



# Appendix G

## Water Sampling Instructions, Forms and Documentation



# CALA

Canadian Association for  
Laboratory Accreditation Inc.

## CALA Directory of Laboratories

---

**Membership Number:** 2635  
**Laboratory Name:** Taiga Environmental Laboratory  
**Parent Institution:** Aboriginal Affairs and Northern Development Canada (AANDC)  
**Address:** P.O. Box 1500 4601 - 52nd Avenue Yellowknife NT X1A 2R3  
**Contact:** Ms. Angelique Ruzindana Umunyana  
**Phone:** (867) 669-2781  
**Fax:** (867) 669-2718  
**Email:** angelique.ruzindanaumunyana@aandc-aadnc.gc.ca

---

**Standard:** Conforms with requirements of ISO/IEC 17025  
**Clients Served:** All Interested Parties  
**Revised On:** August 31, 2012  
**Valid To:** February 5, 2014

---

### Scope of Accreditation

#### Solids (Inorganic)

Metals - Soil, Sediment (079)

TEL 061; modified from EPA SW-846 METHOD 3050 A

ICP/MS

Aluminum

Antimony

Arsenic

Barium

Beryllium

Boron

Cadmium

Calcium

Chromium

Cobalt

Copper

Iron

Lead

Lithium

Magnesium

Manganese

Mercury

Molybdenum

Nickel

Potassium

Selenium

Silver

Sodium

† "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).

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](http://www.cala.ca/cala_directories.html)

Strontium  
Tin  
Titanium  
Uranium  
Vanadium  
Zinc

**Solids (Inorganic)**

Moisture - Soil (030)  
TEL007; CWS-PHC CCME Tier 1  
GRAVIMETRIC  
Moisture

**Solids (Organic)**

BTEX - Soil (072)  
TEL 038; modified from USEPA 5030 B, 602, 502.2  
GC/MS - PURGE AND TRAP  
Benzene  
Ethylbenzene  
m/p-xylene  
o-xylene  
Toluene

**Solids (Organic)**

Petroleum Hydrocarbons (PHC) - Soil (073)  
TEL 057; modified from USEPA SW 846 METHODS 3500 B, 3541, 3630 C, 8100, 8310  
GC/FID - PURGE AND TRAP  
F2: C10-C16  
F3: C16-C34  
F4: C34-C50

**Solids (Organic)**

Petroleum Hydrocarbons (PHC) - Soil (075)  
TEL 046; modified from US EPA SW-846 METHODS 5030, 8000, 8015, 8260 B  
SOX THERM EXTRACTION - GRAVIMETRIC  
F4: Gravimetric

**Solids (Organic)**

Polycyclic Aromatic Hydrocarbons (PAH) - Soil (071)  
TEL 047; modified from USEPA SW 846 METHODS 3500 B, 3541, 3630 C, 8100, 8310  
GC/MS - EXTRACTION  
Acenaphthene  
Acenaphthylene  
Anthracene (Parameter suspended on 8/1/2012)  
Benzo (a) anthracene  
Benzo (a) pyrene  
Benzo (b) fluoranthene  
Benzo (g,h,i) perylene  
Benzo (k) fluoranthene (Parameter suspended on 8/1/2012)  
Chrysene  
Dibenzo (a,h) anthracene  
Fluoranthene  
Fluorene  
Indeno (1,2,3 - cd) pyrene  
Naphthalene  
Phenanthrene  
Pyrene

† "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).

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](http://www.cala.ca/cala_directories.html)

**Solids (Organic)**

Purgeable Hydrocarbons- Soil (074)  
TEL 056; CWS-PHC CCME TIER 1  
GC/FID - PURGE AND TRAP  
F1: C6-C10

**Water (Inorganic)**

Alkalinity - Water (066)  
TEL 060:PC TITRATE; modified from SM 2320 A, B  
AUTO TITRIMETRIC  
Alkalinity (pH 4.5)

**Water (Inorganic)**

Ammonia - Water (022)  
TEL013; modified from SM 4500-NH3 G  
AUTO COLOR  
Ammonia

**Water (Inorganic)**

Ammonia as Nitrogen - Water (089)  
TEL 068; modified from SM 4500-NH3 G  
COLORIMETRIC - DISCRETE  
Ammonia

