

Sampling and Reporting for Sampler 1 and 2 Certification

Study Guide Questions
Chapters 1-7



Chapter 1 - Level 1 Study Questions



What are the three parts of a Distribution System Sample Plan (DSSP)?

Description of System; Distribution Map; Sampling point information

What are funds from the Water Conservation Fee used for?

Sample collection and analyses for Compliance monitoring

What types of samples can Level 1 Water Sampling Technicians collect?

Microbiological; Lead & Copper; Chlorine Residual; Turbidity; and Field Tests for pH, Dissolved Oxygen & Temperature

Chapter 1 - Level 1 Sample Test Questions

1. How much is the Water Conservation Fee?
 - A. \$0.03/100 gallons
 - B. \$0.03/1000 gallons
 - C. \$0.50/1000 gallons

2. The Water Conservation Fee covers repeat microbiological sample analyses.
 - A. True
 - B. False

3. How many hours of training credits are required for WST Level 1 certification?
 - A. 5
 - B. 10
 - C. 20
 - D. 30

Chapter 1 - Level 2 Study Questions

What information should be included in a DSSP narrative?

Specific information about the system and sampling points. For microbiological sampling it should include the schedule and rotation (minimum of 4 sample sites).

What is the difference between POE and POU sample sites?

POE (point of entry)—Where treated water enters the distribution system

POU (point of use)—Water drawn directly from consumers plumbing fixtures

Which samples must be collected by the PWS?

Samples collected in Distribution system - Microbiological; Chlorine Residuals; Lead/Copper; Asbestos; DBPs; turbidity

Chapter 1 - Level 2 Sample Test Questions



1. What type of sample is a lead and copper sample?
 - A. POE
 - B. POU
 - C. Distribution

2. The Water Conservation Fee covers secondary contaminant sample collection and analyses.
 - A. True
 - B. False

3. How many hours of training credits are required for WST Level 2 certification?
 - A. 5
 - B. 10
 - C. 20
 - D. 30

Chapter 2 - Level 1 Study Questions

What is an MCL?

Why is turbidity a Primary Contaminant?

What is a nephelometer?

What is a repeat sample?

How long must bacteriological and chemical sampling results be kept?

Bacteriological –5 yrs.; Chemical –10 yrs.; Lead and Copper—12 yrs.

How often must consumer confidence reports be prepared and distributed?

Chapter 2 - Level 1 Sample Test Questions

- 1. A public water system is any system that serves a population greater than or equal to:**
 - A. 25**
 - B. 50**
 - C. 100**
- 2. What is the maximum chlorine residual allowed by the Disinfectant-Disinfection By-Products Rule?**
 - A. 2 mg/l**
 - B. 4 mg/l**
 - C. 6 mg/l**
 - D. 8 mg/l**
- 3. What type of contaminant is iron?**
 - A. Primary Inorganic**
 - B. Primary Organic**
 - C. Secondary**
- 4. The failure of a public water system to comply with the NM Drinking Water Regulations must be reported to NMED within:**
 - A. 12 Hours**
 - B. 48 Hours**
 - C. 4 Days**
 - D. One week**

Chapter 2 - Level 2 Study Questions

1. What are the four components of the Ground Water Rule?

Sanitary Surveys; Source Monitoring; Corrective Action; Compliance Monitoring

2. What notification is required for a Tier 1 violation?

24-hour public notice and reported to NMED w/in 24-hours

3. What are the action levels for lead and copper?

Lead—0.015 mg/L ; Copper—1.3 mg/L

4. How often must nitrate samples be submitted?

Yearly

Chapter 2 - Level 2 Sample Test Questions

1. The MCL for Total Trihalomethanes is:
 - A. 0.010 mg/l
 - B. 0.080 mg/l
 - C. 0.200 mg/l

2. The SDWA Compliance Cycle for the Standardized Monitoring Rule consists of three:
 - A. Years
 - B. Compliance Periods
 - C. Quarters
 - D. Months

Chapter 3 - Study Questions

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Who is responsible for the developing the DSSP?

The Water System; NMED-DWB Reviews and Approves

What is sodium thiosulphate used for?

