INSTRUCTIONS (October 2019)
C11, C12, C13 TOXICOLOGY

1.0 Sample Reception

1.1 All breakages and shortages must be reported within 24 hours of sample receipt.

1.2 Samples should be stored in the dark at 4±2°C upon receipt. Samples are stable for the duration of the study.

1.3 Check that all the parameters for which you are registered are correctly identified on the web data entry report page.

1.4 Inquiries regarding samples and their shipment may be directed to:

PT Non-conformances
Information and Quality Management
Environment and Climate Change Canada
fax: 905-336-8914
email: ec.ptnc.ec@canada.ca

cc: CALA Program Administrator
cc: Ken Middlebrook, CALA PT Manager
fax: 613-233-5501
email: programadmin@cala.ca
email: kmiddlebrook@cala.ca

Inquiries must be made by facsimile or email only. Use the enclosed Nonconformance Form (see reverse) when sending a fax. Please include your CALA membership number on all correspondence.

2.0 Sample Analysis

2.1 The reference toxicants have been prepared using the following toxicants:

Trout LC50 (96 h) and microtox IC50 (15 min) – phenol.
Daphnia LC50 (48 h) - sodium chloride.

2.2 The highest concentration (ml of sample added per liter of test solution) and applied dilution factor for each sample should be as shown to the right:

2.3 For each sample prepare at least five (5) test solutions in a geometric series using the dilution factor shown above.

2.4 Example calculation for trout C11-1, assuming a 20 L test volume:

Test solution 1: 9 ml/L x 20 L = 180 ml of sample into 20L.

Test solution 2: 180 ml x 0.5 = 90 ml of sample into 20L.

Test solution 3: 90 ml x 0.5 = 45 ml of sample into 20L.

Test solution 4: 45 ml x 0.5 = 22.5 ml of sample into 20L.

Test solution 5: 22.5 ml x 0.5 = 11.25 ml of sample into 20L.

Parameter	I.D.	HIGHEST CONC. (mL/L)	DILUTION FACTOR
Trout LC50 (96 h)	C11-1	9	0.5
	C11-2	12	0.5
	C11-3	9	0.5
	C11-4	7	0.5
Daphnia LC50 (48 h)	C12-1	80	0.5
	C12-2	130	0.5
	C12-3	170	0.5
	C12-4	140	0.5
Microtox IC50 (15 min)	C13-1	20	0.5
	C13-2	80	0.5
	C13-3	30	0.5
	C13-4	40	0.5

2.5 For Microtox, the top concentration is prepared in a volumetric flask with dilution water (i.e. deionized water). This solution is then pipetted into the cuvettes as the sample and diluted with the appropriate diluent using a 0.5 dilution factor, as per standard test procedure.

2.6 Use volumetric labware and laboratory dilution water to prepare the dilution series for Daphnia and rainbow trout.

2.7 Proceed with testing using the routine analytical method identified in your recent application to the CALA program.

2.8 For trout and daphnia, calculate the results using the preferred statistical method for the data as determined by following the flowsheet in Figure 4 of the Environment Canada test method EPS 1/RM/46. For microtox calculate the IC50 using the Microbics computer program.

3.0 Reporting Results

3.1 Report data using the web-data-entry system (www.CALA.ca) in the units indicated.

3.2 Report results with 95% confidence limits. Also provide information on method, date analyzed, dilution water data, and name and telephone number of laboratory contact.

4.0 Safety

4.1 The PT samples are designed for use by laboratory professionals familiar with environmental samples and potentially hazardous materials.

PT SAMPLE NON-CONFORMANCE FORM

Attn: PT non-conformances	Study Number:

ENSURE THAT SAMPLES RECEIVED MATCH REPORT FORMS

1 - Laboratory Information

Contact Name:

Laboratory Name:

Laboratory Address:

Contact Telephone #:

Contact Facsimile #:

Contact e-mail:

2 - Sample Details

Date & Time of Arrival (YYYY,MM,DD,HH:MM):

FedEx Tracking Number:

Test Groups Received (e.g. C1 , C2 etc.):

Number of Boxes:

3 - Description of Nonconformance

4 - Requested Action

5 – PT Provider Notes