STANDARD OPERATING PROCEDURE

Sample Chain of Custody SOP

Document no.	SOP-LAB-005
Revision	1.0
Owner	Laboratory Manager
Effective date	September 15, 2026
Review cycle	Every 12 months

1. Purpose

To maintain a documented, unbroken record of who has held a sample and when, so results can be defended in legal, regulatory or client disputes.

2. Scope

Applies to samples submitted with a chain-of-custody requirement, such as environmental, forensic or regulated testing. Routine samples without this requirement follow the sample receiving SOP only.

Definitions

Chain of custody (COC) form	The document that records every person who has held a sample and the date and time each transfer occurred.
Custody seal	A tamper-evident label placed across a container or cooler that must be intact when custody transfers.
Custodian	The person currently responsible for a sample's security and location.

3. Responsibilities

Sample Custodian	Takes custody of samples at receipt and each transfer, and maintains secure storage.
Lab Analyst	Signs the COC form when checking out a sample for testing and returns it to the custodian afterward.
Laboratory Manager	Audits the custody log and approves any exception, such as a broken seal.
Client Services Coordinator	Confirms COC requirements with the client and resolves discrepancies on the submitted form.

RACI matrix

Activity	Sample Custodian	Lab Analyst	Laboratory Manager	Client Services Coordinator
Verify COC form and seals at receipt	R/A	I	I	C
Log custody transfer to analyst	R/A	R	-	-
Approve exception for broken seal	R	I	A	I

Activity	Sample Custodian	Lab Analyst	Laboratory Manager	Client Services Coordinator
Resolve COC discrepancy with client	I	-	A	R
Audit custody log	C	-	R/A	-

R = Responsible, A = Accountable, C = Consulted, I = Informed

4. Materials and PPE

Materials, tools and systems

- Chain-of-custody forms
- Tamper-evident custody seals
- Locked sample storage cabinet or room
- Custody transfer log
- Sign-in and sign-out sheet for the storage area

Personal protective equipment

- Disposable nitrile gloves

5. Procedure

Step	Task	Owner	Done
5.1	**Receive the sample with its COC form** Accept the sample and its accompanying chain-of-custody form together, and confirm the sample count matches the form.	Sample Custodian	☐
5.2	**Verify the custody seal is intact** Inspect the custody seal on the container or cooler for signs of tampering, cutting or re-adhering before accepting the sample. **Warning:** Do not accept a sample with a broken or missing seal without the laboratory manager's written approval.	Sample Custodian	☐
5.3	**Record the initial custody transfer** Sign and date the COC form as the receiving custodian, recording the exact time of transfer from the submitter or courier.	Sample Custodian	☐
5.4	**Open a custody log entry** Create an entry in the custody transfer log with the sample ID, submitter, date received and initial storage location.	Sample Custodian	☐
5.5	**Store the sample securely** Place the sample in the locked storage cabinet or room designated for custody samples, accessible only to authorized staff. **Checkpoint:** Custody samples are never left unattended outside locked storage.	Sample Custodian	☐
5.6	**Log each checkout to an analyst** When an analyst needs the sample for testing, record the checkout time, analyst name and reason on both the COC form and the custody log.	Sample Custodian	☐
5.7	**Verify the seal at each transfer** Before taking custody, the analyst checks that the seal or evidence tape applied since the last transfer is intact and reports any concern immediately.	Lab Analyst	☐

Step	Task	Owner	Done
5.8	**Reapply the seal after handling** After removing an aliquot or completing testing steps, reseal the container with a new tamper-evident seal and initial and date it.	Lab Analyst	☐
5.9	**Record the return to storage** Sign the sample back in on the COC form and custody log with the return time when testing steps for the day are complete.	Lab Analyst	☐
5.10	**Resolve custody discrepancies** If a COC form is incomplete, unsigned or does not match the physical samples, contact the client the same day to resolve the discrepancy in writing.	Client Services Coordinator	☐
5.11	**Close custody after final disposition** Record the final transfer, whether to disposal, return to the client, or long-term archive, with signature and date to close the custody chain.	Sample Custodian	☐
5.12	**Audit the custody log** Periodically review a sample of custody logs against physical inventory to confirm every transfer is documented with no gaps.	Laboratory Manager	☐

6. Quality checks

- Every custody transfer has a signature, printed name and timestamp.
- No gap exists between the time a sample leaves one custodian and is received by the next.
- Custody seals are verified and documented at every transfer.
- Closed custody records are retrievable for the full retention period.

7. Records

- Chain-of-custody forms
- Custody transfer log
- Storage area sign-in and sign-out sheet
- Discrepancy resolution correspondence

8. KPIs

- Percentage of samples with a complete, unbroken custody record
- Number of custody discrepancies per month
- Average time to resolve a COC discrepancy
- Number of broken-seal exceptions per quarter

9. Common mistakes

- Leaving a custody sample on the bench between transfers instead of in locked storage.
- Forgetting to record the exact transfer time, not just the date.
- Accepting a sample with a broken seal without documenting an approved exception.
- Closing out a COC form before the final disposition is confirmed.

10. Revision history

Revision	Date	Description	Reviewed by
1.0	September 15, 2026	Initial release	Ilia Pirozhenko

Approval

Prepared by	Approved by	Date

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