

RESIDENTIAL WATER SUPPLY TESTING

If you get your drinking water from a private water supply, such as water wells, cisterns, springs, ponds, rainwater or other water sources, the U.S. Environmental Protection Agency (EPA) highly recommends periodic testing of your water. For more information from the EPA, go to <https://www.epa.gov/ground-water-and-drinking-water/home-drinking-water-testing-fact-sheet>.

LCRA Environmental Laboratory Services (ELS) is certified by the Texas Commission on Environmental Quality (TCEQ) under the National Environmental Laboratory Accreditation Program (NELAP) for drinking water testing and offers the general public affordable testing of their residential water supply for common contaminants identified by the EPA. LCRA ELS can test your water for any or all of these contaminants.

Common Contaminants

TOTAL COLIFORM – Coliforms are common bacteria found in the environment and are generally not harmful. However, their presence in drinking water may indicate contamination from disease-causing germs. **Fecal coliform** and ***E. coli*** are bacteria found in human or animal wastes. These bacteria in drinking water can cause short-term effects, such as diarrhea, cramps, nausea, headaches or other symptoms. When testing for bacteria, a result of 0 colonies per 100 mL of a sample or “Absent” is acceptable. If you have installed new plumbing or if you suspect contamination, you should disinfect your water supply prior to sampling.

NITRATE – High levels of nitrate (10 mg/L or greater) may cause blood disorders and is of special concern to infants and the elderly. High nitrate may indicate contamination of the water from sewage, fertilizer or other similar materials.

NITRITE – High levels of nitrite (1 mg/L or greater) may cause blood disorders and is of special concern to infants. Nitrite readily converts to nitrate.

LEAD – Lead is an element of primary concern because it can be toxic in very small amounts. The limit for safe drinking water is 0.015 mg/L. Any detectable amount of lead means it is possible for your water to exceed the limits depending on the length of time the water has been stagnant in the water line.

TOTAL DISSOLVED SOLIDS (TDS) – TDS is a measurement of dissolved minerals and is a good general indicator of water quality. Results greater than 1000 mg/L indicate a treatment system (reverse osmosis or distillation) may be required to reduce the TDS to an acceptable level.

TOTAL ORGANIC CARBON (TOC) – Organic substances such as insecticides, herbicides, and other agricultural or industrial chemicals may enter water sources via rainfall runoff or accidental spills and leaks from domestic and industrial wastes. TOC is a screening tool used to determine if water has been contaminated with these types of materials. A TOC result of 5 mg/L or greater may indicate a need for additional testing to determine the source of the contamination.

FLUORIDE – Federal regulations require fluoride, which occurs naturally in your water supply, not exceed a concentration of 4.0 mg/L in drinking water. Federal regulations also require that the secondary standard limit for fluoride in your drinking water not exceed 2.0 mg/L, since this level could possibly cause adverse effects in the development of permanent teeth for young children.

CHLORIDE – Chloride values of 300 mg/L or greater can be very corrosive to pipes and cause an unpleasant, salty taste in the water.

IRON – This element causes rust stains on sinks and fixtures, gives water a reddish color, and gives water a bad taste and smell. An iron result of less than 0.3 mg/L is considered acceptable for good water quality.

SULFATE – This compound along with Chloride comprises the majority of dissolved salts. Sulfate values of 300 mg/L or greater can produce a laxative effect, bitter taste and have a bad smell.

CALCIUM – Calcium is the main cause of hard water and scaling. High values are common in central Texas due to the limestone formations where most of our groundwater originates. Calcium values of 50 mg/L or greater indicate hard water. (Calcium and Magnesium are required to perform a Hardness calculation.)

Sample Collection and Shipping Instructions

If you have installed new plumbing or if you suspect contamination, TCEQ recommends disinfecting your water supply system prior to sampling. Bacteria could be in your well housing or water lines, which may result in a false positive test for your groundwater. TCEQ recommends the following procedure for disinfecting most wells or cisterns.

For more information, go to <https://www.tceq.texas.gov/downloads/drinking-water/preparedness-resources/gi-432.pdf>

SAMPLING INSTRUCTIONS:

- Submit a sample for bacteriological testing to determine if disinfection was successful.
- Collect samples on the same day you deliver or ship them to LCRA ELS.

TO COLLECT SAMPLES FOR TOTAL COLIFORM:

- Use the small, plastic, 125-mL, STERILIZED bottle. LCRA ELS bottles contain Sodium Thiosulfate powder – do not rinse out bottle.
- Do Not Touch any portion of the inside of the bottle or cap (if possible, use latex gloves).
- Unscrew and remove the aerator screen on your faucet (if present).
- Using a swab with bleach or rubbing alcohol to wipe the inside and outside of the faucet opening. This will eliminate any bacteria present on your faucet which may contaminate your sample.
- Turn on the cold-water faucet, rinse the outside lip well and let it run for about two minutes.
- Remove the cap from the sample bottle (do not set the cap down) and fill the bottle ONLY TO THE NECK OF THE BOTTLE. It must be filled over the 100mL line in order to run the test. Please avoid overfilling the bottle.
- Recap the bottle tightly.