**Water (Inorganic)**

Anions - Water (059)  
TEL 055; modified from SM 4110 B  
ION CHROMATOGRAPHY  
Chloride  
Fluoride  
Nitrate  
Nitrite  
Sulfate

**Water (Inorganic)**

Biochemical Oxygen Demand (BOD) - Water (004)  
TEL 019/TEL 071; modified from SM 5210 A, B  
D.O. METER/PC-BOD  
BOD (5 day)  
CBOD (5 day)

**Water (Inorganic)**

Carbon - Water (029)  
TEL033; modified from SM 5310 B  
INFRARED  
Organic Carbon

**Water (Inorganic)**

Cations - Water (042)  
TEL055; modified from SM 4110 B  
ION CHROMATOGRAPHY  
Calcium  
Magnesium  
Potassium  
Sodium

† "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).

**Water (Inorganic)**

Chemical Oxygen Demand (COD) - Water (061)

TEL 016; modified from SM 5220 D  
REFLUX - COLORIMETRIC  
COD

**Water (Inorganic)**

Chlorine - Water (078)

TEL049; modified from SM 4500-Cl G  
HACH  
Free Chlorine  
Total Chlorine

**Water (Inorganic)**

Colour - Water (063)

TEL 051; modified from SM 2120 C  
HACH - SPECTROPHOTOMETRIC  
Apparent Color  
True Colour

**Water (Inorganic)**

Conductivity - Water (068)

TEL 059:PC TITRATE; modified from SM 2510 B  
AUTO CONDUCTIVITY METER  
Conductivity (25°C)

**Water (Inorganic)**

Dissolved Metals - Water (013)

TEL035; modified from US EPA 200.8

ICP/MS  
Aluminum  
Antimony  
Arsenic  
Barium  
Beryllium  
Boron  
Cadmium  
Cesium  
Chromium  
Cobalt  
Copper  
Iron  
Lead  
Lithium  
Manganese  
Molybdenum  
Nickel  
Rubidium  
Selenium  
Silver  
Strontium  
Thallium  
Tin  
Titanium  
Uranium  
Vanadium  
Zinc

† "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).

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](http://www.cala.ca/cala_directories.html)

**Water (Inorganic)**

Hexane Extractable Material (Oil and Grease) - Water (060)

TEL 024: HEM AND SGT-HEM; modified from US EPA 1664 A, REVISION A  
SOLID PHASE EXTRACTION

Mineral Oil and Grease

Total Oil and Grease

**Water (Inorganic)**

Mercury - Water (080)

TEL 062; modified from EPA 245.7

ATOMIC FLUORESCENCE MERCURY ANALYSIS SYSTEM

Mercury

**Water (Inorganic)**

pH - Water (067)

TEL 058:PC TITRATE; modified from SM 4500-H+ A, B

AUTO - pH METER

pH

**Water (Inorganic)**

Phosphate - Water (040)

TEL015; modified from SM 4500-P D

AUTO COLOR

Phosphate

**Water (Inorganic)**

Phosphate - Water (087)

TEL 069; modified from SM 4500-P F

DISCRETE ANALYZER

Phosphate

**Water (Inorganic)**

Phosphorus - Water (009)

TEL015; modified from SM 4500-P B, D

AUTO COLOR - DIGESTION

Dissolved Phosphorus

Total Phosphorus

**Water (Inorganic)**

Reactive Silica - Water (007)

TEL012; modified from SM 4500-SiO<sub>2</sub> F

AUTO COLOR

Reactive Silica

**Water (Inorganic)**

Reactive Silica - Water (090)

TEL 070; modified from SM 4500-Si F

COLORIMETRIC - DISCRETE ANALYZER

Reactive Silica

**Water (Inorganic)**

Solids - Water (011)

TEL008, TEL009; modified from SM 2540 C, D

GRAVIMETRIC

Total Dissolved Solids

Total Suspended Solids

† "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).

