

APPENDIX K
YSI Calibration Logs

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration					
Date: <u>7/12/05</u>		Time: <u>0815</u>		Employee Name: <u>M. Phillips</u>	
Battery Voltage: _____		Sonde Type & Serial No. <u>02629</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		<u>1.413</u>	<u>1.412</u>	<u>1.412</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)		<u>7.0</u>		<u>7.0</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH 4 10 - [circle one])		<u>4.0</u>		<u>3.99</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)		<u>100%</u>		<u>9.8 mg/L</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)		<u>100</u>	<u>8.3</u>	<u>8.3</u>	<u>WRITTEN OUT OF RANGE</u>
Turbidity (low)		<u>0</u>		<u>0</u>	
ORP (High)		<u>240</u>		<u>240.1</u>	
ORP (Low)		<u>0</u>		<u>0</u>	
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options			Barometric Pressure Formulas		
Barometer			Barometric Pressure (inches) _____ x 25.4 = BP _____ mm		
From Local Source After Corection (CBP)			BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)		
Estimated from Altitude Only			BP _____ mm = 760 mm - 2.5 (altitude _____ /100)		

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>7/13/05</u>		Time: <u>0815</u>		Employee Name: <u>M. Phillip</u>	
Battery Voltage: _____				Sonde Type & Serial No. <u>02629</u>	
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		1.413	1.413	1.413	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)		7.0		7.0	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])		4.0		4.0	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)		100%		9.51 mg/L	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)		100		100.0	
Turbidity (low)		0		0	
ORP (High)		240		240.0 mV	
ORP (Low)		φ		φ	
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl			Barometric Pressure _____ inches		
Barometric Pressure Options			Barometric Pressure Formulas		
Barometer			Barometric Pressure (inches) _____ x 25.4 = BP _____ mm		
From Local Source After Corection (CBP)			BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)		
Estimated from Altitude Only			BP _____ mm = 760 mm - 2.5 (altitude _____ /100)		

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: <u>7/14/05</u>		Time: <u>0620</u>		Employee Name: <u>M Phillips</u>	
Battery Voltage: _____		Sonde Type & Serial No. <u>02629</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		1.413	1.413	1.413	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)		7.0		7.0	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])		4.0		4.0	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)		100%		8.97	mg/L
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)		100.0		100.0	
Turbidity (low)		0		0	
ORP (High)		240		240.0 mV	
ORP (Low)		φ		φ	
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options			Barometric Pressure Formulas		
Barometer			Barometric Pressure (inches) _____ x 25.4 = BP _____ mm		
From Local Source After Corection (CBP)			BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)		
Estimated from Altitude Only			BP _____ mm = 760 mm - 2.5 (altitude _____ /100)		

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: <u>7/16/05</u>		Time: <u>0630</u>		Employee Name: <u>M Phillips</u>	
Battery Voltage: _____		Sonde Type & Serial No. <u>02629</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		<u>1.413</u>	<u>1.413</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)		<u>7.00</u>		<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])		<u>4.00</u>		<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)		<u>100%</u>		<u>9.16 mg/L</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)		<u>100.0</u>		<u>100.0</u>	
Turbidity (low)		<u>0</u>		<u>0</u>	
ORP (High)		<u>240</u>		<u>240.1</u>	
ORP (Low)		<u>φ</u>		<u>φ</u>	
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options			Barometric Pressure Formulas		
Barometer			Barometric Pressure (inches) _____ x 25.4 = BP _____ mm		
From Local Source After Corection (CBP)			BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)		
Estimated from Altitude Only			BP _____ mm = 760 mm - 2.5 (altitude _____ /100)		

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: 7/17/05 Time: 0610 Employee Name: M Phillips

Battery Voltage: _____ Sonde Type & Serial No. 02699

Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		1.413	1.413	1.413	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)		7.00		7.00	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])		4.00		4.00	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)		100%		9.09 mg/L	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)		100		100.0	
Turbidity (low)		0		0	
ORP (High)		240		240.2	
ORP (Low)		0		0	
Data Needed for Dissolved Oxygen Calibration					

Altitude (A) = _____ feet above msl Barometric Pressure _____ inches

Barometric Pressure Options	Barometric Pressure Formulas
Barometer	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source After Corection (CBP)	BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only	BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>7/18/05</u>		Time: <u>0610</u>		Employee Name: <u>M. Phillips</u>	
Battery Voltage: _____				Sonde Type & Serial No. <u>02629</u>	
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		1.413	1.413	1.413	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)		7.00		7.00	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>(4)</u> 10 - [circle one])		4.00		4.00	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)		100%		8.75 mg/L	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)		100		100.0	
Turbidity (low)		0		0.00	(cal to DI water)
ORP (High)		240		240.0	
ORP (Low)		0		0	
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options			Barometric Pressure Formulas		
Barometer			Barometric Pressure (inches) _____ x 25.4 = BP _____ mm		
From Local Source After Corection (CBP)			BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)		
Estimated from Altitude Only			BP _____ mm = 760 mm - 2.5 (altitude _____ /100)		

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: 7/19/05 Time: 0615 Employee Name: W. Phillips

Battery Voltage: _____ Sonde Type & Serial No. 02629

Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		1.413	1.413	1.413	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)		7.00		7.00	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH (4) 10 - [circle one])		4.00		4.00	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)		100%		9.03 mg/L	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)		100.0		100.0	
Turbidity (low)		0		0.00	(cal to DI water)
ORP (High)		240		240.1	
ORP (Low)		0		0	
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl			Barometric Pressure _____ inches		
Barometric Pressure Options			Barometric Pressure Formulas		
Barometer			Barometric Pressure (inches) _____ x 25.4 = BP _____ mm		
From Local Source After Corection (CBP)			BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)		
Estimated from Altitude Only			BP _____ mm = 760 mm - 2.5 (altitude _____ /100)		

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: <u>7/20/05</u>		Time: <u>0625</u>		Employee Name: <u>M. Phillips</u>	
Battery Voltage: _____		Sonde Type & Serial No. _____			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		<u>1.413</u>	<u>1.413</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)		<u>7.00</u>		<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>(4)</u> 10 - [circle one])		<u>4.00</u>		<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)		<u>100%</u>		<u>8.88 mg/L</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)		<u>100</u>		<u>100.0</u>	
Turbidity (low)		<u>0</u>		<u>0.00</u>	<u>(cal to DI water)</u>
ORP (High)		<u>240</u>		<u>240.0</u>	
ORP (Low)		<u>0</u>		<u>0</u>	
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options			Barometric Pressure Formulas		
Barometer			Barometric Pressure (inches) _____ x 25.4 = BP _____ mm		
From Local Source After Corection (CBP)			BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)		
Estimated from Altitude Only			BP _____ mm = 760 mm - 2.5 (altitude _____ /100)		

7/26/05

Battery Voltage: 10.2 Sonde Type and Serial No. YSI 6920 03330

Function	Temp. of Standard	Value of Standard	Initial Reading	Calibrated To	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	24°C	1.413	1.326	1.413	
Conductivity Cell Constant (see *)					Range 4.6 to 5.45
pH calibrated (at pH 7)	"	7.00	7.60	7.00	
pH mV for pH 7 solution					Range 0 to 40 mV
pH calibrated (at pH 4 <u>10</u> - circle one)	"	4.00	3.57	4.00	
pH mV for pH 10					Range: -160 to 40 mV
pH mV for pH 4					Range: +160 to 40 mV
Dissolved Oxygen (% sat)	"	100%	8.62	8.61	
Dissolved Oxygen Charge					Range 25 to 75
Dissolved Oxygen Gain (see *)					Range 0.8 to 1.7
DATA NEEDED FOR DISSOLVED OXYGEN CALIBRATION					
Altitude (A) = _____ feet above msl	Barometric Pressure _____ inches				
Barometric Pressure (BP) Options	Barometric Pressure Formulas				
Barometer 760.0 mm Hg	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm				
From Local Source After Correction (CBP)	BP _____ mm = CBP _____ mm - 2.5 (altitude ____/100)				
Estimated From Altitude Only	BP _____ mm = 760 mm - 2.5 (altitude ____/100)				
Deployment Checklist (required for data logging only)					
Logging Interval: Yes No	SDI-12 Autosleep enabled: Yes No				
DO warm-up time:	Battery Volts in Sonde (days):				
RS 232 Autosleep enabled: Yes No	Available Memory in Sonde (days):				
Post-Calibration					
Date:	Time:	Employee Name:			
Battery Voltage:	Sonde Type and Serial No.				
Function	Temp. of Standard	Value of Standard	Initial Reading	Comments	
Specific Conductance					
pH calibrated (~7)					
pH slope (~ 4/10)					
Dissolved Oxygen					
Brush conductivity cell. Must be cleaned within the last two months or once every 15 field trips	Date:	Name/Comments:			
Inspect D.O. membrane for nicks or bubbles. Must be changed within last six months or once every 15 field trips.	Date:	Name/Comments:			
Comments:					

* To display Conductivity Cell Constant and Dissolved Oxygen Charge (DO ch) on 650 MDS: Go to "Sonde Menu", "Advanced", "Cal Constants"

