



<p>RETURN BIDS TO: RETOURNER LES SOUMISSIONS À:</p> <p>Bid Receiving - Environment and Climate Change Canada / Réception des soumissions – Environnement et changement climatique Canada</p> <p>Electronic Copy: soumissionsbids@ec.gc.ca</p> <p>BID SOLICITATION DEMANDE DE SOUMISSIONS</p> <p>PROPOSAL TO: ENVIRONMENT AND CLIMATE CHANGE CANADA</p> <p>We offer to perform or provide to Canada the services detailed in the document including any attachments and annexes, in accordance with the terms and conditions set out or referred to in the document, at the price(s) provided.</p>	<p>Title – Titre Analysis of organic contaminants in water, sediment and fish tissue</p>		
	<p>EC Bid Solicitation No. /SAP No. – N° de la demande de soumissions EC / N° SAP 5000062276R2</p>		
	<p>Date of Bid solicitation (YYYY-MM-DD) – Date de la demande de soumissions (AAAA-MM-JJ) 2022-09-20</p>		
	<p>Bid Solicitation Closes (YEAR-MM-DD) - La demande de soumissions prend fin (AAAA-MM-JJ) at – à 2:00 P.M. on – le October 19th 2022</p>	<p>Time Zone – Fuseau horaire Eastern Daylight Time</p>	
	<p>F.O.B – F.A.B</p>		
	<p>Address Enquiries to - Adresser toutes questions à Anthony De Flavis Anthony.DeFlavis@ec.gc.ca</p>		
	<p>Telephone No. – N° de téléphone</p>	<p>Fax No. – N° de Fax</p>	
	<p>Delivery Required (YEAR-MM-DD) – Livraison exigée (AAAA-MM-JJ)</p>		
	<p>Destination of Services / Destination des services Environment Climate Change Canada 2645 Dollarton Hwy North Vancouver, BC V7H 1B1</p>		
	<p>Security / Sécurité There is no security requirement associated with this requirement.</p>		
<p>Vendor/Firm Name and Address - Raison sociale et adresse du fournisseur/de l'entrepreneur</p>			
<p>Telephone No. – N° de téléphone</p>	<p>Fax No. – N° de Fax</p>		
<p>Name and title of person authorized to sign on behalf of Vendor/Firm: (type or print) / Nom et titre de la personne autorisée à signer au nom du fournisseur/de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</p>			
<p>Signature</p>		<p>Date</p>	



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PART 1 - GENERAL INFORMATION

1.1 Introduction

The bid solicitation is divided into seven parts plus attachments and annexes, as follows:

Part 1 General Information: provides a general description of the requirement;

Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation;

Part 3 Bid Preparation Instructions: provides bidders with instructions on how to prepare their bid;

Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, and the basis of selection;

Part 5 Certifications and Additional Information: includes the certifications and additional information to be provided;

Part 6 Security, Financial and Other Requirements: includes specific requirements that must be addressed by Bidders; and

Part 7 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

The Attachments include the Mandatory Technical Criteria And Point Rated Technical.

The Annexes include the Statement of Work, the Basis of Payment, the Insurance Requirements and any other annexes.

1.2 Summary

1.2.1 Environment and Climate Change Canada has a requirement for the professional services of a contractor to analyze and report ultra trace results for ambient freshwater and sediment samples as detailed in the Statement of Work, Annex A to the bid solicitation. The period of the contract is from the date of contract award to March 31, 2023 inclusive with the option to extend the term of the contract by up to (5) five additional one-year periods under the same conditions.

1.2.2 There is no security requirement associated with this services requirement.

1.2.3 Bidders must provide a list of names, or other related information as needed, pursuant to section 01 Integrity Provisions of Standard Instructions 2003.

1.2.4 For services requirements, bidders in receipt of a pension or a lump sum payment must provide the required information as detailed in article 3 of Part 2 of the bid solicitation.

1.2.5 The requirement is subject to the provisions of Canadian Free Trade Agreement (CFTA), the Canada–Chile Free Trade Agreement, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the Canada–Colombia Free Trade Agreement, the Canada-European Union Comprehensive Economic and Trade Agreement (CETA) the Canada–Honduras Free Trade Agreement, the Canada–Korea Free Trade Agreement, the Canada–Panama Free Trade Agreement, the Canada-Peru Free Trade Agreement, The Canada-Ukraine Free Trade Agreement and the World Trade Organization Agreement on Government Procurement (WTO-GPA).

1.2.6 There is a Federal Contractors Program (FCP) for employment equity requirement associated with this procurement; see Part 5 - Certifications, Part 7 - Resulting Contract Clauses and the annex named Federal Contractors Program for Employment Equity - Certification.

1.3 Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days of receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.



PART 2 - BIDDER INSTRUCTIONS

2.1. Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the PSPC/PWGSC *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2022-03-29) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

The standard instructions 2003 are modified as follows:

Under “Text” at 02:

Delete: “Procurement Business Number”

Insert: “Deleted”

At Section 02 Procurement Business Number

Delete: In its entirety

Insert: “Deleted”

At Section 05 Submission of Bids, Subsection 05 (2d):

Delete: In its entirety

Insert: “send its bid only to Environment and Climate Change Canada as specified on page 1 of the bid solicitation or to the address specified in the bid solicitation;”

At Section 06 Late Bids:

Delete: “PWGSC”

Insert: “Environment and Climate Change Canada”

At Section 07 Delayed Bids:

Delete: “PWGSC”

Insert: “Environment and Climate Change Canada”

At Section 08 Transmission by Facsimile, Subsection 08 (1):

Delete: In its entirety

At Section 12 Rejection of Bid, Subsection 12 (1) a. and b.:

Delete: In their entirety

Insert: “Deleted”

At Section 17 Joint Venture, Subsection 17 (1) b.:

Delete: “the Procurement Business Number of each member of the joint venture,”

Insert: “Deleted”

At Section 20 Further Information, Subsection 20 (2):

Delete: In its entirety

Insert: "Deleted"

At Section 05 Submission of Bids, Subsection 05 (4):

Delete: "sixty (60) days"

Insert: "one hundred and twenty (120) days"

2.2. Submission of Bids

Bids must be submitted to Environment and Climate Change Canada at the address and by the date, time and place indicated on page 1 of the bid solicitation.

2.3. Former Public Servant – Competitive Bid

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPS, bidders must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the bid non-responsive.

Definitions

For the purposes of this clause, "former public servant" is any former member of a department as defined in the [Financial Administration Act](#) R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

- a. an individual;
- b. an individual who has incorporated;
- c. a partnership made of former public servants; or
- d. a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the [Public Service Superannuation Act](#) (PSSA), R.S., 1985, c.P-36, and any increases paid pursuant to the [Supplementary Retirement Benefits Act](#), R.S., 1985, c.S-24 as it affects the PSSA. It does not include pensions payable pursuant to the [Canadian Forces Superannuation Act](#), R.S., 1985,



c.C-17, the [Defence Services Pension Continuation Act](#) 1970, c.D-3, the [Royal Canadian Mounted Police Pension Continuation Act](#) , , 1970, c.R-10, and the [Royal Canadian Mounted Police Superannuation Act](#), R.S., 1985, c.R-11, the [Members of Parliament Retiring Allowances Act](#), R.S., 1985, c.M-5, and that portion of pension payable to the [Canada Pension Plan Act](#), R.S., 1985, c.C-8.

Former Public Servant in Receipt of a Pension

As per the above definitions, is the Bidder a FPS in receipt of a pension? **Yes () No ()**

If so, the Bidder must provide the following information, for all FPS in receipt of a pension, as applicable:

- a. name of former public servant;
- b. date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with [Contracting Policy Notice: 2019-01](#) and the [Guidelines on the Proactive Disclosure of Contracts](#).

Work Force Adjustment Directive

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? **Yes () No ()**

If so, the Bidder must provide the following information:

- a. name of former public servant;
- b. conditions of the lump sum payment incentive;
- c. date of termination of employment;
- d. amount of lump sum payment;
- e. rate of pay on which lump sum payment is based;
- f. period of lump sum payment including start date, end date and number of weeks;
- g. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

2.4. Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than (five) (5) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated and the enquiry can be answered to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

2.5. Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in British Columbia.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

2.6. Basis for Canada's Ownership of Intellectual Property

Environment and Climate Change Canada has determined that any intellectual property rights arising from the performance of the Work under the resulting contract will belong to Canada, for the following reasons, as set out in the [Policy on Title to Intellectual Property Arising Under Crown Procurement Contracts](#):

the main purpose of the contract, or of the deliverables contracted for, is to generate knowledge and information for public dissemination;



2.7. Bid Challenge and Recourse Mechanisms

Bid Challenge and Recourse Mechanisms

- (a) Several mechanisms are available to potential suppliers to challenge aspects of the procurement process up to and including contract award.
- (b) Canada encourages suppliers to first bring their concerns to the attention of the Contracting Authority. Canada's [Buy and Sell](#) website, under the heading "[Bid Challenge and Recourse Mechanisms](#)" contains information on potential complaint bodies such as:
 - Office of the Procurement Ombudsman (OPO)
 - Canadian International Trade Tribunal (CITT)
- (c) Suppliers should note that there are **strict deadlines** for filing complaints, and the time periods vary depending on the complaint body in question. Suppliers should therefore act quickly when they want to challenge any aspect of the procurement process.

