

Chain of Custody (COC) Instructions

See Environmental Safety Technologies (EST) website at www.estechlab.com for more detailed Sample Collection Guidelines, including a video demonstration. COC records may be downloaded under the Documents tab.

- Chain of Custody forms are provided for all clients to use in order to document sample collection, identification, location, conditions, and sample traceability.
- Fill out and submit separate COC forms for each job site or address requiring separate reports.

General Sample Collection:

- Collect each water sample in a clean, unused, HDPE or HDPP plastic container.
- EST offers free sample containers shipped via UPS Ground to all clients; clients pay for expedited outbound shipping and all return shipping costs.
- For *Legionella* analysis please submit minimum 100 ml of sample for cooling towers and 250 ml for potable water.
- Microbial Corrosion (MIC) tests each require ~20 ml of sample. Up to five MIC tests, *Legionella* and bacterial plate counts (Aerobic or Anaerobic) analysis can be performed from one submitted 100 ml water sample.
- Using a waterproof marker, label each container with a unique sample number corresponding to the sample site listed on the COC record. No other info is needed on the container.
- Each sample container contains sodium thiosulfate as recommended by the CDC to neutralize residual chlorine or bromine.
- Securely tighten each lid and shake sample to completely dissolve the powder.
- Dry sites or sites with little water (e.g. air handler units, condensate coils) require specialized swabs for sampling and transport; request with bottle orders.
- Point of use devices (e.g. faucet, showerheads) and their biofilms may be sampled by using a sterile dry swab submerged in a water sample from same site.

Filling Out COC Forms:

Top Section – Job Site and Collection Information

		 	1815 Brownsboro Road; Suite 200 Louisville, KY 40206 (502) 893-6080 Office (502) 893-6088 Fax
Chain of Custody Record		E-mail: est@estechlab.com	Web Site: www.estechlab.com
Company Name:	Job Site / Your Client:		Page ___ of ___
Company Address:	Job Site Address:		Sampled By:
Company City, State, Zip:	Job Site City, State, Zip:		Sample Date:
Phone:	Email:	Purchase Order Number:	

Company Name, Company Address, Company City, State, Zip, & Company Phone

- Please fill out your Company's name and complete address.
- Contact EST at est@estechlab.com or 502-893-6080 to obtain a custom COC form pre-filled with your contact information for future use or call for any changes or updates to an existing form.

Phone & Email

- Results will be emailed to the person(s) designated as the report contact for your company as established upon account setup with EST. Results are not emailed directly to each representative that submits samples.
- Failure to provide contact information may delay sample processing if the laboratory needs to verify sample collection information or processing requests.

Job Site, Job Site Address, Job Site City, State, Zip

- Record the location where samples were collected, this information will appear on the report.

Sampled By

- Record who collected the sample.

P.O.

- If your company requires a Purchase Order, please obtain a P.O. Number before sample collection and record it on the COC form with samples submitted to the laboratory.

Sample Date:

- A sample collection date is required for all samples submitted.

Middle Section - Sample Collection Information and Choosing Tests

FOR EST USE ONLY		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
EST Batch Number:	FOR EACH SUBMITTED SAMPLE:	Legionella Turnaround	Legionella Sample Type	Other Bacteria Testing	Microbial Corrosion & Algae Tests	Other
EST Login By:	Assign a unique sample number and write this number on the bottle/swab	Standard	RUSH 96 Hour	Cooling Tower (L001)	Whirlpool, Hot Tub, Pool (L012)	Fountain (L015)
EST Lab #	Record each Sample # on a row below and record a Sample Site description					
	Check <input checked="" type="checkbox"/> all applicable boxes in each section to the right for each sample					
	Fill out separate COC forms for job sites/samples requiring separate reports					
	Sample #	Sample Site				

Assign a Unique Sample Number for EACH sample submitted

- Assign each sample a unique number & label each bottle with this number. For example, if a large and small cooling tower were collected at 111 Main Street, number them 111-1 and 111-2 or 111-L (large tower) and 111-S (small tower).

List a Sample Site for EACH sample submitted

- For each sample collected, record a description of the sample site.
- For samples described above, sample 111-1 would be listed as Large Cooling Tower and sample 111-2 would be listed as Small Cooling Tower.

Check a Legionella Turnaround for EACH sample submitted

- For each *Legionella* sample, check a box for Standard turnaround or RUSH turnaround.
Standard: 7-10 Day Analysis – A report with results and recommendations is issued within 7-10 days of sample receipt and processing.
RUSH: 96 Hour Analysis – Samples are processed upon arrival and results are read and reported on a workday, Monday through Friday, between 8:00-5:00 EST. After a minimum 96 hours from processing the report will be issued following the confirmation of all cultured isolates

Check all Requested Tests for EACH sample submitted

- Please check all tests to be performed on each sample to prevent delays in processing.

