

Chapter 10

Documentation

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Field Sampling Procedures Manual

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Chapter 10 Documentation

10.1 Introduction

Proper documentation of all site activities is a crucial part of the field investigation process. Documentation must be maintained to trace the possession and handling of samples from the time of collection through analysis and disposition. Documentation, relative to sampling procedures, includes sample labels, sample seals, field logbooks, chain of custody records, sample analysis request forms, and laboratory sample logs. The details of all activities whether part of the site inspection or a sampling episode must be recorded in a field logbook. When samples are collected, documentation in the form of sample analysis request forms must be completed. Proper completion of these forms and the field logbook are necessary to support potential enforcement actions that may occur from the results of sample analysis.

Information on “Documentation” requirements relative to the Technical Requirements for Site Remediation (N.J.A.C. 7:26E-1.6) can be found on the Internet at <http://www.state.nj.us/dep/srp/regs/techrule/techrl01.pdf>. Information on “Documentation” requirements relative to the Site Remediation Program’s Electronic Data Interchange (SRP-EDI) can be found on the Internet at <http://www.state.nj.us/dep/srp/regs/srpedi>.

10.2 Field Log Books

Field logbooks must be bound and should have numbered, water resistant pages. All pertinent information regarding the site and sampling procedures must be documented. Notations should be made in logbook fashion, noting the time and date of all entries. Recorded information recorded should include, but not be limited to the following:

- Name and exact location of site of investigation
- Date and time of arrival and departure
- Affiliation of persons contacted
- Name of person keeping log
- Names of all persons on site
- Purpose of visit
- All available information on site (processes or products, waste generation, nature of spilled material)
- Composition and concentration of substance, if known; description of sampling plan
- Field instrument calibration information
- Location of sampling points (including justification)
- Geographically-referenced location of sample point and how determined, per requirements in Technical Requirements and SRP-EDI (see <http://www.state.nj.us/dep/srp/hazsite/>)
- Number of samples taken, volume of samples taken
- Preservation
- Method of sample collection and any factors that may affect its quality
- Date and time of sample collection and any factors that may affect its quality

- Name of collector
- All sample identification numbers
- Description of samples
- Weather conditions on the day of sampling and up to forty-eight hours previous and any field observations.

10.3 Documenting Sampling Points

[◀ Return to TOC](#)

Sampling points should be documented as to their exact location for purposes of future sampling. It is also necessary to document sample locations in an approved geographically referenced format per the Tech Regs and requirements in the SRP-EDI when submitting analytical results for those samples. Guidance regarding the geographically referenced locations can be obtained from <http://www.state.nj.us/dep/srp/hazsite/>.

The most common method to document sample locations for field notes is accomplished through the use of a monument, measuring tape and compass. A monument should be chosen at each site to act as a stationary reference point from which all sampling points can be measured using a compass and measuring tape.

If a building or other stationary structure exists, a corner may act as this reference point. If no such monument already exists, it will be necessary to create your own. A piece of wood, approximately 2 in. by 2 in. should be hammered into the ground to almost ground level, making it difficult to remove and thus assuring its permanence. The stake should then be marked with flagging tape or fluorescent paint.

When establishing a sampling point, follow this procedure:

- Standing at the monument, facing sampling point, use the compass hairlines to determine degree of direction.
- Line of sight should run from the monument, through both hairline needles on the compass, to the sampling point.
- When first establishing the sampling point, record the degree and direction reading from the compass in the field notebook, along with the distance measurement, from the monument to the exact sampling point.
- In the future, field-investigating teams should have no difficulty finding the exact locations from which previous samples were taken when they are provided with the monument and compass data.

10.4 Photo-Documentation

[◀ Return to TOC](#)

All sampling points should be documented on film. A film record of a sampling event allows positive identification of the sampling point. Photographs are the most accurate and convenient demonstration of the field personnel's observations. Photographs taken to document sampling points should include two or more reference points to facilitate relocating the point at a later date.