PART 3 - BID PREPARATION INSTRUCTIONS

3.1. Bid Preparation Instructions

Canada requests that bidders provide their bid in separately bound sections as follows:

Section I: Technical Bid (1 soft copy in PDF format by email)
Section II: Financial Bid (1 soft copy in PDF format by email)
Section III: Certifications (1 soft copy in PDF format by email)

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that bidders follow the format instructions described below in the preparation of their bid.

Note for electronic submission of bids:

In order to be considered, bids must be received by the date and time indicated on the cover page to herein as the "Closing Date." Bids received after the Closing Date will be considered non-responsive and will not be considered for contract award. Bids submitted by email must be submitted ONLY to the following email address:

Email Address: soumissionsbids@ec.gc.ca
Attention: Anthony DeFlavis
Solicitation Number: 5000062276R2

Bidders should ensure that their name, address, Closing Date of the solicitation and Solicitation Number are clearly indicated in the body of their email. Bids and supporting information may be submitted in either English or French.

The total size of the email, including all attachments, must be less than 15 megabytes (MB). It is each Bidder's responsibility to ensure that the total size of the email does not exceed this limit.

Bids sent by fax or epost will not be accepted.

It is important to note that emails systems can experience systematic delays and, at times, large attachments may cause systems to hold or delay transmission of emails. It is solely the Bidder's responsibility to ensure that the Contracting Authority receives a bid on time, in the mailbox that has been identified for bid receipt purposes. Date stamps for this form of transmission are not acceptable.

Section I: Technical Bid

In their technical bid, bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability and describe their approach in a thorough, concise and clear manner for carrying out the work.



The technical bid should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

Part 4, Evaluation Procedures, contains additional instructions that bidders should consider when preparing their technical bid.

Section II: Financial Bid

- 1.1 Bidders must submit their financial bid in accordance with the Financial Bid Presentation sheet in Attachment 1 to Part 3. The total amount of Applicable Taxes must be shown separately.
- 1.2 Bidders should include the following information in their financial bid:
 - (a) Their legal name; and
 - (b) The name of the contact person (including this person's mailing address, phone and facsimile numbers and email address) authorized by the Bidder to enter into communications with Canada with regards to their bid; and any contract that may result from their bid.

Section III: Certifications

Bidders must submit the certifications required under Part 5.

ATTACHMENT 1 TO PART 3 - FINANCIAL BID PRESENTATION SHEET

The Bidder must complete this Financial Bid Presentation Sheet and include it in its financial bid.

1. Bidder must refer to the table below and provide a unit price for analysis of the chemical group listed by matrix (i.e. water, solid, tissue). See tables A1-A15 in Annex 1 for analytes and required detection limits (DLs) in each chemical group.
2. The bidder should extend the unit price for each group based on the number of water, sediment or tissue samples provided.
3. Bidder must provide pricing for the initial period and all options years listed in the tables below.

The inclusion of volumetric data in this document does not represent a commitment by Canada that Canada's future usage of the services described in the bid solicitation will be consistent with this data.

*Prices should reflect any possible co-extraction discount available for PCBs, Dioxins and Furans and PBDEs

Analysis required for financial bid review:

No.	Description:	Chemical Group (short form name)	Table Reference for analytes and required DLs in Annex 1
1	Price per analysis of water, tissue and/or sediment for legacy and current use pesticides by HRMS	Pesticides	A1
2	Price per analysis of water, tissue and/or sediment for PCBs by HRMS method USEPA 1668C	PCBs	A2
3	Price per analysis of water, tissue and/or sediment for PBDEs by HRMS method USEPA 1614	PBDEs	A3
4	Price per analysis of water, tissue and/or sediment for Dioxins & Furans by HRMS method USEPA 1613B	Dioxins and Furans	A4
5	Price per analysis of water, tissue and/or sediment for PFASs using LC-MS/MS isotope dilution quantification required;	PFASs	A5
6	Price per analysis of water, tissue and/or sediment for PAHs using LR-GC/MS	PAHs	A6



7	Price per analysis of water, tissue and/or sediment for PPCPs using LC-MS/MS isotopes dilution quantification	PPCPs	A7
8	Price per analysis of water, tissue and/or sediment for Alkylphenols using LR-GC/MS	Aps	A8
9	Price per analysis of water and/or sediment for Bisphenol A using LC-MS/MS	BPA	A9
10	Price per analysis of water and/or sediment for Glyphosate using LC-MS/MS	Glyphosate	A10
11	Price per analysis of water and/or sediment for Organophosphate Flame Retardants using LC-MS/MS required;	OPFRs	A11
12	Price per analysis of water, tissue and/or sediment for Brominated / Chlorinated Flame Retardants using GC-(ECNI)-MS	HFRs	A12
13	Price per analysis of water and/or sediment for Acid herbicides by GC-HRMS	Acid Herbicides	A13
14	Price per analysis of sediment and/or tissue samples for HBCDD isomers by LC-MS/MS using LC MS/MS isotope dilution quantification	HBCDD	A14
15	Price per analysis of water, tissue and/or sediment for chlorinated alkanes using LC- MS/MS	Chlorinated alkanes	A15

Initial Contract Year 1 (from the date of contract award to March 31, 2023)

No.	Year 1				Total Firm Price per Sample X Estimated # of Samples
	Chemical Group	Matrix	Firm Price per Sample	Estimated # of Samples	
1	Pesticides	Water		24	
2	PCBs	Water		36	
3	PBDEs	Water		36	
4	Dioxins & Furans	Water		36	
5	PFASs	Water		36	
6	PAHs	Water		36	
7	PPCPs	Water		24	
8	Aps	Water		36	

9	BPA	Water		24	
10	Glyphosate	Water		24	
11	OPFRs	Water		36	
12	HFRs	Water		36	
13	Acid herbicides	Water		24	
14	Chlorinated alkanes	Water		24	
15	Pesticides	Solid		6	
16	PCBs	Solid		6	
17	PBDEs	Solid		6	
18	Dioxins & Furans	Solid		6	
19	PFASs	Solid		6	
20	PAHs	Solid		6	
21	PPCPs	Solid		6	
22	Aps	Solid		6	
23	BPA	Solid		6	
24	Glyphosate	Solid		6	
25	OPFRs	Solid		6	
26	HFRs	Solid		6	
27	Acid Herbicides	Solid		6	
28	HBCDD	Solid		6	
29	Chlorinated alkanes	Solid		6	
30	Pesticides	Tissue		2	
31	PCBs	Tissue		2	
32	PBDEs	Tissue		2	
33	Dioxins	Tissue		2	
34	PFASs	Tissue		2	
35	PAHs	Tissue		2	
36	PPCPs	Tissue		2	
37	APs	Tissue		2	
38	HFRs	Tissue		2	
39	HBCDD	Tissue		2	
40	Chlorinated alkanes	Tissue		2	
41	Homogenization of tissue per sample				
42	Excel format EDD for all samples for manipulation of data. PDF final report including relevant identification information, batch QA/QC, and results. Report % lipid for tissue, % moisture. Included in unit price.				
	Year 1 (Total cost rows 1 – 42)				


Optional Year 1 (April 1, 2023 to March 31, 2024)

Option Year 1					
	Group	Matrix	Firm Price per Sample	Estimated Number of Samples	Total Firm Price per Sample X Estimated Number of Samples
1	Pesticides	Water		30	
2	PCBs	Water		42	
3	PBDEs	Water		42	
4	Dioxins & Furans	Water		42	
5	PFASs	Water		30	
6	PAHs	Water		42	
7	PPCPs	Water		42	
8	APs	Water		42	
9	BPA	Water		30	
10	Glyphosate	Water		30	
11	OPFRs	Water		42	
12	HFRs	Water		42	
13	Acid herbicides	Water		30	
14	Chlorinated alkanes	Water		30	
15	Pesticides	Solid		6	
16	PCBs	Solid		6	
17	PBDEs	Solid		6	
18	Dioxins & Furans	Solid		6	
19	PFASs	Solid		6	
20	PAHs	Solid		6	
21	PPCPs	Solid		6	
22	APs	Solid		6	
23	BPA	Solid		6	
24	Glyphosate	Solid		6	
25	OPFRs	Solid		6	
26	HFRs	Solid		6	
27	Acid Herbicides	Solid		6	
28	HBCDD	Solid		6	
29	Chlorinated alkanes	Solid		6	
30	Pesticides	Tissue		2	
31	PCBs	Tissue		2	
32	PBDEs	Tissue		2	
33	Dioxins	Tissue		2	
34	PFASs	Tissue		2	

35	PAHs	Tissue		2	
36	PPCPs	Tissue		2	
37	APs	Tissue		2	
38	HFRs	Tissue		2	
39	HBCDD	Tissue		2	
40	Chlorinated alkanes	Tissue		2	
41	Homogenization of tissue per sample				
42	Excel format EDD for all samples for manipulation of data. PDF final report including relevant identification information, batch QA/QC, and results. Report % lipid for tissue, % moisture. Included in unit price.				
	Option Year 1 (Total cost rows 1 – 42)				

Optional Year 2 (April 1, 2024 to March 31, 2025)