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](http://www.cala.ca/cala_directories.html)

**Water (Inorganic)**

Total and Dissolved Nitrogen - Water (086)

TEL 066; modified from ISO/TR 11905:1997(E) and ASTM D 5176-91

PYROLYSIS AND CHEMILUMINESCENCE DETECTION

Dissolved Nitrogen

Total Nitrogen

**Water (Inorganic)**

Total and Dissolved Phosphorus - Water (088)

TEL 069; modified from SM 4500-P F

COLORIMETRIC - DISCRETE

Dissolved Phosphorus

Total Phosphorus

**Water (Inorganic)**

Total Metals - Water (054)

TEL035; modified from US EPA 200.8

ICP/MS

Aluminum

Arsenic

Barium

Beryllium

Boron

Cadmium

Cesium

Chromium

Cobalt

Copper

Iron

Lead

Lithium

Manganese

Mercury

Molybdenum

Nickel

Rubidium

Selenium

Silver

Strontium

Thallium

Tin

Titanium

Uranium

Vanadium

Zinc

**Water (Inorganic)**

Turbidity - Water (028)

TEL006; modified from SM 2130 B

NEPHELOMETRY

Turbidity

**Water (Microbiology)**

Coliforms - Water (045)

TEL053; modified from IDEXX QUANTI-TRAY

MOST PROBABLE NUMBER (QUANTI-TRAY)

Escherichia coli (E. coli)

† "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).

Total Coliforms

**Water (Microbiology)**

Fecal (Thermotolerant) Coliforms - Water (041)

TEL017; modified from SM 9222 D

MEMBRANE FILTRATION (mFC)

Fecal (Thermotolerant) Coliforms

**Water (Microbiology)**

Fecal Streptococci - Water (055)

TEL053; modified from IDEXX QUANTI-TRAY

MOST PROBABLE NUMBER (QUANTI-TRAY)

Fecal Streptococcus

**Water (Organic)**

BTEX - Water (070)

TEL 037 (BTEX); modified from USEPA METHOD 5030 B, 602, 502.2

GC/MS - PURGE AND TRAP

Benzene

Ethylbenzene

m/p-xylene

o-xylene

Toluene

**Water (Organic)**

Extractable Hydrocarbons - Water (085)

TEL 067; modified from SM 6010 and USEPA 3510C, 3630C

GC/FID - SOLID PHASE EXTRACTION

C10-C50

**Water (Organic)**

Purgeable Hydrocarbons - Water (084)

TEL 044; modified from USEPA SW-846 5030, 8000, 8015, 8260B

GC/FID - PURGE AND TRAP

C6-C10

**Water (Organic)**

Trihalomethanes (THM) - Water (077)

TEL039 (THM); modified from USEPA 5030 B, 602, 502.2

GC/MS - PURGE AND TRAP

Bromodichloromethane

Bromoform

(Parameter suspended on 8/1/2012)

Chlorodibromomethane

Chloroform

† "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).

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](http://www.cala.ca/cala_directories.html)



## Taiga Environmental Laboratory Detection Limits

Parameter	Analytical Test Category	Detection Limits
Alkalinity (Total)	Routine	0.4 mg/L
Aluminum	Metals	0.6 µg/L
Ammonia Nitrogen	Nutrients	0.005 mg/L
Arsenic	Metals	0.2 µg/L
Barium	Metals	0.1 µg/L
Biochemical Oxygen Demand	Nutrients	2 mg/L
Calcium	Routine	0.1 mg/L
Cadmium	Metals	0.05 µg/L
Chlorides	Routine	0.7 mg/L
Chromium	Metals	0.1 µg/L
Cobalt	Metals	0.1 µg/L
Conductivity	Routine	0.4 µS/cm
Copper	Metals	0.2 µg/L
Fecal Coliforms	Sterile	1 CFU/100 mL
Fluoride	Routine	0.1 mg/L
Hardness	Routine	0.7 mg/L
Lead	Metals	0.1 µg/L
Iron	Metals	5 µg/L
Magnesium	Routine	0.1 mg/L
Manganese	Metals	0.1 µg/L
Mercury	Metals	0.01 µg/L
Nickel	Metals	0.1 µg/L

Parameter	Analytical Test Category	Detection Limits
Nitrate-Nitrite	Routine	0.01 mg/L
Oil & Grease	Hexane Extractable Material	2.0 mg/L
pH Range	Routine	0 – 14 pH units
Phosphorus	Nutrients	0.002 mg/L
Potassium	Routine	0.1 mg/L
Silver	Metals	0.1 µg/L
Sodium	Routine	0.1 mg/L
Sulphates	Routine	1 mg/L
Suspended Solids	Nutrients	3 mg/L
Tin	Metals	0.1 µg/L
Total Organic Carbon (TOC)	Nutrients	0.5 mg/L
Zinc	Metals	0.4 µg/L



