Canadian Association for Laboratory Accreditation Inc.

Certificate of Accreditation

Monitoring & Analytical Services Laboratory (MASLAB)
SGS Laboratory Services Ghana Ltd.
SCOA Yard, Harbour Road, Plot No. B15 Tema, Community I,
Tema, GHANA

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).

Accreditation No.: A3699
Issued On: August 11, 2016
Accreditation Date: July 6, 2009
Expiry Date: February 9, 2019

President & CEO

LABORATORY NAME: Monitoring & Analytical Services Laboratory (MASLAB)

MATRIX

Fat and Oils

APPENDIX NO. / NAME

NEW 063 Peroxide Value - Food

METHOD	METHOD REFERENCE	LAB METHOD I.D.
TITRIMETRIC	modified from AOAC 965.33 AND ISO 3960	ME-GH-[ENVTST]AGR-TM-AN-617

Parameters:

Peroxide Value

NEW 065 Saponification Value - Fat and Oils

METHOD	METHOD REFERENCE	LAB METHOD I.D.
TITRIMETRIC	modified from ISO 3657 AND BS 684	ME-GH-[ENVTST]AGR-TM-AN-619

Parameters:

Saponification Value

Food (Inorganic)

APPENDIX NO. / NAME

NEW 058 Total Ash - Food

METHOD	METHOD REFERENCE	LAB METHOD I.D.
GRAVIMETRIC	modified from AOAC 942.05	ME-GH-[ENVTST]AGR-TM-AN-616

Parameters:

Total Ash

NEW 059 Crude Fat - Food

METHOD	METHOD REFERENCE	LAB METHOD I.D.
SOXHLET EXTRACTION METHOD	modified from AOAC 920.39	ME-GH-[ENVTST]AGR-TM-AN-604

Parameters:

Crude Fat

NEW 060 Free Fatty Acid - Food

METHOD	METHOD REFERENCE	LAB METHOD I.D.
TITRIMETRIC	modified from PEARSONS COMPOSITION AND ANALYSIS OF FOODS, 9TH EDITION, PAGES 349 AND 475	ME-GH-[ENVTST]AGR-TM-AN-601

Parameters:

Free Fatty Acid (FFA)

NEW 061 Iodine Value - Food

METHOD	METHOD REFERENCE	LAB METHOD I.D.
TITRIMETRIC	modified from 920.159, VOL II	ME-GH-[ENVTST]AGR-TM-AN-610

Parameters:

Iodine Value

NEW 064 Protein - Food

METHOD	METHOD REFERENCE	LAB METHOD I.D.
distiLLATION	modified from AOAC 988.05	ME-GH-[ENVTST]AGR-TM-AN-609

Parameters:

Protein

Food (Microbiology)

APPENDIX NO. / NAME

032 Aerobic Bacteria - Food

METHOD	METHOD REFERENCE	LAB METHOD I.D.
PETRIFILM	modified from AOAC OFFICIAL ANALYTICAL METHOD, 16TH ED., VOL. 1 986.33, 990.12	ME-GH-[ENVTST] MIC-TM-AN-401

Parameters:

aerobic bacteria

* CALA Proficiency Testing (PT) Program analyte

LABORATORY NAME: Monitoring & Analytical Services Laboratory (MASLAB)

MATRIX

034 Coliform bacteria - Food

METHOD	METHOD REFERENCE	LAB METHOD I.D.
PETRIFILM METHOD	modified from AOAC FFICIAL ANALYTICAL METHOD, 16TH ED. VOL. 1 986.33, 989.10, 991.14	ME-GH-[ENVTST] MIC-TM-AN-409

Parameters:

Coliform bacteria
E.coli

Soil (Inorganic)

APPENDIX NO. / NAME

042 Trace Metals - Soil/Sediment

METHOD	METHOD REFERENCE	LAB METHOD I.D.
ICP - DIGESTION	modified from EPA 3050	ME-GH-[ENVTST] MET-TM-AN-342, ME-GH-[ENVTST] MET-TM-AN-348

Parameters:

