

# Lake Field Data Sheet – 2012 WLA Water Quality Monitoring Data

Use one sheet for each test site

## Webster Lake Association

MANTA  
Troll 9500 Serial#: 48734

Date: Oct. 18, 2012

Time: 11:06 AM

Site ID: SOUTH POND

Volunteers: Ed WENTLAND, ERNIE BENOIT, AL HUEFNER, PAUL OLSON, RICH FRANAS, RAY TRAVIS

rev: 20120516

### Weather Observations

#### 1. Current Sky Conditions:

- Clear/Sunny
- Hazy
- Few Clouds
- Overcast
- Rain/Mix

#### 2. Current Wind Conditions

- Calm
- Light breeze
- Gusty or High Winds

#### 3. Daytime Temp - past 48hrs:

- Cold (40s/50s)
- Cool (60s)
- Mild (70s)
- Warm (80s)
- Hot (90+)

#### 4. Sky Conditions - past 48hrs:

- Cloudy - Dry
- Sunny - Dry
- Light - Rain
- Heavy - Rain
- Stormy /Thunderstorms

### Water Observations

#### 1. Water Surface Conditions:

- Calm
- Ripples Slight
- Waves
- White Caps

#### 2. Water Color:

- Clear
- Green Appearance
- Brown Appearance
- Gray Appearance

#### 3. Water Clarity:

- Clear
- Dark Colored
- Cloudy or Muddy

#### 4. Suspended Matter:

- None Visible
- Slight Amount
- Moderate Amount
- Substantial Amount

#### 5. Water Smell/Odor

- None
- Fishy Smell
- Musty Smell
- Rotten Egg-like Smell
- Septic-like Smell

#### 6. Other observations

- None
- Water bugs, surface bugs
- Dead Fish
- Leaves/Limbs/Debris
- Oil film
- Trash/debris from humans
- Algae Mats/Clumps
- Waterfowl

#### 7. Notes/Other Observations:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Instrument Readings:

#### Anemometer Air Readings

Air temp: 58.1 °F  
Wind Speed: 1.5 mph  
Wind Direction: 170°  
(Compass Degrees)

Secchi Disk: 129 ft/  
(Red Side of Tape Feet/Tenths)  
Thermocline: N/A ft.  
Lake Depth: 24.0 ft.

### Water Samples Collected:

Sample	Top	TCline	Bot
Chlor	<input type="checkbox"/>		
Phos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nitrate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

TOTAL -  
TOTAL →  
NITROGEN

### Equipment Check List:

- In-Situ Tech Support 800-446-7488**
- Troll 9500 & Rugged Reader (charge battery)
  - 50' Troll Cable
  - Stylus for Rugged Reader
  - Anemometer (Check Batteries)
  - Compass
  - GPS (Check Batteries)
  - Kit of Extra Batteries
  - Lake - Field Data Sheets - 4 copies
  - Notebook & pen for thermocline
  - Writing Pens
  - 2ft Measuring Stick
  - Sample Grabber Tool
  - Sample bottles
  - Cooler & Ice Packs
  - Sample Chain of Custody Form
  - First aid Kit
  - Aqua-scope Viewer
  - Van Dorn Grabber with Measure Tape/Release Line
  - Secchi Disk & Measure Tape
  - Anchor & 200 foot line
  - Camera (Optional)

### Form Quality Signatures:

Form Filled In By:

Ed Wentland

Reviewed By:

\_\_\_\_\_

Date:

\_\_\_\_\_

**Note: Before leaving the site, make sure all fields are filled in.**

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## Webster Lake Association

Troll 9500 Serial#: 48734

Use one sheet for each test site

Date: Oct. 18, 2012

Time: 11:06 AM

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Volunteers: Ed WENTLAND, ERNIE BENOIT, AL HUEFNER, PHIL OLSON, RICH FRANAS, RAY TRAVIS

rev: 20120516

### Weather Observations

#### 1. Current Sky Conditions:

- Clear/Sunny  
 Hazy  
 Few Clouds  
 Overcast  
 Rain/Mix

#### 2. Current Wind Conditions

- Calm  
 Light breeze  
 Gusty or High Winds

#### 3. Daytime Temp - past 48hrs:

- Cold (40s/50s)  
 Cool (60s)  
 Mild (70s)  
 Warm (80s)  
 Hot (90+)

#### 4. Sky Conditions - past 48hrs:

- Cloudy - Dry  
 Sunny - Dry  
 Light - Rain  
 Heavy - Rain  
 Stormy /Thunderstorms