## Taiga Environmental Laboratory

4601 52<sup>nd</sup> Avenue – Yellowknife, NT X1A 2R3

Phone: (867) 669-2788 Fax: (867) 669-2718 Email: [taiga@inac-ainc.gc.ca](mailto:taiga@inac-ainc.gc.ca)

### Water Sampling Instructions

### Collecting the Sample



#### Step One:

Prior to sampling, ensure you have obtained all the sampling equipment you require, such as the proper bottles, filtration devices, *etc.* Refer to Taiga's Field Sheet and Bottle &/or Preservation Order Form. If there are any questions or concerns, do not hesitate to contact the laboratory. Please have your water license (if applicable) available before contacting the laboratory to ensure proper bottles are ordered. **Note: you may need more than one bottle per sampling site.**



#### Step Two:

Check your local departure flight schedule to Yellowknife for the day you plan to take your samples. Samples should be shipped to the Laboratory **as soon as possible** after collection. Time your sampling so that the samples can be shipped out by plane as soon as possible.



#### Step Three:

Follow the sampling instructions on the back of this sheet for each bottle type. Package bottles in a cooler and send to the laboratory. If you require microbiological tests, such as Total Coliforms, E. coli., Fecal Coliforms, BOD, *etc.*, please contact the laboratory with the collection date and time, the Airline name, the waybill number and the expected time of arrival.



#### Safety Issues:

Wear appropriate gloves when collecting any sample to avoid contamination and possible exposure to unhealthy substances. The sample preservatives provided by the Laboratory are corrosive and will cause a burning sensation on the skin. If you should spill any on your skin or clothes, rinse the area **immediately** with lots of cool water. Call a doctor should the burning sensation continue.


















# Taiga Environmental Laboratory

4601 52<sup>nd</sup> Avenue – Yellowknife, NT X1A 2R3

Phone: (867) 669-2788 Fax: (867) 669-2718 Email: [taiga@inac-ainc.gc.ca](mailto:taiga@inac-ainc.gc.ca)

