

Collection of Soils and Other Geological Evidence for Criminal Forensic Applications



WHAT IS AN AAFS STANDARD FACTSHEET?

The AAFS produces clear, concise, and easy to understand factsheets to summarize the contents of technical and professional forensic science standards on the OSAC Registry. They are not intended to provide an interpretation for any portion of a published standard.

WHAT IS THE PURPOSE OF THIS STANDARD?

This standard provides guidance to crime scene professionals for documentation, collection, and preservation of soil and other geological evidence.

Sampling of soils for environmental contaminants is outside of its scope.

The standard is designed as a resource for professionals whose job responsibilities include the collection and preservation of soil evidence.

WHY IS THIS STANDARD IMPORTANT? WHAT ARE ITS BENEFITS?

Geological trace evidence can be used to demonstrate how and where a crime happened. Soil may be inadvertently transferred at a crime scene to an item and can be examined and compared to soil samples intentionally collected at a crime scene.

Soil evidence is common in crimes committed outdoors. Soil examination can augment other forensic disciplines including impression evidence, wildlife crimes, or search for burials. This document provides a centralized guide for use by a broad community of crime scene investigators and forensic scientists.



HOW IS THIS STANDARD USED AND WHAT ARE THE KEY ELEMENTS?

This guide recommends practices for packaging soil attached to items like shoes, vehicles or clothing for examination by a forensic science service provider (FSSP). If an item to which the soil is attached is too large to send to the FSSP, this document recommends methods to remove and collect the adhered soil.

Soils typically vary with depth and across the landscape. These changes can be gradual or abrupt. Because most evidence is collected by personnel who may lack education in soils or geology, this standard aims to provide crime scene professionals with guidance to improve the quality of soil collected as evidence at crime scenes.

This standard recommends strategies for collection of known reference soils for comparison to evidentiary soils. Reference soils are collected from crime scenes and alternate locations.

Soil evidence is encountered in tire and footwear impressions at crime scenes and may be recovered from casting material.

For ease of use, there is a companion video (see URL and QR code to the right).

Collection of Forensic Soil Evidence Explanatory Video
<https://youtu.be/o9dWZOj1U5A>