**Note: Before leaving the site, make sure all fields are filled in.**

### Form Quality Signatures:

Form Filled In By:

Ed Wentland

Reviewed By:

Date:

### Water Observations

#### 1. Water Surface Conditions:

- Calm  
 Ripples Slight  
 Waves  
 White Caps

#### 2. Water Color:

- Clear  
 Green Appearance  
 Brown Appearance  
 Gray Appearance

#### 3. Water Clarity:

- Clear  
 Dark Colored  
 Cloudy or Muddy

#### 4. Suspended Matter:

- None Visible  
 Slight Amount  
 Moderate Amount  
 Substantial Amount

#### 5. Water Smell/Odor

- None  
 Fishy Smell  
 Musty Smell  
 Rotten Egg-like Smell  
 Septic-like Smell

#### 6. Other observations

- None  
 Water bugs, surface bugs  
 Dead Fish  
 Leaves/Limbs/Debris  
 Oil film  
 Trash/debris from humans  
 Algae Mats/Clumps  
 Waterfowl

#### 7. Notes/Other Observations:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

### Instrument Readings:

#### Anemometer Air Readings

Air temp: 58.1 F  
 Wind Speed: 1.5 mph  
 Wind Direction: 170°  
 (Compass Degrees)

Secchi Disk: 12.9 ft/t  
 (Red Side of Tape Feet/Tenths)

Thermocline: N/A ft.  
 Lake Depth: 24.0 ft.

### Water Samples Collected:

Sample	Top	TCLine	Bot
Chlor	<input type="checkbox"/>		
Phos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nitrate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Equipment Check List:

In-Situ Tech Support 800-446-7488

- Troll 9500 & Rugged Reader (charge battery)  
 50' Troll Cable  
 Stylus for Rugged Reader  
 Anemometer (Check Batteries)  
 Compass  
 GPS (Check Batteries)  
 Kit of Extra Batteries  
 Lake - Field Data Sheets - 4 copies  
 Notebook & pen for thermocline  
 Writing Pens  
 2ft Measuring Stick  
 Sample Grabber Tool  
 Sample bottles  
 Cooler & Ice Packs  
 Sample Chain of Custody Form  
 First aid Kit  
 Aqua-scope Viewer  
 Van Dorn Grabber with Measure Tape/Release Line  
 Secchi Disk & Measure Tape  
 Anchor & 200 foot line  
 Camera (Optional)

# Streams Field Data Sheet – 2012 WLA Water Quality Monitoring Data

## Webster Lake Association

MANTA  
Troll 9500 Serial #: ~~42/24~~

Use one sheet for each test site

Date: 11/14/12 Time: 10:14 AM Site ID: LKQ 20  
Volunteers: KEN HAVLIN, ERNIE BENOIT, AL NUESNER

rev: 2011/02/11

Is this a QC Check? Yes

### Weather Conditions

#### 1. Current Sky Conditions:

- Clear/Sunny
- Hazy
- Few Clouds
- Overcast
- Rain/Mix

#### 2. Current Wind Conditions

- Calm
- Light breeze
- Gusty or High Winds

#### 3. Daytime Temp - past 48hrs:

- Cold (40s/50s)
- Cool (60s)
- Mild (70s)
- Warm (80s)
- Hot (90+)

#### 4. Sky Conditions - past 48hrs:

- Cloudy - Dry
- Sunny - Dry
- Light - Rain
- Heavy - Rain

**Note:** Before leaving the site, make sure all fields are filled in.

### Water Samples Collected:

~~TOTAL NITRATE LAKE~~  
Phosphorus  KEEP  
Nitrates STREAM

### Form Quality Signatures:

Form filled in by:

ERNIE

Reviewed by:

Date:

### Water Conditions

#### 1. Stream Water Flow:

- Dry Bed
- No Flow - Water Standing
- Light Flow
- Moderate Flow
- Heavy Flow

#### 2. Water Clarity:

- Clear LIGHT (LOW)
- Dark Colored
- Cloudy or Muddy

#### 3. Suspended Sediment Level:

- None Visible
- Slight Amount
- Moderate Amount
- Substantial Amount

#### 4. Amount of Aquatic Growth:

- None
- Slight Amount
- Moderate Amount
- Substantial Amount

#### 5. Water Smell/Odor

- None
- Fishy Smell
- Musty Smell
- Rotten Egg-like Smell
- Septic-like Smell

#### 6. Other observations

- None
- Water bugs, surface bugs
- Tadpoles, frogs, crayfish
- Animal prints on bank
- Leaves/Brush in water
- Trash/debris from humans
- Other (describe in notes)

#### 7. Notes:

HURRICANE & NORTHEAST  
LOTS OF RAIN FOR  
SETTLING-POND

### Instrument Readings:

Staff Gauge: — ft.