## Water Sampling Instructions

## Collecting the Sample














Parameter Group		Marking	Preservative	Instructions
	Routine	GREEN	Keep cool at 4°C	<ol style="list-style-type: none"> <li>1. Rinse bottle three (3) times with sample</li> <li>2. Fill to top and cap bottle.</li> </ol>
	Nutrients	BLACK	Keep cool at 4°C	
	Biochemical Oxygen Demand (BOD)/Carbonaceous BOD (CBOD)	PURPLE	Keep cool at 4°C	<ol style="list-style-type: none"> <li>1. Rinse bottle three (3) times with sample</li> <li>2. Fill to top and cap bottle.</li> <li>3. <b>Sample must be sent to laboratory within 24 hours</b></li> </ol>
	Microbiological	STERILE	Sodium thiosulphate and Keep cool at 4°C	<ol style="list-style-type: none"> <li>1. <b>DO NOT RINSE BOTTLE</b></li> <li>2. Fill to top and cap bottle.</li> <li>3. <b>Sample must be sent to laboratory within 24 hours</b></li> </ol>
	Total Metals	RED	5mL of 1:3 nitric acid in RED-dot vials	<ol style="list-style-type: none"> <li>1. Rinse bottle three (3) times with sample</li> <li>2. Fill to near the top.</li> <li>3. Add contents of preservative vial</li> <li>4. Cap bottle and mix.</li> </ol>
	Dissolved Metals	RED	5mL of 1:3 nitric acid in RED-dot vials	<ol style="list-style-type: none"> <li>1. <b>Filter Sample with 0.45 µm Cellulose Acetate filter</b></li> <li>2. Rinse bottle three (3) times with <b>filtrate</b></li> <li>3. Fill to near the top.</li> <li>4. Add contents of preservative vial</li> <li>5. Cap bottle and mix.</li> </ol>
	Hexane Extractable Material (HEM) (also known as Oil and Grease)	YELLOW	4mL 1:1 sulphuric acid in YELLOW-dot vial	<ol style="list-style-type: none"> <li>1. <b>DO NOT RINSE BOTTLE</b></li> <li>2. Fill to shoulder of bottle.</li> <li>3. Add contents of preservative vial</li> <li>4. Cap bottle and mix</li> </ol>
	BTEX, THM & Purgeable Hydrocarbons	40 mL CLEAR GLASS W/ WHITE LID	Keep cool at 4°C	<ol style="list-style-type: none"> <li>1. <b>DO NOT RINSE BOTTLE</b></li> <li>2. Fill bottle completely leaving <b>NO</b> air bubbles</li> </ol>
	Extractable Hydrocarbons	1 L AMBER GLASS W/ WHITE LID	Keep cool at 4°C	<ol style="list-style-type: none"> <li>1. <b>DO NOT RINSE BOTTLE</b></li> <li>2. Fill to top and cap bottle.</li> </ol>
	Cyanide	BLUE	1mL of 6N sodium hydroxide	<ol style="list-style-type: none"> <li>1. Rinse bottle three (3) times with sample</li> <li>2. Fill to near the top.</li> <li>3. Add contents of preservative vial</li> <li>4. Cap bottle and mix.</li> </ol>
	Thiocyanate	ORANGE	2ml of 25% sulphuric acid or keep cool at 4°C	
	Phenol	YELLOW with P	2mL of 20% sulphuric acid	
	Sulphide	ORANGE with S	2mL of 25% zinc acetate	
	Radionuclide	No Markings	10mL of 17.5% nitric acid per 1L sample	
	Chlorophyll A	1L PLASTIC BOTTLE	Keep cool at 4°C and keep in dark	<ol style="list-style-type: none"> <li>1. Rinse bottle three (3) times with sample</li> <li>2. Fill to top and cap bottle.</li> <li>3. <b>Sample must be sent to laboratory within 24 hours</b></li> </ol>

# TAIGA ENVIRONMENTAL LABORATORY

## Bottle &/or Preservative Order Form

Date Ordered:	201_	Date Required:		201_	
Name:	Company:		Project name or Location		
Address:					
Phone:			Fax:		
Pick up:	Ship by Air:		Pack as TDG :		Cooler required:
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes		<input type="checkbox"/> Yes		<input type="checkbox"/> Yes
<input type="checkbox"/> No	<input type="checkbox"/> No		<input type="checkbox"/> No		<input type="checkbox"/> No
Date Filled:			201_ Filled By:		

**NOTE:** Bottles and preservatives are provided free of charge for analysis carried out at Taiga. Bottles, preservatives and laboratory supplies for other use, may be subject to additional charges. Unused bottles and preservative cannot be returned to the laboratory for reuse.

Parameter Type	No. of Field Blanks	No. of Travel Blanks	No. of Bottles for Samples	QC Batch # of Bottles Sent	Number of Preservatives	QC Batch # of Pres. Sent
 Routine (Green)					Not Required	
 Nutrients (Black)					Not Required	
 Bacti (Sterile sealed)	Not Required	Not Required			Not Required	
 BOD (Purple)	Not Required	Not Required			Not Required	
 Total Metals (Red)						
 Dissolved Metals (Red) <i>see note 1</i>						
 Arsenic Speciation Bottle	Not Required	Not Required			Not Required	
 Cyanide (Blue)						
 Thiocyanate (Orange)						
 Hexane Extractable Material (Oil & Grease ) (Brown glass, wide or narrow-mouth)						
 Phenol (Brown glass, narrow-mouth)						
 Sulphide						
 Radionuclide						
Chlorophyll A	Not Required	Not Required			Not Required	
Extractable Hydrocarbons (Brown glass) <i>see note 2</i>					Not Required	
BTEX/Purgeable HC <i>see notes 2 and 3</i>					Not Required	
THM (Glass vial 40mL) <i>see note 3</i>					Not Required	
Metals or Hydrocarbons in sediment (500mL jar)	Not Required	Not Required			Not Required	
Metals or Hydrocarbons in sediment (250mL jar)	Not Required	Not Required			Not Required	
Metals or Hydrocarbons in sediment (125mL jar)	Not Required	Not Required			Not Required	
Metals or Hydrocarbons in sediment (60mL jar or Whirl Pak Bag)	Not Required	Not Required			Not Required	
Other:						
Other Field Supplies: (e.g. Type I UV <sup>+</sup> water)						