7/26/05 read - 10.1 cal to 0.0
 100 158.3 100.0
 ORP 240 241.1 240.0

7/30/05

Battery Voltage: 11.1 Sonde Type and Serial No. YSI 6920 05299

Function	Temp. of Standard	Value of Standard	Initial Reading	Calibrated To	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	24°C	1.413	1.259	1.413	
Conductivity Cell Constant (see *)					Range 4.6 to 5.45
pH calibrated (at pH 7)	"	7.00	7.07	7.00	
pH mV for pH 7 solution					Range 0 to 40 mV
pH calibrated (at pH 4/10 - circle one)		4.00	3.99	4.00	
pH mV for pH 10 pH mV for pH 4					Range: -160 to 40 mV Range: +160 to 40 mV
Dissolved Oxygen (% sat)	"	100%	8.36	8.36	
Dissolved Oxygen Charge					Range 25 to 75
Dissolved Oxygen Gain (see *)					Range 0.8 to 1.7
DATA NEEDED FOR DISSOLVED OXYGEN CALIBRATION					
Altitude (A) = _____ feet above msl	Barometric Pressure _____ inches				
Barometric Pressure (BP) Options	Barometric Pressure Formulas				
Barometer 760.0 mm Hg	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm				
From Local Source After Correction (CBP)	BP _____ mm = CBP _____ mm - 2.5 (altitude ____/100)				
Estimated From Altitude Only	BP _____ mm = 760 mm - 2.5 (altitude ____/100)				
Deployment Checklist (required for data logging only)					
Logging Interval: Yes No	SDI-12 Autosleep enabled: Yes No				
DO warm-up time:	Battery Volts in Sonde (days):				
RS 232 Autosleep enabled: Yes No	Available Memory in Sonde (days):				
Post-Calibration					
Date: _____	Time: _____	Employee Name: _____			
Battery Voltage: _____			Sonde Type and Serial No. _____		
Function	Temp. of Standard	Value of Standard	Initial Reading	Comments	
Specific Conductance					
pH calibrated (~7)					
pH slope (~ 4/10)					
Dissolved Oxygen					
Brush conductivity cell. Must be cleaned within the last two months or once every 15 field trips	Date: _____	Name/Comments: _____			
Inspect D.O. membrane for nicks or bubbles. Must be changed within last six months or once every 15 field trips.	Date: _____	Name/Comments: _____			
Comments: _____					

* To display Conductivity Cell Constant and Dissolved Oxygen Charge (DO ch) on 650 MDS: Go to "Sonde Menu", "Advanced", "Cal Constants"

turb 0 read -0.5 cal to 0.0
 100 100.0
 ORP 240 227.9 240.0

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: 7/31/05 Time: 0730 Employee Name: M. Phillips
 Battery Voltage: 10.4 Sonde Type & Serial No. YSI 6920 #3330

Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm	—	—	—	—	
Specific Conductance (med) ~10 mS/cm	—	—	—	—	
Specific Conductance (low) ~1 mS/cm	25°C	1.413	1.396	1.413	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	25°C	7.00	6.98	7.00	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> ¹⁰ - [circle one])	25°C	4.00	4.05	4.00	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat) <u>mg/L</u>	25°C	100%	8.81	8.74	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	25°C	100	91.9	100.0	
Turbidity (low)	25°C	0	0.2	0.0	
ORP (High)	25°C	240	233.9	240.0	
ORP (Low)	—	—	—	—	
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl			Barometric Pressure _____ inches <u>769.8 mm Hg</u>		
Barometric Pressure Options			Barometric Pressure Formulas		
Barometer		<u>769.8</u>	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm		
From Local Source After Corection (CBP)			BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)		
Estimated from Altitude Only			BP _____ mm = 760 mm - 2.5 (altitude _____ /100)		

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration					
Date: <u>2/1/05</u>		Time: <u>0630</u>		Employee Name: <u>M Phillips</u>	
Battery Voltage: <u>9.9</u>		Sonde Type & Serial No. <u>YSI 6920 #3330</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm		—			
Specific Conductance (med) ~10 mS/cm		—			
Specific Conductance (low) ~1 mS/cm	<u>20°C</u>	<u>1.413</u>	<u>1.409</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	"	<u>7.00</u>	<u>7.25</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	"	<u>4.00</u>	<u>4.14</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat) <u>mg/L</u>	"	<u>100%</u>	<u>8.37</u>	<u>8.51</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	"	<u>100</u>	<u>100.2</u>	<u>100.0</u>	
Turbidity (low)	"	<u>0</u>	<u>0.0</u>	<u>0.0</u>	
ORP (High)	"	<u>240</u>	<u>241.1</u>	<u>240</u>	
ORP (Low)		—			
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure: _____ inches <u>760.2 mm Hg</u>			
Barometric Pressure Options	Barometric Pressure Formulas				
Barometer	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm				
From Local Source After Corection (CBP)	BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)				
Estimated from Altitude Only	BP _____ mm = 760 mm - 2.5 (altitude _____ /100)				

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration					
Date: <u>8/2/05</u>		Time: <u>0020</u>		Employee Name: _____	
Battery Voltage: <u>9.7</u>		Sonde Type & Serial No. _____			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm		—			
Specific Conductance (med) ~10 mS/cm		—			
Specific Conductance (low) ~1 mS/cm	20°C	1.413	1.369	1.413	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	"	7.00	6.85	7.00	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH 4 10 - [circle one])	"	4.00	3.85	4.00	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat) <u>mg/L</u>	"	100%	9.70	9.51	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	"	100	95.8	100.0	
Turbidity (low)	"	0	6.8	0.0	
ORP (High)	"	240	266.6	240	
ORP (Low)		—			
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure <u>inches</u> <u>763.0 mm Hg</u>			
Barometric Pressure Options			Barometric Pressure Formulas		
Barometer			Barometric Pressure (inches) _____ x 25.4 = BP _____ mm		
From Local Source After Corection (CBP)			BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)		
Estimated from Altitude Only			BP _____ mm = 760 mm - 2.5 (altitude _____ /100)		

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration					
Date: <u>2/2/05</u>		Time: <u>0605</u>		Employee Name: <u>M. Phillips</u>	
Battery Voltage: <u>11.0</u>		Sonde Type & Serial No. <u>YSI 6920 # 5865</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm		—			
Specific Conductance (med) ~10 mS/cm		—			
Specific Conductance (low) ~1 mS/cm	<u>20°C</u>	<u>1.413</u>	<u>1.120</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	"	<u>7.00</u>	<u>7.06</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH 4 10 - [circle one])	"	<u>4.00</u>	<u>3.90</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat) <u>mg/L</u>	"	<u>100%</u>	<u>9.95</u>	<u>9.95</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	"	<u>100</u>	<u>107.0</u>	<u>100.0</u>	
Turbidity (low)	"	<u>0</u>	<u>-0.6</u>	<u>0.0</u>	
ORP (High)	"	<u>240</u>	<u>265.1</u>	<u>240</u>	
ORP (Low)		—			
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches <u>758.9 mm Hg</u>			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration					
Date: <u>8/3/05</u>		Time: <u>0730</u>		Employee Name: <u>M. Phillips</u>	
Battery Voltage: <u>9.5</u>		Sonde Type & Serial No. <u>YSI 6920 #3330</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm		—			
Specific Conductance (med) ~10 mS/cm		—			
Specific Conductance (low) ~1 mS/cm	<u>20°C</u>	<u>1.413</u>	<u>1.390</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>"</u>	<u>7.00</u>	<u>6.93</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	<u>"</u>	<u>4.00</u>	<u>4.36</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (ppm) <u>mg/L</u>	<u>"</u>	<u>100%</u>	<u>8.20</u>	<u>8.25</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>"</u>	<u>100</u>	<u>74.5</u>	<u>100.0</u>	
Turbidity (low)	<u>"</u>	<u>0</u>	<u>-0.2</u>	<u>0.0</u>	
ORP (High)	<u>"</u>	<u>240</u>	<u>251.5</u>	<u>240.0</u>	
ORP (Low)		—			
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches <u>764.9 mm Hg</u>			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: 8/3/05 Time: 0630 Employee Name: M Phillips
 Battery Voltage: 11.1 Sonde Type & Serial No. YSI 6920 #5865

Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm		—			
Specific Conductance (med) ~10 mS/cm		—			
Specific Conductance (low) ~1 mS/cm	<u>20°C</u>	<u>1.413</u>	<u>1.386</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	"	<u>7.00</u>	<u>6.95</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	"	<u>4.00</u>	<u>4.09</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat) <u>mg/L</u>	"	<u>100%</u>	<u>9.43</u>	<u>9.43</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	"	<u>100</u>	<u>95.9</u>	<u>100.0</u>	
Turbidity (low)	"	<u>0</u>	<u>0.1</u>	<u>0.0</u>	
ORP (High)	"	<u>240</u>	<u>240.2</u>	<u>240.0</u>	
ORP (Low)		—			

