
8/31/06	20:30	23.8	130	11.0
8/31/06	20:45	23.8	129	10.9
8/31/06	21:00	23.7	128	10.9
8/31/06	21:15	23.7	127	10.8
8/31/06	21:30	23.6	125	10.7
8/31/06	21:45	23.6	125	10.7
8/31/06	22:00	23.5	124	10.6
8/31/06	22:15	23.5	122	10.5
8/31/06	22:30	23.5	122	10.5
8/31/06	22:45	23.4	122	10.4
8/31/06	23:00	23.4	121	10.4
8/31/06	23:15	23.4	121	10.3
8/31/06	23:30	23.3	120	10.3
8/31/06	23:45	23.3	119	10.3
9/1/06	0:00	23.3	118	10.2
9/1/06	0:15	23.2	118	10.2
9/1/06	0:30	23.2	116	10.0
9/1/06	0:45	23.2	116	10.0

9/1/06	1:00	23.2	116	10.0
9/1/06	1:15	23.2	116	10.0
9/1/06	1:30	23.2	115	9.9
9/1/06	1:45	23.1	114	9.8
9/1/06	2:00	23.1	114	9.8
9/1/06	2:15	23.1	114	9.8
9/1/06	2:30	23.1	113	9.8
9/1/06	2:45	23.1	112	9.6
9/1/06	3:00	23.1	112	9.6
9/1/06	3:15	23.1	110	9.5
9/1/06	3:30	23.1	110	9.5
9/1/06	3:45	23.1	110	9.5
9/1/06	4:00	23.1	109	9.4
9/1/06	4:15	23.1	109	9.4
9/1/06	4:30	23.1	108	9.3
9/1/06	4:45	23.1	107	9.3
9/1/06	5:00	23.1	107	9.2
9/1/06	5:15	23.0	106	9.2
9/1/06	5:30	23.0	106	9.1
9/1/06	5:45	23.0	105	9.1
9/1/06	6:00	23.0	104	9.0

Table D-6  
 Mid Sonde Community Metabolic Data @ Station 22  
 Minnesota River  
 Minneapolis, Minnesota  
 September, 2006

Date m/d/y	Time hh:mm:ss	Temp C	DOsat %	DO mg/L
8/31/06	6:00	23.2	92.4	7.8
8/31/06	6:15	23.2	91.9	7.8
8/31/06	6:30	23.1	91.6	7.7
8/31/06	6:45	23.1	91.4	7.7
8/31/06	7:00	23.0	90.8	7.7
8/31/06	7:15	23.0	90.4	7.7
8/31/06	7:30	23.0	90.1	7.6
8/31/06	7:45	23.0	90.2	7.6
8/31/06	8:00	23.0	90.0	7.6
8/31/06	8:15	22.9	90.0	7.6
8/31/06	8:30	22.9	90.2	7.6
8/31/06	8:45	22.9	90.9	7.6
8/31/06	9:00	22.9	91.2	7.6
8/31/06	9:15	22.9	91.6	7.7
8/31/06	9:30	22.9	91.4	7.7
8/31/06	9:45	22.9	92.3	7.7
8/31/06	10:00	22.9	93.1	7.7
8/31/06	10:15	22.9	93.9	7.8
8/31/06	10:30	23.0	94.8	7.8
8/31/06	10:45	23.0	94.9	7.9
8/31/06	11:00	23.0	95.6	8.0
8/31/06	11:15	23.0	95.7	8.0
8/31/06	11:30	23.1	97.3	8.0
8/31/06	11:45	23.1	98.1	8.0
8/31/06	12:00	23.2	99.8	8.2
8/31/06	12:15	23.2	100.2	8.2
8/31/06	12:30	23.3	99.8	8.3
8/31/06	12:45	23.3	101.7	8.4
8/31/06	13:00	23.3	101.6	8.4
8/31/06	13:15	23.4	103.2	8.5
8/31/06	13:30	23.4	104.0	8.5
8/31/06	13:45	23.5	104.8	8.6

8/31/06	14:00	23.6	105.5	8.7
8/31/06	14:15	23.6	106.5	8.7
8/31/06	14:30	23.7	107.2	8.8
8/31/06	14:45	23.7	107.0	8.8
8/31/06	15:00	23.7	107.8	8.9
8/31/06	15:15	23.7	107.9	8.9
8/31/06	15:30	23.8	108.4	8.9
8/31/06	15:45	23.8	107.9	8.9
8/31/06	16:00	23.8	108.3	9.0
8/31/06	16:15	23.8	109.1	9.0
8/31/06	16:30	23.7	109.7	9.0
8/31/06	16:45	23.7	110.2	9.1
8/31/06	17:00	23.7	109.7	9.1
8/31/06	17:15	23.7	110.2	9.2
8/31/06	17:30	23.7	110.5	9.1
8/31/06	17:45	23.7	110.8	9.2
8/31/06	18:00	23.6	110.8	9.2
8/31/06	18:15	23.7	110.4	9.2
8/31/06	18:30	23.6	109.5	9.2
8/31/06	18:45	23.6	109.7	9.2
8/31/06	19:00	23.5	109.4	9.1
8/31/06	19:15	23.6	108.8	9.1
8/31/06	19:30	23.5	108.5	9.1
8/31/06	19:45	23.4	107.9	9.1
8/31/06	20:00	23.4	108.0	9.1
8/31/06	20:15	23.4	107.4	9.0
8/31/06	20:30	23.4	107.7	9.0
8/31/06	20:45	23.4	107.3	9.0
8/31/06	21:00	23.4	107.3	9.0
8/31/06	21:15	23.4	107.1	9.0
8/31/06	21:30	23.4	106.8	9.0
8/31/06	21:45	23.4	106.2	9.0
8/31/06	22:00	23.4	105.6	8.9
8/31/06	22:15	23.4	105.5	8.9
8/31/06	22:30	23.4	105.0	8.8
8/31/06	22:45	23.4	104.5	8.8