Option Year 2					
	Group	Matrix	Firm Price per Sample	Estimated Number of Samples	Total Firm Price per Sample X Estimated Number of Samples
1	Pesticides	Water		24	
2	PCBs	Water		36	
3	PBDEs	Water		36	
4	Dioxins & Furans	Water		36	
5	PFASs	Water		36	
6	PAHs	Water		36	
7	PPCPs	Water		24	
8	APs	Water		36	
9	BPA	Water		24	
10	Glyphosate	Water		24	
11	OPFRs	Water		36	
12	HFRs	Water		36	
13	Acid herbicides	Water		24	
14	Chlorinated alkanes	Water		24	
15	Pesticides	Solid		6	
16	PCBs	Solid		6	
17	PBDEs	Solid		6	
18	Dioxins & Furans	Solid		6	
19	PFASs	Solid		6	
20	PAHs	Solid		6	



21	PPCPs	Solid		6	
22	APs	Solid		6	
23	BPA	Solid		6	
24	Glyphosate	Solid		6	
25	OPFRs	Solid		6	
26	HFRs	Solid		6	
27	Acid Herbicides	Solid		6	
28	HBCDD	Solid		6	
29	Chlorinated alkanes	Solid		6	
30	Pesticides	Tissue		2	
31	PCBs	Tissue		2	
32	PBDEs	Tissue		2	
33	Dioxins	Tissue		2	
34	PFASs	Tissue		2	
35	PAHs	Tissue		2	
36	PPCPs	Tissue		2	
37	APs	Tissue		2	
38	HFRs	Tissue		2	
39	HBCDD	Tissue		2	
40	Chlorinated alkanes	Tissue		2	
41	Homogenization of tissue per sample				
42	Excel format EDD for all samples for manipulation of data. PDF final report including relevant identification information, batch QA/QC, and results. Report % lipid for tissue, % moisture. Included in unit price.				
	Option Year 2 (Total cost rows 1 – 42)				

Optional Year 3 (April 1, 2025 to March 31, 2026)

Option Year 3					
	Group	Matrix	Firm Price per Sample	Estimated Number of Samples	Total Firm Price per Sample X Estimated Number of Samples
1	Pesticides	Water		24	
2	PCBs	Water		36	
3	PBDEs	Water		36	
4	Dioxins & Furans	Water		36	
5	PFASs	Water		36	
6	PAHs	Water		36	

7	PPCPs	Water		24	
8	APs	Water		36	
9	BPA	Water		24	
10	Glyphosate	Water		24	
11	OPFRs	Water		36	
12	HFRs	Water		36	
13	Acid herbicides	Water		24	
14	Chlorinated alkanes	Water		24	
15	Pesticides	Solid		6	
16	PCBs	Solid		6	
17	PBDEs	Solid		6	
18	Dioxins & Furans	Solid		6	
19	PFASs	Solid		6	
20	PAHs	Solid		6	
21	PPCPs	Solid		6	
22	APs	Solid		6	
23	BPA	Solid		6	
24	Glyphosate	Solid		6	
25	OPFRs	Solid		6	
26	HFRs	Solid		6	
27	Acid Herbicides	Solid		6	
28	HBCDD	Solid		6	
29	Chlorinated alkanes	Solid		6	
30	Pesticides	Tissue		2	
31	PCBs	Tissue		2	
32	PBDEs	Tissue		2	
33	Dioxins	Tissue		2	
34	PFASs	Tissue		2	
35	PAHs	Tissue		2	
36	PPCPs	Tissue		2	
37	APs	Tissue		2	
38	HFRs	Tissue		2	
39	HBCDD	Tissue		2	
40	Chlorinated alkanes	Tissue		2	
41	Homogenization of tissue per sample				
42	Excel format EDD for all samples for manipulation of data. PDF final report including relevant identification information, batch QA/QC, and results. Report % lipid for tissue, % moisture. Included in unit price.				
	Option Year 3 (Total cost rows 1 – 42)				

**Optional Year 4 (April 1, 2026 to March 31, 2027)**

Option Year 4					
	Group	Matrix	Firm Price per Sample	Estimated Number of Samples	Total Firm Price per Sample X Estimated Number of Samples
1	Pesticides	Water		24	
2	PCBs	Water		36	
3	PBDEs	Water		36	
4	Dioxins & Furans	Water		36	
5	PFASs	Water		36	
6	PAHs	Water		36	
7	PPCPs	Water		24	
8	APs	Water		36	
9	BPA	Water		24	
10	Glyphosate	Water		24	
11	OPFRs	Water		36	
12	HFRs	Water		36	
13	Acid herbicides	Water		24	
14	Chlorinated alkanes	Water		24	
15	Pesticides	Solid		6	
16	PCBs	Solid		6	
17	PBDEs	Solid		6	
18	Dioxins & Furans	Solid		6	
19	PFASs	Solid		6	
20	PAHs	Solid		6	
21	PPCPs	Solid		6	
22	APs	Solid		6	
23	BPA	Solid		6	
24	Glyphosate	Solid		6	
25	OPFRs	Solid		6	
26	HFRs	Solid		6	
27	Acid Herbicides	Solid		6	
28	HBCDD	Solid		6	
29	Chlorinated alkanes	Solid		6	
30	Pesticides	Tissue		2	
31	PCBs	Tissue		2	
32	PBDEs	Tissue		2	
33	Dioxins	Tissue		2	
34	PFASs	Tissue		2	

35	PAHs	Tissue		2	
36	PPCPs	Tissue		2	
37	APs	Tissue		2	
38	HFRs	Tissue		2	
39	HBCDD	Tissue		2	
40	Chlorinated alkanes	Tissue		2	
41	Homogenization of tissue per sample				
42	Excel format EDD for all samples for manipulation of data. PDF final report including relevant identification information, batch QA/QC, and results. Report % lipid for tissue, % moisture. Included in unit price.				
	Option Year 4 (Total cost rows 1 – 42)				

Optional Year 5 (April 1, 2027 to March 31, 2028)

Option Year 5					
	Group	Matrix	Firm Price per Sample	Estimated Number of Samples	Total Firm Price per Sample X Estimated Number of Samples
1	Pesticides	Water		24	
2	PCBs	Water		36	
3	PBDEs	Water		36	
4	Dioxins & Furans	Water		36	
5	PFASs	Water		36	
6	PAHs	Water		36	
7	PPCPs	Water		24	
8	APs	Water		36	
9	BPA	Water		24	
10	Glyphosate	Water		24	
11	OPFRs	Water		36	
12	HFRs	Water		36	
13	Acid herbicides	Water		24	
14	Chlorinated alkanes	Water		24	
15	Pesticides	Solid		6	
16	PCBs	Solid		6	
17	PBDEs	Solid		6	
18	Dioxins & Furans	Solid		6	
19	PFASs	Solid		6	
20	PAHs	Solid		6	



21	PPCPs	Solid		6	
22	APs	Solid		6	
23	BPA	Solid		6	
24	Glyphosate	Solid		6	
25	OPFRs	Solid		6	
26	HFRs	Solid		6	
27	Acid Herbicides	Solid		6	
28	HBCDD	Solid		6	
29	Chlorinated alkanes	Solid		6	
30	Pesticides	Tissue		2	
31	PCBs	Tissue		2	
32	PBDEs	Tissue		2	
33	Dioxins	Tissue		2	
34	PFASs	Tissue		2	
35	PAHs	Tissue		2	
36	PPCPs	Tissue		2	
37	APs	Tissue		2	
38	HFRs	Tissue		2	
39	HBCDD	Tissue		2	
40	Chlorinated alkanes	Tissue		2	
41	Homogenization of tissue per sample				
42	Excel format EDD for all samples for manipulation of data. PDF final report including relevant identification information, batch QA/QC, and results. Report % lipid for tissue, % moisture. Included in unit price.				
	Option Year 5 (Total cost rows 1 – 42)				

Total Evaluated Price

Total Evaluated Price = Year 1 + Option Year 1 + Option Year 2 + Option Year 3 + Option Year 4 + Option Year 5

Year 1	\$ _____
Option Period 1	\$ _____
Option Period 2	\$ _____
Option Period 3	\$ _____
Option Period 4	\$ _____
Option Period 5	\$ _____

Subtotal \$ _____

Total Evaluated Price \$ _____

Applicable Taxes (____%) \$ _____

Total Price taxes included \$ _____



PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1. Evaluation Procedures

- a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- b) An evaluation team composed of representatives of Canada will evaluate the bids.

4.2 Technical Evaluation

Except where expressly provided otherwise, the experience described in the bid must be the experience of the Bidder itself (which includes the experience of any companies that formed the Bidder by way of a merger but does not include any experience acquired through a purchase of assets or an assignment of contract). The experience of the Bidder's affiliates (i.e. parent, subsidiary or sister corporations), subcontractors, or suppliers will not be considered.

4.2.1 Mandatory Technical Criteria

Refer to Attachment 1 to Part 4 Mandatory Technical Criteria And Point Rated Technical Criteria

4.2.2 Point Rated Technical Criteria

Refer to Attachment 1 to Part 4 Mandatory Technical Criteria And Point Rated Technical Criteria

4.3 Financial Evaluation

Mandatory Financial Criteria	Met/Not Met
<p>The maximum budget allocated for this project must not exceed \$250,000.00, for the initial contract year 1, \$550,000 maximum budget allocated for the remaining option years including applicable taxes. Bids valued in excess of this amount will be considered non-responsive. This disclosure of project funds does not commit Environment and Climate Change to pay such an amount.</p>	

4.3.1 Evaluation of Price

The price of the bid will be evaluated in Canadian dollars, the Applicable Taxes excluded, Canadian customs and excise taxes included.