Aluminum*
Antimony*
Arsenic*
Barium*
Beryllium*
Boron*
Cadmium*
Chromium*
Cobalt*
Copper*
Iron*
Manganese*
Nickel*
Strontium*
Tin*
Titanium*
Vanadium*
Zinc*

043 Mercury - Soil/Sediment

METHOD	METHOD REFERENCE	LAB METHOD I.D.
	modified from EPA 7471B	AP3042, AP 3045

Parameters:

Mercury*

Solids (Inorganic)

APPENDIX NO. / NAME

022 pH - Soil

METHOD	METHOD REFERENCE	LAB METHOD I.D.
pH METER	modified from SM 4500-H+ B and ASTM D4972-4	ME-GH-[ENVTST] PHY-TM-AN-308

Parameters:

pH

NEW 062 Moisture - Food

METHOD	METHOD REFERENCE	LAB METHOD I.D.
GRAVIMETRIC	modified from AOAC 925.10 AND 930.15	ME-GH-[ENVTST]AGR-TM-AN-602

Parameters:

Moisture

Water (Inorganic)

APPENDIX NO. / NAME

001 Silicate - Potable, Groundwater, Wastewater, Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
COLORIMETRIC (AQUAKEM DISCRETE ANALYSER)	modified from SM 4500-SI02 D and 370.1, AQUAKEM	ME-GH-[ENVTST] PHY-TM-AN-301

Parameters:

Reactive Silica*

*** CALA Proficiency Testing (PT) Program analyte**

LABORATORY NAME: Monitoring & Analytical Services Laboratory (MASLAB)

MATRIX

002 Nitrate - Potable, Ground, Water, Wastewater, Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
COLORIMETRIC (AQUAKEM DISCRETE ANALYSER)	modified from SM 4500-NO3 H and EPA 353.1 AQUAKEM REFERENCE MANUAL	ME-GH-[ENVTST] PHY-TM-AN-302

Parameters:

Nitrate*

003 Sulphate - Potable, Ground, Water, Wastewater, Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
COLORIMETRIC (AQUAKEM DISCRETE ANALYSER)	modified from SM 4500-SO42- C and D and EPA 375.4 AQUAKEM REFERENCE MANUAL	ME-GH-[ENVTST] PHY-TM-AN-303

Parameters:

Sulfate*

004 Chloride - Potable, Ground, Water, Wastewater, Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
COLORIMETRIC (AQUAKEM DISCRETE ANALYSER)	modified from SM 4500-CL E and EPA 325.21 AQUAKEM REFERENCE MANUAL	ME-GH-[ENVTST] PHY-TM-AN-304

Parameters:

Chloride*

005 Nitrite - Potable, Ground, Water, Wastewater, Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
COLORIMETRIC (AQUAKEM DISCRETE ANALYSER)	modified from SM 4500-NO2 B and EPA 354.1 AQUAKEM REFERENCE MANUAL	ME-GH-[ENVTST] PHY-TM-AN-318

Parameters:

Nitrite*

006 Ammonia Nitrogen - Potable, Ground, Water, Wastewater, Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
COLORIMETRIC (AQUAKEM DISCRETE ANALYSER)	modified from SM 4500 - NH3 H and EPA 350.1 AQUAKEM REFERENCE MANUAL	ME-GH-[ENVTST] PHY-TM-AN-322

Parameters:

Ammonia*

007 Cyanide - Potable, Ground, Water, Wastewater, Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
SPECTROPHOTOMETRIC	modified from SM 4500-CN- I and OPERATORS MANUAL LACHAT INSTRUMENTS, 2000	ME-GH-[ENVTST] PHY-TM-AN-321

Parameters:

Cyanide (WAD)

009 Soluble Reactive Phosphorus - Potable, Ground, Water, Wastewater, Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
COLORIMETRIC (AQUAKEM DISCRETE ANALYSER)	modified from SM 4500 P-E and EPA 365.2 AQUAKEM	ME-GH-[ENVTST] PHY-TM-AN-334

Parameters:

Soluble Reactive Phosphorus

012 Conductivity - Potable, Ground, Water, Wastewater, Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
CONDUCTIVITY METER	modified from NATA, ISO/IEC 17024 APPLICATION DOCUMENT - CHEMICAL TESTING (FAD) NATA, 2005 and SM 2510	ME-GH-[ENVTST] PHY-TM-AN-307

Parameters:

Conductivity (25˚C)*

013 Solids - Potable, Ground, Water, Wastewater, Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
GRAVIMETRIC	modified from SM 2540 C, D	ME-GH-[ENVTST] PHY-TM-AN-309

Parameters:

Total Dissolved Solids*
Total Suspended Solids*

*** CALA Proficiency Testing (PT) Program analyte**

LABORATORY NAME: Monitoring & Analytical Services Laboratory (MASLAB)

MATRIX

014 Chemical Oxygen Demand (COD) - Potable, Ground, Water, Wastewater, Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
COLORIMETRIC (CLOSED REFLUX)	modified from SM 5220 D and HACH WATER ANALYSIS HANDBOOK	ME-GH-[ENVTST] PHY-TM-AN-311

Parameters:

COD*

015 Dissolved Oxygen - Potable, Ground, Water, Wastewater, Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
D.O. METER	modified from SM 4500-O G	ME-GH-[ENVTST] PHY-TM-AN-312

Parameters:

Dissolved Oxygen

016 Biochemical Oxygen Demand (BOD) - Potable, Ground, Water, Wastewater, Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
WINKLER	modified from SM 5210 B and SM 4500-O C	ME-GH-[ENVTST] PHY-TM-AN-313, ME-GH-[ENVTST]PHY-TM- AN-320

Parameters:

BOD (5 day)*

017 Alkalinity - Potable, Ground, Water, Wastewater, Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
TITRIMETRIC	modified from SM 2320 B, 2310B	ME-GH-[ENVTST] PHY-TM-AN-316

Parameters:

Alkalinity (pH 4.5)*

021 pH - Potable, Groundwater, Wastewater, Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
pH METER	modified from SM 4500-H+ B	ME-GH-[ENVTST] PHY-TM-AN-308

Parameters:

pH*

025 Hydride Metals - Potable, Groundwater, Wastewater and Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
FAAS HYDRIDE	modified from SM 3114 B and C	ME-GH-[ENVTST] MET-TM-AN-339, ME-GH-[ENVTST] MET-TM-AN-340

Parameters:

Antimony*
Arsenic*
Selenium*

029 Dissolved and Extractable - Potable, Groundwater, Wastewater and Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
ICP/OES	modified from EPA 200.7 and SM 3120 B	ME-GH-[ENVTST] MET-TM-AN-348

Parameters:

Aluminum*
Bismuth
Cadmium*
Calcium*
Chromium*
Cobalt*
Copper*
Iron*
Lead*
Magnesium*
Manganese*
Molybdenum*
Nickel*
Potassium*
Silica
Sodium*
Vanadium*
Zinc*

* CALA Proficiency Testing (PT) Program analyte

LABORATORY NAME: Monitoring & Analytical Services Laboratory (MASLAB)

MATRIX

039 Cyanide - Potable, Groundwater, Wastewater and Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
SPECTROPHOTOMETRIC	modified from SM 4500-CN- C and E	ME-GH-[ENVTST] PHY-TM-AN-315

Parameters:

Cyanide (SAD)*
Free Cyanide

044 Total Oil and Grease - Water

METHOD	METHOD REFERENCE	LAB METHOD I.D.
GRAVIMETRIC - EXTRACTION	modified from SM 5520 B	ME-GH-[ENVTST] PHY-TM-AN-326

Parameters:

Total Oil and Grease*

045 Cyanide - Water

METHOD	METHOD REFERENCE	LAB METHOD I.D.
AUTO COLOR	modified from SM 4500-CNC and 4500-CN E and 4500-CN I	ME-GH-[ENVTST] PHY-TM-AN-349

Parameters:

Cyanide (SAD)*
Free Cyanide

046 Total Phosphorus - Potable, Groundwater, Wastewater and Effluent

METHOD	METHOD REFERENCE	LAB METHOD I.D.
AUTO COLOR	modified from SM 4500-P-F	ME-GH-[ENVTST] PHY-TM-AN-352

Parameters:

Total Phosphorus*

047 Metals - Water

METHOD	METHOD REFERENCE	LAB METHOD I.D.
ICP/MS - DIGESTION	EPA 200.2 and EPA 200.8	ME-GH-[ENVTST] MET-TM-AN-350, ME-GH-[ENVTST] MET-TM-AN-351

Parameters:

Aluminum*
Antimony*
Arsenic*
Barium*
Beryllium*
Boron*
Cadmium*
Calcium*
Chromium*
Cobalt*
Copper*
Iron*
Lead*
Magnesium*
Manganese*
Mercury
Molybdenum*
Nickel*
Potassium*
Selenium*
Silver*
Sodium*
Strontium*
Thallium*
Tin*
Titanium*
Uranium*
Vanadium*
Zinc*

* CALA Proficiency Testing (PT) Program analyte

LABORATORY NAME: Monitoring & Analytical Services Laboratory (MASLAB)

MATRIX

049 Colour - Water

METHOD	METHOD REFERENCE	LAB METHOD I.D.
COLORIMETRIC	modified from SM 2120 C	ME-GH-[ENVTST]PHY-TM-AN-358

Parameters:

Apparent Colour
True Colour*

050 Turbidity - Water

METHOD	METHOD REFERENCE	LAB METHOD I.D.
NEPHELOMETRY	modified from SM 2130 B	ME-GH-[ENV]PHY-TM-AN-306

Parameters:

Turbidity*

055 Hexavalent Chromium - Water

METHOD	METHOD REFERENCE	LAB METHOD I.D.
COLORIMETRIC	modified from SM 3500 B	ME-GH-[ENVTST]PHY-TM-AN-356

Parameters:

Chromium VI

056 Fluoride - Water

METHOD	METHOD REFERENCE	LAB METHOD I.D.
SELECTIVE ION ELECTRODE	modified from SM 4500 F C	ME-GH-[ENVTST]PHY-TM-AN-357

Parameters:

Fluoride*

Water (Microbiology)

APPENDIX NO. / NAME

031 Aerobic Bacteria - Water

METHOD	METHOD REFERENCE	LAB METHOD I.D.
PETRIFILM METHOD	modified from AOAC OFFICIAL ANALYTICAL METHOD, 16TH ED., VOL. 1 986.33, 990.12	ME-GH-[ENVTST] MIC-TM-AN-407

Parameters:

aerobic bacteria

033 Coliforms - Water

METHOD	METHOD REFERENCE	LAB METHOD I.D.
PETRIFILM METHOD	modified from AOAC OFFICIAL ANALYTICAL METHOD, 16TH ED. VOL. 1 986.33, 989.10, 991.14	ME-GH-[ENVTST] MIC-TM-AN-403, ME-GH-[ENVTST] MIC-TM-AN-408

Parameters:

Coliform bacteria
E.coli

051 Coliforms - Water

METHOD	METHOD REFERENCE	LAB METHOD I.D.
IDEXX COLILERT-18	modified from SM 9221 D	ME-GH-[ENVST] MIC-TM-AN-410

Parameters:

Escherichia coli (E. coli)*
Total Coliforms*

054 Heterotrophic Plate Count (HPC) - Water

METHOD	METHOD REFERENCE	LAB METHOD I.D.
MOST PROBABLE NUMBER (SIMPLATE)	modified from SM 9215 E	ME-GH-[ENVTST] MIC-TM-AN-411

Parameters:

Heterotrophic Plate Count (HPC)*

* CALA Proficiency Testing (PT) Program analyte

LABORATORY NAME: Monitoring & Analytical Services Laboratory (MASLAB)

MATRIX

† "OSDWA" indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario "**Safe Drinking Water Act**" (2002).

