WATER TESTING SERVICES & AGREEMENT

Water Works and Lighting Commission
221 16th St. So. P.O. Box 399 Wisconsin Rapids, WI 54495-0399
715/423-6300 FAX: 715/423-2831
Certified Lab Number 130 MW 00312

Customer's Name_____ Phone _____ Email _____

Address of Well Tested _____ City _____ State ___ Zip _____

Mail Results to _____ City _____ State ___ Zip _____

Water Sample Collection Date _____ Time _____ AM PM

Well Construction Date _____ Unique Number (if known) _____

WELL INFORMATION
_____ Drilled
_____ Driven Point
_____ Jetted
_____ Other

SAMPLE LOCATION
_____ Kitchen Tap
_____ Bathroom Tap
_____ Outdoor Tap
_____ Other

SOURCE
_____ Municipal/Chlorinated
_____ Ground Water
_____ Other

TEST REQUEST

_____ Coliform (Bacteria)	($25.00)	$_____
_____ Nitrates**	($10.00)	$_____
_____ Iron	($10.00)	$_____
_____ PH Balance	($10.00)	$_____
_____ Hardness	($10.00)	$_____
_____ Alkalinity	($10.00)	$_____
_____ Test Results Fax	($2.00)	$_____
_____ Test Results Email	($2.00)	$_____
	Total	$_____

**NITRATE RESULTS ARE NOT CERTIFIED, INFORMATIONAL ONLY

Customer's Signature _____ **Date** _____

Mandatory WSLH & EPA Regulations for Water Sample Collection Directions

- ✓ Cold water taps must be used for collection, and be free of aerators, strainers, hose attachments and purification devices. Avoid single handle faucets. PLEASE NOTE: Two (2) bottles are required to be filled if more than two (2) tests are required for analysis.
- ✓ Run water at high flow for at least ten (10) minutes; reduce the flow to pencil size for two (2) minutes to clean out the tap. DO NOT turn the water off.
- ✓ While the water is running, print name, address, and telephone number on the label attached to the bottle. Do not use the number on the label for identification. Also, do not use address labels as they leave a residue on the bottle.
- ✓ Fill the sample bottle one (1) inch from the top. DO NOT OVERFILL. Be very careful not to contaminate the cover. Seal the container firmly, check for leaks, and place on ice in a zip lock bag.
- ✓ SAMPLES MUST BE RECEIVED IN THE LAB ON ICE. Frozen samples will not be tested.
- ✓ The holding time will not exceed thirty (30 hours) from the time of collection.
- ✓ Water Testing Agreements will be maintained for seven (7) years in the lab.
- ✓ Failure to follow these procedures mandates the rejection of the sample.

CHAIN OF CUSTODY

Relinquished By: _____ Date: _____ Time: _____ AM PM

Relinquished By: _____ Date: _____ Time: _____ AM PM

RESULTS – FOR OFFICE USE ONLY

Coliform (Bacteria): _____Safe _____Unsafe

E. Coli: _____ Safe _____ Unsafe

Nitrates: _____ mg/l as NO3-N

Iron: _____ mg/l as Fe

pH: _____

Hardness: _____ mg/L as CaCo

Alkalinity: _____ mg/L as CaCo3

Test Set By: _____ Date: _____

Time: _____ AM PM

Date Removed from Incubator :_____ By: _____

Time: _____ AM PM

Interpreting Your Laboratory Results

Bacteriological Interpretation

Total Coliform Absent (SAFE)

If your laboratory results indicate Total Coliform Absent (SAFE), no coliform bacteria were found in your water sample. If you collected the sample according to directions supplied with the kit, you can be reasonably sure your water is safe for drinking or general domestic use, from a bacteriological standpoint. Retest a "safe" well annually—or at any time it has been repaired or modified. Also test whenever there is a change in appearance, taste, odor or flow.

Total Coliform Present (UNSAFE)

If your laboratory results indicate Total Coliform Present (UNSAFE), coliform bacteria were found in the water sample. Total Coliform bacteria are found in human and animal feces, as well as in surface water. Their presence in wells indicates unfiltered or poorly filtered surface or near-surface waters have found their way into the groundwater or entered through an opening in, around, or at the top of the well casing. This water is a potential health hazard.