#### Air/Wind Anemometer

Air temp: 45.5 °F

Wind Speed: 1.6 MPH

Wind Direction: 312  
(compass degrees)

#### Troll Water Readings

Water temp: 44.5 °F

HDO  
RDO: 9.40 Mg/L

pH: 6.22 Units

Conductivity: 134.7 uS/L

Turbidity: 45.7 NTU

BLUE GREEN  
ORP: 0.26 mV

ALGAE  
Nitrogen: — ppm

### Equipment Check List:

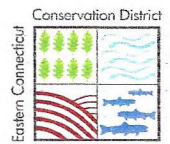
In-Situ Tech Support 800-446-7488

- Clip board & rain protector
- Field Data Sheets – 6 copies
- Samples Chain of Custody Form
- Sample bottles
- Sample Grabber Tool
- First Aid Kit
- Brush to clean staff gauges
- Anemometer/thermometer
- Compass
- Triangle flares
- Troll 9500
- 15ft Troll Cable
- Rugged Reader (Charge Bat.)
- Kit of Spare Batteries
- Stylus for Rugged Reader
- Boots
- Brush Trimmer
- Camera
- SOPs Operating Instruments
- Poison Ivy Wash
- QC Site Selected





# The Last Green Valley Volunteer Water Quality Monitoring Program



## Field Sheet for Manta

Date: \_\_\_\_\_ Name Monitoring Team/monitoring location \_\_\_\_\_

Samplers: \_\_\_\_\_ Weather previous 48 hours: \_\_\_\_\_

Yesterday \_\_\_\_\_

2 days ago \_\_\_\_\_

Current Weather: \_\_\_\_\_ >0.1" precipitation in previous 24 hours? \_\_\_\_\_

Site Name or lake depth	Time	Depth feet	Water Temp °F	pH	Specific Conductivity μS/cm	Turbidity NTUs	HDO mg/l	Chloride mg/l WLA not needed	BG ppm	Observations (ie algae, aquatic plants, waterfowl, boating activity, swimming, water odor, wind, waves)

Name of Team Leader \_\_\_\_\_ Signed \_\_\_\_\_

Date \_\_\_\_\_ Name of Data Recorder \_\_\_\_\_ Signed \_\_\_\_\_

\_\_\_\_\_ Date \_\_\_\_\_ Name of QC Manager \_\_\_\_\_

Signed \_\_\_\_\_ Date \_\_\_\_\_



# The Last Green Valley Eureka Manta+ 35 Multiprobe Calibration Report

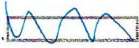
- Calibrations/ calibration checks to be completed a day before or the morning of the Field Sampling Date
- Post-readings to be completed the afternoon of or the day after the Field Sampling Date
- Barometric pressure should be reset at the first monitoring site.

Calibration Person \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Post Reading Person \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

ASK

Sonde Serial Number: \_\_\_\_\_ When was the electrode solution last replaced? \_\_\_\_\_ If more than 2 months, replace.

- Reset the barometric pressure (mmHg)
- Fill cup with Air Saturated Deionized Water  
 Calibrate DISSOLVED OXYGEN (HDO%)  
 Pre-Calibration Reading...  Calibrate  
 SRF\*\*...   
 Post-Calibration Reading HDO%...
- Calibrate TURBIDITY (two point calibration)  
 Pre-calibration reading in air Turbidity 0 NTU...   
 Calibrate at high value, enter 100 NTU, then click OK  
 Turbidity 100 NTU slope =  select Accept  
 Select second calibration, dry the probe, enter 0, and make the reading in air  
 SRF...  Press OK  
 Post Calibration Reading in air
- Calibrate CHLORIDE\* (two point calibration)  
 1<sup>st</sup> calibration value (use 147  $\mu\text{S}/\text{cm}$  and enter 34.3 mg/l chloride)  
 Pre-calibration reading...   
 Slope after first calibration step...   
 2<sup>nd</sup> calibration value (use 1413  $\mu\text{S}/\text{cm}$  enter 319.3 mg/l chloride)  
 SRF...   
 Post Calibration Reading
- Calibrate CONDUCTIVITY use Standard (1413  $\mu\text{S}/\text{cm}$ )  
 Pre-calibration reading SC  $\mu\text{S}/\text{cm}$ ...   
 SRF...   
 Post-calibration reading SC  $\mu\text{S}/\text{cm}$ ...
- Calibrate pH\*\*\* (two point calibration)  
 1st calibration value 7.0 pH units  
 Pre-calibration reading...   
 Slope after first step...   
 2nd calibration value enter 4.0 pH units or 10 pH units.  
 Calibrate and record the SRF...   
 Post Calibration Reading of pH 4...   
 Post-calibration reading pH 10...
- Calibrate Blue Green Algae (Phycocyanin)\* (two point calibration)  
 Check the calibration with the Cal Cube...   
 Cover the probes plus 1 inch of Deionized water  
 Enter 1st calibration value 0 ppb  
 Slope after first step...   
 2nd calibration value 260 ppb (use Rhodamine dye 200 mg/l)  
 SRF...   
 Post Calibration Reading  
 260 ppb...   
 Cal Cube Reading ppb...  adjust to 260 ppb if needed but only after recalibrating.

