Blue Thumb Data Sheet

Site Name: _____ WBID #: _____

Legal/County: _____ Date (MM/DD/YY): _____

Lat/Long: _____ Site Time (Military): _____

Samplers: _____

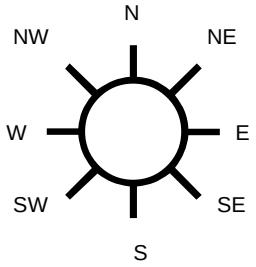
_____

SITE CONDITIONS: Circle one item from each column. Data is important for future verification. Do not monitor if lightning is occurring.

WEATHER:
1. Fair Skies
2. Overcast
3. Haze
4. Fog
5. Drizzle
6. Intermittent Rain
7. Rain
8. Heavy Rain
9. Snow/Sleet/Ice

WIND SPEED:
1. Calm (<1 mph)
2. Light air; smoke drift (1-3 mph)
3. Light breeze; felt on face (4-7 mph)
4. Leaves/twigs move/flag extends (8-12)
5. Branches move/dust, paper blow (13-18)
6. Small trees sway (19-24 mph)
7. Large branches sway/umbrella hard to use (25-31 mph)
8. Hard to walk (32-38 mph)
9. Other (branches breaking/roofing flying/trees uprooted)

WIND DIRECTION:
(From which wind is blowing)



STREAM STAGE:
1. Dry
2. No flow
3. Trace
4. Low flow
5. Base flow
6. Slightly elevated
7. Elevated
8. Elevated/No Flow
9. High flow

STAGE QUALIFIER:
1. Stable
2. Rising
3. Falling
4. Unknown

WATER CLARITY/SECCHI DEPTH:

_____Meters
(ex. third mark on the string = 0.3 meters)

Is Secchi disk visible while resting on the bottom of the stream?

Yes No

TEMPERATURE: Air: _____ °C Water: _____ °C Always measure air temperature first. Measure both for 2 minutes. Put bulb 15 cm below surface and read while still in water.

STREAM SITE OBSERVATIONS: Circle *all* that apply then discuss in comments:

1. Not applicable
2. Clean
3. Manure in stream
4. Unsightly appearance (color)
5. Foam/Scum
6. Floating Detritus
7. Trash
8. Significant algae
9. Fish kill
10. Dead animal(s) in stream
11. Iron precipitates
12. Siltation
13. Flow alteration
14. Habitat alteration
15. Oily film/Grease
16. Offensive odor

Comments and Restock Needs:

Site: _____ Date: _____

DISSOLVED OXYGEN TEST:

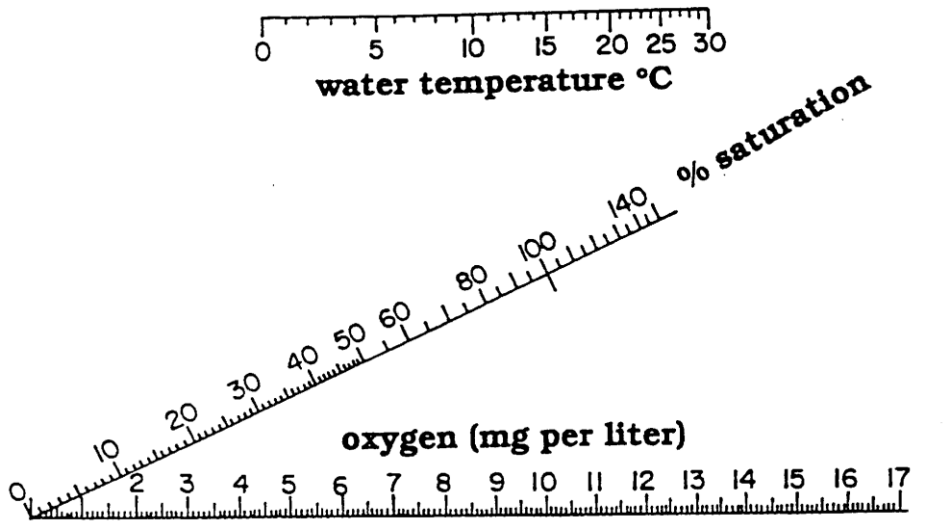
RANGE	COMMENTS	READING	CALCULATIONS	mg/L D.O.
High - use this most of the time.	Count drops of sodium thiosulfate to bring about color change from yellow (or blue) to colorless. Don't go beyond.	No Blank 1. _____ 2. _____	None. Each drop = 1 mg/L of dissolved oxygen.	1. _____ mg/L 2. _____ mg/L
Low - switch to this if reading is 3 or less	Pour off contents to 30 ml. Each drop = 0.2 mg/L D.O.	No Blank 1. _____ 2. _____	Multiply # drops by 0.2.	1. _____ mg/L 2. _____ mg/L

Note: This test is the reason you must try to monitor in the a.m. at the same time each month. Do this test before carrying remainder of sample indoors to complete other tests.

Interpreting Results: Values less than 3 mg/L D.O. stress the fish. Please call us.

