

Required Containers, Preservation Techniques, and Holding Times
(Excerpted from 40 CFR Part 136, Table II)

Permittees are required by [RCSA Section 22a-430-3\(j\)\(7\)](#) to determine compliance with numerical effluent limitations in the permit by sample collection, preservation, handling and analytical techniques prescribed by [40 CFR Part 136](#) of the federal regulations.

Parameter	Container ¹	Preservative ^{2,3}	Maximum Holding Time ⁴
<i>Bacterial Tests</i>			
Coliform, fecal and total	P,G	Cool, 4°C 0.008% Na ₂ S ₂ O ₃ ⁵	6 hours
Fecal streptococi	P,G	Cool, 4°C 0.008% Na ₂ S ₂ O ₃ ⁵	6 hours
<i>Inorganic Tests</i>			
Acidity	P,G	Cool, 4°C	14 days
Alkalinity	P,G	Cool, 4°C	14 days
Ammonia	P,G	Cool, 4°C H ₂ SO ₄ to pH<2	28 days
Biochemical oxygen demand	P,G	Cool, 4°C	48 hours
Bromide	P,G	None required	28 days
Chemical oxygen demand	P,G	Cool, 4°C H ₂ SO ₄ to pH<2	28 days
Chloride	P,G	None required	28 days
Chlorine, total residual	P,G	None required	Analyze immediately
Color	P,G	Cool, 4°C	48 hours
Cyanide, total and amenable to chlorination	P,G	Cool, 4°C NaOH to pH<12 0.6 g ascorbic acid ⁵	14 days ⁶
Fluoride	P	None required	28 days
Hardness	P,G	HNO ₃ to pH<2, H ₂ SO ₄ to pH<2	6 months
Hydrogen ion (pH)	P,G	None required	Analyze immediately
Kjeldahl and organic nitrogen	P,G	Cool, 4°C H ₂ SO ₄ to pH<2	28 days
<i>Metals⁷</i>			
Chromium VI	P,G	Cool, 4°C	24 hours
Mercury	P,G	HNO ₃ to pH<2	28 days
Metals (except Chromium VI & Mercury)	P,G	HNO ₃ to pH<2	6 months
Nitrate	P,G	Cool, 4°C	48 hours
Nitrate-nitrite	P,G	Cool, 4°C H ₂ SO ₄ to pH<2	28 days
Nitrite	P,G	Cool, 4°C	48 hours
Oil and grease	G	Cool, 4°C HCl or H ₂ SO ₄ to pH<2	28 days
Organic carbon	P,G	Cool, 4°C HCl or H ₂ SO ₄ to pH<2	28 days

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Orthophosphate	P,G	Filter immediately Cool, 4°C	48 hours
Dissolved oxygen Probe Winkler	G bottle & top G bottle & top	None required Fix onsite and store in the dark	Analyze immediately 8 hours
Phenols	G	Cool, 4°C H ₂ SO ₄ to pH<2	28 days
Phosphorus (elemental)	G	Cool, 4°C	48 hours
Phosphorus (total dissolved)	P,G	Cool, 4°C H ₂ SO ₄ to pH<2	28 days
Residue, total	P,G	Cool, 4°C	7 days
Residue, filterable	P,G	Cool, 4°C	7 days
Residue, nonfilterable (TSS)	P,G	Cool, 4°C	7 days
Residue, settleable	P,G	Cool, 4°C	48 hours
Residue, volatile	P,G	Cool, 4°C	7 days
Silica	P	Cool, 4°C	28 days
Specific conductance	P,G	Cool, 4°C	28 days
Sulfate	P,G	Cool, 4°C	28 days
Sulfide	P,G	Cool, 4°C, add zinc acetate plus sodium hydroxide to pH>9	7 days
Sulfite	P,G	None required	Analyze immediately
Surfactants	P,G	Cool, 4°C	48 hours
Temperature	P,G	None required	Analyze immediately
Turbidity	P,G	Cool, 4°C	48 hours
Organic Tests⁸			
Purgeable halocarbons	G, teflon-lined septum	Cool, 4°C 0.008% Na ₂ S ₂ O ₃ ⁵	14 days
Purgeable aromatic hydrocarbons	G, teflon-lined septum	Cool, 4°C 0.008% Na ₂ S ₂ O ₃ ⁵ HCl to pH ⁹	14 days
Acrolein and acrylonitrile	G, teflon-lined septum	Cool, 4°C 0.008% Na ₂ S ₂ O ₃ ⁵ Adjust pH to 4-5 ¹⁰	14 days
Phenols ¹¹	G, teflon-lined cap	Cool, 4°C 0.008% Na ₂ S ₂ O ₃ ⁵	7 days until extraction 40 days after extraction
Benzidines ¹¹	G, teflon-lined cap	Cool, 4°C 0.008% Na ₂ S ₂ O ₃ ⁵	7 days until extraction ¹³
Phthalate esters ¹¹	G, teflon-lined cap	Cool, 4°C	7 days until extraction 40 days after extraction
Nitrosamines ^{11, 14}	G, teflon-lined cap	Cool, 4°C 0.008% Na ₂ S ₂ O ₃ ⁵ Store in the dark	7 days until extraction 40 days after extraction
Polychlorinated biphenyls (PCBs) ¹¹	G, teflon-lined cap	Cool, 4°C	7 days until extraction 40 days after extraction

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Nitroaromatics and isophorone ¹¹	G, teflon-lined cap	Cool, 4°C 0.008% Na ₂ S ₂ O ₃ ⁵ Store in the dark	7 days until extraction 40 days after extraction
Polynuclear aromatic hydrocarbons ¹¹	G, teflon-lined cap	Cool, 4°C 0.008% Na ₂ S ₂ O ₃ ⁵ Store in the dark	7 days until extraction 40 days after extraction
Haloethers ¹¹	G, teflon-lined cap	Cool, 4°C 0.008% Na ₂ S ₂ O ₃ ⁵	7 days until extraction 40 days after extraction
Chlorinated hydrocarbons ¹¹	G, teflon-lined cap	Cool, 4°C	7 days until extraction 40 days after extraction
(2,3,7,8-tetrachlorodibenzo-p-dioxin) ¹ TCDD	G, teflon-lined cap	Cool, 4°C 0.008% Na ₂ S ₂ O ₃ ⁵	7 days until extraction 40 days after extraction
<i>Pesticides Test</i>			
Organochlorine pesticides ¹¹	G, teflon-lined cap	Cool, 4°C pH 5-9 ¹⁵	7 days until extraction 40 days after extraction
<i>Radiological Test</i>			
Alpha, beta, and radium	P,G	HNO ₃ to pH<2	6 months