# Watercare Laboratory Services Bottle Guide (Liquids)



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### Metals

### M1. 100mL Plastic - Nitric Acid Preserved (Acid-Soluble)

**Used for:** Acid-soluble metals

Sampling info: Do not rinse prior to filling. Fill the bottle with sample water to the

neck of the bottle (do not overfill as this will spill the acid

preservative). Ensure the lid is screwed down firmly Preservative: Nitric acid

Safety: Sample bottle contains concentrated acid. Ensure bottles are kept

upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as

bottle contains acid preservative

Bottle code: MET-AC-SOL\_0100

Label:





### M2. 100mL Plastic - Nitric Acid Preserved (Client-Filtered)

Used for: Soluble metals (where the sample has been filtered in the field)
Sampling info: Do not rinse prior to filling. Fill the bottle with sample water to ti

**npling info:**Do not rinse prior to filling. Fill the bottle with sample water to the neck of the bottle (do not overfill as this will spill the acid

preservative). Ensure the lid is screwed down firmly. Note: if using

our filters, refer to M8.

Preservative: Nitric acid

Safety: Sample bottle contains concentrated acid. Ensure bottles are kept

upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as

bottle contains acid

Bottle code: MET-MF-CF\_0100





### M3. 100mL Plastic - Ammonium Buffer pH 10 Preserved (Cr6+)

Used for: Chromium 6+

 $\textbf{Sampling info:} \qquad \qquad \textbf{Do not rinse prior to filling. Fill the bottle with sample water to the}$ 

neck of the bottle (do not overfill as this will spill the preservative).

Ensure the lid is screwed down firmly

Preservative: Ammonium buffer pH 10

Safety: Sample bottle contains ammonium buffer. Ensure bottles are kept upright during storage and transportation with their lids securely

closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as

bottle contains acid

Bottle code: CR-HEX\_0100

Label:





### M4. 250mL Plastic - Nitric Acid Treated (Lab-Filtered Metals)

Used for: Soluble metals

Sampling info: Rinse sample bottle with a small amount of the water to be sampled

and then fill up to the neck of the bottle leaving a small headspace

Safety: Sample bottle washed and treated with nitric acid

Bottle code: MET-DI-T\_0250

Label:





## M5. 100mL Plastic - Nitric Acid Preserved (Total Metals)

**Used for:** Total metals (e.g. lead, copper, nickel, total hardness)

Sampling info: Do not rinse prior to filling. Fill the bottle with sample water to the

neck of the bottle (do not overfill as this will spill the acid preservative). Ensure the lid is screwed down firmly

Preservative: Nitric acid

Safety: Sample bottle contains concentrated acid. Ensure bottles are kept

upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as

bottle contains acid

Bottle code: MET-TO-T\_0100





### M6. 100mL Plastic - Nitric Acid Preserved (Ultra Trace Total Metals)

**Used for:** Ultra trace metals

Sampling info: Do not rinse prior to filling. Fill the bottle with sample water to the

neck of the bottle (do not overfill as this will spill the acid preservative). Ensure the lid is screwed down firmly. Keep bottle

double bagged

Preservative: Nitric acid

Safety: Sample bottle contains concentrated acid. Ensure bottles are kept

upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as bottle contains acid. Keep double bagged on transport back to lab

Bottle code: MET-TO-U\_0100

Label:





### M7. 100mL Plastic – Nitric Acid Preserved (Ultra Trace Filtered Metals)

**Used for:** Ultra trace metals

Sampling info: Do not rinse prior to filling. Use a field filtration kit (M8) to filter the

sample directly into the bottle to the neck of the bottle (do not overfill as this will spill the acid preservative). Ensure the lid is

screwed down firmly. Keep bottle double bagged

Preservative: Nitric acid

Safety: Sample bottle contains concentrated acid. Ensure bottles are kept

upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as bottle contains acid. Keep double bagged on transport back to lab

Bottle code: MET-DI-U\_0100

Label:





## M8. Field/Ultra Trace Filtration Kit

Used for: Filtering sample into ultra-trace metals container or field filtration

Sampling info: Don provided gloves from the bag. Pull plunger out of the syringe and

attach the filter to the end of the syringe. Fill the syringe with sample up to the 60mL mark and place the plunger back into the syringe. Push down on the plunger over a sink or the environment until a few drops appear at the end of the filter. Push out ~1mL into the sink/environment before filtering the rest into the ultra-trace or field

filtered container



# **General Chemistry**

### G1. 100mL Plastic - Sulphuric Acid Preserved

**Used for:** COD, Total and Reactive Phosphorus, Total Kjeldahl

Nitrogen, Ammonia, Total Nitrogen

Sampling info: Do not rinse prior to filling. Fill the bottle with sample water

to the neck of the bottle (do not overfill as this will spill the acid preservative). Ensure the lid is screwed down firmly

Preservative: Sulphuric acid

Safety: Sample bottle contains concentrated acid. Ensure bottles are

kept upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** 

overfill or rinse as bottle contains acid preservative

Bottle code: H2SO4\_0100

Label:





### G2. 250mL Plastic - Sodium Hydroxide Preserved

Used for: Cyanide

Sampling info: Do not rinse prior to filling. Fill the bottle with sample water

to the neck of the bottle (do not overfill as this will spill the preservative). Ensure the lid is screwed down firmly

Preservative: Sodium hydroxide

Safety: Sample bottle cor

Sample bottle contains concentrated base. Ensure bottles

are kept upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as bottle contains acid preservative

Bottle code: NAOH\_0250





## G3. 300mL Glass Stopper Jar

**Used for:** Dissolved oxygen

Sampling info: Fill glass jar up slowly, minimising aeration, halfway up the

neck. Tap the bottle if necessary to remove any air bubbles. Add the contents of the manganese solution (reagent #1) to the bottle followed by the contents of the alkali solution (reagent #2). Insert the stopper and ensure all air is evacuated from the bottle. Mix by INVERSION a few times

Reagent #2 is highly alkaline and corrosive to the skin. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Handle both reagents with

great care

**Transport info:** Sample must be received and tested at the lab on the same

day

Bottle code: DO 0300

Label:

Safety:





### G4. 100mL to 2L Plastic

**Used for:** pH, turbidity, colour, anions, salinity, UV, ultra-

trace suspended solids and more

Sampling info: Rinse sample bottle with a small amount of the water to be

sampled and then fill up to the neck of the bottle leaving a

small headspace

**Transport info:** Samples for general testing often are required to arrive at

the lab within a certain timeframe for the testing to be viable. Enquire with the laboratory team to ensure you adhere to the method's recommend holding time GENERAL 0100 to GENERAL 2000 SUSPSOL 2000

Bottle code:

Label:





### G5. 500mL and 1L Black Plastic

**Used for:** Water/solid samples sensitive to light

(e.g. Chlorophyll)

Sampling info: Rinse sample bottle with a small amount of the water to be

sampled and then fill up to the neck of the bottle leaving a

small headspace

**Bottle code:** GENERAL-O\_0500 to GENERAL-O\_1000

Volume guide: 500mL is to be used for periphyton samples, all other water

samples require the 1L





### G6. 100mL Plastic - Ethylenediamine Preserved

**Used for:** Oxyhalides (Bromide, Bromate, Chlorite, Chlorate,

Perchlorate)

Sampling info: Do not rinse prior to filling. Fill the bottle with sample water

to the neck of the bottle (do not overfill as this will spill the preservative). Ensure the lid is screwed down firmly

Preservative: Ethylenediamine

**Safety:** Sample bottle contains ethylenediamine preservative.

Ensure bottles are kept upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as

bottle contains preservative

Bottle code: ETDIAM\_0100

Label:



### G7. 100mL Plastic - Zinc Acetate and Sodium Hydroxide Preserved

Used for: Sulphide

Sampling info: Do not rinse prior to filling. Fill the bottle with sample water

to the neck of the bottle (do not overfill as this will spill the preservative). Ensure the lid is screwed down firmly

Preservative: Zinc acetate and sodium hydroxide

Safety: Sample bottle contains concentrated base. Ensure bottles

are kept upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as bottle contains preservative

