



Field Code:

Community Science Institute www.communityscience.org
Volunteer Monitoring Watershed Science Risk Communication

Field Data Sheet - Red Flag Monitoring

Volunteer group: Team:
Sampling location: Field code:
Sample Collector: Date: Time:
How collected: Waded From shore From bridge Other
Est. Flow Volume: Small Medium Large Velocity: Slow Moderate Fast
Water Level: Low Medium High Water Appearance:

Calibration Standards: Record the results from your calibration standards below
pH Conductivity Total Hardness
Temperature reading at 100°C (annual calibration)

Table with 3 columns: Results, Duplicate Results: (must be done at one site per day), and Dups Acceptable? (Write Y/N). Rows include Temperature, pH, Conductivity, Total Hardness, and Dissolved Oxygen.

Chemicals in LaMotte kits: Check expiration dates. Order replacements directly from Lamotte 800-344-3100 or contact CSI to purchase supplies.

Calibration standards: Contact CSI lab for free refills, 607-257-6606.

See back of sheet for test information and quality control details



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Temperature (Pocket thermometer, glass or metal)

Holding time: Zero - perform on site!

Calibration: Immerse in boiling water, compare reading to 100° C. **Correction:** _____

Measurement: a) Immerse thermometer in stream or sample container, wait for reading to stabilize, **record corrected temperature**, date and time, and initial.

Quality Control: Accuracy: One-time calibration with boiling water. **Precision:** Measure duplicate sample from one location per day or 20% of locations, whichever is more.

pH (LaMotte kit 5858, wide range pH, accurate to 0.5 pH units)

Holding time: Zero - perform on site!

Calibration: At first sampling location, perform test with pH 7 standard to verify test is working and record result..

Measurement: Match color with comparator in natural light. Interpolate decimal reading to 0.25 if sample falls between two colors. Record date, time and result, and initial.

Quality Control: Accuracy: a) Verify calibration using pH 7 standard, and b) Split one sample every three months with certified lab. **Precision:** Measure duplicate sample from one location per day or 20% of locations, whichever is more.

Conductivity (Hanna Instruments DiST 3, HI98303)

Holding time: 28 days at 4° C

Calibration: At first sampling location, adjust reading to 353 uS/cm, or given standard, record result.

Measurement: Immerse meter. Record result, date and time, and initial.

Quality control: Accuracy: a) Check calibration with 353 uS/cm, or given standard at first sampling location b) Split one sample every three months with a certified lab.

Precision: Measure duplicate from one location per day or 20% of locations, whichever is more.

Total Hardness (LaMotte kit #4482-DR-LT)

Holding time: 14 days at 4° C

Calibration: At first sampling location, perform test on 50 mg/L CaCO₃ equivalent standard. Repeat until result is 40-60 mg/L CaCO₃. Record calibration results.

Measurement: Follow instructions in kit. Record date, time and result, and initial.

Quality control: Accuracy: a) Check calibration with 50 mg/L standard at first sampling location, and b) Split one sample every three months with a certified lab. **Precision:** Measure duplicate from one location per day or 20% of locations, whichever is more.

**Duplicates must be within 20% or 8 mg/L of each other, whichever is greater.*

Dissolved Oxygen (LaMotte kit #5860)

Holding time: Zero. There are two options: a) Perform DO test within minutes of collecting sample, or b) Add first two chemicals to fix sample, store dark at 4°C, complete test within eight hours.

Calibration: None required. Test is accurate if performed correctly.

Measurement: Follow instructions in test kit. Record date, time and result, and initial.

Quality Control: Accuracy: Consult lab or other volunteers as needed to learn how to perform test correctly. **Precision:** Test duplicate sample from one location per day or 20% of locations, whichever is more.

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[Certified Water Testing](#)

[NYSDOH-ELAP #11790](#)

[EPA Lab Code NY01518](#)

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