TO COLLECT SAMPLES FOR OTHER WATER TESTS:

- Use the larger, 500-mL or 1000-mL plastic bottle.
- Unscrew and remove the aerator screen on your faucet (if present).
- Turn on the cold-water faucet and let it run for about two minutes.
- Remove the cap from the sample bottle and fill one-half of the bottle.
- Recap the bottle and shake a few times.
- Pour all of the water out.
- Then, refill the bottle a second time to the neck of the bottle.
- Recap the bottle tightly.

SHIPPING INSTRUCTIONS:

Carefully complete bottle labels with your name, date and time of sample collection, and the sample location (i.e. well head, kitchen faucet, outdoor faucet, etc.). Place the bottle(s) and **ice** with the completed instruction sheet (inside plastic baggie) in the ice chest. Seal the box and either deliver or ship the kit to:

**LCRA-ENVIRONMENTAL LABORATORY SERVICES
3505 MONTOPOLIS DRIVE, EL-101
AUSTIN, TX 78744**

We accept samples Monday through Friday from 8 a.m. to 5 p.m. Bacteria samples are accepted Monday through Thursday 8 a.m. to 4:30 p.m. only. For holiday schedules or questions 512-730-6022, Monday through Friday, 8 a.m. to 5 p.m. or email environmental.lab@lcra.org.

Request for Testing Submission Form

[See instructions on Page 2 for sample collection.]

Please complete and return one form for each sample location.

Name:		Phone:	
Mailing Address:		E-Mail:	
Sample Collection Date:	Sample Collection Time:	MATRIX: Circle One	AQ = Aqueous DW = Drinking Water
Sample Location (i.e. kitchen sink, outdoor faucet, well head. Include address if different from above):			

TEST REQUESTED	PRICE	QUANTITY	TOTAL
Total Coliform – E.coli (Presence/Absence)	\$53		
Method 300.0 (Chloride, Fluoride, Nitrite, Nitrate, Sulfate)	\$65		
Method 200.7 (Iron, Calcium, Magnesium, Hardness, calculation)	\$70		
Method 200.8 - LIST METALS:	\$75		
Total Dissolved Solids	\$48		
Total Organic Carbon (TOC)	\$53		
pH	\$46		
Other (Write in):	\$		
Other (Write in):	\$		
Other (Write in):	\$		
Other (Write in):	\$		
Subtotal Analytical Cost			\$

TURNAROUND REQUESTED	PRICE MULTIPLIER	TOTAL
Normal Turnaround (7-14 Business Days)	1 x Analytical Cost	\$
Rush Turnaround (4-6 Business Days)	2 x Analytical Cost	\$

MISCELLANEOUS CHARGES	PRICE	TOTAL
Bottle Kit/cooler shipment (per cooler)	\$25	\$
Sampling Services	\$125/hr	\$
Weekend/After-hours surcharge (applies to all analytical services)	\$250	\$

TOTAL COST	\$
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NOTE: Relinquishing sample(s) to ELS obligates the submitter to all ELS Standard Terms and Conditions stated on the back of this form.

Sample Relinquished By:	Date/Time	Received Temp.: °C ICE: Y / N
Sample Received at Lab By:	Date/Time	Corrected Temp.: °C Thermometer:

Payment Information:

Amount received: \$	Payment Received By:	Date Payment Received:	Work Order No.
CC Approval No.	Check No.		
Comments:			

Environmental Laboratory Services Standard Terms and Conditions

Effective September 2016

Acceptance of Samples...The Lower Colorado River Authority (LCRA) Environmental Laboratory Services (ELS) will accept samples and perform services in accordance with these terms and conditions. No modifications to these terms and conditions will be valid or binding unless in writing and signed by authorized representatives of both the Customer and ELS.

ELS reserves the right to refuse or revoke receipt of any sample due to insufficient sample volume, improper sample container, unacceptable customer credit, or risk of handling for any health, safety, regulatory, environmental, holding time issues or any other reason, at the discretion of ELS.

ELS also reserves the right to terminate any work being done or work promised on samples accepted for ELS's sole convenience. In the event of such termination, ELS will notify all affected Customers as soon as possible.

Payment & Invoicing...Customer must pay for all services by check or credit card upon delivery of sample to ELS unless other billing arrangements are agreed to by ELS and Customer. Invoices will be issued monthly following the completion of services. All payments are due 30 days from receipt of the invoice. A one percent (1%) per month late fee will be assessed on unpaid invoices after the due date. Customers that have outstanding balances equal to or greater than 90 days must make payment in full at the time of sample delivery.

Quoted Fees...Written quoted fees for all services to be performed by the ELS will be honored for a period of thirty (30) days from the quotation date unless otherwise specified by ELS in writing.

Costs for Compliance...All costs associated with compliance with any subpoena for documents, testimony, or assistance, or for any other purpose relating to work performed by ELS for the Customer, will be paid by the Customer or requesting party. Such costs will include, but not be limited to, hourly charges for each staff member, travel and accommodations, mileage, and any other miscellaneous expenses incurred.