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl

Barometric Pressure ~~_____ inches~~ 757.8 mm Hg

Barometric Pressure Options	Barometric Pressure Formulas
Barometer	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source After Corection (CBP)	BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only	BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration					
Date: <u>8/10/05</u>		Time: <u>0745</u>		Employee Name: <u>MF Phillips</u>	
Battery Voltage: <u>11.1</u>		Sonde Type & Serial No. <u>YSI 6920 #5865</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm		—			
Specific Conductance (med) ~10 mS/cm		—			
Specific Conductance (low) ~1 mS/cm	<u>20°C</u>	<u>1413</u>	<u>1398</u>	<u>1413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	"	<u>7.00</u>	<u>6.98</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>(4)</u> 10 - [circle one])	"	<u>4.00</u>	<u>4.10</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat) <u>mg/L</u>	"	<u>100%</u>	<u>8.65</u>	<u>8.65</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	"	<u>100</u>	<u>94.2</u>	<u>100.0</u>	
Turbidity (low)	"	<u>0</u>	<u>-0.3</u>	<u>0.0</u>	
ORP (High)	"	<u>240</u>	<u>231.1</u>	<u>240.0</u>	
ORP (Low)		—			
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches <u>762.1 mm Hg</u>			
Barometric Pressure Options	Barometric Pressure Formulas				
Barometer	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm				
From Local Source After Corection (CBP)	BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)				
Estimated from Altitude Only	BP _____ mm = 760 mm - 2.5 (altitude _____ /100)				

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: 9/8/05 Time: 0705 Employee Name: MA Phillips
 Battery Voltage: 9.2 Sonde Type & Serial No: YSI 6920#3330

Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm		—			
Specific Conductance (med) ~10 mS/cm		—			
Specific Conductance (low) ~1 mS/cm	<u>20°C</u>	<u>1.413</u>	<u>1.403</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	"	<u>7.00</u>	<u>7.13</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	"	<u>4.00</u>	<u>3.71</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat) <u>mg/L</u>	"	<u>100%</u>	<u>9.36</u>	<u>8.92</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	"	<u>100</u>	<u>74.5</u>	<u>100.0</u>	
Turbidity (low)	"	<u>0</u>	<u>-0.1</u>	<u>0.0</u>	
ORP (High)	"	<u>240.0</u>	<u>216.0</u>	<u>240.0</u>	
ORP (Low)		—			
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl			Barometric Pressure <u>inches</u> <u>766.3 mm Hg</u>		
Barometric Pressure Options			Barometric Pressure Formulas		
Barometer			Barometric Pressure (inches) _____ x 25.4 = BP _____ mm		
From Local Source After Corection (CBP)			BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)		
Estimated from Altitude Only			BP _____ mm = 760 mm - 2.5 (altitude _____ /100)		

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: <u>6/9/05</u>	Time: <u>0800</u>	Employee Name: <u>M. Phillips</u>			
Battery Voltage: <u>12.2</u>		Sonde Type & Serial No. <u>LI 6920 # 3330</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm		—			
Specific Conductance (med) ~10 mS/cm		—			
Specific Conductance (low) ~1 mS/cm	<u>20°C</u>	<u>1.413</u>	<u>1.424</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	"	<u>7.00</u>	<u>6.76</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>7</u> 10 - [circle one])	"	<u>4.00</u>	<u>4.10</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (4% sat) <u>mg/L</u>	"	<u>10.0%</u>	<u>9.11</u>	<u>8.86</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	"	<u>100</u>	<u>93.4</u>	<u>100.0</u>	
Turbidity (low)	"	<u>0</u>	<u>0.1</u>	<u>0.0</u>	
ORP (High)	"	<u>240</u>	<u>227.6</u>	<u>240.0</u>	
ORP (Low)		—			
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches <u>760.6 mm Hg</u>			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>2/9/05</u>		Time: <u>0620</u>		Employee Name: <u>M. Phillips</u>	
Battery Voltage: <u>11.0</u>				Sonde Type & Serial No. <u>YSI 6920 #5865</u>	
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm		—			
Specific Conductance (med) ~10 mS/cm		—			
Specific Conductance (low) ~1 mS/cm	<u>20°C</u>	<u>1.413</u>	<u>1.421</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	"	<u>7.00</u>	<u>6.98</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> / 10 - [circle one])	"	<u>4.00</u>	<u>3.96</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat) <u>mg/L</u>	"	<u>100%</u>	<u>9.19</u>	<u>9.19</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	"	<u>100</u>	<u>98.8</u>	<u>100.0</u>	
Turbidity (low)	"	<u>0</u>	<u>0.0</u>	<u>0.0</u>	
ORP (High)	"	<u>240</u>	<u>242.9</u>	<u>240.0</u>	
ORP (Low)		—			
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure <u>inches</u> <u>761.3</u> <u>mm Hg</u>			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration					
Date: <u>8/10/05</u>		Time: <u>0600</u>		Employee Name: <u>M. Phillips</u>	
Battery Voltage: <u>10.8</u>				Sonde Type & Serial No. <u>YSI 6420 45865</u>	
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm		—			
Specific Conductance (med) ~10 mS/cm		—			
Specific Conductance (low) ~1 mS/cm	<u>20°C</u>	<u>1.413</u>	<u>1.427</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>u</u>	<u>7.00</u>	<u>6.84</u>	<u>7.00</u>	
pH mV for pH 7 solution				<u>101.5</u>	Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	<u>-</u>	<u>4.00</u>	<u>4.39</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat) <u>mg/L</u>	<u>u</u>	<u>100%</u>	<u>8.90</u>	<u>8.90</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>u</u>	<u>100</u>	<u>94.4</u>	<u>100.0</u>	
Turbidity (low)	<u>u</u>	<u>0</u>	<u>-0.2</u>	<u>0.0</u>	
ORP (High)	<u>u</u>	<u>240</u>	<u>246.0</u>	<u>240</u>	
ORP (Low)		—			
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration					
Date: <u>5/4/05</u>	Time: <u>2745</u>	Employee Name: <u>M. Phillips</u>			
Battery Voltage: _____		Sonde Type & Serial No: <u>YSI 6920 #3330</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm		—			
Specific Conductance (med) ~10 mS/cm		—			
Specific Conductance (low) ~1 mS/cm	<u>20°C</u>	<u>1.413</u>	<u>1.397</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	"	<u>7.00</u>	<u>7.19</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	"	<u>4.00</u>	<u>4.29</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (<u>mg/L</u>)	"	<u>100%</u>	<u>8.60</u>	<u>8.53</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	"	<u>100</u>	<u>105.5</u>	<u>100.0</u>	
Turbidity (low)	"	<u>0</u>	<u>0.4</u>	<u>0.0</u>	
ORP (High)	"	<u>240</u>	<u>218.5</u>	<u>240.0</u>	
ORP (Low)		—			
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches <u>762.9 mm Hg</u>			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration					
Date: <u>5/16/05</u>	Time: <u>0630</u>	Employee Name: <u>McFadden</u>			
Battery Voltage: <u>12.8</u>		Sonde Type & Serial No. <u>156920 & 5865</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm		—			
Specific Conductance (med) ~10 mS/cm		—			
Specific Conductance (low) ~1 mS/cm	<u>20°C</u>	<u>1.413</u>	<u>1.507</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	"	<u>7.00</u>	<u>7.07</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	"	<u>4.00</u>	<u>3.89</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat) <u>mg/L</u>	"	<u>100%</u>	<u>9.32</u>	<u>9.32</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	"	<u>100</u>	<u>102.6</u>	<u>100.0</u>	
Turbidity (low)	"	<u>0</u>	<u>-0.1</u>	<u>0.0</u>	
ORP (High)	"	<u>240</u>	<u>243.1</u>	<u>240.0</u>	
ORP (Low)		—			
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches <u>757.4 mm Hg</u>			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration					
Date: <u>5/12/05</u>		Time: <u>06:20</u>		Employee Name: <u>M. Filler</u>	
Battery Voltage: <u>10.7</u>				Sonde Type & Serial No. <u>YSI 6920 45865</u>	
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm		—			
Specific Conductance (med) ~10 mS/cm		—			
Specific Conductance (low) ~1 mS/cm	<u>20°C</u>	<u>1.413</u>	<u>1.409</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	"	<u>7.00</u>	<u>6.95</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	"	<u>4.00</u>	<u>3.96</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat) <u>mg/L</u>	"	<u>100%</u>	<u>8.97</u>	<u>8.97</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	"	<u>100</u>	<u>98.5</u>	<u>100.0</u>	
Turbidity (low)	"	<u>0</u>	<u>-0.1</u>	<u>0.0</u>	
ORP (High)	"	<u>240</u>	<u>232.2</u>	<u>240.0</u>	
ORP (Low)		—			
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches <u>758.1 mm Hg</u>			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration					
Date: <u>8/12/05</u>	Time: <u>0700</u>	Employee Name: <u>MA Phillips</u>			
Battery Voltage: <u>12.2</u>		Sonde Type & Serial No. <u>YSI 6920 & 3330</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm		—			
Specific Conductance (med) ~10 mS/cm		—			
Specific Conductance (low) ~1 mS/cm	<u>20°C</u>	<u>1.413</u>	<u>1.389</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	~	<u>7.00</u>	<u>7.17</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	~	<u>4.00</u>	<u>3.61</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat) <u>mg/L</u>	~	<u>100%</u> 7.79	<u>7.79</u>	<u>7.88</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	~	<u>100</u>	<u>98.5</u>	<u>100.0</u>	
Turbidity (low)	~	<u>0</u>	<u>0.1</u>	<u>0.0</u>	
ORP (High)	~	<u>240</u>	<u>224.9</u>	<u>240.0</u>	
ORP (Low)		—			
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure inches <u>674.1 mm Hg</u>			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: 8/25/05 Time: 0700 Employee Name: CYOUNG