- Reset the barometric pressure  (mmHg)
- Dry the probes and point them up into the air  
 Post-monitoring readings  
 Turbidity 0 NTU...
- Fill cup with Air Saturated Deionized Water  
 Post-monitoring readings  
 HDO 100% Saturation...
- Fill cup with Conductivity Standard (1413  $\mu\text{S}/\text{cm}$ )  
 Post-monitoring reading  
 SC  $\mu\text{S}/\text{cm}$ ...  Chloride (319.3 mg/l) ... 
- Fill cup with pH 7.0 Standard  
 Post-monitoring reading  
 pH...
- Cover BGA probe with the cal cube  
 Post-monitoring reading  
 BG (Phycocyanin) 260 ppb...

HDO% (100%)	100% $\pm$ 2
Turbidity (0 NTU)	0 NTU $\pm$ 0.2
SC (1413 $\mu\text{S}/\text{cm}$ )	1413 $\mu\text{S}/\text{cm}$ $\pm$ 15% or 14
Chloride* 1413 $\mu\text{S}/\text{cm}$	319.3 mg/l $\pm$ 5% or 16
147 $\mu\text{S}/\text{cm}$	34.3 mg/l $\pm$ 5% or 1.7
pH (7.0 pH units)	6.9 - 7.1
Blue Green Algae (260 ppb)	260 ppm $\pm$ 5% or 13 ppm
Cal Cub adjusted to 260 ppb	260 ppm $\pm$ 2% or 5 ppm

\*These parameters are optional depending on the project.  
 \*\*Sensor Response Factor (SRF). The Manta will automatically accept a SRF between 80 to 120 is good and 60 to 140 is acceptable. If the SRF falls outside that range, recheck the standard value, make sure the sensor is clean and/or assure the reading has stabilized. The HDO probe SRF will read 100% for a one point calibration.  
 The Chloride probe acceptable range is 100  $\pm$  25.  
 \*\*\*If the lake you are monitoring is highly eutrophic, and the pH value may be > 7, it may be best to conduct a 3 point calibration using pH 10 buffer as the third value.

## The Last Green Valley Eureka Manta+ 35 Multiprobe Calibration Report

- Calibrations/ calibration checks to be completed a day before or the morning of the Field Sampling Date
- Post-readings to be completed the afternoon of or the day after the Field Sampling Date
- Barometric pressure should be reset at the first monitoring site.

Calibration Person \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Post Reading Person \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Sonde Serial Number: \_\_\_\_\_ When was the electrode solution last replaced? \_\_\_\_\_ If more than 2 months, replace.

