



# GENERAL TERMS, CONDITIONS AND SAMPLING INFORMATION GUIDE



## Sample Acceptance

Caduceon Enterprises is a commercial testing laboratory specializing in environmental analyses of samples including, but not limited to the following: Drinking Water, Groundwater, Surface Water, Wastewater and/or Industrial Process Water/Effluents, Liquid and Solid Sludge, Soil and Sediment, Oil (limited types).

Caduceon does not accept samples including but not limited to the following matrices unless otherwise prearranged with an authorized Caduceon representative: Human or Animal Tissue, Unprocessed Human or Animal Waste, Food or Beverage (other than Drinking Water), Unknown solids and liquids, Vegetation, Hazardous Waste, Highly contaminated samples (which cause process and instrument complications).

Samples submitted to Caduceon without proper designation are subject to supplementary charges, but not limited to the following: Sample Disposal Fees, Process and Handling Fees, Instrument Maintenance and Refurbishment Fees (parts and labour).

Chain of Custody Forms must be completed with all required information. Analyses of samples will not commence until all required information is received. Receipt of samples will only occur at this time. Samples must be submitted in Caduceon sampling containers and/or acceptable alternatives with appropriate preservatives (if required).

Samples must be received at the laboratory within required sample holding times. If samples require RUSH analyses based on sample holding times, surcharges may apply. See Turnaround Time Terms and Conditions.

## Turnaround Time

Platinum Service – 200% Surcharge (minimum)\*\* Fastest possible Turnaround Time available and/or achievable, same day service or does not meet one of the other listed categories. Subject to additional fees for weekend and/or after hours service.  
 Gold Service – 100% Surcharge Samples received prior to 2 p.m. will be reported by 5 p.m. on the next business day from the day of receipt. Samples received after 2 p.m. will be reported by 12 p.m. on the second business day from the day of receipt.  
 Silver Service - 50% Surcharge Samples received prior to 2 p.m. will be reported by 5 p.m. on the second business day from the day of receipt. Samples received after 2 p.m. will be reported by 12 p.m. on the third business day from the day of receipt.  
 Bronze Service - 25% Surcharge Samples received prior to 2 p.m. will be reported by 5 p.m. on the third business day from the day of receipt. Samples received after 2 p.m. will be reported by 12 p.m. on the fourth business day from the day of receipt.  
 Standard Service – No Surcharge 5-7 business days from the time of receipt. Note: Samples received after 2 p.m. are considered received the next business day.

Note: If the specific Fees of Turnaround Time requested is not met the next level of service achieved will be surcharged accordingly. This is at the sole discretion of the laboratory.

## Payment

By submission of samples and signing of the chain of custody you agree to Caduceon's Payment Terms and Conditions. (See Caduceon website for details www.caduceonlabs.com)