Keeping a record of photographs taken is crucial to their validity as a representation of an existing situation. Therefore, for each photograph taken several items should be noted in the field notebook:

- Date
- Time
- Photographed by (signature)
- Name of site

- General direction faced and description of the subject taken
- Sequential number of the photograph and the roll number

Photo-documentation is invaluable if the sampling and subsequential analytical data ends in litigation, enforcement, or cost recovery actions. Video coverage of a sampling episode can be equally or even more valuable than photographs because it can be used to prove that samples were taken properly as well as where they were taken. It can be used as a record of site conditions and can give those who have not been on-site an idea of the circumstances.

10.5 Sample Collection Paperwork

10.5.1 Sample Labels

Sample labels are an important part of proper documentation as their use not only reduces the possibility of confusing sample containers, but also provides the information necessary during handling to complete chain-of-custody forms. Sample containers should be pre-labeled before sample collection and the labels themselves protected from the sample matrix with a clear tape covering. Sample labels should include the well or sample number; parameter sampled; date; time sampled; sampler's initials; preservative; and site name or location.

10.5.2 Chain of Custody/Sample Analysis Request

When samples are collected for laboratory analysis, additional documentation procedures are required. The Chain of Custody (COC) form is intended as a legal record of possession of the sample. The COC should be initiated at the lab at sample container receipt, remains with the sample at all times and bears the name of the person assuming responsibility for the samples. This person is tasked with ensuring secure and appropriate handling of the bottles and samples. When the form is completed, it should indicate that there were no lapses in sample accountability.

In order to assure that the proper analysis is performed on the samples, the lab performing the analysis may require additional information and/or the regulatory agency involved. Information may include identification of samples by number, location and time collected and desired analysis. This information should act as a confirmation to lab contacts made prior to the sample event initiation.

In order to reduce the amount of paperwork necessary to adequately document sample collection, the NJDEP has combined the "Chain of Custody" form with the "Sample Analysis Request Form". The format of this document may vary, depending upon the source of the sample bottles.

There are two (2) versions of the combined form:

10.5.2.1 External Chain of Custody and Sample Analysis Request Form With Shipping Container

This document is intended to be initiated by the laboratory performing the analysis and to accompany the samples until they return to the laboratory for analysis (See External COC With Shipping Container Form on following page).

10.5.2.2 External Chain of Custody and Sample Analysis Request Form Without Shipping Container

This form can be used in cases where the sample collector (See External COC Without Shipping Container Form on following page) initiates chain of custody.

Both forms are currently utilized within the Site Remediation Program to ensure handling and legitimate transfer of samples.

**New Jersey Department of Environmental Protection
External Chain of Custody and Sample Analysis Request Form
(Without Shipping Container)**

Laboratory Information	
Name of Laboratory: _____	Individual Preparing Sample Bottles and Shipping Container(s)
Address: _____	Name: _____
_____	Title: _____
Time/Date Sample Shipping Container Sealed: _____	Laboratory Affixed Seal Number: _____

NJDEP Information			
Division: _____	Bureau: _____	Phone: (____) _____	Job Number: _____

Requested Analysis								
NJDEP Field Sample Number	Time/Date Sampling Start	Time/Date Sampling Stop	Parameter	Method	Preserv.	Container		Matrix
						Volume	Quantity	

Preservative Added: (Check One) Laboratory Field Unpreserved

Contract Number: _____ Task Number: _____ Report Format: _____

External Chain of Custody			
Relinquished	Received	Time/Date	Reason For Change of External Custody
XXXXXXXXXXXXXXXXXXXX	_____	_____	Break Seal/Sample
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Individual Resealing Shipping Container: Name: _____ Title: _____

Time/Date Sample Shipping Container Resealed: _____ NJDEP Affixed Seal Number: _____

Time/Date Sample Shipping Container Opened: _____

Time/Date Internal Chain of Custody Initiated on NJDEP Form 077 (Internal Chain of Custody): _____

- Distribution: - Original (Sent With Report) - Contractor Spare, Retain With Report File
 - Sample Custodian - NJDEP Sampling Personnel

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