1. Reset the barometric pressure (mmHg) [ ]
2. Fill cup with Air Saturated Deionized Water  
Calibrate DISSOLVED OXYGEN (HDO%)  
Pre-Calibration Reading... [ ] Calibrate-SRF\*\*... [ ]  
Post-Calibration Reading HDO%... [ ]
3. Calibrate TURBIDITY (two point calibration)  
Pre-calibration reading in air Turbidity 0 NTU... [ ]  
Calibrate at high value, enter 100 NTU, then click OK  
Turbidity 100 NTU slope = [ ] select Accept  
Select second calibration, dry the probe, enter 0, and make the reading in air  
SRF... [ ] Press OK  
Post Calibration Reading in air [ ]
4. Calibrate CHLORIDE\* (two point calibration)  
1<sup>st</sup> calibration value (use 147 μS/cm and enter 34.3 mg/l chloride)  
Pre-calibration reading... [ ]  
Slope after first calibration step... [ ]  
2<sup>nd</sup> calibration value (use 1413 μS/cm enter 319.3 mg/l chloride)  
SRF... [ ]  
Post Calibration Reading [ ]
5. Calibrate CONDUCTIVITY use Standard (1413 μS/cm)  
Pre-calibration reading SC μS/cm... [ ]  
SRF... [ ]  
Post-calibration reading SC μS/cm... [ ]
6. Calibrate pH\*\*\* (two point calibration)  
1st calibration value 7.0 pH units  
Pre-calibration reading... [ ]  
Slope after first step... [ ]  
2nd calibration value enter 4.0 pH units or 10 pH units.  
Calibrate and record the SRF... [ ]  
Post Calibration Reading of pH 4... [ ]  
Post-calibration reading pH 10... [ ]
7. Calibrate Blue Green Algae (Phycocyanin)\* (two point calibration)  
Check the calibration with the Cal Cube... [ ]  
Cover the probes plus 1 inch of Deionized water  
Enter 1st calibration value 0 ppb  
Slope after first step... [ ]  
2nd calibration value 260 ppb (use Rhodamine dye 200 mg/l)  
SRF... [ ]  
Post Calibration Reading  
260 ppb... [ ]  
Cal Cube Reading ppb... [ ] adjust to 260 ppb if needed but only after recalibrating.

1. Reset the barometric pressure. [ ] (mmHg)
2. Dry the probes and point them up into the air  
Post-monitoring readings  
Turbidity 0 NTU... [ ]
3. Fill cup with Air Saturated Deionized Water  
Post-monitoring readings  
HDO 100% Saturation... [ ]
4. Fill cup with Conductivity Standard (1413 μS/cm)  
Post-monitoring reading  
SC μS/cm... [ ] Chloride (319.3 mg/l) ... [ ]
5. Fill cup with pH 7.0 Standard  
Post-monitoring reading  
pH... [ ]
6. Cover BGA probe with the cal cube  
Post-monitoring reading  
BG (Phycocyanin) 260 ppb... [ ]

Accuracy Range Table	
HDO% (100%)	100% ± 2
Turbidity (0 NTU)	0 NTU ± 0.2
SC (1413 μS/cm)	1413 μS/cm ± 15% or 14
Chloride* 1413 μS/cm	319.3 mg/l ± 5% or 16
147 μS/cm	34.3 mg/l ± 5% or 1.7
pH (7.0 pH units)	6.9 – 7.1
Blue Green Algae (260 ppb)	260 ppm ± 5% or 13 ppm
Cal Cub adjusted to 260 ppb	260 ppm ± 2% or 5 ppm

\*These parameters are optional depending on the project.

\*\*Sensor Response Factor (SRF). The Manta will automatically accept a SRF between 80 to 120 is good and 60 to 140 is acceptable. If the SRF falls outside that range, recheck the standard value, make sure the sensor is clean and/or assure the reading has stabilized. The HDO probe SRF will read 100% for a one point calibration. The Chloride probe acceptable range is 100 ± 25.

\*\*\*If the lake you are monitoring is highly eutrophic, and the pH value may be > 7, it may be best to conduct a 3 point calibration using pH 10 buffer as the third value:



## The Last Green Valley Eureka Manta+ 35 Multiprobe Calibration Report

- Calibrations/ calibration checks to be completed a day before or the morning of the Field Sampling Date
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Calibration Person \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Post Reading Person \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Sonde Serial Number: \_\_\_\_\_ When was the electrode solution last replaced? \_\_\_\_\_ If more than 2 months, replace.