How Wells Become Contaminated

Wells of insufficient depth or substandard construction are more susceptible to bacteriological contamination. This is particularly true of dug wells that are walled up with boards, brick, stone or tile sections. These linings let unfiltered surface water and near-surface water seep in through cracks. Properly constructed wells are usually free from bacteriological contamination because they tend to seal off near-surface and surface waters from the well. However, if they are contaminated, one of the following reasons is likely the cause:

- The casing is not properly sealed into the rock formation.
- The casing is not terminated far enough above the ground.
- If the well is equipped with a hand pump, the pump has not been mounted watertight on the casing, permitting surface water to enter the well at the top.
- The well terminates in a nonconforming pit, which may be subject to flooding or seepage of groundwater.
- In old wells, the casing may have rusted through, leaving holes near the ground surface through which polluted surface water can enter.
- Rock outcroppings, sinkholes, quarries or abandoned wells in the production well area may allow surface water to contaminate the groundwater aquifer supplying the well.
- New wells often show contamination because the drill hole becomes contaminated through dirty tools, pipe and drilling water.
- New piping, pump or pressure system components may also contaminate a well if they are dirty and not disinfected prior to use, assembly or installation. Therefore, new wells, pumping equipment and water systems should be disinfected prior to use. The state code requires such disinfection.

Locating the Contamination Source

Before attempting to locate the contamination source of an unsafe well, first be certain that you closely followed the instructions for collecting water samples. If not, collect another sample following instructions closely. When sampling error has been ruled out, the well and the surrounding area should be inspected for possible pollution sources. These include:

- Openings at the top of the well
- Old, rusty, or damaged casings
- Improper casing installation
- Faulty pump installation
- Close proximity of the well to septic tanks, tile fields, sewers, sink drains, privies, barnyards, feedlots, abandoned wells, rock outcroppings, sinkholes and quarries

If any of the above are found to cause contamination problems, you must make changes or repairs to ensure safe drinking water. Licensed well drillers, pump installers, DNR officials or county sanitarians can assist you in making observations and recommend improvements.

Disinfecting the Well and Water System

Once an inspection has determined that your water system is free from any sources of apparent contamination, you should disinfect the well. Although there are many ways to properly disinfect a well, the following technique has proven to be effective in most cases:

- Mix one gallon of household laundry bleach with 100 gallons of water. If your well is more than 150 feet deep, mix two gallons of bleach with 200 gallons of water. If you do not have a container for mixing the solution all at once, you can mix 25 gallons at a time in a clean plastic garbage can.
- Remove the cap from the well and pour the entire bleach and water solution into the well.
- Rinse down the sides of well casing with a garden hose for 5 to 10 minutes. The rinse water should be from a hose bib on the water system being disinfected. This procedure circulates the bleach through the water system to insure better disinfection.
- If you wish to disinfect your plumbing system, turn on all cold water taps until you smell the bleach. Then turn the taps off. Hot water lines don't need disinfection.
- Let the bleach remain in the system for at least eight hours and preferably 24 hours.
- Pump all of the bleach out of the water system by running the water through a garden hose to an area where the bleach will not damage lawns, shrubs or septic systems. Pump until you can no longer smell the bleach.
- Two or three days after disinfection, a sample from the well should be submitted for bacteriological analysis

Nitrate Interpretation

Nitrate levels in water can be represented as Nitrate + Nitrite (as N) or as Nitrate (as N).

If your laboratory report shows your water's nitrate level is less than 10 mg/L* as N (the symbol < indicates "less than"), the water is below the federal standard for nitrate in public drinking water supplies.

If your nitrate level is 10 mg/L* as N or greater, your water exceeds the federal standard for nitrate in public drinking water supplies and the following actions are recommended:

- No infant or any female who is or may become pregnant should consume any water that exceeds this standard (either by drinking or by eating foods prepared with the water such as soups, juices, and coffee).
- The Wisconsin Division of Public Health recommends that people of all ages avoid long-term consumption of water that has a nitrate level greater than 10 ppm.
- Do not boil the water to reduce the nitrate level—boiling increases the nitrate concentration due to evaporation of the water.