To calculate % D.O. saturation, use a straight edge to connect LOWEST D.O. value at bottom with water temp. on top. Then read and record % saturation off the diagonal line.

_____% OXYGEN SATURATION



pH TEST:

No Blank	**1. _____ pH**	**2. _____ pH**

Interpreting Results: Any pH between 5.5 - 9.5 is optimum for most aquatic organisms in our streams.

Site: _____ Date: _____

NITRATE NITROGEN/NITRITE NITROGEN TEST STRIP:

TEST	COMMENTS	READING	CALCULATION	mg/L N
NITRATE	Read the top pad (farthest from your thumb) at **60 seconds.**	1. _____ 2. _____	None.	1. _____ mg/L 2. _____ mg/L
NITRITE	Read the bottom pad (closest to your thumb) at **30 seconds.**	1. _____ 2. _____	None.	1. _____ mg/L 2. _____ mg/L

Interpreting Results: Call us if the Nitrate Nitrogen is 10 mg/L or more.

AMMONIA NITROGEN TEST:

	mg/L NH_3-N
Blank	
1.	
2.	

Note: Match the color of the sample to the color on the cube and write your result. Please interpolate.

Interpreting Results: Ammonia toxicity is dependent on the water temperature and pH. Please call us if you have 1.0 mg/L NH_3-N or more.

ORTHOPHOSPHATE PHOSPHORUS TEST:

RANGE	COMMENTS	READING	CALCULATION	mg/L P
Low: 0 - 1 mg/L PO_4 0 - 0.33 mg/L P	Use mirror and no caps.	Blank _____ 1. _____ 2. _____	Divide by 150. (See below)	Blank _____ mg/L 1. _____ mg/L 2. _____ mg/L
Mid: 0 - 5 mg/L PO_4 0 - 1.67 mg/L P	Read directly through the sample. Do not use the mirror.	Blank _____ 1. _____ 2. _____	Divide by 30.	Blank _____ mg/L 1. _____ mg/L 2. _____ mg/L

Notes: Use one packet per test. Read after 8 minutes.

Interpreting Results: The legal level for our Scenic Rivers is 0.037 mg/L P. Please call us if you have 1.0 mg/L P or more.

1/150 = 0.007	5/150 = 0.033	9/150 = 0.06	13/150 = 0.087	17/150 = 0.113
2/150 = 0.013	6/150 = 0.04	10/150 = 0.067	14/150 = 0.093	18/150 = 0.12
3/150 = 0.02	7/150 = 0.047	11/150 = 0.073	15/150 = 0.10	19/150 = 0.127
4/150 = 0.027	8/150 = 0.053	12/150 = 0.08	16/150 = 0.107	20/150 = 0.133

CHLORIDE TEST:

RANGE	COMMENTS	DROPS USED	CALCULATION	mg/L Cl
Low: 0 - 100 mg/L	Fill mixing bottle to 23 ml line.	Blank _____ 1. _____ 2. _____	Multiply by 5.	Blank _____ mg/L 1. _____ mg/L 2. _____ mg/L
High: 0 - 400 mg/L	Use measuring tube to measure water into mixing bottle.	Blank _____ 1. _____ 2. _____	Multiply by 20.	Blank _____ mg/L 1. _____ mg/L 2. _____ mg/L

Note: The color change is very rapid. It will turn from bright yellow to orange. Rust color is too far.
Interpreting Results: If your results are much higher than normal, please call.

Site: _____ Date: _____

Rinse Procedures:

1. Before blank test:
   - Rinse twice with deionized water.
2. After blank test:
   - Rinse 3X with deionized water.
3. Before 1st creek sample test:
   - Rinse twice with sample water.
4. After 1st creek sample test:
   - Rinse twice with sample water.
   - Rinse twice with deionized water.
   - Rinse twice with sample water.
5. After last test:
   - Rinse twice with sample water.
   - Rinse twice with deionized water.

Rules for Monitoring:

1. Dissolved Oxygen is chemically fixed on site.
2. **Always run blanks** using deionized water, and run them first before testing creek water.
3. Use sample water in the comparator tubes.
4. Fill in raw data and calculated data.
5. Rinse, rinse, rinse. We've learned the hard way that a bit of residue left from a previous test will alter the results.
6. Achieve **repeatability**.
7. Enter data via adobe fillable form (ask Kim) **OR** mail data sheet to Statewide Blue Thumb Office in Bristow.
8. Wash all equipment in the lab with detergent provided. Rinse 3X in hot tap water. Rinse 3X with deionized water. Allow equipment to air dry. Put equipment away. Store in temperature controlled environment out of the reach of children.

Volunteer Hours for the Month of _____, 20___ County _____

Volunteer	Monitoring	QA	Other*	Total Hours

* Please explain "other" hours here:

For help or information call:

Kim Shaw **(405) 522-4738**

Cheryl Cheadle **(918) 398-1804**

Candice Miller **(701) 659-0008**

Jeri Fleming **(405) 334-6343**

Mail your data sheet to:

Oklahoma Blue Thumb
128 East 3rd
Bristow, OK 74010
kim.shaw@conservation.ok.gov