1. Reset the barometric pressure (mmHg): \_\_\_\_\_
2. Fill cup with Air Saturated Deionized Water  
Calibrate DISSOLVED OXYGEN (HDO%)  
Pre-Calibration Reading... \_\_\_\_\_ Calibrate  
SRF\*\*... \_\_\_\_\_  
Post-Calibration Reading HDO%... \_\_\_\_\_
3. Calibrate TURBIDITY (two point calibration)  
Pre-calibration reading in air Turbidity 0 NTU... \_\_\_\_\_  
Calibrate at high value, enter 100 NTU, then click OK  
Turbidity 100 NTU slope = \_\_\_\_\_ select Accept  
Select second calibration, dry the probe, enter 0, and make the reading in air  
SRF... \_\_\_\_\_ Press OK  
Post Calibration Reading in air \_\_\_\_\_
4. Calibrate CHLORIDE\* (two point calibration)  
1<sup>st</sup> calibration value (use 147  $\mu$ S/cm and enter 34.3 mg/l chloride)  
Pre-calibration reading... \_\_\_\_\_  
Slope after first calibration step... \_\_\_\_\_  
2<sup>nd</sup> calibration value (use 1413  $\mu$ S/cm enter 319.3 mg/l chloride)  
SRF... \_\_\_\_\_  
Post Calibration Reading \_\_\_\_\_
5. Calibrate CONDUCTIVITY use Standard (1413  $\mu$ S/cm)  
Pre-calibration reading SC  $\mu$ S/cm... \_\_\_\_\_  
SRF... \_\_\_\_\_  
Post-calibration reading SC  $\mu$ S/cm... \_\_\_\_\_
6. Calibrate pH\*\*\* (two point calibration)  
1st calibration value 7.0 pH units  
Pre-calibration reading... \_\_\_\_\_  
Slope after first step... \_\_\_\_\_  
2nd calibration value: enter 4.0 pH units or 10 pH units.  
Calibrate and record the SRF... \_\_\_\_\_  
Post Calibration Reading of pH 4... \_\_\_\_\_  
Post-calibration reading pH 10... \_\_\_\_\_
7. Calibrate Blue Green Algae (Phycocyanin)\* (two point calibration)  
Check the calibration with the Cal Cube... \_\_\_\_\_  
Cover the probes plus 1 inch of Deionized water  
Enter 1st calibration value 0 ppb  
Slope after first step... \_\_\_\_\_  
2nd calibration value 260 ppb (use Rhodamine dye 200 mg/l)  
SRF... \_\_\_\_\_  
Post Calibration Reading  
260 ppb... \_\_\_\_\_  
Cal Cube Reading ppb... \_\_\_\_\_ adjust to 260 ppb if needed but only after recalibrating.

1. Reset the barometric pressure: \_\_\_\_\_ (mmHg)
2. Dry the probes and point them up into the air  
Post-monitoring readings  
Turbidity 0 NTU... \_\_\_\_\_
3. Fill cup with Air Saturated Deionized Water  
Post-monitoring readings  
HDO 100% Saturation... \_\_\_\_\_
4. Fill cup with Conductivity Standard (1413  $\mu$ S/cm)  
Post-monitoring reading  
SC  $\mu$ S/cm... \_\_\_\_\_ Chloride (319.3 mg/l) ... \_\_\_\_\_
5. Fill cup with pH 7.0 Standard  
Post-monitoring reading  
pH... \_\_\_\_\_
6. Cover BGA probe with the cal cube  
Post-monitoring reading  
BG (Phycocyanin) 260 ppb... \_\_\_\_\_

Accuracy Range Table	
HDO% (100%)	100% $\pm$ 2
Turbidity (0 NTU)	0 NTU $\pm$ 0.2
SC (1413 $\mu$ S/cm)	1413 $\mu$ S/cm $\pm$ 15% or 14
Chloride* 1413 $\mu$ S/cm	319.3 mg/l $\pm$ 5% or 16
147 $\mu$ S/cm	34.3 mg/l $\pm$ 5% or 1.7
pH (7.0 pH units)	6.9 – 7.1
Blue Green Algae (260 ppb)	260 ppm $\pm$ 5% or 13 ppm
Cal Cub adjusted to 260 ppb	260 ppm $\pm$ 2% or 5 ppm

\*These parameters are optional depending on the project.

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\*\*\*If the lake you are monitoring is highly eutrophic, and the pH value may be > 7, it may be best to conduct a 3 point calibration using pH 10 buffer as the third value.

# Lake Field Data Sheet – 2012 WLA Water Quality Monitoring Data

Use one sheet for each test site

## Webster Lake Association

Troll 9500 Serial#: **48734**

Date: Oct. 18, 2012

Time: 11:06 AM

Site ID: SOUTH POND

Volunteers: Ed WENTLAND, ERNIE BENOIT, AL HUEFNER, Phil OLSON, RICH FRANAS, RAY TRAVIS

rev: 20120516

### Weather Observations

#### 1. Current Sky Conditions:

- Clear/Sunny
- Hazy
- Few Clouds
- Overcast
- Rain/Mix

#### 2. Current Wind Conditions

- Calm
- Light breeze
- Gusty or High Winds

#### 3. Daytime Temp - past 48hrs:

- Cold (40s/50s)
- Cool (60s)
- Mild (70s)
- Warm (80s)
- Hot (90+)

#### 4. Sky Conditions - past 48hrs:

- Cloudy - Dry
- Sunny - Dry
- Light - Rain
- Heavy - Rain
- Stormy /Thunderstorms

