


Sample Custody	SSFL SOP 10 Revision: 1 Date: November 2012
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1.0 Objective

Because of the evidentiary nature of samples collected during environmental investigations, possession must be traceable from the time the samples are collected until their derived data are used to support remedial or other decisions. To maintain and document sample possession, sample custody procedures, as described in this technical standard operating procedure (SOP) are followed. All paperwork associated with the sample custody procedures at the Santa Susana Field Laboratory (SSFL) site will be retained in CDM Smith files unless Department of Energy (DOE) requests that it be transferred to them.

2.0 Background

2.1 Definitions

Sample – A sample is material to be analyzed that is contained in single or multiple containers representing a unique sample identification number.

Sample Custody—A sample is under custody if:

1. It is in your possession
2. It is in your view, after being in your possession
3. It was in your possession and you locked it up
4. It is in a designated secure area
5. It is in transit by a delivery or courier service

Chain-of-Custody Record—A chain-of-custody record is a form used to document the transfer of custody of samples from one individual to another. The forms are electronic and managed in the Scribe software. An example form is included in the Field Sampling Plan (FSP) Addendum and attached to this SOP.

Custody Seal—A custody seal is a tape-like seal that is part of the chain-of-custody process and is used to detect tampering with samples after they have been packed for shipping. Custody seals are placed on coolers not individual samples.

Sample Label— A sample label is an adhesive label placed on sample containers to designate a sample identification number and other sampling information.

2.2 Associated Procedures

- SSFL SOP 2, *Surface Soil Sampling*
- SSFL SOP 3, *Subsurface Soil Sampling with Hand Auger*
- SSFL SOP 4, *Direct Push Technology Sampling*
- SSFL SOP 5, *Backhoe Trenching/Test Pits for Sample Collection*
- SSFL SOP 8, *Field Data Collection Documents, Content, and Control*

3.0 General Responsibilities

Field Team Leader—The field team leader (FTL) is responsible for ensuring that strict chain-of-custody procedures are maintained during all sampling events. The FTL is also responsible for coordinating with the subcontract laboratory to ensure that adequate information is recorded on custody records. The FTL determines whether proper custody procedures were followed during the fieldwork.

Field Sample Coordinator—The field sample coordinator, designated by the FTL, is responsible for accepting custody of samples from the sampler(s) and properly packing and shipping the samples to the laboratory assigned to do the analyses.

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Sampler—The sampler is personally responsible for the care and custody of the samples collected until they are properly transferred or dispatched.

Site Health and Safety Technician— The person who will use field screening instruments to monitor all field activities for VOCs and radiological contaminants and pre-shipment sample coolers. This person is a trained radiological technician who works under the guidance of Science Application International Corporation's (SAIC's) Certified Health Physicist (CHP).

4.0 Required Supplies

- Chain-of-custody record forms
- Sample labels
- Computer
- Waterproof pen
- Custody seals
- Clear tape
- Printer and paper
- Ball point ink pen

5.0 Procedures

5.1 Chain-of-Custody Record

This procedure establishes a method for maintaining custody of samples through use of a chain-of-custody record. This procedure will be followed for all samples collected.

Field Custody

1. The quantity and types of samples to be collected and the proposed sample locations are documented in the Field Sampling Plan Addendum.
2. Complete sample labels for each sample using waterproof ink.
3. Maintain personal custody of the samples (in your possession) at all times until custody is transferred to the FTL or sample coordinator for sample shipment.

Transfer of Custody and Shipment

1. Complete a chain-of-custody record for all samples (see Attachment A). To transfer the possession of samples, the individuals relinquishing and receiving will sign, date, and note the time on the record. This record documents sample custody transfer from the sampler, often through another person, to the laboratory sample manager in the appropriate laboratory.
 - The date/time will be the same for both signatures when custody is transferred directly to another person. When samples are shipped via common carrier (e.g., Federal Express), the date/time will not be the same for both signatures. In all cases, it must be readily apparent that the person who received custody is the same person who relinquished custody to the next custodian.
 - If samples are left unattended or a person refuses to sign, this must be documented and explained on the chain-of-custody record.

Note: The FTL or field sample coordinator will initiate the chain-of-custody record, sign, and date as the relinquisher. The individual sampler(s) must sign in the appropriate block, but does (do) not need to sign and date as a relinquisher.

2. Package samples properly for shipment and dispatch to the appropriate laboratory for analysis. Each shipment must be accompanied by a separate chain-of-custody record. If a shipment consists of multiple coolers, the original, or a copy of the chain-of-custody record shall accompany each cooler in the shipment.
3. The original record will accompany the shipment. Copies are retained by the FTL and distributed to the appropriate sample coordinator(s). Freight bills will also be retained by the FTL as part of the permanent documentation. The shipping number from the freight bill shall be recorded on the applicable chain-of-custody record and field logbook (in accordance with SSFL SOP 8).

Completing Chain-of-Custody Record

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Scribe generates a COC that shall include the following information:

1. Site name, CDM Smith contact name and phone number, COC number.
2. Name, phone number and address of the laboratory where the samples are being shipped.
3. Date shipped, courier's name, and airbill number (if applicable).
4. Sample ID number.
5. Sample date and military time.
6. Matrix and preservative.
7. Type and Number of Containers.
8. Turnaround times.
9. Analyses requested.
10. List any special instructions. Also, note which samples may have high PID or RAD concentrations as advanced notice for the laboratory.
11. Sign the COC record in the space provided, including the date and time relinquished.
12. The sampler must sign each original COC.

Review the form to ensure that all information is completed and that all entries are correct.

5.2 Sample Labels

Sample labels will be used for all samples collected at the SSFL site.

1. Complete one label with the following information for each sample container collected. For Encore Samplers, the label will be placed on the zip-top bag that contains all Encores for one sample:
 - sample identification number.
 - Date (i.e., month, day, and year of collection).
 - Time (i.e., military) of sample collection.
 - Mark to indicate soil or water sample.
 - Sampler will place their initials in the space provided.
 - List preservative type.

List or mark the "Analyses" for which the sample is to be analyzed.

2. Place adhesive labels directly on the sample containers so that the label is completely below the lid of the container. Place clear tape over the label to protect from moisture.

Note: The EnCore sampler is very small; therefore, the sample label is placed on the zip-top bag that contains the samplers.

3. Double-check that the information recorded on the sample label is consistent with the information recorded on the chain-of-custody record.

5.3 Custody Seals

Two custody seals must be placed on opposite corners of all shipping containers (e.g., cooler) before shipment. The seals shall be signed and dated by the shipper.

5.4 Sample Shipping

SSFL SOP 11 defines the requirements for packaging and shipping environmental samples. Following packing, all coolers must be screened for radiation by the Site Health and Safety Technician (SSFL SOP 7).

6.0 Restrictions/Limitations

There are no identified restrictions/limitations.

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7.0 References

U. S. Environmental Protection Agency. Revised March 1992 or current revision. *National Enforcement Investigations Center, Multi-Media Investigation Manual*, EPA-330/9-89-003-R. p.85.

_____. 2006-2011. Scribe Manuals. http://www.ertsupport.org/scribe_home.htm and <http://www.epaossc.org/scribe>

_____. 2011 or current revision. *Sampler's Guide, Contract Laboratory Program Guidance for Field Samplers*, EPA-540-R-09-03. January.

8.0 Attachments

Attachment A – Example Chain of Custody Form