Battery Voltage: _____ Sonde Type & Serial No. YSI 6920

Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	25°C	1.413	1.200	1.414	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	25°C	7.00	7.05	7.00	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>(4)</u> 10 - [circle one])	25°C	4.00	3.92	4.00	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	25°C	100%	101%	101%	in AIR
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	25°C	100 NTU	102.3	100.0	
Turbidity (low)	25°C	0 NTU	2.5	0.0	
ORP (High)	25°C	240 mV	262.3	240.1	any
ORP (Low)					

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl Barometric Pressure _____ inches 767.6 mmHg

Barometric Pressure Options	Barometric Pressure Formulas
Barometer	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source After Corection (CBP)	BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only	BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

#05877

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>10/04/05</u>	Time: <u>0745</u>		Employee Name: _____		
Battery Voltage: _____			Sonde Type & Serial No. _____		
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		<u>1</u>	<u>1.416</u> 1.1204	<u>1.412</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)					
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH 4 10 - [circle one])					
pH mV for pH <u>7</u>		<u>7.0</u>	<u>6.95</u>	<u>7.00</u>	Range: -160 - 40 mV
pH mV for pH 4		<u>4.0</u>	<u>4.11</u>	<u>4.00</u>	Range: +160 - 40 mV
Dissolved Oxygen (% sat)			<u>100.9</u>	<u>100.9</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)		<u>100.0</u>	<u>112.9</u> 112.9	<u>100.0</u> 100.0	
Turbidity (low)		<u>0.0</u>	<u>-1.0</u>	<u>0.0</u>	
ORP (High)		<u>240</u>	<u>244.0</u>	<u>240.0</u>	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl			Barometric Pressure _____ inches		
Barometric Pressure Options			Barometric Pressure Formulas		
Barometer			Barometric Pressure (inches) _____ x 25.4 = BP _____ mm		
From Local Source post Correct. (CBP)			BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)		
Estimated from Altitude Only			BP _____ mm = 760 mm - 2.5 (altitude _____ /100)		

DuPont Chambers FUSRAP Investigation

no Serial #

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: <u>10/04/05</u>	Time: <u>0730</u>	Employee Name: <u>A. Marcum</u>			
Battery Voltage: _____			Sonde Type & Serial No. _____		
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		<u>1.0</u>	<u>1.008</u>	<u>1.002</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)					
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH 4 10 - [circle one])					
pH mV for pH <u>7</u>		<u>7.0</u>	<u>7.01</u>	<u>7.00</u>	Range: -160 - 40 mV
pH mV for pH 4		<u>4.0</u>	<u>3.85</u>	<u>3.99</u>	Range: +160 - 40 mV
Dissolved Oxygen (% sat)			<u>101.4</u>	<u>100</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)		<u>100</u>	<u>117.1</u>	<u>100</u>	
Turbidity (low)		<u>0.0</u>	<u>0.2</u>	<u>0.0</u>	
ORP (High) <u>mV</u>		<u>240</u>	<u>254.0</u>	<u>240.2</u>	
ORP (Low)					

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches
Barometric Pressure Options		Barometric Pressure Formulas
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source post Correct. (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: 10/04/05 Time: 0800 Employee Name: CARLYOUNG

Battery Voltage: 10.8 Sonde Type & Serial No. YSI 6920 - 5877

Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	21.32	1.413	1.292	1.413	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	21.39	7.00	7.03	7.00	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])					
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4			4.07		Range: +160 - 40 mV
Dissolved Oxygen (% sat)	21.15	100%	101%		
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)					
Turbidity (low)	21.31	0.0	0.1	0.1	
ORP (High)	21.34	240mV	242.6	240.2	
ORP (Low)					

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl Barometric Pressure _____ inches

Barometric Pressure Options	Barometric Pressure Formulas
Barometer	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source After Corection (CBP)	BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only	BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration					
Date: <u>10/04/05</u>		Time: <u>0816</u>		Employee Name: <u>CARL YOUNG</u>	
Battery Voltage: _____		Sonde Type & Serial No. <u>YSI 6920 - 032104101</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	<u>2.33</u>	<u>1.413</u>	<u>1.293</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>21.40</u>	<u>7.0</u>	<u>7.04</u>	<u>7.0</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	<u>21.20</u>	<u>4.0</u>	<u>4.1</u>	<u>4.0</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)					
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)					
Turbidity (low)	<u>21.27</u>	<u>0.0</u>	<u>0.3</u>	<u>0.2</u>	
ORP (High)	<u>21.34</u>	<u>240 mV</u>	<u>242.6</u>	<u>240.2</u>	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options	Barometric Pressure Formulas				
Barometer	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm				
From Local Source post Correct. (CBP)	BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)				
Estimated from Altitude Only	BP _____ mm = 760 mm - 2.5 (altitude _____ /100)				

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>10/05/05</u>	Time: <u>07:15</u>	Employee Name: <u>A. Marcano</u>			
Battery Voltage: <u>12.1</u>		Sonde Type & Serial No. <u>4194</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		<u>1.413</u>	<u>1.382</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)		<u>7.0</u>	<u>6.94</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])		<u>4.0</u>	<u>4.46</u>	<u>3.99</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)			<u>101.0%</u>	<u>100.9%</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)		<u>100</u>	<u>96.9</u> 22.4	<u>100.0</u>	
Turbidity (low)		<u>0</u>	<u>0.1</u>	<u>0.0</u>	
ORP (High)		<u>240</u>	<u>220.4</u>	<u>240.1</u>	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source post Correct. (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>10/06/05</u>	Time: <u>0700</u>	Employee Name: <u>A. marcum</u>			
Battery Voltage: _____			Sonde Type & Serial No. <u>05877</u>		
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		<u>1.413</u>	<u>1.307</u>	<u>1.410</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)		<u>7.0</u>	<u>7.03</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])		<u>4.0</u>	<u>3.97</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4		<u>4.0</u>	<u>3.97</u>	<u>4.00</u>	Range: +160 - 40 mV
Dissolved Oxygen (% sat)			<u>99.0%</u>	<u>99.0%</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)		<u>100</u>	<u>95.3</u>	<u>100.0</u>	
Turbidity (low)		<u>0</u>	<u>0.1</u>	<u>0.0</u>	
ORP (High)		<u>240</u>	<u>236.4</u>	<u>240.1</u>	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl			Barometric Pressure _____ inches		
Barometric Pressure Options			Barometric Pressure Formulas		
Barometer			Barometric Pressure (inches) _____ x 25.4 = BP _____ mm		
From Local Source post Correct. (CBP)			BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)		
Estimated from Altitude Only			BP _____ mm = 760 mm - 2.5 (altitude _____ /100)		

DuPont Chambers FUSRAP Investigation

#4144

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration					
Date: <u>10/07/05</u>	Time: <u>0650</u>	Employee Name: <u>A. Marcum</u>			
Battery Voltage: _____		Sonde Type & Serial No. <u>4144</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		<u>1.413</u>	<u>1.402</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)		<u>7.0</u>	<u>6.52</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>(4)</u> 10 - [circle one])		<u>4.0</u>	<u>4.51</u>	<u>3.99</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)		<u>100%</u>	<u>99.9</u>	<u>99.9%</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)					
Turbidity (low)			<u>513.4</u>		
ORP (High)		<u>240</u>	<u>513.4</u>	<u>N/A</u>	<u>Didn't calibrate</u>
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source post Correct. (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>10/07/05</u>	Time: <u>0710</u>	Employee Name: <u>A. Marcellin</u>			
Battery Voltage: _____		Sonde Type & Serial No. <u>05877</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		<u>1.413</u>	<u>1.400</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)		<u>7.00</u>	<u>7.01</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>(4)</u> 10 - [circle one])		<u>4.00</u>	<u>4.01</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)		<u>100</u>	<u>100.4</u>	<u>100.4</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)		<u>100</u>	<u>98.0</u>	<u>100.0</u>	
Turbidity (low)		<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	
ORP (High)		<u>240</u>	<u>235.6</u>	<u>240.0</u>	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl			Barometric Pressure _____ inches		
Barometric Pressure Options			Barometric Pressure Formulas		
Barometer			Barometric Pressure (inches) _____ x 25.4 = BP _____ mm		
From Local Source post Correct. (CBP)			BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)		
Estimated from Altitude Only			BP _____ mm = 760 mm - 2.5 (altitude _____ /100)		

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>10/10/05</u>	Time: <u>0700</u>	Employee Name: <u>A. Martin</u>			
Battery Voltage: <u>10.0/10</u>			Sonde Type & Serial No. <u>06706</u>		
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		<u>1.413</u>	<u>1.220</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)		<u>7.00</u>	<u>6.97</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>7</u> 10 - [circle one])		<u>4.00</u>	<u>4.06</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)		<u>100</u>	<u>100</u>	<u>100</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)		<u>100</u>	<u>103.4</u>	<u>100.0</u>	
Turbidity (low)		<u>0</u>	<u>-0.4</u>	<u>0.0</u>	
ORP (High)		<u>240</u>	<u>246.6</u>	<u>240.0</u>	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl			Barometric Pressure _____ inches		
Barometric Pressure Options			Barometric Pressure Formulas		
Barometer			Barometric Pressure (inches) _____ x 25.4 = BP _____ mm		
From Local Source post Correct. (CBP)			BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)		
Estimated from Altitude Only			BP _____ mm = 760 mm - 2.5 (altitude _____ /100)		