Bottle code: ZNAC\_OH\_TO\_0100

Label:





# G8. 100mL Plastic – Disodium Ethylene Diamine Tetra Acetic Acid

Preserved

Used for Sulphite

Sampling info Do not rinse prior to filling. Fill the bottle with sample water

to the neck of the bottle (do not overfill as this will spill the preservative). Ensure the lid is screwed down firmly

Preservative Safety:

Disodium ethylene diamine tetra acetic acid (Na<sub>2</sub>EDTA) Sample bottle contains disodium ethylene diamine tetra acetic acid. Ensure bottles are kept upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as

bottle contains preservative

Bottle code: EDTA\_0100





### G9. 100mL Plastic - Cyanogen Chloride

**Used for:** Cyanogen Chloride

Sampling info: Rinse sample bottle with a small amount of the water to be

sampled and then fill up without leaving any headspace. This can be achieved by also filling the lid with sample and

quickly screwing it down on the full bottle.

Bottle code: CNCL\_0100

Label:





### G10. 1L Sterile Glass – x2 (Taste and Odour – Sensory Panel)

**Used for:** Taste and Odour by Sensory evaluation

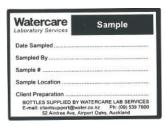
Sampling info: Rinse and fill 2x 1L sterile glass bottles, leaving minimal

headspace. To be analysed within 24 hours of sample. Bottle water product can be delivered in respective packaging and

analysed anytime

Bottle code: STER\_1000

Label:





# G11. 100mL Plastic – Zinc Acetate and Sodium Hydroxide Preserved + Filtration Kit

**Used for:** Dissolved Sulphide

Sampling info: Do not rinse prior to filling. Filter sample using provided

filter kit into preserved bottle. Fill the bottle with sample water to the neck of the bottle (do not overfill as this will spill the preservative). Ensure the lid is screwed down firmly

**Preservative:** Zinc acetate and sodium hydroxide

Safety: Sample bottle contains concentrated base. Ensure bottles

are kept upright during storage and transportation with their lids securely closed. When sampling, wear appropriate personal protective equipment such as gloves/safety glasses. Do **NOT** overfill or rinse as bottle contains preservative

Bottle code: ZNAC\_OH\_DI\_0100









### WATERCARE SERVICES LTD, LABORATORY SERVICES, STANDARD FORMS, SAMPLE RECEPTION

### G12. 1L Plastic – BOD and Suspended Solids

Used for: BOD (Dissolved, total, carbonaceous), suspended solids

Sampling info: Rinse sample bottle with a small amount of the water to be sampled and then fill up to the neck of the bottle leaving a

small headspace

**Transport info:** Samples for BOD and SS are required to arrive at the lab

within a certain timeframe for the testing to be viable. Enquire with the laboratory team to ensure you adhere to

the method's recommend holding time.

**Bottle code:** GEN-BOD\_SS\_1000 and GEN-BOD\_SS\_2000

**Volume guide:** Each BOD test requires 500mL (e.g. Dissolved and Total BOD

1L), 500mL SS for wastewater and 1L for environmental

water.







# Microbiology

### MI1. 400mL and 1L Sterile Plastic - Iodine Preserved

Used for: Algae

**Sampling info:** Do not rinse prior to filling. Fill the bottle with sample

water to the top of the bottle. Ensure the lid is screwed

down firmly Iodine

Preservative: lo

Bottle code: Label: ALG-LU-I\_0400 ALG-LU-I\_1000





# MI2. 120mL to 400mL Sterile Plastic – Sodium Thiosulphate Preserved (Bacto)

**Used for:** Potable water microbiology (e.g. E. coli,

total coliforms, HPC) on chlorinated water

**Sampling info:** Do **NOT** rinse prior to filling. Ensure aseptic technique is

used and fill to just below the neck of the bottle, leaving some head space at the top (do not overfill). Ensure the lid is correctly seated on the bottle and screw down firmly. NB: these bottles contain a small volume of liquid sodium

thiosulphate to remove chlorine

**Transport info:** Sample must be received at the lab within 24 hours of

sample collection. Keep samples below 10°C. For drinking

water, please refer to SFSA36.