Use of Data...The Customer is solely responsible for determining what actions are required as a result of the data, information, recommendations, interpretations, and opinions provided by ELS. The Customer also assumes sole responsibility for determining whether the nature, type, and quantity of work requested by the Customer is adequate and sufficient for the Customer's intended purpose. **Customer hereby indemnifies and releases ELS from and against any and all liabilities arising out of, related to, or resulting from Customer's incorrect or inappropriate use of any data or opinions provided to it by ELS.**

Reports...ELS will deliver approved final reports and/or electronic data including any Customer-approved subcontract laboratory data by the agreed upon due date. Reports may not be reproduced, except in full, without prior written approval by ELS. Reports or copies of reports will not be provided to any person or representative other than the Customer without the Customer's written authorization, except as may be required by law.

Confidentiality...Strict confidentiality is maintained regarding all Customer transactions and results. Where information is lawfully subpoenaed, must be released to a regulatory or other legal entity with jurisdiction, or disclosure of documents is otherwise required by law, the Customer will be promptly notified.

Confidential, trade secret, and privileged information provided to ELS by Customer, including sample content, analysis, and Reports, is protected from public access by exceptions to the Texas Public Information Act ("PIA"), to which LCRA is subject. ELS will assert the appropriate exception to withhold Customer information requested under the PIA. Customer may be asked by ELS to provide assistance in asserting exceptions to the PIA (e.g., explanation of competitive position, treatment of trade secrets, etc.). Customer agrees to assist ELS in protection of Customer's information.

Sample Disclosures...Customer agrees that all samples delivered to the ELS will be accompanied by a properly completed chain-of-custody form disclosing the presence of any contaminated, toxic, or hazardous substances known or suspected to be contained in such samples. ELS shall reject any samples received without a valid chain of custody form.

Analytical Errors...Upon request by the Customer, ELS will reanalyze samples whenever test results are suspect. Should the results of the second analysis substantially agree with those of the first, the Customer will pay for the cost of the second analysis. However, if the result of the second analysis materially differs from the first, then Customer will not be charged for the second analysis.

Holding Times...All samples must be delivered to ELS within one-half of the applicable holding time. ELS shall not assume any responsibility for missed holding times for samples submitted outside this criterion. To meet holding time for subcontract samples, ELS may make arrangements for the Customer to deliver samples directly to the subcontract lab.

Sample Retention & Disposal...Samples are stored for 30 days upon transmitting final analysis results to the Customer. After 30 days, samples are disposed of properly. However, Customer may request additional storage time at a storage fee of \$50 per month per sample.

Hazardous Waste...Any samples found to be or suspected of being hazardous or containing hazardous substances according to state and federal regulations will be disposed of at submitting Customer's expense.

Turnaround Time (TAT)...Turnaround times (TAT) are based on full "working days" which are defined as 8:00 A.M. to 5:00 P.M. Monday through Friday, excluding holidays. Standard TAT is 7 working days from the day starting after sample receipt. However, TAT may be longer depending upon the tests requested and the same matrix. TAT for samples subcontracted to a Customer-approved laboratory is based on the agreed target due date between all parties (i.e., the Customer, the ELS and the subcontract laboratory).

Expedited Service...Expedited service is available upon approval by ELS and written authorization from the Customer. Service charge amounts added to the total cost of service will be applied as follows:

< or = to 24 hrs:	4 X cost of service
2 to 3 days:	3 X cost of service
4 to 6 days:	2 X cost of service

Non-Standard Services...On sample matrices or analytes for which no official or validated test method exists, usage of an accepted method for a different type of sample or analyte or method development, in some situations, may be offered. In such cases, no guarantee of the success of the method or warranty will be provided. The Customer will be notified of the alternate method proposed, and only after its approval, will analyses begin. Approval by the Customer of the alternate method obligates the Customer for payment for that work, regardless of result obtained.

Warranty...Where applicable, ELS will use analytical methodologies in accordance with the U.S. Environmental Protection Agency (EPA), state agency, or other recognized and approved source.

ELS warrants that it possesses and maintains all licenses, accreditations, and certifications that are required to perform services under these terms and conditions, provided that such requirements are documented in writing to ELS prior to sample delivery acceptance. ELS will notify the Customer in writing of any decertification or revocation of any license, or notice of either that affects work in progress.

The foregoing express warranty is exclusive and is given in lieu of all other warranties, whether express, implied, or statutory. The ELS disclaims any other warranties, whether express, implied, or statutory, including a warranty of fitness for particular purpose and warranty of merchantability. The ELS is not responsible for any of the purposes for which the Customer may use ELS test results.

Liability...Customer agrees that the maximum liability of ELS for all claims of any kind whether based on contract, indemnity, warranty, tort (including negligence & strict liability), or otherwise, arising out of, connected with, or resulting from the performance or breach thereof, or from any goods or services covered by or furnished under these terms and conditions or any extension or expansion, is limited to the amounts paid or payable by the Customer for the goods or services giving rise to such claims.