

# Livestock Water Testing GUIDELINES



Miranda Meehan, NDSU Extension Service Livestock Environmental Stewardship Specialist  
Mike Ell, North Dakota Department of Health Surface Water Program Manager  
Michelle Mostrom, NDSU Veterinary Toxicologist

## Sample Protocol

- 1 Collect sample in clean 1-quart or larger plastic (preferred) or glass container
  - a. Sample containers can be obtained from your county office of the NDSU Extension Service or the watershed coordinator with your local Soil Conservation District.
  - b. The Astro Chem Lab prefers you contact it to get a sample kit/ container.
- 2 Collect sample from area where livestock are drinking. If collecting cyanobacteria (blue-green algae), take a sample in the bloom and wear gloves because it can be toxic to humans.
- 3 Rinse container several times using water to be sampled
- 4 Fill container completely. Being sure to collect water from deeper in the water and the surface.
- 5 Label the container with following information:
  - a. name of waterbody
  - b. name of sampler
  - c. date collected
  - d. time collected
- 6 Seal the container tightly and wrap the top with tape to prevent leaking. Place the water in a sealed plastic bag.
- 7 Complete laboratory sample custody form required to be submitted with the sample; contact the laboratory if needed
- 8 If submitting a cyanobacteria sample, **ship immediately** on an ice pack (**no wet ice please**) by next-day delivery. Do not freeze the sample or leave it on the dashboard of your vehicle (avoid temperature extremes).

\*We recommend collecting and shipping samples before Friday to avoid shipping delays.

## Testing Labs

### NDSU Veterinary Diagnostic Laboratory

701-231-7527 or 701-231-8307

[www.vdl.ndsu.edu](http://www.vdl.ndsu.edu)

- Water screen: nitrates, pH, total dissolved solids (TDS), sulfates
  - Cost: \$25 for test and \$10 submission fee (submission paid once when submitting multiple samples)
- Cyanobacteria (blue-green algae)
  - Cost: \$20 for test and \$10 submission fee (submission paid once when submitting multiple samples)
- Turnaround: within one day of samples arriving at lab
- Shipping:

#### U.S. Postal Service

Veterinary Diagnostic Laboratory  
NDSU Dept. 7691  
PO Box 6050  
Fargo, ND 58108-6050

#### FedEx/UPS

Veterinary Diagnostic Laboratory  
NDSU Van Es Hall  
1523 Centennial Blvd.  
Fargo, ND 58102

### Minnesota Valley Testing Laboratories Inc.

701-258-9720

[www.mvtl.com](http://www.mvtl.com)

- Water screen: nitrates, conductivity, total dissolved solids (TDS), sulfates
- Cost: \$49
- Turnaround: seven days
- Shipping: Minnesota Valley Testing Laboratories  
2616 East Broadway Ave.  
Bismarck, ND 58501

### Astro Chem Lab Inc.

701-572-7355

<http://astrochemlab.com>

- Water screen: pH, conductivity, residual sodium carbonate, hardness, sodium adsorption ratio, total dissolved solids, sodium chloride, calcium, magnesium, sodium, iron, potassium, chloride, carbonate, bicarbonate, sulfate and nitrate-N
- Cost: \$60
- Turnaround: seven days
- Shipping: Astro Chem Lab  
4102 2nd Ave. W.  
PO Box 972  
Williston, ND 58802