Bottle code: STER-NATH\_0120 STER-NATH\_0250 STER-NATH\_0400





# MI3. 500mL Sterile Plastic – Sodium Thiosulphate Preserved (Pools)

**Used for:** Swimming pool sampling

Sampling info: Do NOT rinse prior to filling. Ensure aseptic technique is

used and fill to just below the neck of the bottle, leaving some head space at the top (do not overfill). Ensure the lid is correctly seated on the bottle and screw down firmly. NB: These bottles contain a small volume of liquid sodium

thiosulphate to remove chlorine

**Transport info:** Sample must be received at the lab within 24 hours of

sample collection. Keep samples below 10°C

Bottle code: STER-NATH\_0500

Label:





**Used for:** Microbiology on raw or unchlorinated water

Sampling info: Do NOT rinse prior to filling. Ensure aseptic technique is

used and fill up to the neck of the bottle leaving some head space at the top (do not overfill). NB: these bottles are also date stamped as their sterility expires (3 months), so check

this before sampling

Transport info: Sample must be received at the lab within 24 hours of

sample collection. Keep samples below  $10^{\circ}\text{C}$ 

Bottle code: STER\_0250 STER\_0500 STER\_1000

Label:





### MI5. 120mL to 1L Sterile Plastic

Used for: Non-chlorinated potable water microbiology

(e.g. E. coli, total coliforms, HPC, phage)

**Sampling info:** Do **NOT** rinse prior to filling. Ensure aseptic technique is

used and fill to just below the neck of the bottle, leaving some head space at the top (do not overfill). Ensure the lid is correctly seated on the bottle and screw down firmly

Transport info: Sample must be received at the lab within 24 hours of

sample collection. Keep samples below 10°C

Bottle code: STER\_0120 STER\_250 PHAGE\_0250 STER\_0400

STER\_1000





### MI6. 5L Opaque Plastic - x3

Used for: Giardia

Sampling info: Rinse sample bottle with a small amount of the water to be

sampled and then fill up to the neck of the bottle leaving a small headspace. To recap; remove black ring stopper and skirt to ensure the lid can be secured firmly (otherwise

sample will leak). Keep samples below 20°C

Bottle code: GIARDIA-L\_5000

Label:



### MI7. 10L Opaque Plastic - x2

Used for: Helminths

Sampling info: Rinse sample bottle with a small amount of the water to be

sampled and then fill up to the neck of the bottle leaving a small headspace. To recap; remove black ring stopper and skirt to ensure the lid can be secured firmly (otherwise

sample will leak).

Bottle code: Label: HELMINTH\_10000





### MI8. Giardia Filtration Kit

**Used for:** Giardia – clean water sites only

Sampling info: Filter, tubing, gauge, and field paperwork will arrive in a

chilly bin. Further instructions on how to sample are also supplied in the chilly bin. Ensure field paperwork is

returned with sample

**Transport info:** Return all equipment with sample including filter and field

paperwork. Ensure sample is kept below 20°C

Bottle code: CENT\_220



## MI9. 10L Sterile Opaque Plastic – x2

Used for: Virus

Sampling info: Rinse sample bottle with a small amount of the water to be

sampled and then fill up to the neck of the bottle leaving a small headspace. To recap; remove black ring stopper and skirt to ensure the lid can be secured firmly (otherwise sample will leak). Virus containers are reusable if sterilised.

Check for autoclaved tape on lid before use.

Bottle code: Label: VIRUS-L\_10000





# **Organic Chemistry**

#### O1. 100mL Amber Glass

**Used for:** Cyanotoxins, TOC, DOC

ORG-L 0100

Sampling info: Rinse sample bottle with a small amount of the water to be sampled and

then fill up to the top ensuring all air is evacuated from the sample. This is best achieved by filling the bottle as full as possible and placing on a flat surface. Fill the lid with sample water and pour onto the bottle until a visible meniscus has formed on the top of the bottle. Hold the lid securely and quickly screw it down onto the bottle. Invert the bottle to check for air

bubbles. Repeat if necessary, until there is no air visible

Bottle code: Label:

Watercare
Laboratory Services

Date Sampled
Sampled By
Sample #

Sample Location

Client Preparation

BOTTLES SUPPLIED BY WATERCARE LAB SERVICES
E-mail: clientsupport@water.co nz Ph. (09) 539 7600

Staffera New, Airport Dales, Audisando



#### O2. 250mL Amber Glass - x2

**Used for:** Taste and odour

Sampling info: Rinse sample bottle with a small amount of the sample water and then fill to

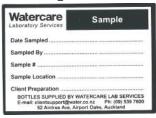
the top ensuring all air is evacuated from the sample. This is best achieved by filling the bottle as full as possible and placing on a flat surface. Ensure the septum in the lid is intact before filling it with sample water. Pour sample into the bottle until a visible meniscus has formed on the top of the bottle. Hold the lid securely and quickly screw it down onto the bottle. Invert the bottle to check for air bubbles. Repeat if necessary, until there is

no air visible

Bottle code: T

Label:

TASTE-ODOR\_0250





### O3. 1L Amber Glass

**Used for:** Semi Volatile Organic Compounds, Polyaromatic Hydrocarbons, Phenols,

Organochlorine Pesticides, ONOPs and more

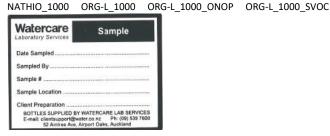
Sampling info: Rinse the bottle with a small amount of sample water (unless the bottle is

preserved with sodium thiosulphate) and then fill to the top ensuring all air is evacuated from the sample. To achieve this fill with sample water until a visible meniscus has formed on the top of the bottle (NB: for this size bottle it is best to place it on a flat surface and fill the last bit by pouring water from the lid). Hold the lid securely and quickly screw it down. Invert the bottle to check for air bubbles. Repeat if necessary, until there is no air

visible. Ensure the lid is screwed down firmly

**Preservation:** Sodium thiosulphate for treated water (only for the NATHIO\_1000 test)

Bottle code: Label:





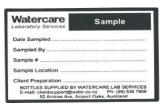
O4. 1L Glass

**Used for:** Oil and grease, TPH

Sampling info: Rinse sample jar with a small amount of the water to be sampled and then

fill up to the top of the bottle  $% \left\{ 1,2,\ldots ,n\right\}$ 

Bottle code: Label: HC\_1000 TPH\_1000





### O5. 100mL Amber Glass - Ammonium Chloride Preserved

Use for: Disinfection by-products (DHA, HAA), Oxyhalides (Trace level), Acrylamide Sampling info: Do not rinse prior to filling. Fill the bottle with sample water to the top

ensuring all air is evacuated from the sample. To achieve this fill with sample water until a visible meniscus has formed on the top of the bottle. Hold the lid securely and quickly screw it down. Invert the bottle to check for air bubbles. Repeat if necessary, until there is no air visible. Ensure the lid is

screwed down firmly
Preservative: Ammonium chloride
Bottle code: NH4CL\_0100

Label:





### O6. 250mL Plastic - GLY

**Used for:** Glyphosate, AMPA, 1080

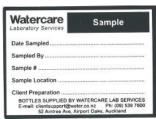
Sampling info: Rinse sample bottle with a small amount of the water to be sampled and

then fill up to the neck of the bottle leaving a small headspace

**Transport info:** Samples for 1080 must be chilled when transporting

Bottle code:

ORG-L\_0250\_GLY





### O7. 40mL Glass Vials – Sodium Thiosulphate Preserved – x2

**Used for:** Volatile organics (VOC, THMs, BTEX), Alcohol, Formaldehyde

Sampling info: As these vials contain preservative, do not rinse prior to filling. Fill the 2 vials

with sample water to the top ensuring all air is evacuated from the sample. To achieve this fill with sample water until a visible meniscus has formed on the top of the vial. Ensure the septum in the lid is intact before filling with sample water and quickly screwing it down on the vial. Invert the vial to check for air bubbles. Repeat, if necessary, until there is no air visible.

Ensure the lid is screwed down firmly

Preservative: Bottle code: Label: Sodium thiosulphate ORG-VIAL\_0040