For evaluation purposes only, the price of the bid will be determined as follows:

- 4.3.2 The volumetric data included in the Financial Bid Presentation Sheet detailed in Attachment 1 to Part 3 are provided for bid evaluated price determination purposes only. They are not to be considered as a contract guarantee.

4.4. Basis of Selection - Highest Combined Rating of Technical Merit and Price

1. To be declared responsive, a bid must:
 - (a) comply with all the requirements of the bid solicitation;
 - (b) meet all mandatory technical criteria; and
 - (c) obtain the required minimum points specified for each criterion for the technical evaluation, and
 - (d) obtain the minimum of 151 points overall for the technical evaluation criteria which are subject to point rating.
The rating is performed on a scale of 189 points.
2. Bids not meeting (a) and (b) and (c) and (d) will be declared non-responsive.
3. The evaluation will be based on the highest responsive combined rating of technical merit and price. The ratio will be 70% for the technical merit and 30% for the price.
4. To establish the technical merit score, the overall technical score for each responsive bid will be determined as follows: total number of points obtained / maximum number of points available multiplied by the ratio of 70%.
5. To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 30%.
6. For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.
7. Neither the responsive bid obtaining the highest technical score nor the one with the lowest evaluated price will necessarily be accepted. The responsive bid with the highest combined rating of technical merit and price will be recommended for award of a contract.

The illustration below is an example where all three bids are responsive and the selection of the contractor is determined by a 70/30 ratio of technical merit and price, respectively. The total available points equals 100 and the lowest evaluated price is \$55,000.00.

Basis of Selection - Highest Combined Rating Technical Merit (70%) and Price (30%)

Bidder	Bidder 1	Bidder 2	Bidder 3
Overall Technical Score	90/100	70/100	80/100
Bid Evaluated Price	\$75,000.00	\$55,000.00	\$65,000.00
Calculations			
Technical Merit Score	$90/100 \times 70 = 63$	$70/100 \times 70 = 49$	$80/100 \times 70 = 56$
Pricing Score	$55/75 \times 30 = 22$	$55/55 \times 30 = 30$	$55/65 \times 30 = 25$
Combined Rating	85	79	81
Overall Rating	1 st	3 rd	2 nd



ATTACHMENT 1 TO PART 4 - MANDATORY TECHNICAL CRITERIA AND POINT RATED TECHNICAL CRITERIA

	Mandatory Requirements	Proposal Cross-reference page	Met/Not Met
M1	<p>The bidder must hold ISO 17025 laboratory accreditation from an approved accredited organization such as, Canadian Association for Laboratory Accreditation (CALA) for isotope dilution methods for water and solid and/or sediment and tissue for 209 PCB congeners by HRMS method USEPA 1668, Dioxin and Furans by HRMS method, PBDEs by HRMS method USEPA 1614, and PFAS by LC-MS/MS method EPA1633. Proof of accreditation must be provided with the bidder's proposal.</p>		
M2	<p>The Bidder must demonstrate using project descriptions that they have 24 months experience in each of the following:</p> <ol style="list-style-type: none"> 1. water, sediment, and tissue for legacy and current use pesticides by HRMS, 2. water, sediment, and tissue for PCBs by HRMS method USEPA 1668C, 3. water, sediment and tissue for PBDEs by HRMS method USEPA 1614, 4. water, sediment and tissue for Dioxins & Furans by HRMS method USEPA 1613B; 5. water, sediment and tissue for PFASs using LC-MS/MS; 6. water, sediment and tissue for PAHs using LR-GC/MS; 7. water, sediment and tissue for PPCPs using LC-MS/MS based on USEPA 1694; 8. water, sediment and tissue for Alkylphenols using LR-GC/MS; 9. water, sediment and tissue for Bisphenol A using LC-MS/MS; 10. water, sediment and tissue for Brominated / Chlorinated Flame Retardants using GC-(ECNI)-MS; 11. water and sediment for Organophosphate Flame 		

	Retardants using LC-MS/MS; 12. water for Acid herbicides by GC-HRMS; 13. water and sediment for Glyphosate using LC-MS/MS		
M3	The bidder must be able to measure and report at least 90% of the analytes and meet all detection limits as shown in Tables A1 – A15 in Annex 1 in the Statement of Work or identify exceptions. The Bidder must demonstrate this by completing the Laboratory Application form tables A through L found in Part 4, Attachment 2 and submit with bid. In addition, for each table A through L, the bidder must also provide the details of each proposed method (attachments may be used) that clearly describe; 1) Instrumentation used 2) Method of quantification 3) Extraction process used 4) Clean-up steps used (standard, additional for difficult matrices) 5) QA/QC acceptance specifications including method blank criteria (and methodology for setting specifications), RPD acceptance criteria for duplication, OPR acceptance criteria for native and labelled compounds, sample acceptance criteria for sample surrogate recovery 6) Detection / reporting limits used		
M4	Bidder must not subcontract any of the Work under the resulting contract.		

TECHNICAL RATED CRITERIA

No.	Technical Criteria	Point Breakdown	Evaluated Score		Proposal Cross-reference Page
R1	The Bidder should demonstrate using project descriptions extensive experience in performing analyses for each of the 10 contaminant classes below for environmental samples: a. Tissue for legacy and current use pesticides by HRMS b. Water for PCBs by HRMS method USEPA 1668C, c. Sediment for PBDEs by HRMS	Points will be awarded for each contaminant classes in accordance to the following breakdown: <2 years = 0 point 2-5 years = 3 points 6-10+ years = 5 points	a.	/5	
			b.	/5	
			c.	/5	
			d.	/5	



	<p>method USEPA 1614,</p> <p>d. Tissue for Dioxins & Furans by HRMS method USEPA 1613B</p> <p>e. Tissue for PFASs using LC-MS/MS;</p> <p>f. Water for PAHs using GC/MS;</p> <p>g. Water for PPCPs using LC-MS/MS;</p> <p>h. Tissue for Alkylphenols using GC/MS;</p> <p>i. Water for Bisphenols using LC-MS/MS;</p> <p>j. Water for Glyphosate using LC-MS/MS;</p> <p>k. Water for Organophosphate Flame Retardants using LC-MS/MS;</p> <p>l. Tissue for Brominated / Chlorinated Flame Retardants using (ECNI)-MS</p> <p>m. Water for Acid herbicides using GC-HRMS</p> <p>n. Tissue for HBCDD using LC-MS/MS</p>		<p>e. /5</p> <p>f. /5</p> <p>g. /5</p> <p>h. /5</p> <p>i. /5</p> <p>j. /5</p> <p>k. /5</p> <p>l. /5</p> <p>m. /5</p> <p>n. /5</p>	
R2	<p>PCBs</p> <p>Where indicated in the Laboratory Application Form found in Part 4 - Attachment 2, Table B, the Bidder should describe its ability to provide blank levels based on reported method blanks down to EDL, description of standard and optional clean-ups.</p> <p>All 209 congeners must be reported, plus homologue groups, totals and TEQs for assigned congeners. USEPA 1668C must be used.</p>	<ul style="list-style-type: none"> - 10 points will be assigned if blank levels (last 10 watermethod blanks) are based on reported method blanks down to EDL levels; - 4 points for the use of each standard clean-ups (maximum 12 points) - 2 points for the use of each optional clean-ups (to a maximum of 6 points) 	/28	
R3	<p>PBDEs</p> <p>Where indicated in the Laboratory</p>	<ul style="list-style-type: none"> - 10 points will be assigned if blank 	/30	

	<p>Application Form found in Part 4 - Attachment 2, Table C, the Bidder should describe its ability to provide blank levels based on reported method blanks down to EDL, description of standard and optional clean-ups. USEPA method 1614 must be used.</p>	<p>levels (last 10 method tissue blanks) are based on reported method blanks down to baseline levels by EDL.</p> <ul style="list-style-type: none"> - 4 points for the use of each standard clean-up (maximum 16 points) - 2 points for the use of each optional clean-ups (to a maximum of 4 points) 		
R4	<p>Multiple analytes The ability to process multiple analytes (PCBs, Dioxins and Furans, PBDEs) without detracting from expected reporting limits when processed separately. This allows minimization of mass for tissue analysis, and common containers for water samples. Describe procedure. Describe any limitations would affect analytical results through this process.</p>	<ul style="list-style-type: none"> - 5 points per analysis to a max. of 15 points which can be processed in using the stated procedure. 	/15	
R5	<p>PFASs The Bidder should indicate its method blank acceptance criteria in the respective compound grid found in the Laboratory Application Form found in Part 4 - Attachment 2, Table E. The Bidder should describe:</p> <ol style="list-style-type: none"> 1. the isotope compounds used in the method; and 2. the native or target compounds analyzed in the method. <p>USEPA method 1633 must be used.</p>	<p>Evaluation Grid for labelled surrogate used Isotope dilution quantification. PFAS method blank acceptance criteria provided by compound (6 points)</p> <ul style="list-style-type: none"> - The Bidder describes 5-10 labelled surrogates used in the method – 2 points - The Bidder describes 11-15 labelled isotopes used in the method – 3 points 	/11	