**Notes:**  
1- Dissolved metals bottles will be preserved at the laboratory if the sample is not filtered in the field. The filtering and addition of preservative is \$20.00/sample.  
2- For TPH requests, both the extractable hydrocarbons (brown glass bottle) and the BTEX/Purgeable HC (40mL vial) have to be submitted.  
3- For BTEX/Purgeable HC and THM, please submit two vials for each sample (in the event air bubbles occur in the vials, a back-up sample can be analyzed)

**Shaded areas are for laboratory use only.**



Batch No. : Lab use only

Send Results & Invoice to:

(Please notify if results or invoice are to be sent to different locations)

Company/Agency: \_\_\_\_\_

Address: \_\_\_\_\_

City/Town: \_\_\_\_\_ Province/Territory: \_\_\_\_\_

Postal Code: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

Signature : \_\_\_\_\_

Client Project No: \_\_\_\_\_

Date collected: \_\_\_\_\_

Time collected: \_\_\_\_\_

Sampler: \_\_\_\_\_

Location: \_\_\_\_\_

Rush Required: ☐Yes ☐No

Note: *Analysis may be subcontracted without prior notice.*  
*See reverse for how to complete form and sampling protocols.*

Date Received: \_\_\_\_\_ Received By: \_\_\_\_\_

Comments: \_\_\_\_\_

(Laboratory use only)

-WATER SAMPLES -

Sample Type (freshwater, sewage, wastewater, potable , groundwater, salt water, etc)			
Client Sample ID (As it should appear on final report)			
Taiga Sample ID (Laboratory use only)			

Bottle Type and Parameter

[ ✓ ] PLEASE CHECK PARAMETERS REQUESTED BELOW:

