

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

- 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

- 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