PT REQUIREMENTS: All tests appearing in the scope of testing must be supported by PT testing where available. Therefore, analytes with a status of Withdrawn, Suspended, or not yet proficient, will NOT appear on the Final Scope of Testing. Once proficiency has been achieved, the affected analyte(s) will appear on the Scope of Testing. Please refer to P02-03 *CALA Program Description - Proficiency Testing (PT) Requirements for Accreditation.*

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html

* CALA Proficiency Testing (PT) Program analyte

SGS	**SAMPLE KIT REQUEST FORM**	Doc. No	PF-GH-[ENVTST]GEN-TM-AD-007
		Rev No	2.5
		Issued On	29/12/2016
		Approved by	Berko-Asamoah Boateng

SGS MASLAB is able to assist with the correct bottle and preservation choice for your required analysis. Please contact our office.

Client:	**Date Requested by Client:**
Contact:	**Time Required by Client:**
Telephone:	***SGS Office Use Only***
Delivery Address:	**Date Order Received:**
	Time Order Received:

SAMPLE CONTAINERS

Quantity	Type - Water	Size	Preservative	Determinations
	Glass Amber Bottle	1000mL	Nil	Oil and grease/TPH
	Glass Amber Bottle	1000mL	Nil	PAAH
	Sterile plastic sample bags	23cmx 15cm	Nil	Micro-24 hours of sampling

Quantity	Type - Water	Size	Preservative	Determinations
	Plastic Bottle - white	1000mL	Nil	For general and inorganic
	Plastic Bottle - white	500mL	Nil	BOD
	Plastic Bottle - black	500mL	NaOH	Cyanide
	Plastic Bottle - white	250mL	Nitric Acid	Unfiltered raw sample for total metals
	Plastic Bottle - white	250mL	To be preserved with HNO3 on receipt.	For dissolved metals (filter prior to submission)
	Plastic Bottle - white	100mL	Nil	COD
	Sterilized Plastic Bottle - white	120ml	Na2S2O3	Micro-24 hours of sampling

Other:

Quantity		Type	Size
		Ice chest Hard Plastic	Large
		Ice chest Hard Plastic	Small
		Ice Bricks	n/a
Tick	☐	Label for sodium hydroxide(NaOH) preserved bottles	n/a
	☐	Label for nitric acid(HNO3) preserved bottles	n/a
	☐	Label for sulphuric acid(H2SO4) preserved bottle	n/a
	☐	Label for bottle with no preservative	n/a

Please contact Sample Receipt at emmanuel.agyemang@sgs.com for your sample container requirements. Allow 5 days for interprovincial delivery.

Kindly see sample preservation guide below.

SAMPLE PRESERVATION GUIDE

INORGANICS						
	Water & Wastewater				Soil & Sludge	
Analysis	**Container**	**Volume**	**Preservation**	**Holding Time**	**Container**	**Holding Time**
Acidity	HDPE	100 ml	Cool, 4°C	24 Hours	--	N/A
Alkalinity	HDPE	100 ml	Cool, 4°C	7 days	--	N/A
Ammonia	HDPE	50 ml	Cool, 4°C H_2SO4 pH <2	28 Days	Glass Jar/Plastic bag	7 Days
BOD	HDPE	1000 ml	Cool, 4°C	48hrs/4 days	--	--
Chloride	HDPE	50 ml	Cool, 4°C	28 Days	Glass Jar/Plastic bag	7 Days
Chlorine	HDPE	50 ml	None	Analyse Immediately	--	--
COD	HDPE or Glass	100 ml	Cool, 4°C H_2SO4 pH <2	7/28 days	--	--
Colour	HDPE or Glass	100 ml	Cool, 4°C	48 Hours	--	--
Conductivity	HDPE or Glass	100 ml	Cool, 4°C	7 Days	Glass Jar/Plastic bag	7 Days
Cyanide - Free, Total, WAD	HDPE	250 ml	Cool, 4°C NaOH pH > 12	14 days	Glass Jar/Plastic bag	7 Days
Fluoride	HDPE	50 ml	Cool, 4°C	28 days	Glass Jar/Plastic bag	7 Days
Nitrate	HDPE	50 ml	Cool, 4°C H_2SO4 pH <2	28 days	Glass Jar/Plastic bag	48 Hours
Nitrite	HDPE	50 ml	Cool, 4°C	48 Hours	Glass Jar/Plastic bag	48 Hours
Kjeldahl Nitrogen	HDPE	250 ml	Cool, 4°C H2SO4 pH <2	7 Days	Glass Jar/Plastic bag	28 Days
Orthophosphate	HDPE	50 ml	Filter on site Cool, 4°C	48 Hours	Glass Jar/Plastic bag	48 Hours
pH	HDPE	50 ml	Cool, 4°C	Analyse Immediately	Glass Jar/Plastic bag	48 Hours
Phosphorus - Total	HDPE	100 ml	Cool, 4°C H2SO4 pH <2	28 Days	Glass Jar/Plastic bag	28 Days
Solids - Total	HDPE	100 ml	Cool, 4°C	7 Days	--	--
Sulphate	HDPE	50 ml	Cool, 4°C	28 Days	Glass Jar/Plastic bag	7 Days
Sulphide	HDPE	50 ml	Cool, 4°C Zinc Acetate + NaOH pH > 9	7 Days	Glass Jar/Plastic bag	7 Days
Total Diss. Solids	HDPE	100 ml	Cool, 4°C	7 Days	--	--
Turbidity	HDPE	200 ml	Cool, 4°C	24 Hours	--	--
Oil & Grease/ TPH	Glass	1000	Add HCl to pH < 2, Cool, 4°C	28 days	Glass Jar/Plastic bag	28 days