### Water Observations

#### 1. Water Surface Conditions:

- Calm
- Ripples Slight
- Waves
- White Caps

#### 2. Water Color:

- Clear
- Green Appearance
- Brown Appearance
- Gray Appearance

#### 3. Water Clarity:

- Clear
- Dark Colored
- Cloudy or Muddy

#### 4. Suspended Matter:

- None Visible
- Slight Amount
- Moderate Amount
- Substantial Amount

#### 5. Water Smell/Odor

- None
- Fishy Smell
- Musty Smell
- Rotten Egg-like Smell
- Septic-like Smell

#### 6. Other observations

- None
- Water bugs, surface bugs
- Dead Fish
- Leaves/Limbs/Debris
- Oil film
- Trash/debris from humans
- Algae Mats/Clumps
- Waterfowl

#### 7. Notes/Other Observations:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Instrument Readings:

#### Anemometer Air Readings

Air temp: 58.1 °F  
Wind Speed: 1.5 mph  
Wind Direction: 170 °  
(Compass Degrees)

Secchi Disk: 12.9 ft/t  
(Red Side of Tape Feet/Tenths)

Thermocline: N/A ft.

Lake Depth: 24.0 ft.

### Water Samples Collected:

Sample	Top	<del>F</del> line	Bot
Chlor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Phos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nitrate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Equipment Check List:

In-Situ Tech Support 800-446-7488

- Troll 9500 & Rugged Reader (charge battery)
- 50' Troll Cable
- Stylus for Rugged Reader
- Anemometer (Check Batteries)
- Compass
- GPS (Check Batteries)
- Kit of Extra Batteries
- Lake - Field Data Sheets – 4 copies
- Notebook & pen for thermocline
- Writing Pens
- 2ft Measuring Stick
- Sample Grabber Tool
- Sample bottles
- Cooler & Ice Packs
- Sample Chain of Custody Form
- First aid Kit
- Aqua-scope Viewer
- Van Dorn Grabber with Measure Tape/Release Line
- Secchi Disk & Measure Tape
- Anchor & 200 foot line
- Camera (Optional)

**Note: Before leaving the site, make sure all fields are filled in.**

### Form Quality Signatures:

Form Filled In By:

Ed Wentland

Reviewed By:

\_\_\_\_\_

Date: \_\_\_\_\_

# Lake Field Data Sheet – 2012 WLA Water Quality Monitoring Data

Use one sheet for each test site

## Webster Lake Association

Troll 9500 Serial#: 48734

Date: Oct. 18 2012

Time: 11:33 AM

Site ID: Middle Pond

Volunteers: Ed Wentland, RAY TRAVIS, ERNIE BENOIT, Phil OLSON, AL HUEFNER, RICH FRANAS rev: 20120516

### Weather Observations

#### 1. Current Sky Conditions:

- Clear/Sunny
- Hazy
- Few Clouds
- Overcast
- Rain/Mix

#### 2. Current Wind Conditions

- Calm
- Light breeze
- Gusty or High Winds

#### 3. Daytime Temp - past 48hrs:

- Cold (40s/50s)
- Cool (60s)
- Mild (70s)
- Warm (80s)
- Hot (90+)

#### 4. Sky Conditions - past 48hrs:

- Cloudy - Dry
- Sunny - Dry
- Light - Rain
- Heavy - Rain
- Stormy /Thunderstorms

### Water Observations

#### 1. Water Surface Conditions:

- Calm
- Ripples SLIGHT
- Waves
- White Caps

#### 2. Water Color:

- Clear
- Green Appearance
- Brown Appearance
- Gray Appearance

#### 3. Water Clarity:

- Clear
- Dark Colored
- Cloudy or Muddy

#### 4. Suspended Matter:

- None Visible
- Slight Amount
- Moderate Amount
- Substantial Amount

#### 5. Water Smell/Odor

- None
- Fishy Smell
- Musty Smell
- Rotten Egg-like Smell
- Septic-like Smell

#### 6. Other observations

- None
- Water bugs, surface bugs
- Dead Fish
- Leaves/Limbs/Debris
- Oil film
- Trash/debris from humans
- Algae Mats/Clumps
- Waterfowl

#### 7. Notes/Other Observations:

SPOTTED BUOY  
at LOCATION

### Instrument Readings:

#### Anemometer Air Readings

Air temp: 64.2°F  
Wind Speed: 4.1 mph  
Wind Direction: 150°  
(Compass Degrees)

Secchi Disk: 22.9 ft/t  
(Red Side of Tape Feet/Tenths)

Thermocline: N/A ft.