## Appendix A: Individual Parameters for Water Analysis

Parameter	Sample Containers		Minimum Volume (mL)	Preservative	Storage Conditions	Holding Times
	Size (mL)	Type				
<b>GENERAL CHEMISTRY, PHYSICAL PROPERTIES</b>						
Alkalinity	500	P	50	None	1	7d
Ammonia (NH3)	125	P 125 mL Yellow Cap or G	50	pH <2 H <sub>2</sub> SO <sub>4</sub> /None	1	28d/3d
Anions (Br, F, Cl, NO <sub>2</sub> , NO <sub>3</sub> , SO <sub>4</sub> )	500	P	50	None	1	7d
BOD5/CBOD5	500	P	300	None	1	4d
COD	125	P 125 mL Yellow Cap or G	50	pH <2 H <sub>2</sub> SO <sub>4</sub>	1	7d
Colour	500	P	100	None	1	14d
Conductivity	500	P	100	None	1	4d
Cyanide (free)	125	P 125 mL Green Cap	50	pH >12 NaOH	1, in dark	7d
Cyanide (total)	125	P 125 mL Green Cap	50	pH >12 NaOH	1	7d
Hardness	125	P	100	pH<2 HNO <sub>3</sub>	2	6m
Hexavalent Chromium	125	P 125 mL Purple Cap	50	Field filter + Buffer Solution/NaOH pH 9-10	1	28d
Lead (O Rea 243, O Rea 170)	1000	P	1000	pH<2 HNO <sub>3</sub>	2	60d
Mercury	125	P G	100	Field filter K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> + HNO <sub>3</sub>	2	7d
Mercury Res 153/09	125	Teflon G	100	Field filter + pH<2 HCl	2	28d
Metals- except Mercury	125	P 125 mL Red Cap	100	pH<2 HNO <sub>3</sub>	2	60d
Nitrogen (Total Kjeldahl)	125	P 125 Yellow Cap or G	100	pH <2 H <sub>2</sub> SO <sub>4</sub>	1	28d
Organic Carbon, Dissolved (DOC)	125	G or P 125 mL Yellow Cap	40	Field filter + pH <2 H <sub>2</sub> SO <sub>4</sub> / None	1	28d/7d
Organic Carbon, Total (TOC)	125	G or P 125 mL Yellow Cap	40	pH <2 H <sub>2</sub> SO <sub>4</sub>	1	28d/7d
Oil & Grease, Total, AV/Mineral	1000	G	1000	HCl/None	1	28d/7d
pH	500	P	100	None	1	4d
Phenolics (4-aap) *	60, 125	AG	50	pH <2 H <sub>2</sub> SO <sub>4</sub>	1	28d
Phosphate, dissolved (P)	125	P 125 mL Yellow Cap	50	Filter, analyze ASAP/pH<2 H <sub>2</sub> SO <sub>4</sub>	1	28d/48h
Phosphorus, total	125	P 125 mL Yellow Cap or G	100	pH <2 H <sub>2</sub> SO <sub>4</sub>	1	28d
Solids (TS, TSS, TDS, VS, VSS)	500	P	500	None	1	7d
Silica	125	P	100	pH<2 HNO <sub>3</sub>	2	28d
Sulphide	125	P 125 mL Blue Cap	100	2N Zinc Acetate + pH>9 NaOH	1	7d
Turbidity	500	P	100	Analyze ASAP	1	48h
<b>MICROBIOLOGICAL</b>						
Microbiological	300, 250	SP	100 (per test)	None, Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (chlorinated)	1	48h
Iron Reducing Bacteria	300, 250	SP	100	None	1	48h
<b>ORGANICS</b>						
PHC (F1)	40	AGV	40 (x2)	NaHSO <sub>3</sub> , HCl, None	1	14d/7d
PHC (F2-F4)	500	AG	500	NaHSO <sub>3</sub> , None	1	40d/7d
VOC's and/or BTEX	40	AGV	40 (x2)	NaHSO <sub>3</sub> , Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (chlorinated), HCl, None	1	14d/7d
HAA's	40	AGC	40 (x2)	NH <sub>2</sub> Cl	1	28d
Glycols	40	GV	40	None	1	7d
OC Pesticides and/or PCB's	1000	AG	500	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (chlorinated)/None	1	14dpre/40dpost
PAH's	1000	AG	1000	None	1	14dpre/40dpost
SVOC (Acid, Base/Neutral Ext)	1000	AG	1000	None	1	14dpre/40dpost
SVOC (Acid, Base/Neutral Ext) (Table 1.2)	1000	AG	1000 (x2)	None	1	14dpre/40dpost
Phenols/Chlorophenols by GC/MS	1000	AG	1000	None	1	14dpre/40dpost
Pesticides/Herbicides by GC/MS	1000	AG	1000 (x2)	None	1	14dpre/40dpost
MCPA	1000	AG	1000	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (chlorinated)/None	1	14dpre/14dpost
Diquat/Paraquat	1000	P	250	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (chlorinated)/None	1	14dpre/20dpost
Glyphosate	1000	P	50	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (chlorinated)/None	1	14d
Chlorophyll-a	1000	AG	1000	None, Wrap in Aluminum Foli	1, in dark	30d
<b>SUBCONTRACTED ANALYSES</b>						
Dioxins/Furans	1000	AG	1000	None	1	30d
Formaldehyde	1000	AG	1000	None	1	3d
NDMA	1000	AG	1000 (x2)	None	1	10d
NTA	1000	AG	100	None	1	30d
Radionuclides (Gross Alpha, Beta and Tritium)	1000	P	1000 (x3)	HNO <sub>3</sub> /None	1	6m/10d
Radionuclides (ODWS Table 3)	1000	P	1000 (x3)	HNO <sub>3</sub> /None	1	6m/10d