To neutralize any chlorine residual present in the sample

What equipment is needed to collect a microbiological sample?

Cl₂ residual kit; Cooler; Ice/Packs; Plastic Bags; Soap/gloves; Bact-T bottles; Marker and Tape; alcohol squirt bottle; Lab Forms/CoC

Which faucets should be avoided when selecting a sampling point?

Hinged/swivel faucets; Leaking taps; Vacuum Breakers or Attachments

Chapter 3 - Study Questions

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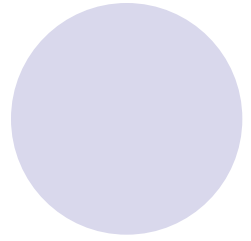
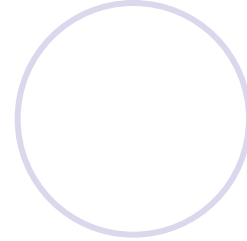
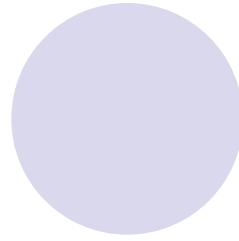
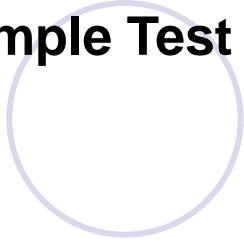
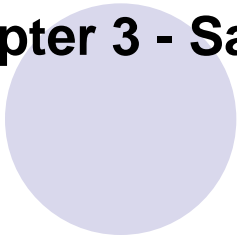
Why should routine samples be collected early in the week?

Which samples require a red tape seal and chain of custody?

How are microbiological samples stored and transported?

How soon must repeat samples be collected after notification of positive results?

Chapter 3 - Sample Test Questions



1. Microbiological samples must be tested within ____ hours.
 - A. 12
 - B. 24
 - C. 30
 - D. 36

2. If a system takes one microbiological sample a month, how many repeat samples must be taken when positive result are reported?
 - A. 2
 - B. 3
 - C. 4
 - D. 5

Chapter 3 - Sample Test Questions

3. Repeat samples require upstream and downstream sampling. This must be done within how many service connections of the original sample?
 - A. 2
 - B. 3
 - C. 4
 - D. 5

4. How many milliliters of sample are required for testing?
 - A. 50
 - B. 75
 - C. 100
 - D. 125

5. A sample collected after a water line repair should be identified as a _____ on the sample request form.
 - A. Routine sample
 - B. Repeat Sample
 - C. Special sample
 - D. NMED monitoring sample

Chapter 4 - Study Questions

What are the personal hygiene issues that could affect VOC sample results?

Smoking; Aerosols; Gases; Fumes; Gloves should be worn

Organic samples should be stored at what temperature?

4°C or 39°F

What are the seven sets of samples included in the SLD semi volatile organic compound sample kit?

VOCII; Acid Herbicides; SOC; Carbamates; Glyphosate; Endothall; Diquat

Which samples must be preserved with HCl?

VOCs; Acid Herbicides; SOCs

What are the two sets of samples included in a disinfection by-products sample kit?

Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5)

Chapter 4 - Sample Test Questions



1. Which samples require collection without air bubbles?
 - A. VOC samples
 - B. VOC II samples
 - C. TTHM samples
 - D. All of the above

2. Most of the organic sample bottles have preservative chemicals added to them at the lab.
 - A. True
 - B. False

3. Which of the following samples requires only one sample bottle?
 - A. SOC
 - B. Halo acetic acids
 - C. Endothall
 - D. TTHM

Chapter 4 - Sample Test Questions

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4. Which of these samples is preserved with citrate buffer?
 - A. VOC
 - B. Carbamates
 - C. Acid Herbicides
 - D. Glyphosate

5. SLD semi volatile samples that require the addition of HCl have:
 - A. Yellow labels
 - B. Blue labels
 - C. White labels
 - D. Green labels

Chapter 5 - Study Questions

Which of the primary inorganic contaminants are considered to be heavy metals?

SDWA Group 1– Antimony (Sb); Arsenic (As); Barium (Ba); Beryllium (Be); Cadmium (Cd); Chromium (Cr); Mercury (Hg); Nickel (Ni); Selenium (Se); Thallium (Tl)

What is the name of the sampling group that includes nitrate and nitrite?