METALS						
Water & Wastewater					Soil & Sludge	
Analysis	**Container**	**Volume**	**Preservation**	**Holding Time**	**Container**	**Holding Time**
Boron	HDPE	250 ml	None	28 Days	--	--
Chromium VI	HDPE	100 ml	Cool, 4°C	24 Hours	Glass Jar/Plastic bag	7 Days
Metals	HDPE	250 ml	Cool, 4°C Filter* HNO3 pH < 2	6 Months	Glass Jar/Plastic bag	6 Months
Mercury	HDPE	100 ml	Cool, 4°C HNO3 pH < 2	28 Days	Glass Jar/Plastic bag	28 Days

HDPE: High Density Polyethylene; **Glass Jar/Plastic bag:** A 250ml glass jar with a Teflon lined plastic lid.

SAMPLING INSTRUCTIONS

- If possible, sample straight into sample bottle. If you can't, fill a bucket, scoop etc and then fill the bottle from this. Bucket/scoop must be rinsed with sampling water to reduce contamination risk.
- When sampling from well mixed, flowing sites (rivers), take the sample ~10 cm below the surface, as far away from the edge as possible and point the bottle opening upstream.
- Waste discharge points should be taken from where the effluent is well mixed and as close as is practicable to point of discharge. The discharge licence will usually specify the exact location.
- For microbiological analysis, fill sample containers without pre-rinsing with sample; pre-rinsing results in loss of any pre-added preservative and sometimes can bias results high when certain components adhere to the sides of the container.
- Depending on determinations to be performed, fill the container full (most organic compound determinations) or leave space for aeration, mixing, etc. (microbiological and inorganic analyses).
- If a bottle already contains preservative, take care not to overfill the bottle, as preservative may be lost or diluted and close bottle immediately after sampling.
- Make sure all lids on bottles are secure and labels are correct with date & time included on label.
- Store samples between 1-4 °C if possible. If in the field, place in an esky with frozen icebricks.
- Do not leave eskies in the sun or in the boot of the car for an extended length of time.
- Transport the samples to the lab by 5pm on day of sampling. **Contact SGS if you will be late.**
- For dissolved metals samples should be filtered through a 0.45µm on site prior to preservation. Nutrients at low levels (<50 µg/l) should be frozen and not preserved with acid.

SGS Environmental Services is not responsible for the accuracy of the information contained in this table. Users are encouraged to defer to the current regulations from which this information is obtained. The hold time listed the suggested time that samples may be held before analysis and still be considered valid. International references e.g., Standard Methods for the Examination of Water and Wastewater, 22nd Edition & USEPA SW 846, 3rd Edition plus updates provide alternative recommended holding times that may be considered valid.