### Sample Container Codes:

P = Plastic, either HDPE or PETE  
 G = Glass, GV = Glass Vial  
 AG = Amber Glass, AGV = Amber Glass Vial  
 SP = Sterile Plastic  
 \* Teflon-lined phenate free cap

### Storage Conditions Codes:

1 = 4 ± 3°C  
 2 = Room Temperature (if preserved)

### Holding Time Codes:

d = days  
 h = hours  
 dpre = days pre extraction  
 dpost = days post extraction

## Appendix B: Soil Sample Analysis

Parameter	Sample Containers		Minimum Volume (mL)	Preservative	Storage Conditions	Holding Times
	Size (mL)	Type				
PHC (F1)	40	GV, AGV	40 (x2)	Methanol (preweighed)	1	14d
PHC (F2-F4)	180	AGJ*	180	None	1	14d
VOC's and/or BTEX	40	GV, AGV	40 (x2)	Methanol (preweighed)	1	14d
SVOC (Acid, Base/Neutral Ext), PAH's	180	AGJ*	180	None	1	60d
Phenols/Chlorophenols by GC/MS	180	AGJ*	180	None	1	60d
OC Pesticides and/or PCB's	180	AGJ*	180	None	1	60d
Pesticides/Herbicides by GC/MS	180	AGJ*	180	None	1	60d
Metals	180	AGJ	180	None	1	180d
Mercury	180	AGJ	180	None	1	28d
Chromium VI	180	AGJ	180	None	1	30d
Inorganic General	180	AGJ	180	None	1	see individual
Nutrients (TOC, TP, TKN)	180	AGJ	180	None	1	28d
Anions (Cl, NO <sub>2</sub> , NO <sub>3</sub> , SO <sub>4</sub> )	180	AGJ	180	None	1	30d
Cyanide (total)	180	AGJ*	180	None	1	14d
Fraction Organic Carbon (FOC)	180	AGJ*	180	None	1	28d
Oil & Grease	180	AGJ*	180	None	1	14d
Dioxins/Furans	180	AGJ*	180	None	1	Indefinite

### Sample Container Codes:

AGJ = Amber Glass Jar  
 AGV = Amber Glass Vial  
 GV = Glass Vial  
 \* Teflon-lined phenate free cap

### Storage Conditions Codes:

1 = 4 ± 3°C

### Holding Time Codes:

individual = individual parameter test method  
 d = days

Holding times are summarized for convenience purposes and are to be used only as a guide. Holding times may differ depending on required protocol. Please consult the official regulations to ensure the appropriate holding times are followed.

## Laboratory & Depot Locations/Shipping Addresses

Kingston Lab - 285 Dalton Ave., Kingston, ON K7K 6Z1, Tel: (613) 544-2001 Fax: (613) 544-2770 Email: contactkingston@caduceonlabs.com  
 Ottawa Lab - 2378 Holly Lane, Ottawa, ON K1V 7P1, Tel: (613) 526-0123 Fax: (613) 526-1244 Email: contactottawa@caduceonlabs.com  
 Richmond Hill Lab - #14-110 West Beaver Creek Rd., ON L4B 1J9, Tel: (289) 475-5442 Fax: (866) 562-1963 Email: contactrichmondhill@caduceonlabs.com  
 Windsor Lab - #5-3201 Marenquette Ave., Windsor, ON N8X 4G3, Tel: (519) 966-9541 Fax: (519) 966-9567 Email: contactwindsor@caduceonlabs.com  
 Barrie Lab - 112 Commerce Park Drive, Unit L, Barrie, ON L4N 8W8, Tel: (705) 252-5743 Fax: (705) 252-5746 Email: contactbarrie@caduceonlabs.com  
 London Depot - #1-600 Newbold St., London, ON N6E 2T7, Tel: (519) 601-1833 Fax: (519) 601-1833 Email: contactlondon@caduceonlabs.com