

**ALASKA DEPARTMENT OF ENVIRONMENTAL
CONSERVATION DIVISION OF SPILL PREVENTION AND
RESPONSE CONTAMINATED SITES PROGRAM**

Technical Memorandum

September 2016

**QUALIFIED SAMPLER TRAINING PROGRAM RECOGNITION AND
DOCUMENTING RELEVANT SAMPLING EXPERIENCE CRITERIA**

PURPOSE

This memorandum provides information on how the Alaska Department of Environmental Conservation (DEC) determines whether a sampling course or training program meets the criteria to be recognized as a “qualified sampler training program” under the Site Cleanup Rules (18 AAC 75, Article 3). It also provides guidance for qualified sampler trainees on how to achieve and document the required three months environmental sampling experience.

BACKGROUND

DEC has modified the regulations pertaining to the qualifications required to conduct environmental sampling of soil, groundwater, surface water and sediment. In accordance with 18 AAC 75.333(c), an individual is qualified to sample environmental media (except air or soil gas) if that person:

1. Has successfully completed an environmental sampling training program recognized by DEC or alternatively, completion of applied field work involving environmental sample collection associated with a degree in environmental science or another related field from a nationally or internationally accredited postsecondary institution; and
2. Has at least three months of experience in environmental sampling under the direct supervision of a qualified environmental professional completed after the training.

An organization or individual pursuing DEC approval of a qualified sampler training program, should develop training materials in accordance with the criteria in this technical memorandum and submit training materials to DEC for approval before providing the training. A DEC recognized, “qualified sampling training program” must provide certificates of completion to trainees that complete the program. Individuals that have completed a DEC recognized qualified sampling training program will need to achieve three months relevant sampling experience under the supervision of a qualified environmental professional to achieve qualified environmental sampler status.

Qualified samplers must obtain and keep a certificate of successful completion of a DEC-recognized environmental sampler training program and written verification from a qualified environmental professional that they have acquired at least three months sampling experience under the supervision of a qualified environmental professional. These records do not need to be submitted to DEC unless requested on a project specific basis.

REQUIRED ELEMENTS FOR A DEC RECOGNIZED QUALIFIED SAMPLER TRAINING PROGRAM:

1. Principles of Representative Sampling

This module should be designed to establish a foundation for environmental sampling. The module should emphasize the importance of data reproducibility and data quality objectives, identify sampling methods, explain the rationale for sampling and cover basic terminology and responsibilities of a sampler.

2. Soil Sampling

This module should be designed to teach the particulars of soil sampling. The following subjects should be covered: Differences in types of soils collected, discrete versus incremental/composite sampling, common sampling techniques or approaches, analytical methods, preservation, and holding times, field screening, using technology (GPS or other methods) to document sample locations, practical use of common tools to collect samples, and labeling of samples.

3. Surface Water and Sediment Sampling

This module should be designed to teach the particulars of surface water and sediment sampling. The following subjects should be covered: Importance of co-locating surface water and sediment samples, importance of not filtering surface water samples, sample tools to collect surface water and sediment, common sampling techniques or approaches, analytical methods, preservation, and holding times, using GPS or locates to document sample locations, and labeling of samples.

4. Groundwater Sampling

This module should be designed to teach the particulars of groundwater sampling. The following subjects should be covered: Groundwater monitoring well installation and development, documentation of groundwater elevations and fuel product on groundwater, purge versus no-purge sampling, sample tools to collect groundwater and purge a well, common sampling techniques or approaches, analytical methods, preservation, and holding times, containerizing and disposing of purge water, using GPS or locates to document sample locations, and labeling of samples.

5. Preservation, Documentation, Packaging, Transport, and Quality Assurance/Quality Control

This module should be designed to teach the particulars of field documentation, sample packaging and transport, and field quality assurance and quality control (QA/QC). Trainees should be taught the following subjects: cooler packing, temperature blanks, and labeling for transport, sample equipment cleaning for re-use, QA/QC sample collection (field duplicates, trip blanks, and equipment blanks), techniques to minimize cross contamination of samples, chain of custody form completion, and documentation of measurements and activities in field notebooks.

REQUIRED ACTIVITIES TO ACHIEVE THREE MONTHS ENVIRONMENTAL SAMPLING EXPERIENCE:

1. Identifying and Documenting Sample Locations

In accordance with a DEC approved work plan, a qualified sampler trainee must gain experience identifying and documenting sample collection locations. Sample locates or GPS coordinates and all required field measurements should be obtained and recorded in a field notebook and on pertinent field forms so that all field activities are documented.

2. Collecting Samples

In accordance with a DEC approved work plan, a qualified sampler trainee must gain experience conducting a variety of field screening tests, purging monitoring wells, and collecting primary, duplicate, and quality assurance samples from soil, groundwater, surface water or sediment; placing samples in appropriate jars or containers; ensuring samples are preserved, as required; labeling the samples; and completing all other field forms.

3. Packing a Sample Cooler, and Delivering or Shipping Sample Cooler to the Appropriate Laboratory

In accordance with a DEC approved work plan, a qualified sampler trainee should must gain experience packing samples in a cooler for transport to a laboratory, labeling the cooler, and filling out chain of custody forms.

In most cases, fulfillment of the three months environmental sampling experience requirement can be completed during one field season provided the activities are supervised by a qualified environmental professional and cover the range of activities described above. DEC acknowledges that a single sampling event may not occur over a three month time frame. Therefore, time devoted to report preparation, for example, or disposing of investigative derived waste can supplement the three months environmental sampling experience requirement as long as the required activities noted above have been completed.