Routine	pH, Conductivity, Alkalinity	pH	Cond	Alk	pH	Cond	Alk	pH	Cond	Alk			
	Individual Anions Suite <input type="checkbox"/>	Cl	SO <sub>4</sub>	F	NO <sub>2</sub> -N	NO <sub>3</sub> -N	Cl	SO <sub>4</sub>	F	NO <sub>2</sub> -N	NO <sub>3</sub> -N		
	Total Nitrite (NO <sub>2</sub> ) + Nitrate (NO <sub>3</sub> )	NO <sub>2</sub> + NO <sub>3</sub> -N				NO <sub>2</sub> + NO <sub>3</sub> -N				NO <sub>2</sub> + NO <sub>3</sub> -N			
	Individual Cations Suite <input type="checkbox"/>	Ca	Mg	Na	K	Ca	Mg	Na	K	Ca	Mg	Na	K
	Hardness (Calculated)	Hardness				Hardness				Hardness			
	Reactive Silica	SiO <sub>2</sub>				SiO <sub>2</sub>				SiO <sub>2</sub>			
	Laboratory use only	Rec'd: Y N				Rec'd: Y N				Rec'd: Y N			
Nutrients	Chlorine: Total, Residual	T. Cl			R. Cl			T. Cl			R. Cl		
	Chemical Oxygen Demand	COD				COD				COD			
	Color	Apparent		True		Apparent		True		Apparent		True	
	Turbidity	Turbidity				Turbidity				Turbidity			
	Total Suspended Solids, Dissolved Solids	TSS		TDS		TSS		TDS		TSS		TDS	
	Ammonia	NH <sub>3</sub>				NH <sub>3</sub>				NH <sub>3</sub> -N			
	Phosphorus: Total, Dissolved, Ortho	TP	DP		OP	TP	DP		OP	TP	DP		OP
	Carbon: Total, Dissolved	TOC		DOC		TOC		DOC		TOC		DOC	
	Nitrogen: Total, Dissolved	TN		DN		TN		DN		TN		DN	
Visible Oil and Grease	Visible				Visible				Visible				
	Laboratory use only	Received : Y N				Received : Y N				Received : Y N			
Sterile	Fecal Coliforms (FC)	FC				FC				FC			
	Total Coliforms (TC), E. Coli (EC)	TC		EC		TC		EC		TC		EC	
	Fecal Streptococcus (FS)	FS				FS				FS			
	Laboratory use only	Received: Y N T: _____°C Sterile container: Y N				Received: Y N T: _____°C Sterile container: Y N				Received: Y N T: _____°C Sterile container: Y N			
	Biological Oxygen Demand	BOD				BOD				BOD			
	Carbonaceous BOD	CBOD				CBOD				CBOD			
	Laboratory use only	Received: Y N T: _____°C				Received: Y N T: _____°C				Received: Y N T: _____°C			
Metals	Please indicate if sample is preserved and/or filtered	Pres <input type="checkbox"/>		Filt <input type="checkbox"/> Pres <input type="checkbox"/>		Pres <input type="checkbox"/>		Filt <input type="checkbox"/> Pres <input type="checkbox"/>		Pres <input type="checkbox"/>		Filt <input type="checkbox"/> Pres <input type="checkbox"/>	
	ICP-MS(1): Cd, Cr, Cu, Co, Mn, Ni, Pb, Zn, Fe	Total		Dissolved		Total		Dissolved		Total		Dissolved	
	ICP-MS(2): 25 element scan <b>includes As</b> (not included: B, Bi, Hg, Sn)	Total		Dissolved		Total		Dissolved		Total		Dissolved	
	Individual Metals by ICP-MS (please circle each metal): Ag, Al, As, B, Ba, Be, Bi, Cd, Co, Cr, Cs, Cu, Fe, Hg, Li, Mn, Mo, Ni, Pb, Rb, Sb, Se, Sn, Sr, Ti, Tl, U, V, Zn	Total		Dissolved		Total		Dissolved		Total		Dissolved	
	Laboratory use only	TM rec'd: Y N		DM rec'd: Y N		TM rec'd: Y N		DM rec'd: Y N		TM rec'd: Y N		DM rec'd: Y N	
	Hexane Extractable Material (O&G)	HEM				HEM				HEM			
	Laboratory use only	Rec'd: Y N		Pres: Y N		Rec'd: Y N		Pres: Y N		Rec'd: Y N		Pres: Y N	
	BTEX, Purgeable HC (40mL x 2 vials)	BTEX		Purg HC		BTEX		Purg HC		BTEX		Purg HC	
	Extractable HC (1L amber glass bottle)	Ext HC				Ext HC				Ext HC			
	Trihalomethanes (40 mL x 2 vials)	THM				THM				THM			
	Laboratory use only	Vial rec'd: Y N		Ext rec'd: Y N		Vial rec'd: Y N		Ext rec'd: Y N		Vial rec'd: Y N		Ext rec'd: Y N	
	Other: <i>see special request form</i>												

For safety purposes, please disclose any contaminants (e.g. heavy metals, cyanide, etc.) that may be present at high levels and pose a risk to human health:

Taiga Environmental Laboratory  
Taiga Field Sheet  
Revision 4 Effective Date 18-Jan-10

Page \_\_\_\_\_ of \_\_\_\_\_  
Form ID: FOR Q005 File ID: 551.4.4.5  
FOR Q005 – Taiga Field Sheet Revision 4

HOW TO FILL OUT THIS FORM

Company/Agency

The full, legal company name.

Address

Full street address including suite or unit number, if applicable. Final reports will be sent to this address.

City/Town

City or Town

Province/Territory

Province or Territory

Postal Code

Postal Code

Phone

Full telephone number, including area code and extension, if applicable

Fax

Facsimile number

E-mail

E-mail address, if available

Signature

Signature of the individual filling out the form

Client Project No

This information will appear on the final analytical report

Date Collected

Enter the date(s) that the samples were collected

Time Collected

Enter the time(s) the sample(s) were collected in military time or note if it is a.m or p.m

Sampler

The name of the individual who collected the sample

Location

The general location of where the samples were collected

Rush Required

Indicate if regular or Rush turnaround time is required. Check yes only if Rush is required, no if not.

Sample Type

Identify the sample matrix (freshwater, drinking water, soil, etc)

Client Sample ID

Identify each submitted sample. This identification will appear on the analytical report.

Test Column

Check off the tests you require for each sample submitted.

IMPORTANT INFORMATION

Turnaround time

Standard turnaround time is 10 business days. Please note that turnaround time delays may occur if the *Field Sheet* is incomplete or incorrectly filled out.