		<ul style="list-style-type: none"> - The Bidder describes 16-20 labelled isotopes used in the method – 4 points - The Bidder describes 21 or more labelled isotopes used in the method – 5 points 		
R6	<p>PAHs, alkylated PAHs, and alkylated PAH groups</p> <p>The Bidder should indicate its use of isotope dilution, mass ratios, one GC/MS run for specific PAHs and alkylated PAHs, and reporting limits by EDL in the Laboratory Application Form found in Part 4 - Attachment 2, Table F.</p>	<p>5 points per attribute will be assigned if:</p> <ul style="list-style-type: none"> - isotope dilution is used for quantification of specific targets, - mass ratio acceptance criteria are used for each specific PAH or alkylated PAH, - single runs for specific PAHs vs alkylated PAHs, and - reporting limits by EDL are < 2 ng/g. <p>Maximum of 20 points</p>	/20	
R7	<p>Alkyphenols</p> <p>The Bidder should indicate its ability to report the sum of all NP, NPE01, NPE02 isomers found in the Laboratory Application Form found in Part 4 - Attachment 2, Table H.</p>	<p>15 points will be assigned if the Bidder can report the sum of all NP, NPE01, NPE02 isomers.</p>	/15	
		Total Score	189	
		Minimum Pass Score	151	

ATTACHMENT 2 TO PART 4 - LABORATORY APPLICATION FORMS

Laboratory Name:

ANALYTE REPORTING

Table A. Legacy and current use pesticide analytes by HRMS and detection Limits required for each

Analyte	Can the Bidder's laboratory report and measure the analyte and meet the detection limit? (Yes / No)			Indicate Sample Detection Limit based on relevant units and relevant sample size			For ECCC Use Only: Does the Laboratory meet the required Sample Detection Limit (Yes / No)
	Water	Sedime	Tissu	Wat	Sedim	Tissu	
TECNAZENE							
HEXACHLOROBENZENE							
QUINTOZENE							
HEPTACHLOR							
HCH, ALPHA							
HCH, GAMMA							
HCH, BETA							
HCH, DELTA							
CHLOROTHALONIL.							
ALDRIN							
DACTHAL.							
OCTACHLOROSTYRENE							
OXYCHLORDANE							
HEPTACHLOR-EPOXIDE							
T-CHLORDANE							
C-CHLORDANE							
T-NONACHLOR							
C-NONACHLOR							
ALPHA-ENDOSULPHAN							
BETA-ENDOSULPHAN							
DIELDRIN							
2,4'-DDD							
4,4'-DDD							
2,4'-DDE							
4,4'-DDE							
2,4'-DDT							
4,4'-DDT							
CAPTAN.							
PERTHANE							
ENDRIN							



ENDOSULPHAN-SULPHATE							
MIREX							
METHOXYCHLOR							
ENDRIN-KETONE							
SIMAZINE							
ATRAZINE							
AMETRYN							
DESETHYLATRAZINE							
METRIBUZIN							
CYANAZINE							
HEXAZINONE							
PHORATE							
TERBUFOS							
DIAZINON-OXON							
DIAZINON							
DISULFOTON							
FONOFOS							
DIMETHOATE							
CHLORPYRIPHOS-METHYL							
PARATHION-METHYL							
PIRIMIPHOS-METHYL							
CHLORPYRIPHOS							
FENITROTHION							
MALATHION							
PARATHION-ETHYL							
CHLORPYRIPHOS-OXON							
DISULFOTON SULFONE							
ETHION							
PHOSMET							
AZINPHOS-METHYL							
TOTAL-PERMETHRINS							
TOTAL-CYPERMETHRINS							
ALACHLOR							
BUTRALIN							
BUTYLATE							
DIMETHENAMID							
ETHALFLURALIN							
FLUFENACET							
FLUTRIAFOL							
LINURON							
METHOPRENE							
METOLACHLOR							
PENDIMETHALIN							
TEBUCONAZOL							
TRIALATE							
TRIFLURALIN							

Table B. PCB analytes by HRMS method USEPA 1668C and detection limits required for each.

Analyte	Can the Bidder's laboratory report and measure the analyte and meet the detection limit? (Yes / No)			Indicate RL based on S:N ratio of multiple ratioing masses per reported congener (pg/g based on 1L sample)			For ECCC Use Only: Does the Laboratory meet the required Sample Detection Limit (Yes / No)
	Water	Sediment	Tissue	Water	Sediment	Tissue	
CL1-PCB1							
CL1-PCB2							
CL1-PCB3							
CL2-PCB4							
CL2-PCB5							
CL2-PCB6							
CL2-PCB7							
CL2-PCB8							
CL2-PCB9							
CL2-PCB10							
CL2-PCB11							
CL2-PCB12/13							
CL2-PCB14							
CL2-PCB15							
CL3-PCB16							
CL3-PCB17							
CL3-PCB19							
CL3-PCB21/33							
CL3-PCB22							
CL3-PCB23							
CL3-PCB24							
CL3-PCB25							
CL3-PCB26/29							
CL3-PCB27							
CL3-PCB28/20							
CL3-PCB30/18							
CL3-PCB31							
CL3-PCB32							
CL3-PCB34							
CL3-PCB35							
CL3-PCB36							
CL3-PCB37							
CL3-PCB38							
CL3-PCB39							
CL4-PCB41/40/71							
CL4-PCB42							
CL4-PCB43							



CL4-PCB44/47/65							
CL4-PCB45/51							
CL4-PCB46							
CL4-PCB48							
CL4-PCB50/53							
CL4-PCB52							
CL4-PCB54							
CL4-PCB55							
CL4-PCB56							
CL4-PCB57							
CL4-PCB58							
CL4-PCB59/62/75							
CL4-PCB60							
CL4-PCB61/70/74/76							
CL4-PCB63							
CL4-PCB64							
CL4-PCB66							
CL4-PCB67							
CL4-PCB68							
CL4-PCB69/49							
CL4-PCB72							
CL4-PCB73							
CL4-PCB77							
CL4-PCB78							
CL4-PCB79							
CL4-PCB80							
CL4-PCB81							
CL5-PCB82							
CL5-PCB83/99							
CL5-PCB84							
CL5-PCB88/91							
CL5-PCB89							
CL5-PCB92							
CL5-PCB94							
CL5-PCB95/100/93/102/98							
CL5-PCB96							
CL5-PCB103							
CL5-PCB104							
CL5-PCB105							
CL5-PCB106							
CL5-PCB107/124							
CL5- PCB108/119/86/97/125/87							
CL5-PCB109							
CL5-PCB110/115							
CL5-PCB111							
CL5-PCB112							
CL5-PCB113/90/101							
CL5-PCB114							

CL5-PCB117/116/85							
CL5-PCB118							
CL5-PCB120							
CL5-PCB121							
CL5-PCB122							
CL5-PCB123							
CL5-PCB126							
CL5-PCB127							
CL6-PCB128/166							
CL6-PCB130							
CL6-PCB131							
CL6-PCB132							
CL6-PCB133							
CL6-PCB134/143							
CL6-PCB136							
CL6-PCB137							
CL6-PCB138/163/129/160							
CL6-PCB139/140							
CL6-PCB141							
CL6-PCB142							
CL6-PCB144							
CL6-PCB145							
CL6-PCB146							
CL6-PCB147/149							
CL6-PCB148							
CL6-PCB150							
CL6-PCB151/135/154							
CL6-PCB152							
CL6-PCB153/168							
CL6-PCB155							
CL6-PCB156/157							
CL6-PCB158							
CL6-PCB159							
CL6-PCB161							
CL6-PCB162							
CL6-PCB164							
CL6-PCB165							
CL6-PCB167							
CL6-PCB169							
CL7-PCB170							
CL7-PCB171/173							
CL7-PCB172							
CL7-PCB174							
CL7-PCB175							
CL7-PCB176							
CL7-PCB177							
CL7-PCB-178							
CL7-PCB-179							
CL7-PCB180/93							



CL7-PCB181							
CL7-PCB182							
CL7-PCB183/185							
CL7-PCB184							
CL7-PCB186							
CL7-PCB187							
CL7-PCB188							
CL7-PCB189							
CL7-PCB190							
CL7-PCB191							
CL7-PCB192							
CL8-PCB194							
CL8-PCB195							
CL8-PCB196							
CL8-PCB197/200							
CL8-PCB198/199							
CL8-PCB201							
CL8-PCB202							
CL8-PCB203							
CL8-PCB204							
CL8-PCB205							
CL9-PCB206							
CL9-PCB207							
CL9-PCB208							
CL10-PCB209							

Table C. PBDE analytes by HRMS method USEPA 1614 and detection limits required for each.

Analyte	Can the Bidder's laboratory report and measure the analyte and meet the detection limit? (Yes / No)			Indicate RL based on S:N ratio of multiple ratioing masses per reported congener (pg/L based on 1L sample)			For ECCC Use Only: Does the Laboratory meet the required Sample Detection Limit (Yes / No)
	Water	Sedimen	Tissue	Water	Sedimen	Tissue	
BR2-DPE-7							
BR2-DPE-8/11							
BR2-DPE-10							
BR2-DPE-12/13							
BR2-DPE-15							
BR3-DPE-17/25							
BR3-DPE-28/33							
BR3-DPE-30							
BR3-DPE-32							
BR3-DPE-35							
BR3-DPE-37							
BR4-DPE-47							

BR4-DPE-49							
BR4-DPE-51							
BR4-DPE-66							
BR4-DPE-71							
BR4-DPE-75							
BR4-DPE-77							
BR4-DPE-79							
BR5-DPE-85							
BR5-DPE-99							
BR5-DPE-100							
BR5-DPE-105							
BR5-DPE-116							
BR5-DPE-119/120							
BR5-DPE-126							
BR6-DPE-128							
BR6-DPE-138/166							
BR6-DPE-140							
BR6-DPE-153							
BR6-DPE-154							
BR6-DPE-155							
BR7-DPE-181							
BR7-DPE-183							
BR7-DPE-190							
BR7-DPE-203							
BR7-DPE-206							
BR7-DPE-207							
BR7-DPE-208							
BR7-DPE-209							

Table D. Dioxins and Furans analytes by HRMS and detection limits required for each.