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: <u>10/10/05</u>	Time: <u>0650</u>	Employee Name: <u>A. Marcum</u>			
Battery Voltage: <u>10.5</u> %			Sonde Type & Serial No. <u>05877</u>		
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		<u>1.413</u>	<u>1.416</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)		<u>7.0</u>	<u>6.90</u>	<u>7.0</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])		<u>4.0</u>	<u>4.13</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)		<u>100</u>	<u>100.3</u>	<u>100.3</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)		<u>100</u>	<u>97.3</u>	<u>100.0</u>	
Turbidity (low)		<u>0</u>	<u>-0.2</u>	<u>0.0</u>	
ORP (High)		<u>240</u>	<u>251.1</u>	<u>240.2</u>	
ORP (Low)					

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches
Barometric Pressure Options		Barometric Pressure Formulas
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source post Correct. (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>10/12/05</u>		Time: <u>0730</u>		Employee Name: <u>A. MARUM</u>	
Battery Voltage: _____				Sonde Type & Serial No. <u>05877</u>	
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		1.413	1.396	1.413	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)		7.0	7.05	7.0	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])		4.0	3.98	4.0	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)		100	100.4	100.4	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)		100	99.9	100.0	
Turbidity (low)		0	0.7	0.0	
ORP (High)		240	241.2	239.7	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options			Barometric Pressure Formulas		
Barometer			Barometric Pressure (inches) _____ x 25.4 = BP _____ mm		
From Local Source post Correct. (CBP)			BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)		
Estimated from Altitude Only			BP _____ mm = 760 mm - 2.5 (altitude _____ /100)		

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>10/12/05</u>		Time: <u>0745</u>		Employee Name: <u>A. Mercurio</u>	
Battery Voltage: _____				Sonde Type & Serial No. <u>06706</u>	
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		<u>1.413</u>	<u>1.321</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)		<u>7.0</u>	<u>7.16</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>(4)</u> 10 - [circle one])		<u>4.0</u>	<u>3.98</u>	<u>4.01</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)		<u>100</u>	<u>100</u>	<u>100</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)		<u>100</u>	<u>97.2</u>	<u>100</u>	
Turbidity (low)		<u>0</u>	<u>0.7</u>	<u>0.0</u>	
ORP (High)		<u>240</u>	<u>239.2</u>	<u>240.1</u>	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source post Correct. (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>10-13-05</u>		Time: <u>0700</u>		Employee Name: <u>Carl Yang</u>	
Battery Voltage: _____				Sonde Type & Serial No: <u>YSI 6420 - 06706</u>	
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	<u>15.36</u>	<u>1.413</u>	<u>1.352</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>15.40</u>	<u>7.0</u>	<u>7.05</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>(4)</u> 10 - [circle one])	<u>15.42</u>	<u>4.0</u>	<u>3.97</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	<u>15.51</u>	<u>100%</u>	<u>100.0</u>	<u>100.0</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>15.44</u>	<u>100</u>	<u>91.3</u>	<u>100.0</u>	
Turbidity (low)	<u>15.46</u>	<u>0</u>	<u>5.2</u>	<u>0.0</u>	
ORP (High)	<u>15.49</u>	<u>240</u>	<u>243.3</u>	<u>240.3</u>	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure <u>760</u> inches			
Barometric Pressure Options			Barometric Pressure Formulas		
Barometer			Barometric Pressure (inches) _____ x 25.4 = BP _____ mm		
From Local Source post Correct. (CBP)			BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)		
Estimated from Altitude Only			BP _____ mm = 760 mm - 2.5 (altitude _____ /100)		

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>10-13-05</u>		Time: <u>0700</u>		Employee Name: <u>Carl Young</u>	
Battery Voltage: _____		Sonde Type & Serial No. <u>YSI 6320 - 05877</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	<u>15.46</u>	<u>1.413</u>	<u>1.334</u>	<u>1.416</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>15.47</u>	<u>7.0</u>	<u>7.03</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>(4)</u> 10 - [circle one])	<u>15.48</u>	<u>4.0</u>	<u>3.95</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	<u>15.37</u>	<u>100%</u>	<u>100.2</u>	<u>100.0</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>15.60</u>	<u>100</u>	<u>90.1</u>	<u>100.0</u>	
Turbidity (low)	<u>15.54</u>	<u>0</u>	<u>5.3</u>	<u>0.0</u>	
ORP (High)	<u>15.57</u>	<u>240</u>	<u>234.1</u>	<u>240.0</u>	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure <u>766</u> inches			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source post Correct. (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: <u>1-17-06</u>	Time: <u>0700</u>	Employee Name: <u>L. 24</u>			
Battery Voltage: _____		Sonde Type & Serial No. <u>204</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm	<u>14.44</u>	<u>1413</u>	<u>1412</u>		
Specific Conductance (med) ~10 mS/cm				<u>14.13</u>	
Specific Conductance (low) ~1 mS/cm	<u>14.44</u>	<u>1413</u>	<u>1412</u>	<u>14.13</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>13.52</u>	<u>7.0</u>	<u>6.98</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	<u>12.85</u>	<u>3.85</u>	<u>3.85</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	<u>7.97</u>	<u>100.0</u>	<u>100.1</u>	<u>100.9</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>8.84</u>	<u>100.00</u>	<u>80.8</u>	<u>100.1</u>	
Turbidity (low)	<u>13.18</u>	<u>0.0</u>	<u>2.9</u>	<u>0.0</u>	
ORP (High)	<u>13.03</u>	<u>240</u>	<u>254.1</u>	<u>240.1</u>	
ORP (Low)					

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl	Barometric Pressure <u>762.4</u> inches
Barometric Pressure Options	Barometric Pressure Formulas
Barometer	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source After Corection (CBP)	BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only	BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: 1/17/06 Time: 0708 Employee Name: JEFF KAPP
 Battery Voltage: 763.3 Sonde Type & Serial No. 02615

Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm	14.02	1.413	1.184	1.407	
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm					
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	14.31	7.00	7.34	7.00	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH (4) 10 - [circle one])	14.22	4.00	3.65	4.00	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	7.65	100%	100.4	100%	
Dissolved Oxygen Charge			0.004		Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	14.30	100.0	106.1	99.6	
Turbidity (low)	14.19	0.0	-8.4	0.0	
ORP (High)	14.32	240	263.2	240.0	
ORP (Low)					

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl	Barometric Pressure _____ inches
Barometric Pressure Options	Barometric Pressure Formulas
Barometer	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source After Corection (CBP)	BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only	BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: <u>1-18</u>	Time: <u>0650</u>	Employee Name: <u>CN-1</u>			
Battery Voltage: _____		Sonde Type & Serial No. <u>YSI 650 MDS SN 2848</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	<u>17.4</u>	<u>1.413</u>	<u>1.42</u>	<u>1.415</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>17.4</u>	<u>7.0</u>	<u>6.83</u>	<u>6.98</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH ④ 10 - [circle one])	<u>17.4</u>	<u>4.0</u>	<u>3.9</u>	<u>3.97</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	<u>17.4</u>	<u>100</u>	<u>93</u>	<u>99.1</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>17.4</u>	<u>100</u>	<u>90</u>	<u>100</u>	
Turbidity (low)	<u>17.4</u>	<u>0</u>	<u>23</u>	<u>1</u>	
ORP (High)	<u>17.4</u>	<u>240</u>	<u>228</u>	<u>240.1</u>	
ORP (Low)					

Data Needed for Dissolved Oxygen Calibration

SPCON DIDN'T WANT TO CAL BY 10 mS/cm

Altitude (A) = _____ feet above msl	Barometric Pressure _____ inches
Barometric Pressure Options	Barometric Pressure Formulas
Barometer	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source After Corection (CBP)	BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only	BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>1-18-06</u>		Time: <u>7.17</u>		Employee Name: <u>Liza Melison</u>	
Battery Voltage: _____		Sonde Type & Serial No. <u>YS 1650 MDS 02A0841 AF</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	<u>18.91</u> 14.13	<u>1.413</u>	<u>1.424</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>18.70</u> 7.00	<u>7.00</u>	<u>6.93</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	<u>18.92</u>	<u>4.00</u>	<u>4.04</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)					
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>18.91</u>	<u>100</u>	<u>95.0</u>	<u>99.9</u>	
Turbidity (low)	<u>18.91</u>	<u>0.0</u>	<u>0.4</u>	<u>0.1</u>	
ORP (High)	<u>18.91</u>	<u>240</u>	<u>226</u>	<u>240.6</u>	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: <u>1-19-06</u>	Time: <u>7:00</u>	Employee Name: <u>CM</u>			
Battery Voltage: <u>1/2</u>		Sonde Type & Serial No. <u>01J0898 AK</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	<u>9.48</u>	<u>1.413</u>	<u>1.403</u>	<u>1.414</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>9.57</u>	<u>7.60</u>	<u>6.96</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>7</u> 10 - [circle one])	<u>9.49</u>	<u>4.00</u>	<u>4.07</u>	<u>3.99</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)					
Dissolved Oxygen Charge					Range .25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>9.13</u>	<u>100</u>	<u>85</u>	<u>100.0</u>	
Turbidity (low)	<u>8.87</u>	<u>0.0</u>	<u>6.9</u>	<u>0.0</u>	
ORP (High)	<u>9.29</u> 240	<u>240</u>	<u>256.3</u>	<u>241.4</u>	
ORP (Low)					

