

### SAMPLE COLLECTION – GENERAL

- Fill all sampling containers completely, then store under refrigeration (4°C), or in cooler with ice.
- Sample containers supplied by CARO normally contain preservatives (if applicable). *Use caution as the acid/caustic preservatives are corrosive.*
- Refer to Table 1 for container, preservation and holding time information for common tests. Consult the laboratory for analyses not listed. Consult the laboratory where multiple analyses from a container are requested.

### COMPREHENSIVE WATER CHEMISTRY (POTABILITY)

- One unpreserved or 1L plastic container and one 100mL plastic container (with HNO<sub>3</sub>/Au) is sufficient to carry out analyses for a comprehensive water chemistry analysis. A 500mL bottle preserved with NaOH is necessary if cyanide analysis is required. Provided that the samples arrive at the laboratory within 24hours from sampling, further preservation is not required. Samples held beyond 48 hours will be split and preserved by CARO according to instructions in Table 1.

### MICROBIOLOGICAL WATER ANALYSIS (TOTAL COLIFORM, E. COLI, FECAL COLIFORM, HPC)

- Allow cold tap water to run for at least 5 minutes. It is recommended the collection faucet be sterilized using a flame prior to sample collection. When filling the bottle, take care not to cross contaminate cap and bottle threads. Fill bottle to the shoulder (do not fill to the rim) to allow proper mixing by the lab.
- Samples collected for microbiological analysis must be collected in sterile bottles (containing Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> for chlorinated samples), cooled to 4°C and received by CARO within 24 hours.

### VOLATILE ANALYSIS (BTEX, VOC, THM, VH, VPH)

- **Water** samples should be collected in replicate (i.e. fill two vials per sample) in 40-mL septum-top vials. Fill each vial to overflowing (positive meniscus); Set vial on a level surface and screw on the cap; Check for air bubbles (invert the vial and tap lid). If air bubbles are present, open the bottle, add additional sample, and reseal in the same manner as stated above.
- **Soil** samples should be tightly packed into 125mL glass jars with teflon-lined lids. When volatiles (i.e. BTEX, VOC, VH) **plus** other testing (i.e. metals, L/HEPH, etc) is required, two sample containers are preferred

### SEMI-VOLATILE ANALYSIS (L/HEPH, EPH, PAH, PCP, PCB)

- **Water** samples should be collected in 1-litre amber glass bottles with Teflon-lined lids. One container per analysis is required however a single container is acceptable for L/HEPH.
- **Soil** samples should be tightly packed into 125-ml glass jars with teflon-lined lids.

### METALS ANALYSIS

- **Ground water** is typically analyzed for “dissolved” metals. Filter (using a clean 0.45um membrane filter) as soon as possible, then fill one HNO<sub>3</sub>/Au container. Fill one NaOH container if hexavalent chromium is required.
- **Surface water** is typically analyzed for “total” metals. Fill one HNO<sub>3</sub>/Au container. *Note: hexavalent chromium is not normally conducted on an unfiltered and preserved sample.*
- **Soil** samples for metals should be collected in glass or polypropylene jars.

RICHMOND  
120-12791 CLARKE PLACE  
RICHMOND, BC, V6V 2H9  
phone. 604.279.1499  
fax. 604.279.1599

KELOWNA  
102-3677 HIGHWAY 97N  
KELOWNA, BC, V1X 5C3  
phone. 250.765.9646  
fax. 250.765.3893