Analyte	Can the Bidder's laboratory report and measure the analyte and meet the detection limit? (Yes / No)			Indicate RL based on S:N ratio of multiple ratioing masses per reported congener (pg/L based on 1L sample)			For ECCC Use Only: Does the Laboratory meet the required Sample Detection Limit (Yes / No)
	Water	Sedimen	Tissue	Water	Sedim	Tissue	
2,3,7,8-TCDD							
1,2,3,7,8-PECDD							
1,2,3,4,7,8-HXCDD							
1,2,3,6,7,8-HXCDD							
1,2,3,7,8,9-HXCDD							
1,2,3,4,6,7,8-OCDD							
2,3,7,8-TCDF							
1,2,3,7,8-PECDF							
2,3,4,7,8-PECDF							



1,2,3,4,7,8-HXCDF							
1,2,3,6,7,8-HXCDF							
1,2,3,7,8,9-HXCDF							
2,3,4,6,7,8-HXCDF							
1,2,3,4,6,7,8-							
1,2,3,4,7,8,9-							
OCDF							

Table E. PFAS analytes by LC-MS/MS and detection limits required for each.

Analyte	Can the Bidder's laboratory report and measure the analyte and meet the detection limit? (Yes / No)			Indicate RL based on Lowest standard in calibration samples (ng/L based on 0.5L sample)			For ECCC Use Only: Does the Laboratory meet the required Sample Detection Limit (Yes / No)
	Water	Sediment	Tissue	Water	Sediment	Tissue	
Perfluorobutanoate (PFBA)							
Perfluoropentanoate (PFPeA)							
Perfluorohexanoate (PFHxA)							
Perfluoroheptanoate (PFHpA)							
Perfluorooctanoate (PFOA)							
Perfluorononanoate (PFNA)							
Perfluorodecanoate (PFDA)							
Perfluoroundecanoate (PFUnA)							
Perfluorododecanoate (PFDoA)							
Perfluorotridecanoate (PFTrDA)							
Perfluorotetradecanoate (PFTeDA)							
Perfluorobutanesulfonate (PFBS)							
Perfluoropentanesulfonate (PFPeS)							
Perfluorohexanesulfonate (PFHxS)							
Perfluoroheptanesulfonate (PFHpS)							
Perfluorooctanesulfonate (PFOS)							
Perfluorononanesulfonate (PFNS)							
Perfluorodecanesulfonate (PFDS)							
Perfluorododecanesulfonate (PFDoS)							
4:2 fluorotelomersulfonate (4:2 FTS)							
6:2 fluorotelomersulfonate (6:2 FTS)							
8:2 fluorotelomersulfonate (8:2 FTS)							

N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA)							
N-Methylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA)							
Perfluorooctanesulfonamide (PFOSA), a.k.a FOSA							
N-Methylperfluorooctanesulfonamide (N-MeFOSA)							
N-Ethylperfluorooctanesulfonamide (N-EtFOSA)							
N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)							
N-Ethylperfluorooctanesulfonamidoethanol (N-EtFOSE)							
Perfluoro-2-propoxypropanoate (HFPO-DA)							
4-dioxa-3H-perfluorononanoate (ADONA)							
9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)							
11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)							
3:3 perfluorohexanoic acid (3:3 FTCA)							
5:3 perfluorooctanoic acid (5:3 FTCA)							
7:3 perfluorodecanoic acid (7:3 FTCA)							
Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)							

**Table F. PAH analytes by LR-GC/MS and detection limits required for each.**

Analyte	Can the Bidder's laboratory report and measure the analyte and meet the detection limit? (Yes / No)			Indicate Sample Detection Limit based on S:N ratio for multiple ratioing masses per specific target (ng/L based on 1L sample)			For ECCC Use Only: Does the Laboratory meet the required Sample Detection Limit (Yes / No)
	Water	Sediment	Tissue	Water	Sediment	Tissue	
Naphthalene							
Acenaphthylene							
Acenaphthene							
Fluorene							
Phenanthrene							
Anthracene							
Fluoranthene							
Pyrene							
Benz(a)anthracene							
Chrysene							
Benzo(b)fluoranthene							
Benzo(j/k)fluoranthenes							
Benzofluoranthenes							
Benzo(e)pyrene							
Benzo(a)pyrene							
Perylene							
Dibenzo(ah)anthracene							
Indeno(1,2,3-cd)pyrene							
Benzo(ghi)perylene							
2-Methylnaphthalene							
2,6-Dimethylnaphthalene							
2,3,5-							
1-Methylphenanthrene							
Dibenzothiophene							
1-Methylnaphthalene							
C1-Naphthalenes							
1,2-Dimethylnaphthalene							
C2-Naphthalenes							
2,3,6-							
C3-Naphthalenes							
1,4,6,7-							
C4-Naphthalenes							
2-Methylphenanthrene							
3-Methylphenanthrene							
9/4-Methylphenanthrenes							

2-Methylanthracene							
C1-							
1,7-							
1,8-							
2,6-							
3,6-							
C2-							
1,2,6-							
C3-							
Retene							
C4-							
Biphenyl							
C1-Biphenyls							
C2-Biphenyls							
C1-Acenaphthenes							
2-Methylfluorene							
C1-Fluorenes							
1,7-Dimethylfluorene							
C2-Fluorenes							
C3-Fluorenes							
2/3-							
C1-Dibenzothiophene							
2,4-							
C2-Dibenzothiophene							
C3-Dibenzothiophene							
C4-Dibenzothiophene							
3-Methylfluoranthene/Benzo(a)fluorene							
C1-							
C2-							
C3-							
C4-							
1-Methylchrysene							
5/6-Methylchrysenes							
C1-							
5,9-Dimethylchrysene							
C2-							
C3-							
C4-							
7-Methylbenzo(a)pyrene							
C1-Benzofluoranthenes/Benzopyrenes							



C2- Benzofluoranthenes/Benz opyrenes							
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Table G. PPCP analytes by LC-MS/MS and detection limits required for each.

Analyte	Can the Bidder's laboratory report and measure the analyte and meet the detection limit? (Yes / No)			RL based on low calibration standard (ng/L based on 1L sample)			For ECCC Use Only: Does the Laboratory meet the required Sample Detection Limit (Yes / No)
	Water	Sediment	Tissue	Water	Sediment	Tissue	
Acetaminophen							
Azithromycin							
Caffeine							
Carbadox							
Carbamazepine							
Cefotaxime							
Ciprofloxacin							
Clarithromycin							
Clinafloxacin							
Cloxacillin							
Dehydronifedipine							
Digoxigenin							
Digoxin							
Diltiazem							
1,7-Dimethylxanthine							
Diphenhydramine							
Enrofloxacin							
Erythromycin-H2O							
Flumequine							
Fluoxetine							
Lincomycin							
Lomefloxacin							
Miconazole							
Norfloxacin							
Norgestimate							
Ofloxacin							
Ormetoprim							
Oxacillin							
Oxolinic acid							
Penicillin G							

Penicillin V							
Roxithromycin							
Sarafloxacin							
Sulfachloropyridazine							
Sulfadiazine							
Sulfadimethoxine							
Sulfamerazine							
Sulfamethazine							
Sulfamethizole							
Sulfamethoxazole							
Sulfanilamide							
Sulfathiazole							
Thiabendazole							
Trimethoprim							
Tylosin							
Virginiamycin							
Anhydrochlortetracycline							
Anhydrotetracycline							
Chlortetracycline							
Demeclocycline							
Doxycycline							
4-							
4-Epianhydrotetracycline							
4-Epichlortetracycline							
4-Epioxytetracycline							
4-Epitetracycline							
Isochlortetracycline							
Minocycline							
Oxytetracycline							
Tetracycline							
Bisphenol A							
Furosemide							
Gemfibrozil							
Glipizide							
Glyburide							
Hydrochlorothiazide							
2-hydroxy-ibuprofen							
Ibuprofen							
Naproxen							
Triclocarban							
Triclosan							
Warfarin							
Albuterol							
Amphetamine							
Atenolol							



Atorvastatin							
Cimetidine							
Clonidine							
Codeine							
Cotinine							
Enalapril							
Hydrocodone							
Metformin							
Oxycodone							
Ranitidine							
Triamterene							
Alprazolam							
Amitriptyline							
Amlodipine							
Benzoylecgonine							
Benzotropine							
Betamethasone							
Cocaine							
DEET							
Desmethyldiltiazem							
Diazepam							
Fluocinonide							
Fluticasone propionate							
Hydrocortisone							
10-hydroxy-amitriptyline							
Meprobamate							
Methylprednisolone							
Metoprolol							
Norfluoxetine							
Norverapamil							
Paroxetine							
Prednisolone							
Prednisone							
Promethazine							
Propoxyphene							
Propranolol							
Sertraline							
Simvastatin							
Theophylline							
Trenbolone							
Trenbolone acetate							
Valsartan							
Verapamil							
Amsacrine							
Azathioprine							

Busulfan							
Citalopram							
Clotrimazole							
Colchicine							
Cyclophosphamide							
Daunorubicin							
Diatrizoic acid							
Doxorubicin							
Drospirenone							
Etoposide							
Iopamidol							
Medroxyprogesterone							
Melphalan							
Metronidazole							
Moxifloxacin							
Oxazepam							
Rosuvastatin							
Tamoxifen							
Teniposide							
Venlafaxine							
Zidovudine							

Table H. Alkylphenols analytes by LR-GC/MS and detection limits required for each.