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches
Barometric Pressure Options		Barometric Pressure Formulas
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: <u>1-19-06</u>	Time: <u>10:30</u>	Employee Name: <u>Lisa Mathison</u>			
Battery Voltage: _____			Sonde Type & Serial No. <u>650MDS 8130582 AC</u>		
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm		<u>1,413</u>	<u>1,577</u>	<u>1,413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>10.21</u>	<u>7.00</u>	<u>6.83</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	<u>10.23</u>	<u>4.00</u>	<u>4.01</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)					
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)		<u>100</u>			<u>Can't get Turbidity calibrated</u>
Turbidity (low)	<u>10.03</u>	<u>0.0</u>	<u>7.2</u>		
ORP (High)	<u>10.28</u> 240	<u>240</u>	<u>190.3</u>		<u>Can't get ORP calibrated</u>
ORP (Low)					

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches
Barometric Pressure Options		Barometric Pressure Formulas
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source post Correct. (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: <u>1-19-06</u>	Time: <u>10.30</u>	Employee Name: <u>LM</u>			
Battery Voltage: _____			Sonde Type & Serial No. <u>02651</u>		
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm	<u>10.59</u>	<u>1.413</u>	<u>1349</u>	<u>1413</u>	
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm					
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>10.63</u>	<u>7</u>	<u>6.94</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	<u>10.61</u>	<u>4</u>	<u>4.02</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	<u>9.58</u>	<u>100%</u>	<u>105.1%</u>	<u>100%</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)					
Turbidity (low)					
ORP (High)	<u>10.34</u>	<u>240</u>	<u>254.1</u>	<u>240.1</u>	
ORP (Low)					

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches
Barometric Pressure Options		Barometric Pressure Formulas
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source post Correct. (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>1/20/06</u>	Time: <u>1052</u>	Employee Name: <u>J.A. KAPP</u>			
Battery Voltage: _____		Sonde Type & Serial No. <u>YSI 6920 02F0624RE/01L0707AC</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm	<u>11.44</u>	<u>1.413</u>	<u>1.226</u>	<u>1.413</u>	
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm					
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>11.94</u>	<u>7.0</u>	<u>6.99</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH 4 10 - [circle one])	<u>10.99</u>	<u>4.0</u>	<u>4.20</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	<u>10.70</u>	<u>100%</u>	<u>97.8%</u>	<u>100.6</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>10.49</u>	<u>100.0</u>	<u>96.6</u>	<u>100.0</u>	
Turbidity (low)	<u>10.76</u>	<u>0.0</u>	<u>4.8</u>	<u>0.0</u>	
ORP (High)	<u>10.94</u>	<u>240.0</u>	<u>217.7</u>	<u>240.0</u>	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure <u>764.8</u> inches			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source post Correct. (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>1/20/06</u>		Time: <u>1020</u>		Employee Name: <u>J.A. KASIP</u>	
Battery Voltage: _____		Sonde Type & Serial No. <u>YSI 01K1272/99B1377AB</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm	<u>10.45</u>	<u>1.413</u>	<u>1.218</u>	<u>1.413</u>	
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm					
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>12.36</u>	<u>7.0</u>	<u>7.00</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	<u>10.39</u>	<u>4.0</u>	<u>4.25</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	<u>10.41</u>	<u>100%</u>	<u>98.3%</u>	<u>100.8%</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>9.86</u>	<u>100.0</u>	<u>91.5</u>	<u>100.0</u>	
Turbidity (low)	<u>9.89</u>	<u>0.0</u>	<u>3.2</u>	<u>0.0</u>	
ORP (High)	<u>10.42</u>	<u>290</u>	<u>259.4</u>	<u>290.0</u>	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure <u>76.2</u> inches			
Barometric Pressure Options			Barometric Pressure Formulas		
Barometer			Barometric Pressure (inches) _____ x 25.4 = BP _____ mm		
From Local Source post Correct. (CBP)			BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)		
Estimated from Altitude Only			BP _____ mm = 760 mm - 2.5 (altitude _____ /100)		

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>1-23-06</u>		Time: <u>7.30</u>		Employee Name: <u>LTJ Muth</u>	
Battery Voltage: <u>3.4</u>		Sonde Type & Serial No. <u>650mDS / 99B1377AB</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	<u>10.98</u>	<u>1.413</u>	<u>1.498</u>	<u>1.414</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>11.35</u>	<u>7.00</u>	<u>7.01</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	<u>11.42</u>	<u>4.00</u>	<u>3.99</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)					
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>11.07</u>	<u>10.06</u>	<u>97.9</u>	<u>100.0</u>	
Turbidity (low)	<u>10.97</u> 20	<u>0.0</u>	<u>1.1</u>	<u>0.0</u>	
ORP (High)					
ORP (Low)	<u>11.17</u>	<u>240</u>	<u>234.5</u>	<u>240.3</u>	
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source post Correct. (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>1/23/06</u>		Time: <u>0725</u>		Employee Name: <u>J.A. KAPP</u>	
Battery Voltage: <u>763.3 mmHg</u>		Sonde Type & Serial No. <u>YSI 6920 01L0707AC</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm	<u>11.04</u>	<u>1.413</u>	<u>1.410</u>	<u>1.413</u>	
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm					
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>11.36</u>	<u>7.0</u>	<u>6.98</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH 4 10 - [circle one])	<u>11.49</u>	<u>4.0</u>	<u>4.01</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	<u>10.83</u>	<u>100%</u>	<u>97.7%</u>	<u>100.6%</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>11.07</u>	<u>100.0</u>	<u>97.1</u>	<u>100.0</u>	
Turbidity (low)	<u>10.93</u>	<u>0.0</u>	<u>1.4</u>	<u>0.0</u>	
ORP (High)	<u>11.21</u>	<u>240.4</u>	<u>242.1</u>	<u>240.1</u>	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure <u>764.5</u> inches			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source post Correct. (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>1-24-06</u>	Time: <u>6700</u>		Employee Name: <u>L. M. Mathison</u>		
Battery Voltage: <u>1/2</u>			Sonde Type & Serial No. <u>99B1377A B</u>		
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	<u>10.99</u>	<u>1.413</u>	<u>1.496</u>	<u>1.408</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>10.95</u>	<u>7.0</u>	<u>7.02</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> <u>10</u> - [circle one])	<u>11.10</u>	<u>4.0</u>	<u>4.05</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)					
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>10.46</u>	<u>100</u>	<u>93.9</u>	<u>99.9</u>	
Turbidity (low)	<u>10.48</u>	<u>0.0</u>	<u>3.9</u>	<u>-0.1</u>	
ORP (High)					
ORP (Low)	<u>10.70</u>	<u>240</u>	<u>2389</u>	<u>240.7</u>	
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl			Barometric Pressure _____ inches		
Barometric Pressure Options			Barometric Pressure Formulas		
Barometer			Barometric Pressure (inches) _____ x 25.4 = BP _____ mm		
From Local Source post Correct. (CBP)			BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)		
Estimated from Altitude Only			BP _____ mm = 760 mm - 2.5 (altitude _____ /100)		

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>1-24-06</u>		Time: <u>0700</u>		Employee Name: <u>CAR-YOUNG</u>	
Battery Voltage: _____				Sonde Type & Serial No. _____	
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm	10.83	1.413	2.014	1.413	
Specific Conductance (low) ~1 mS/cm	10.76	1.413	1.401	1.413	<i>ink</i>
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	10.71	7.0	7.09	7.00	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH 4 10 - [circle one])	10.90	4.0	3.94	4.0	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	92.2	100%	103.7	100%	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	10.44	100.0	100.0	100.0	
Turbidity (low)	10.41	0.0	-3.2	0.0	
ORP (High)	10.60	240.0	235.9	240.3	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source post Correct. (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>1-25-06</u>	Time: <u>0730</u>		Employee Name: <u>Ken Marston</u>		
Battery Voltage: <u>0.6 Full</u>			Sonde Type & Serial No. <u>YSI 6920/01L0707AC</u>		
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm	<u>10.31</u>	<u>1.413</u>	<u>1.418</u>	<u>1.413</u>	
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm					
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>10.29</u>	<u>7.00</u>	<u>6.86</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	<u>10.24</u>	<u>4.00</u>	<u>4.09</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	<u>—</u>	<u>—</u>	<u>98.9</u>	<u>100</u>	<u>4m</u>
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>10.07</u>	<u>100</u>	<u>100.5</u>	<u>100</u>	
Turbidity (low)	<u>9.61</u>	<u>0.0</u>	<u>0.1</u>	<u>0.0</u>	
ORP (High)	<u>10.43</u>	<u>240</u>	<u>242.8</u>	<u>240</u>	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = <u>20</u> feet above msl		Barometric Pressure _____ inches <u>751.9 mm Hg</u>			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source post Correct. (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>1-25-06</u>		Time: <u>07:15</u>		Employee Name: <u>Lisa Mathison</u>	
Battery Voltage: _____				Sonde Type & Serial No. <u>99B1377AB</u>	
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm	<u>10.20</u>	<u>1.413</u>	<u>1.500</u>	<u>1.413</u>	
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm					
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>10.56</u>	<u>7.00</u>	<u>6.97</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	<u>10.42</u>	<u>4.00</u>	<u>3.97</u>	<u>3.96</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	<u>0</u>	<u>100.0</u>	<u>100.8</u>	<u>99.2</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>10.29</u>	<u>100.0</u>	<u>100.8</u>	<u>100.0</u>	
Turbidity (low)	<u>9.86</u>	<u>0.0</u>	<u>-5.5</u>	<u>0.0</u>	
ORP (High)	<u>99.5</u>	<u>240</u>	<u>243.2</u>	<u>240.4</u>	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = <u>0</u> feet above msl		Barometric Pressure <u>29.58</u> inches			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source post Correct. (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