Lake Depth: 26.9 ft.

### Water Samples Collected:

Sample	Top	TCline	Bot
Chlor	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Phos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nitrate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Equipment Check List:

In-Situ Tech Support 800-446-7488

- Troll 9500 & Rugged Reader (charge battery)
- 50' Troll Cable
- Stylus for Rugged Reader
- Anemometer (Check Batteries)
- Compass
- GPS (Check Batteries)
- Kit of Extra Batteries
- Lake - Field Data Sheets – 4 copies
- Notebook & pen for thermocline
- Writing Pens
- 2ft Measuring Stick
- Sample Grabber Tool
- Sample bottles
- Cooler & Ice Packs
- Sample Chain of Custody Form
- First aid Kit
- Aqua-scope Viewer
- Van Dorn Grabber with Measure Tape/Release Line
- Secchi Disk & Measure Tape
- Anchor & 200 foot line
- Camera (Optional)

### Form Quality Signatures:

Form Filled In By:

Ed Wentland

Reviewed By:

Date:

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# Lake Field Data Sheet – 2012 WLA Water Quality Monitoring Data

Use one sheet for each test site

## Webster Lake Association

Troll 9500 Serial#: 48734

Date: Oct 18, 2012

Time: 11:55 AM

Site ID: North Pond

Volunteers: Ed WENTLAND, ERNIE BENOIT, RAY TRAVIS, Phil OLSON, AL HUEFNER, RICH FRANAS rev: 20120516

### Weather Observations

#### 1. Current Sky Conditions:

- Clear/Sunny
- Hazy
- Few Clouds
- Overcast
- Rain/Mix

#### 2. Current Wind Conditions

- Calm
- Light breeze
- Gusty or High Winds

#### 3. Daytime Temp - past 48hrs:

- Cold (40s/50s)
- Cool (60s)
- Mild (70s)
- Warm (80s)
- Hot (90+)

#### 4. Sky Conditions - past 48hrs:

- Cloudy - Dry
- Sunny - Dry
- Light - Rain
- Heavy - Rain
- Stormy /Thunderstorms

### Water Observations

#### 1. Water Surface Conditions:

- Calm
- Ripples
- Waves
- White Caps

#### 2. Water Color:

- Clear
- Green Appearance
- Brown Appearance
- Gray Appearance

#### 3. Water Clarity:

- Clear
- Dark Colored
- Cloudy or Muddy

#### 4. Suspended Matter:

- None Visible
- Slight Amount
- Moderate Amount
- Substantial Amount

#### 5. Water Smell/Odor

- None
- Fishy Smell
- Musty Smell
- Rotten Egg-like Smell
- Septic-like Smell

#### 6. Other observations

- None
- Water bugs, surface bugs
- Dead Fish
- Leaves/Limbs/Debris
- Oil film
- Trash/debris from humans
- Algae Mats/Clumps
- Waterfowl

#### 7. Notes/Other Observations:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Instrument Readings:

#### Anemometer Air Readings

Air temp: 61.0 °F  
Wind Speed: 5.0 mph  
Wind Direction: 215 °  
(Compass Degrees)

Secchi Disk: 24.5 ft/t  
(Red Side of Tape Feet/Tenths)

Thermocline: N/A ft.

Lake Depth: 38.0 ft.

### Water Samples Collected:

Sample	Top	Thermocline	Bot
Chlor	<input type="checkbox"/>		
Phos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nitrate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Equipment Check List:

- In-Situ Tech Support 800-446-7488
- Troll 9500 & Rugged Reader (charge battery)
  - 50' Troll Cable
  - Stylus for Rugged Reader
  - Anemometer (Check Batteries)
  - Compass
  - GPS (Check Batteries)
  - Kit of Extra Batteries
  - Lake - Field Data Sheets – 4 copies
  - Notebook & pen for thermocline
  - Writing Pens
  - 2ft Measuring Stick
  - Sample Grabber Tool
  - Sample bottles
  - Cooler & Ice Packs
  - Sample Chain of Custody Form
  - First aid Kit
  - Aqua-scope Viewer
  - Van Dorn Grabber with Measure Tape/Release Line
  - Secchi Disk & Measure Tape
  - Anchor & 200 foot line
  - Camera (Optional)

**Note: Before leaving the site, make sure all fields are filled in.**

### Form Quality Signatures:

Form Filled In By:

Ed Wentland

Reviewed By:

\_\_\_\_\_

Date:

\_\_\_\_\_