Nutrients Group

Which sampling groups do not require preservative chemical addition?

Secondary or Major Anions/Cations Group

Chapter 5 - Sample Test Questions

1. Nitric acid (HNO_3) is not used as a preservative in:
 - A. Lead and copper samples
 - B. Heavy metal samples
 - C. Nitrate/nitrite samples
2. All inorganic samples must be refrigerated at:
 - A. 18°C
 - B. 10°C
 - C. 4°C
 - D. 0°C
3. Which inorganic sample is preserved with sodium hydroxide (NaOH)?
 - A. Fluoride
 - B. Total Cyanide
 - C. Iron
 - D. Alkalinity
4. How long must a first draw sample for lead and copper sit in the plumbing?
 - A. 30-60 minutes
 - B. 2-4 hours
 - C. 6-18 hours
 - D. 24-36 hours

Chapter 6 - Study Questions

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1. What was changed in 2003 regarding the monitoring schedules for radiological contaminants?

3-6-9 year Standardized Monitoring Rule

2. Which chemical was added to the radiological contaminant group in 2003?

Uranium (MCL = 30 $\mu\text{g/L}$)

Chapter 6 - Sample Test Questions

1. Most radiological samples are preserved using:
 - A. Hydrochloric Acid
 - B. Sodium thiosulfate
 - C. Nitric acid
 - D. Sulfuric Acid
2. Which sample must be collected with no headspace?
 - A. Gross Alpha/Beta
 - B. Radon-222
 - C. Radium-228
 - D. All of the above
3. Radon is collected in:
 - A. 1-quart container
 - B. 1-gallon container
 - C. 150 ml container
 - D. Two 40 ml vials
4. Which sample has a 4-day holding time?
 - A. Sequential Flow Scheme
 - B. Radon-222
 - C. Gross alpha/beta
 - D. Uranium

Chapter 7 - Study Questions



Which samples currently require chain of custody documentation?

What types of analyses does the water chemistry section run?

Secondary; Major Anions/Cations; Nutrients; Fluoride and Cyanide

What specific information is required on the microbiological request form for repeat samples?

Original ID number for positive sample and whether sample is upstream, downstream or original site location; chain of custody

Which sections of the unified sample request form have drop-down menus?

Analyses lists

Chapter 7 - Sample Test Questions

1. Which of the following numbers might be a system identification number?
 - A. 2634-208
 - B. NM35101-07
 - C. 912-44-0932
 - D. 12-041
2. Some sample kits use one form for multiple analyses.
 - A. True
 - B. False
3. The unified sample request form cannot be used for which of these analyses?
 - A. Organic analyses
 - B. Radiological analyses
 - C. Microbiological analyses
 - D. Heavy metal analyses
4. Repeat microbiological samples must include:
 - A. Red evidentiary seal tape
 - B. Chain of custody
 - C. Positive sample reference number in request form
 - D. All of the above

Other—Sample Test Questions



1. What is the first step for bleeding wound?
 - A. Wash wound
 - B. Put pressure to wound
 - C. Wash and bandage wound
 - D. Let wound clot

2. Should you ice and get medical attention for a poisonous spider bite?
 - A. Yes
 - B. No

3. The SDS is required for chemical that are?
 - A. A physical hazard
 - B. Volatile
 - C. A carcinogen hazard
 - D. A toxic hazard

4. What safety information should employers provide employees:
 - A. SDS
 - B. Training
 - C. Hazardous warning labels
 - D. All of the above

Contact Information

- **NMED Drinking Water Bureau**

- www.nmenv.state.nm.us/dwb/dwbtop.html

- ***Albuquerque Field Office – (505) 222-9500***
- ***Santa Fe Field Office – (505) 476-8600***
- ***Clovis Field Office – (505) 762-3728***
- ***Las Cruces Field Office – (505) 524-6300***

- **USEPA website**

- www.epa.gov/safewater

- **USEPA Safe Drinking Water Hotline**

- **(800) 426-4791**

- hotline-sdwa@epamail.epa.gov