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 29.58
 25.4
 232

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: 1-26-05 Time: 740 Employee Name: Wm. Mathison
 Battery Voltage: 1/2 Sonde Type & Serial No. 011070780

Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm			1.413		
Specific Conductance (med) ~10 mS/cm ³	5.68	1.413	1.413	1.414	
Specific Conductance (low) ~1 mS/cm			1.424		
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH <u>7</u>)	5.69	7.00	7.12	7.00	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	5.69	4.00	6.22		Does not calibrate
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)					Does not calibrate
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	5.51	100	92.6	100.0	
Turbidity (low)	5.56	0.0	0.9	0.0	
ORP (High)	6.04	240	249.6	240.1	
ORP (Low)					

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl	Barometric Pressure _____ inches
Barometric Pressure Options	Barometric Pressure Formulas
Barometer	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source post Correct. (CBP)	BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only	BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>1-26-06</u>		Time: _____		Employee Name: <u>CARL JOHNS</u>	
Battery Voltage: _____				Sonde Type & Serial No. <u>99B1377AB</u>	
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	5.7	1.413	1.353	1.453	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	5.8	7	7.01	7.00	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH 4 10 - [circle one])	5.7	4	4.08	4.08	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	5.7	100%	44.6%		DOES NOT CAL
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	5.8	100	99.1	100	
Turbidity (low)	5.8	0	-2	0.0	cal to distilled
ORP (High)	5.7	+240	+243	+240.1	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source post Correct. (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: 4/26/06 Time: 0805 Employee Name: Nicholas Bertiner
 Battery Voltage: _____ Sonde Type & Serial No. YSI 650/6820 02F0965

Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	12.20°C	1.413	1.374	1.413	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	12.80°C	7.00	6.93	7.00	
pH mV for pH 7 solution			-17.8		Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	12.84°C	4.00	4.04	4.00	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4			145.1		Range: +160 - 40 mV
Dissolved Oxygen (% sat)	10.83°C	*	105.9	100.0	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	13.08	100	44.7		CALIBRATION OUT OF RANGE
Turbidity (low)	11.24	0.0	133.1		CALIBRATION OUT OF RANGE
ORP (High)	12.22	240	256.1	240.0	
ORP (Low)					

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl

Barometric Pressure _____ inches

Barometric Pressure Options	Barometric Pressure Formulas
Barometer	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source After Corection (CBP)	BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only	BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

*Dissolved oxygen (% sat) calibration does not utilize a standard

Recal: Turbidity (high)

12.50 | 0.0 | 2.9 | 0.0

Recal: Turbidity (low)

12.80 | 100 | 66.5 | 100.0

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration					
Date: <u>4/26/06</u>	Time: <u>0948</u>	Employee Name: <u>Nicholas Berliner</u>			
Battery Voltage: _____		Sonde Type & Serial No. <u>99A0644</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	<u>11.66°C</u>	<u>1.413</u>	<u>1.409</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>11.90°C</u>	<u>7.00</u>	<u>6.98</u>	<u>7.00</u>	
pH mV for pH 7 solution			<u>8.8</u>		Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	<u>11.97°C</u>	<u>4.00</u>	<u>4.08</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4			<u>136.3</u>		Range: +160 - 40 mV
Dissolved Oxygen (% sat)	<u>11.63°C</u>	<u>*</u>	<u>101.8</u>	<u>100.2</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>12.57°C</u>	<u>100</u>	<u>55.4</u>		CALIBRATION OUT OF RANGE
Turbidity (low)	<u>12.23°C</u>	<u>0.0</u>	<u>111.6</u>		CALIBRATION OUT OF RANGE
ORP (High)	<u>12.21°C</u>	<u>240</u>	<u>255.9</u>	<u>240.0</u>	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

*Dissolved oxygen (% sat) calibration does not utilize a standard

Recal: Turbidity (low) 12.43 0.0 3.2 0.0

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: 4/27/06 Time: 0700 Employee Name: Nicholas Berliner
 Battery Voltage: _____ Sonde Type & Serial No. YSI 650/6810 02F0965

Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	11.76°C	1.413	1.400	1.413	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	12.83°C	7.00	7.04	7.00	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH ④ 10 - [circle one])	12.79°C	4.00	4.14	4.00	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	10.33°C	*	101.7	99.3	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	12.16°C	100	87.0		CALIBRATION OUT OF RANGE
Turbidity (low)	12.38	0	0.0	0.0	
ORP (High)	12.61°C	240	236.7	240.2	
ORP (Low)					

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl	Barometric Pressure _____ inches
Barometric Pressure Options	Barometric Pressure Formulas
Barometer	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source After Corection (CBP)	BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only	BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

*Dissolved oxygen (% ^{atm} sat) does not utilize a standard for calibration
 4/23/06

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration					
Date: <u>4/27/06</u>	Time: <u>0700</u>	Employee Name: <u>Nicholas Berliner</u>			
Battery Voltage: _____		Sonde Type & Serial No. <u>YSI 650/6810 99A0644</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	<u>11.64°C</u>	<u>1.413</u>	<u>1.392</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>12.90°C</u>	<u>7.00</u>	<u>6.87</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	<u>12.80°C</u>	<u>4.00</u>	<u>4.41</u>	<u>3.94</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	<u>10.40°C</u>	<u>*</u>	<u>105.9</u>	<u>99.3</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>11.99°C</u>	<u>100</u>	<u>44.9</u>		CALIBRATION OUT OF RANGE
Turbidity (low)	<u>12.26°C</u>	<u>0</u>	<u>0.0</u>	<u>0.0</u>	
ORP (High)	<u>12.56°C</u>	<u>240</u>	<u>240.2</u>	<u>240.1</u>	
ORP (Low)					
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

*Dissolved oxygen (%) calibration does not utilize a standard

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: 4/28/06 Time: 0705 Employee Name: Ken Marion
 Battery Voltage: 70% Sonde Type & Serial No: 650 MDS + YSI 6920, #3330

Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm					
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)			6.91	7.0	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])			4.10	4.0	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)					
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high) <u>NTU</u>					
Turbidity (low) <u>NTU</u>					
ORP (High)					
ORP (Low)					

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches
Barometric Pressure Options		Barometric Pressure Formulas
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: <u>4/28/06</u>	Time: <u>0730</u>	Employee Name: <u>D. KATZLEY</u>			
Battery Voltage: <u>50.96</u>		Sonde Type & Serial No. <u>YSI 6820 / 3535</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm	<u>16.49</u>	<u>1.413</u>	<u>1.549</u>	<u>1.413</u>	
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm					
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>16.38</u>	<u>7.00</u>	<u>6.96</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>7</u> 10 - [circle one])	<u>16.44</u>	<u>4.00</u>	<u>3.98</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	<u>11.89</u>	<u>NA</u>	<u>102.0</u>	<u>106.0</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high) <u>NTU</u>	<u>18.56</u>	<u>100.0</u>	<u>100.4</u>	<u>100.0</u>	
Turbidity (low) <u>NTU</u>	<u>18.44</u>	<u>0.0</u>	<u>-0.3</u>	<u>0.0</u>	
ORP (High)					
ORP (Low)		<u>246 mV</u>	<u>232.9</u>	<u>240 mV</u>	