Analyte	Can the Bidder's laboratory report and measure the analyte and meet the detection limit? (Yes / No)			Sample Detection Limit (ng/L based on 1L sample)			For ECCC Use Only: Does the Laboratory meet the required Sample Detection Limit (Yes / No)
	Water	Sediment	Tissue	Water	Sediment	Tissue	
Nonylphenol (NP)							
4-Nonylphenol monoethoxylate (NP1EO)							
4-Nonylphenol diethoxylate (NP2EO)							
Octylphenol (OP)							

**Table I. Glyphosate analytes by LC-MS/MS and detection limits required for each.**

Analyte	Can the Bidder's laboratory report and measure the analyte and meet the detection limit? (Yes / No)			RL based on low calibration standard (ng/L based on 100mL sample)			For ECCC Use Only: Does the Laboratory meet the required Sample Detection Limit (Yes / No)
	Water	Sediment	Tissue	Water	Sediment	Tissue	
Glyphosate							
Glufosinate							
Aminomethyl Phosphonic Acid (AMPA)							

Table J. Organophosphate Flame Retardants by LC-MS/MS and detection limits required for each.

Analyte	Can the Bidder's laboratory report and measure the analyte and meet the detection limit? (Yes / No)			RL based on low Calibration standard (ng/L based on 0.5L sample)			For ECCC Use Only: Does the Laboratory meet the required Sample Detection Limit (Yes / No)
	Water	Sediment	Tissue	Water	Sediment	Tissue	
Triethyl phosphate (TEP)							
Tris(2-chloroethyl)							
Tripetyl phosphate (TPrP)							
Tris(2-chloroisopropyl) phosphate (TCPP)							
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)							
Triphenyl phosphate (TPP)							

Tris(2,3-dibromopropyl) phosphate (TDBPP)							
Tributyl phosphate (TBP)							
Tricresyl phosphate (TCrP)							
2-Ethylhexyl-diphenyl phosphate (EHDPP)							
Tris(2-butoxyethyl)							
Tris(2-ethylhexyl)							
Tetrakis(2-chlorethyl)dichloroisopentyl diphosphate (V6)							

Table K. Brominated / Chlorinated Flame Retardants using GC-(ECNI)-MS and detection limits required for each.

Analyte	Can the Bidder's laboratory report and measure the analyte and meet the detection limit? (Yes / No)			Sample Detection Limit based on S:N ratio per compound (ng/L based on 1L sample)			For ECCC Use Only: Does the Laboratory meet the required Sample Detection Limit (Yes / No)
	Water	Sedime	Tissu	Water	Sedime	Tissu	
Dechlorane							
DP Anti							
DP Syn							
Dec 602							
Dec 603							
Dec 604 Component A							
HCDBCO							
ATE							
BATE							
DPTE							
BTBPE							
BEHTBP							
EHTBB							
Total TBECH							
HBB							
PBBZ							
1,2,4,5-TBB							
1,2,3,5-TBB							
1,2,4-TriBB							
1,2-DiBB							
1,4-DiBB							
PBT							
PBEB							
PBBB							
pTBX							
TBCT							



Table L. Acid herbicide analytes by GC/HRMS and detection limits required for each.

Analyte	Can the Bidder's laboratory report and measure the analyte and meet the detection limit? (Yes / No)			Sample Detection Limit based on 3:1 S:N ratio for multiple rationing masses (ng/L based on 1L sample)			For ECCC Use Only: Does the Laboratory meet the required Sample Detection Limit (Yes / No)
	Water	Sedime	Tissu	Water	Sedime	Tissue	
DICAMBA							
MCPP							
MCPA							
DICHLORPROP							
2,4-D							
TRICLOPYR							
2,4,5-TP							
2,4,5-T							
2,4-DB							
DINOSEB							

PART 5 - CERTIFICATIONS

Bidders must provide the required certifications and associated information to be awarded a contract.

The certifications provided by bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default in carrying out any of its obligations under the Contract, if any certification made by the Bidder is found to be untrue, whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority may render the bid non-responsive or constitute a default under the Contract.

5.1. Certifications Required Precedent to Contract Award

5.1.1 Integrity Provisions - Associated Information

By submitting a bid, the Bidder certifies that the Bidder and its Affiliates are in compliance with the provisions as stated in Section 01 Integrity Provisions - Bid of Standard Instructions 2003. The associated information required within the Integrity Provisions will assist Canada in confirming that the certifications are true.

5.1.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from Employment and Social Development Canada (ESDC) - Labour's website.

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of contract award.

5.2. Additional Certifications Required Precedent to Contract Award

The certifications listed below should be completed and submitted with the bid but may be submitted afterwards. If any of these required certifications is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to comply with the request of the Contracting Authority and to provide the certifications within the time frame provided will render the bid non-responsive.

5.2.1 Status and Availability of Resources

The Bidder certifies that, should it be awarded a contract as a result of the bid solicitation, every individual proposed in its bid will be available to perform the Work as required by Canada's representatives and at the time specified in the bid solicitation or agreed to with Canada's representatives. If for reasons beyond its control, the Bidder is unable to provide the services of



an individual named in its bid, the Bidder may propose a substitute with similar qualifications and experience. The Bidder must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement. For the purposes of this clause, only the following reasons will be considered as beyond the control of the Bidder: death, sickness, maternity and parental leave, retirement, resignation, dismissal for cause or termination of an agreement for default.

If the Bidder has proposed any individual who is not an employee of the Bidder, the Bidder certifies that it has the permission from that individual to propose his/her services in relation to the Work to be performed and to submit his/her *résumé* to Canada. The Bidder must, upon request from the Contracting Authority, provide a written confirmation, signed by the individual, of the permission given to the Bidder and of his/her availability. Failure to comply with the request may result in the bid being declared non-responsive.

5.2.2 Education and Experience

The Bidder certifies that all the information provided in the *résumés* and supporting material submitted with its bid, particularly the information pertaining to education, achievements, experience and work history, has been verified by the Bidder to be true and accurate. Furthermore, the Bidder warrants that every individual proposed by the Bidder for the requirement is capable of performing the Work described in the resulting contract.

PART 6 – SECURITY FINANCIAL BID AND OTHER REQUIREMENTS

6.1 Security Requirement

There is no applicable security requirement associated with this solicitation.

6.2 Insurance Requirements

The Bidder must provide a letter from an insurance broker or an insurance company licensed to operate in Canada stating that the Bidder, if awarded a contract as a result of the bid solicitation, can be insured in accordance with the Insurance Requirements specified in the contract.

If the information is not provided in the bid, the Contracting Authority will so inform the Bidder and provide the Bidder with a time frame within which to meet the requirement. Failure to comply with the request of the Contracting Authority and meet the requirement within that time period will render the bid non-responsive.



PART 7- RESULTING CONTRACT

Title: Trace Analysis of Organic Contaminants

7.1 Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex "A".

7.2 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the PWGSC *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

7.2.1 General Conditions

2035 (2022-05-12) General Conditions - Higher Complexity Services, as modified below, apply to and form part of the Contract.

7.3. Security Requirement

There is no security requirement applicable to this Contract.

7.4. Period of the Contract

The period of the Contract is from _____ to March 31, 2023 inclusive

7.4.1 Option to Extend the Contract

The Contractor grants to Canada the irrevocable option to extend the term of the Contract by up to five (5) additional one (1) year period(s) under the same conditions. The Contractor agrees that, during the extended period of the Contract, it will be paid in accordance with the applicable provisions as set out in the Basis of Payment.

Canada may exercise this option at any time by sending a written notice to the Contractor at least 30 calendar days before the expiry date of the Contract. The option may only be exercised by the Contracting Authority, and will be evidenced for administrative purposes only, through a contract amendment.

7.5 Authorities

7.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Anthony DeFlavis
Team Manager – Procurement – Operations East
Environment and Climate Change Canada
Assets, Contracting and Environmental Management Directorate
105 McGill, Montreal QC H2Y 2E7
Telephone: 514 283 5958
E-mail address: Anthony.deflavis@ec.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

7.5.2 Project Authority

The Project Authority for the Contract is: (to be inserted at contract award)

Name: _____
Title: _____
Organization: _____
Address: _____
Telephone: ____ - ____ - _____
Facsimile: ____ - ____ - _____
Email address: _____

The Project Authority named above is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Project Authority, however the Project Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

7.5.3 Contractor's Representative

The Contractor's Representative for the Contract is: (to be inserted at contract award)

Name: _____
Title: _____
Organization: _____
Address: _____

Telephone: ____ - ____ - _____
Facsimile: ____ - ____ - _____



7.6. Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a Public Service Superannuation Act (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with Contracting Policy Notice: 2012-2 of the Treasury Board Secretariat of Canada.

