FIELD AUDIT REPORT

Final Report

Standards and Assessment Section
Florida Department of Environmental Protection
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Sampling Agency:	FDEP, Northwest District
Field Personnel:	Mike King and Rick Abad
Auditor(s):	Russ Frydenborg and Michael Blizzard
Audit Date:	03/25/2009
Site:	Jones Creek at Brigadier Rd, Pensacola Junior College Campus
Audit Type:	Performance Audit
Copies of Audit Report to:	Mike King, Rick Abad, Brad Hartshorn
Overall Sampling Performance:	**Good**

Summary of Sampling Event

Auditors Russ Frydenborg and Michael Blizzard met Michael King and Rick Abad at the FDEP Northwest District Lab building on the morning of 03/25/2009. Observing the audit were Michelle Fish and Danielle Melnick, Bill Chandler, and Brad Hartshorn. Samplers performed calibration verification of the field meter in the lab, and then the group went to the field site. The site of the audit was Jones Creek on Brigadier Road at the University of West Florida, Pensacola Junior College Campus, Escambia County. The samplers collected water quality samples (nutrients, BOD, chlorophyll *a*, bacteriological, solids, and minerals) and field parameters by wading in the stream. The samplers used the bottle provided for chlorophyll *a* sample collection as an intermediate device for bacteriological sample collection. The field meter was verified after the sampling event. Samplers logged all relevant data on the Water Quality Report Form (field sheet). The samples were collected at 1325 and were then shipped by Fed Ex at 1600 on the same day. Copies of the calibration log, field sheet, and sample submittal forms were later submitted for the audit.

Summary of Findings

Sampling Technique: Auditors advised samplers to take caution while wading to avoid possible sediment disturbance. Auditors retrained the samplers in the technique of inverting the grab sample container before bringing the sampling container below the water surface. Samplers wore gloves that were reused from other events, and should use new clean gloves for each site if they choose to wear gloves.

Sampling Equipment: Samplers should note on their field sheet that they used the chlorophyll sampling bottle as an intermediate device for bacteriological sample collection. The filter used for orthophosphate sample collection was not initially rinsed, but after instruction by the auditors, the filter was rinsed three times prior to collecting the samples.

Preservation: Auditors advised the samplers to immerse samples “in” ice rather than on top of the ice.

Field Meter Records: There was not a sufficient meter identification link between the field sheet and calibration log. The meter number should be recorded on the calibration log sheet. Calibration and verification acceptance criteria and applicable DEP SOPs should also be on the calibration log.

Detailed descriptions of audit findings of deficiency are listed in the table below.

Final Audit Report - Summary of Corrective Actions

All corrective actions reported by the Northwest District sampling team were accepted by the auditors. The corrective actions and audit checklists are tabulated in the spreadsheet workbook for this audit, which is available upon request. With the implementation of the listed corrective actions, the audited Northwest District sampling team are performing sample collection and field-testing procedures in compliance with DEP SOP requirements.

		Audit Finding	SOP Reference
1	Expectation	The type(s) of sampling equipment used to collect all samples was recorded in the field record.	FD5000 section 2.13
	Observation	*Sample container for chlorophyll was triple rinsed and used as intermediate sampling equipment. The auditors advised the samplers to note the use of an intermediate device on the Water Quality Report Form.*	
2	Expectation	Care was exercised to not disturb bottom sediments during sample collection.	FS 2100, section 2.3
	Observation	*There was insufficient care exercised. Auditors advised that caution be given regarding disturbance of bottom sediments.*	
3	Expectation	Sample containers were submerged neck first, inverted into the oncoming direction of flow where applicable, slowly filled leaving headspace and returned to the surface for preservation, if appropriate.	FS 2110, section 1.1.1
	Observation	*Samplers did not have proper technique during collection of the first sample, but corrected their technique for the remainder of samples after the auditors trained the samplers on-site regarding this sampling procedure.*	
4	Expectation	When required, new, clean, unpowdered gloves were worn and changed as needed by all samplers handling purging equipment, sampling equipment, measurement equipment and sample containers.	FS 1003, sections 2, 3, 4 and 5
	Observation	*Reusable gloves were used for sampling rather than new, clean, unpowdered gloves.*	
5	Expectation	Filters and filtration equipment are intermediate devices and therefore must be adequately rinsed per FS 2110 section 1.1.2.1.	FS 2000, sections 1.5.8
	Observation	*The sampler did not initially pre-rinse the filter, but after instruction from the auditors, started over and rinsed both syringe and filter prior to filtering the sample.*	
6	Expectation	When required the samples are placed in wet ice within 15 minutes of collection. Samples are shipped in wet ice.	FS 1006 section 5
	Observation	*Non-acidified samples were "on" top of ice rather than "in" ice. The auditors advised caution in observing the maximum 15-minute window.*	
7	Expectation	Unique identification for the instrument calibrated (i.e., a designation code such as manufacturer name, model number and/or identifying number).	FD 4100 sections 2.1 - 2.11
	Observation	*A meter number was recorded on the Water Quality Report Form, but not on the calibration log sheet. The meter number must be noted in both locations in order to link the calibration records to the sampling records.*	