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches
Barometric Pressure Options		Barometric Pressure Formulas
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION RECORD					
Calibration					
Date: <u>5/1/06</u>	Time: <u>6:50 AM</u>	Employee Name: <u>DAVE KATELEY</u>			
Battery Voltage: _____		Sonde Type & Serial No. <u>YSI 6820 / 3330</u>			
Function	Temp of Solution	Value of Standard	Initial Reading	Calibrated	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	<u>12.07</u>	<u>1413</u>	<u>1437</u>	<u>1413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>12.17</u>	<u>7.00</u>	<u>6.94</u>	<u>7.01</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>(4)</u> 10 - [circle one])	<u>12.37</u>	<u>4.00</u>	<u>3.80</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)					
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>12.23</u>	<u>100.0</u>	<u>115.3</u>	<u>100.0</u>	
Turbidity (low)	<u>12.18</u>	<u>0.0 NTU</u>	<u>5.3</u>	<u>0.0</u>	
ORP (High)	<u>12.25</u>	<u>240mV</u>	<u>253.3</u>	<u>240.1</u>	
ORP (Low)	<u>N/A</u>	<u>N/A</u>	<u>100.8</u>	<u>100.8</u>	<u>OPEN TO AIR CALIBRATE</u>
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CONDUC TIVITY AND pH MEASUREMENT LOG					
Calibration					
Date: <u>5-1-06</u>	Time: <u>0700</u>	Employee Name: <u>Ken Marion</u>			
Battery Voltage: <u>55</u>		Sonde Type & Serial No. <u>YSI 6820, #3535</u>			
Function	Time of Day	Value of Standard	Initial Reading	Calibrated Reading	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	<u>12.40</u>	<u>1.413</u>	<u>1.212</u>	<u>1.413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>12.65</u>	<u>7.00</u>	<u>6.97</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - (circle one))	<u>12.70</u>	<u>4.00</u>	<u>4.02</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	<u>11.60</u>	<u>NA</u>	<u>96.6</u>	<u>100</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high) <u>NTU</u>	<u>12.46</u>	<u>100</u>	<u>98.9</u>	<u>100</u>	
Turbidity (low) <u>NTU</u>	<u>12.40</u>	<u>0.0</u>	<u>-1.4</u>	<u>0.0</u>	
ORP (High)					
ORP (Low) <u>mV</u>	<u>12.45</u>	<u>240</u>	<u>265.2</u>	<u>240</u>	
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: <u>5/2/06</u>	Time: <u>0715</u>	Employee Name: <u>D. KATLEY</u>			
Battery Voltage: _____		Sonde Type & Serial No. <u>YSI / 3330</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	<u>13.04</u>	<u>1413</u>	<u>1392</u>	<u>1413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>12.73</u>	<u>7.0</u>	<u>6.73</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>(4)</u> 10 - [circle one])	<u>13.27</u> <u>4.0</u>	<u>4.0</u>	<u>4.25</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)					
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>13.13</u>	<u>100.0</u>	<u>110.1</u>	<u>100.0</u>	
Turbidity (low)	<u>13.12</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	
ORP (High)					
ORP (Low)	<u>13.10</u>	<u>240</u>	<u>235.9</u>	<u>240</u>	

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches
Barometric Pressure Options		Barometric Pressure Formulas
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: 5/2/06 Time: 0635 Employee Name: D. KATELEY
 Battery Voltage: _____ Sonde Type & Serial No. YSI 13035

Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	13.13	1.413	1.480	1.413	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	12.80	7.00	6.90	7.00	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	13.64 4.00	4.00	3.96	4.00	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)					
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	N/A				
Turbidity (low)	N/A				
ORP (High)					
ORP (Low)	13.57	240	235.5	240	

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl	Barometric Pressure _____ inches
Barometric Pressure Options	Barometric Pressure Formulas
Barometer	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source After Corection (CBP)	BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only	BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: 5-3-06 Time: 7:00 Employee Name: Ken Mason
 Battery Voltage: 50% Sonde Type & Serial No. YSI 6920, SN 3330

Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	<u>12.77</u>	<u>1413</u>	<u>1264</u>	<u>1413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>12.73</u>	<u>7.00</u>	<u>6.84</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>(4)</u> 10 - [circle one])	<u>12.70</u>	<u>4.00</u>	<u>4.14</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)			<u>99.4</u>	<u>100</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>12.67</u>	<u>100</u>	<u>90.3</u>	<u>100</u>	
Turbidity (low) <u>NTU</u>	<u>12.91</u>	<u>0.0</u>	<u>5.2</u>	<u>0.0</u>	
ORP (High)					
ORP (Low) <u>mV</u>	<u>12.65</u>	<u>240</u>	<u>232.1</u>	<u>240</u>	

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl	Barometric Pressure _____ inches
Barometric Pressure Options	Barometric Pressure Formulas
Barometer	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source After Corection (CBP)	BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only	BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: <u>5/4/06</u>	Time: <u>0615</u>	Employee Name: <u>D. KATZLEY</u>			
Battery Voltage: _____			Sonde Type & Serial No. <u>YSI / 6920</u>		
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	<u>17.47</u>	<u>1413</u>	<u>1459</u>	<u>1413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>17.54</u>	<u>7.0</u>	<u>6.77</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>4</u> 10 - [circle one])	<u>17.14</u>	<u>4.0</u>	<u>4.03</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	<u>15.81</u>	<u>100%</u>	<u>98.1%</u>	<u>100%</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>17.58</u>	<u>100.0</u>	<u>109.4</u>	<u>99.9</u>	
Turbidity (low)	<u>17.45</u>	<u>0.0</u>	<u>-0.9</u>	<u>0.0</u>	
ORP (High)					
ORP (Low)	<u>17.27</u>	<u>240</u>	<u>233.2</u>	<u>240.1</u>	

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches
Barometric Pressure Options		Barometric Pressure Formulas
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source post Correct. (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG					
Calibration					
Date: <u>5/4/06</u>		Time: <u>0710</u>		Employee Name: <u>D. KATULET</u>	
Battery Voltage: _____				Sonde Type & Serial No. <u>YSI / 6920</u>	
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	<u>17.55</u>	<u>1413</u>	<u>1171</u>	<u>1413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>17.60</u>	<u>7.0</u>	<u>7.20</u>	<u>7.0</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>(4)</u> 10 - [circle one])	<u>17.59</u>	<u>4.0</u>	<u>3.72</u>	<u>4.0</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	<u>15.94</u>	<u>100.0%</u>	<u>97.4</u>	<u>100.0</u>	<u>OPEN TO AIR</u>
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>17.64</u>	<u>100.0</u>	<u>96.6</u>	<u>100.0</u>	
Turbidity (low)	<u>17.60</u>	<u>0.0</u>	<u>6.5</u>	<u>0.0</u>	
ORP (High)					
ORP (Low)	<u>17.46</u>	<u>240</u>	<u>270.2</u>	<u>240.1</u>	
Data Needed for Dissolved Oxygen Calibration					
Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches			
Barometric Pressure Options		Barometric Pressure Formulas			
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm			
From Local Source post Correct. (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)			
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)			

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: <u>5/5/06</u>	Time: <u>0650</u>	Employee Name: <u>D. KATELEY</u>			
Battery Voltage: _____		Sonde Type & Serial No. <u>YSI / 3330</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	<u>21.65</u>	<u>1413</u>	<u>1349</u>	<u>1413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>20.83</u>	<u>7.00</u>	<u>7.10</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>(4)</u> 10 - [circle one])	<u>21.27</u>	<u>4.00</u>	<u>3.89</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	<u>17.64</u>	<u>—</u>	<u>99%</u>	<u>100%</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high)	<u>22.22</u>	<u>100.0</u>	<u>80.9</u>	<u>99.8</u>	
Turbidity (low)	<u>21.96</u>	<u>0.0</u>	<u>0.1</u>	<u>0.0</u>	
ORP (High)					
ORP (Low)	<u>21.84</u>	<u>240</u>	<u>221.3</u>	<u>240.0</u>	

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl		Barometric Pressure _____ inches
Barometric Pressure Options		Barometric Pressure Formulas
Barometer		Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source After Corection (CBP)		BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only		BP _____ mm = 760 mm - 2.5 (altitude _____ /100)

DuPont Chambers FUSRAP Investigation

YSI MULTIPROBE CALIBRATION / MAINTENANCE LOG

Calibration

Date: <u>5/5/06</u>	Time: <u>0645</u>	Employee Name: <u>Ken Marion</u>			
Battery Voltage: <u>12.4</u>		Sonde Type & Serial No. <u>YSI 6920, SN 06699</u>			
Function	Temp of Standard	Value of Standard	Initial Reading	Calibrated to	Comments
Specific Conductance (high) ~100 mS/cm					
Specific Conductance (med) ~10 mS/cm					
Specific Conductance (low) ~1 mS/cm	<u>21.80</u>	<u>1413</u> <u>1393</u>	<u>1393</u>	<u>1413</u>	
Conductivity Cell Constant (see *)					Range 4.6 - 5.45
pH calibrated (at pH 7)	<u>20.89</u>	<u>7.00</u>	<u>6.92</u>	<u>7.00</u>	
pH mV for pH 7 solution					Range 0 - 40 mV
pH calibrated (at pH <u>(4)</u> 10 - [circle one])	<u>21.38</u>	<u>4.00</u>	<u>3.97</u>	<u>4.00</u>	
pH mV for pH 10					Range: -160 - 40 mV
pH mV for pH 4					Range: +160 - 40 mV
Dissolved Oxygen (% sat)	<u>—</u>	<u>—</u>	<u>99.2</u>	<u>100</u>	
Dissolved Oxygen Charge					Range 25 - 75
Dissolved Oxygen Gain (see *)					Range 0.8 - 1.7
Turbidity (high) <u>NTU</u>	<u>21.64</u>	<u>100.0</u>	<u>89.3</u>	<u>100.0</u>	
Turbidity (low) <u>NTU</u>	<u>21.57</u>	<u>0.0</u>	<u>10.6</u>	<u>0.0</u>	
ORP (High)					
ORP (Low) <u>mV</u>	<u>22.23</u>	<u>240</u>	<u>235.9</u>	<u>240</u>	

Data Needed for Dissolved Oxygen Calibration

Altitude (A) = _____ feet above msl	Barometric Pressure _____ inches
Barometric Pressure Options	Barometric Pressure Formulas
Barometer	Barometric Pressure (inches) _____ x 25.4 = BP _____ mm
From Local Source After Corection (CBP)	BP _____ mm = CBP _____ mm - 2.5 (altitude _____ /100)
Estimated from Altitude Only	BP _____ mm = 760 mm - 2.5 (altitude _____ /100)