RUSH analysis

Rush turnaround time is 5 business days. All samples received at the lab are analyzed on a ‘first come, first serve’ basis unless otherwise specified as Rush. Rush samples will be place in the front of the line and analyzed prior to routine samples. A premium charge of 100% shall be charged for the analysis. Rush services depend on staff availability, analysis required, and capabilities of the lab. Please contact the lab prior to requesting this service.

Sample Receipt, Custody, and Storage

All submitted samples remain the sole property of the client and may be returned to the client for appropriate storage or disposal at the discretion of Taiga Environmental Laboratory.

All submitted samples will be stored for 30 days from the date the final report is printed. Arrangements can be made to hold the samples for an extended time at a nominal fee.

Sampling Supplies

Sample bottles, preservatives, labels, and forms are available at no cost when requesting services. To place a bottle order, please submit a *Bottle &/or Preservative Order Form* a minimum of 48 hours in advance. Please note the shipment of Dangerous Goods may be delayed due to availability of qualified airline agents to process the paperwork.

Shipping Charges

All shipping costs are the responsibility of the client.













Confidentiality

All data and reports are considered confidential and the property of the client. No information shall be released to others without documented approval from the client.

Limit of Liability

Although every care and precaution is taken in the performance of our services, our liability for loss or damage in all circumstances is limited to re-analysis of the sample(s) at our expense or the cancellation of charges.

Taiga Environmental Laboratory reserves the right to refuse to proceed with an analysis if the lab does not have the capability and /or resources to meet analysis requirements, including facilities and equipment, scientific expertise, analytical capabilities, staff scheduling, Quality Assurance/Quality Control specifications, and report.

Parameter Group		Marking	Preservative	Instructions
	Routine	GREEN	Keep Cool at 4°C	1. Rinse bottle three (3) times with sample. 2. Fill to top and cap bottle
	Nutrients	BLACK	Keep Cool at 4°C	
	Biochemical Oxygen Demand (BOD)/Carbonaceous BOD (CBOD)	PURPLE	Keep Cool at 4°C	1. Rinse bottle three (3) times with sample. 2. Fill to top and cap bottle. 3. Sample must be sent to the lab within 24 hours of collection.
	Microbiological	STERILE	Sodium Thiosulphate Keep Cool at 4°C	<b>1. DO NOT RINSE BOTTLE.</b> 2. Fill to top and cap. 3. Sample must be sent to the lab within 24 hours of collection.
	Total Metals	RED	5mL of 1:3 nitric acid in Red-dot vial	1. Rinse bottle three (3) times with sample. 2. Fill to near the top. 3. Add contents of preservative vial. 4. Cap bottle and mix.
	Dissolved Metals	RED	5mL of 1:3 nitric acid in Red-dot vial	<b>1. Filter sample with 0.45um Cellulose Acetate filter.</b> 2. Rinse bottle three (3) times with filtrate. 3. Fill to near the top. 4. Add contents of preservative vial. 5. Cap bottle and mix.
	Hexane Extractable Material (HEM)	YELLOW	4mL of 1:3 sulphuric acid in Yellow Dot vial	<b>1. DO NOT RINSE BOTTLE.</b> 2. Fill to shoulder of bottle. 3. Add contents of preservative vial. 4. Cap bottle and mix.
	BTEX, THM & Purgeable Hydrocarbons	40 mL CLEAR GLASS W/WHITE LID	Keep Cool at 4°C	<b>1. DO NOT RINSE BOTTLE.</b> 2. Fill vials completely leaving <b>NO</b> air bubbles.
	Extractable Hydrocarbons	1L AMBER GLASS WITH WHITE LID	Keep Cool at 4°C	<b>1. DO NOT RINSE BOTTLE</b> 2. Fill to top and cap
	Cyanide, Total and WAD	BLUE	1mL of 6N sodium hydroxide solution	1. Rinse bottle three (3) times with sample. 2. Fill to near the top of container. 3. Add contents of preservative vial. 4. Cap bottle and mix.
	Thiocyanate	ORANGE	2mL 25% sulphuric acid; or keep cool At 4°C	
	Phenol	YELLOW with P	2mL of 20% sulphuric acid	