LEGIONELLA ANALYSIS

- Standard *Legionella* Culture processed on selective media and incubated at 36±2° C for 7-10 days for CDC Elite approved detection and enumeration; including *Legionella pneumophila* serogroup 1, *Legionella pneumophila* serogroup 2-14 and *Legionella* non-pneumophila species.
- ELAP = New York State Department of Health (NYS-DOH) ELAP *Legionella* culture processed in accordance with ISO 11731:2017(E) guidelines for 7-10 days. The laboratory must be notified prior to sample arrival, failure to do so may invalidate the samples for ELAP Processing.
- Check and list in the last column on the form for other *Legionella* analyses:
 PCR = *Legionella pneumophila* Polymerase Chain Reaction (PCR) Presence/Absence 36 hour screen. This testing must be requested in by using the "Other:" and the laboratory must be notified prior to sample arrival.

OTHER BACTERIA TESTING:

Bacteria Heterotrophic Plate Counts (HPC) – Aerobic and Anaerobic

- Heterotrophic standard plate counts are obtained from samples plated on Standard Methods agar.
- Aerobic plates are incubated in the presence of oxygen at 35°C for 2-3 days.
- Anaerobic plates are incubated in the absence of oxygen at 30°C for 5-7 days.

Total Coliform/E. coli Screen

- IDEXX Colisure® Presence/Absence Screen
- Samples must be collected in bottles or jars containing a sodium thiosulfate tablet/powder to neutralize any residual chlorine in the sample.
- A minimum of 100 ml is required for processing. Leave ½" of air space in sample container.
- Collect samples for Total Coliform/E. coli samples Monday through Thursday.
- Ship overnight on cold packs (not ice) for valid test results. Samples are read 24 hours after processing.
- Call to arrange for weekend analysis if samples must be collected on Friday; extra fees apply.
- Screen is for environmental wastewater only; not for certification of drinking water.

ENVIRONMENTAL PATHOGEN ANALYSIS:

- Analysis of *Pseudomonas aeruginosa* (culture), *Pseudomonas* species (culture), *Enterococci* (Presence/Absence), *Listeria* (Presence/Absence), and *Salmonella* (Presence/Absence) in environmental samples.

- The following Environmental Pathogen Screens are available for waterborne and surface organism. Please call and notify the laboratory prior to 1:00 PM Eastern Time on the day of sampling (or before) to give notice so that selective agars may be made available for processing upon arrival the day following sample collection.

Acinetobacter baumannii

Burkholderia cepacia

Sternotrophomas maltophilia

Fast-growing Non-tuberculosis *Mycobacteria*

Other organism screens are available upon request

MICROBIAL CORROSION AND ALGAE TESTS:

- Estimated populations and activity (aggressiveness) may be determined using B.A.R.T. reactors for the following: Acid producing bacteria (APB), Denitrifying bacteria, Iron Related Bacteria (IRB), Slime Forming Bacteria, Sulfate Reducing Bacteria (SRB), Fluorescent Pseudomonads, Nitrifying Bacteria, and micro-algae such as the blue-green algae, cyanobacteria, and some of green algae belonging to the chlorophyceae.
- Turnaround: Samples with highly active populations may be detected within a time lag of one day; activity is monitored daily before concluding samples to be non-active for specified microbial activity, which may take up to 10 days per test.

BACTERIA AND FUNGI IDENTIFICATION:

- Identification of air, swab, bulk-liquid, and bulk-solid samples for bacteria (Genus and species) and fungi (Genus of mold, *Aspergillus* species). Counts only are provided for detected yeast colonies. These analyses can be requested in the "Other" column.

Bottom Section – Sampling Notes and Comments & Relinquishing Samples

Sampling Notes and Comments

Sampling Notes & Comments:	Samples Relinquished By:	Date/Time
	Received at EST By:	Date/Time

- Please record any sampling notes or comments in the box on the bottom section of the COC record.

Relinquish Custody of the Sample Upon Shipping

- To officially relinquish custody of the sample prior to shipping, be sure sign at the bottom of the form in the "Samples Relinquished By" field at the bottom of the COC and record the date and time. Upon arrival at the laboratory, EST personnel will sign and date the form in the "Received at EST By" field.

Sample Shipping

- Place the COC Record in a zip-top bag to protect against water damage and include this in the package with samples.
- Securely tighten bottle caps to prevent leaking and potential cross-contamination. Electrical tape can be wrapped around bottle caps to prevent leaks.
- Ship sample overnight the day that they are collected with delivery the following day to ensure same day processing.
- Rush samples must be shipped overnight to lab for morning delivery.
- Samples shipped overnight do not require cold packs (excluding E. coli samples).
- Do not ship samples directly on ice.
- Laboratory hours of operation Monday through Friday 8:00 am to 5:00 pm. Saturday receipt of samples available at an additional cost. Call to arrange Saturday processing prior to collecting the samples for cost and procedure.

Shipping Address to the Laboratory

Environmental Safety Technologies, Inc.

1815 Brownsboro Road Suite 200

Louisville KY 40206

Contact Information

Email: est@estechlab.com

Phone: 502-893-6080