7.7 Payment

7.7.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a maximum price of \$ _____. Customs duties are included and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

7.7.2 Limitation of Expenditure

- (a) Canada's total liability to the Contractor under the Contract must not exceed \$ _____. Customs duties are included and Applicable Taxes are extra.
- (b) No increase in the total liability of Canada or in the price of the Work resulting from any design changes, modifications or interpretations of the Work, will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been approved, in writing, by the Contracting Authority before their incorporation into the Work. The Contractor must not perform any work or provide any service that would result in Canada's total liability being exceeded before obtaining the written approval of the Contracting Authority. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:
 - (i) when it is 75 percent committed, or
 - (ii) four (4) months before the contract expiry date, or
 - (iii) as soon as the Contractor considers that the contract funds provided are inadequate for the completion of the Work,

whichever comes first.
- (c) If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

7.8. Invoicing Instructions

Invoices must be distributed as follows:

- a. The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.

7.8.1 Monthly Payment

7.8.2 The Contractor must submit invoices monthly in accordance with the section entitled "Invoice Submission" of the general conditions.

7.8.3 Canada will pay the Contractor upon completion and delivery of the Work in accordance with the payment provisions of the Contract if:

- (a) an accurate and complete invoice and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- (b) all such documents have been verified by Canada;
- (c) the Work delivered has been accepted by Canada.
- (d) all work associated with the milestone and as applicable any deliverable required have been completed and accepted by Canada.

7.9. Certifications

7.9.1 Compliance

Compliance with the certifications provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the term of the Contract. If the Contractor does not comply with any certification or it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

7.9.2 Federal Contractors Program for Employment Equity - Default by the Contractor

The Contractor understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Contractor and Employment and Social Development Canada (ESDC)-Labour, the AIEE must remain valid during the entire period of the Contract. If the AIEE becomes invalid, the name of the Contractor will be added to the "[FCP Limited Eligibility to Bid](#)" list. The imposition of such a sanction by ESDC will constitute the Contractor in default as per the terms of the Contract.

7.10 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in British Columbia.



7.11 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) 2035 (2022-05-12) General Conditions - Higher Complexity Services
- (c) Annex A, Statement of Work;
- (d) Annex B, Basis of Payment;
- (e) Annex C Insurance Requirements
- (f) the Contractor's bid dated _____,

7.12 Insurance Requirements

The contractor is responsible for deciding if insurance coverage is necessary to fulfill its obligation under the contract and to ensure compliance with any applicable law. Any insurance acquired or maintained by the contractor is at its own expense and for its own benefit and protection. It does not release the contractor from or reduce its liability under the contract.

7.13 Dispute Resolution

- (a) The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.
- (b) The parties agree to consult and co-operate with each other in the furtherance of the contract and promptly notify the other party or parties and attempt to resolve problems or differences that may arise.
- (c) If the parties cannot resolve a dispute through consultation and cooperation, the parties agree to consult a neutral third party offering alternative dispute resolution services to attempt to address the dispute.
- (d) Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading "[Dispute Resolution](#)".

ANNEX A - STATEMENT OF WORK

Analysis of organic contaminants in water, sediment and fish tissue

1.0 BACKGROUND

Environment and Climate Change Canada's (ECCC) Water Quality Monitoring and Surveillance Division (WQMSD) monitors and reports on the long-term status and trends of contaminants in water from water bodies across Canada. This statement of work identifies the need for ultra-trace analyses of organic contaminants of concern in ambient freshwater and related river sediment samples. This work is required by ECCC to support the assessment of contaminants of concern in freshwater systems of relevance to the critical habitat of endangered Southern Resident Killer Whales (SRKW) and their primary prey (Chinook salmon). The mandate for this work is identified under the 2018 Federal Whales Protection Initiative which includes the objective of an improved understanding of potential threats of toxic contaminants in freshwater systems that discharge into SRKW critical habitat and provide freshwater migratory and spawning habitat for Chinook salmon.

Chemicals of concern to SRKW and Chinook salmon include a wide range of legacy and current-use ultra-trace persistent organic pollutants and other chemical pollutants, such as polychlorinated biphenyls (PCBs), dioxins and furans (PCDD/F), polybrominated diphenyl ether flame retardants (PBDEs), organophosphate flame retardants (OPFRs), brominated and chlorinated flame retardants (aka halogenated flame retardants or HFRs), hexabromocyclododecane (HBCDD), per- and polyfluoroalkyl substances (PFASs), polycyclic aromatic hydrocarbons (PAHs) and alkylated PAHs, pharmaceuticals and personal care products (PPCPs), alkylphenols and ethoxylates (APs), bisphenol A and analogues (BPA), legacy and current use pesticides, glyphosate, glufosinate and aminomethylphosphonic acid (AMPA), acid extractable herbicides (AEHs) and chlorinated alkanes (aka chlorinated paraffins). This study will gather information on the occurrence of contaminants of concern for SRKW and Chinook salmon in estuarine water, freshwater and river sediment to support risk assessment and risk management activities by other groups under the Federal Whales Initiative. Laboratory analysis data collected in this study will be publicly accessible.

1.1. Objective

The contractor will analyze and report ultra-trace results for water, sediment and fish tissue samples to ECCC, for samples collected and submitted by ECCC, as and when requested during the period of the contract (2022-23 + option years 2023-24 and 2024-25). To be clear, "tissue" within this document refers to fish tissue specifically. For consistency with data collected to date and comparability with other agencies, analyses for the analyte groups must be done by methods described in Table 1 below (or by newer methods if appropriate and approved by ECCC). **All analytes and limits of detection listed in Annex Tables A1-A16 must be measured and met, respectively, to ensure consistency and comparability of this study with the broader initiative.**

2.0 Scope



All analyses will be performed on water samples, sediment and/or fish tissue as and when requested, for some or all analyte groups listed in Table 1. Bidding laboratories should have accreditation obtained from an accrediting body that is signatory to the International Laboratory Accreditation Cooperation Mutual Recognition Agreement ILAC MRA, using the internationally recognized criteria and procedures outlined in ISO/IEC 17025: (General requirements for Competence of Calibration and Testing Laboratories).

Over the term of the contract and option years, approximately 95% of the samples will be surface waters and 5% will be sediment and there may be a possible addition of fish tissue samples (quantity yet to be determined). Up to approximately 90 water sampling events (up to 15 collection bottles per sampling event, or more if a field QA sampling event) and 10 sediment sampling events (up to 10 sample jars per sampling event) could be collected each year. More than one analyte group may be requested per sample. Table 1 outlines the analyte group method required for each media. A detailed list of requested analytes for each analyte group can be found in Annex 1.

Given the uncertain nature of field collections and operations, ECCC cannot guarantee the number of samples that will be submitted for analysis in any given year or for any specific chemical class. Based on results obtained during the sampling program, the emergence of other toxic chemicals of concern, as well as, the level of funding, the specific parameter groups required, at a given sampling site, may be altered. The Contractor will be paid based on the specific analyte groups requested, for the given number of samples submitted by ECCC, and subsequently analyzed by the Contractor.

The analytical services will include the results of analysis. The analysis will be performed on sediment or water as requested for some or all of the analyte groups as listed in detail in Annex 1. Limited sample may require multiple analysis per extraction, subcontracting is not permitted. For the purposes of billing, method blanks and laboratory replicate analyses are to be conducted as part of contractors QA/QC program, and not to be considered as samples submitted.

Table 1. Analyte group and method required for contaminant analyses in aqueous and sediment samples.

Analyte Group <i>(published reference method indicated where applicable)</i>	Water	Sediment	Fish Tissue
Multiresidue Pesticides (Legacy and Current Use Pesticides) by HRMS (EPA 1699)	Required	Required	Required
209 PCB Congeners by HRMS (EPA 1668C or Equivalent)	Required	Required	Required
PBDE Congeners by HRMS (EPA 1614A)	Required	Required	Required
Dioxins and Furans by HRMS (EPA 1613B)	Required	Required	Required
PFAS by LC MS/MS Isotope Dilution (EPA 1633)	Required	Required	Required
PAHs, Alkylated PAHs, Alkylated PAH Groups by Isotope Dilution (8270D modified by EPA 1625)	Required	Required	Required
PPCPs by LC MS/MS (Modified EPA 1694)	Required	Required	Required
Alkylphenols by Isotope dilution GC/MS or LC MS/MS	Required	Required	Required
BPA or BP replacement products (5) by isotope dilution LC MS/MS	Required	Required	BPA only
Glyphosate, glufosinate and AMPA by Isotope dilution LC MS/MS	Required	Required	Not required
Organophosphate Flame Retardants by Isotope Dilution LC MS/MS	Required	Required	Not Required
Brominated and Chlorinated Flame Retardants by Isotope Dilution GC-(ECNI)-MS	Required	Required	Required
Acid Extractable Herbicides by HRMS	Required	Not required	Not Required
HBCDD isomers by LC-MS/MS using LC MS/MS isotope dilution quantification	Not required	Required	Required
Chlorinated Alkanes by LC-MS/MS (SCCP, MCCP, LCCP totals from each carbon length and degree of chlorination)	Required	Required	Required



3.0 Tasks

The analytical services requested may include some or all of the following tasks:

a) Sample shipping and receiving

- The Contractor will advise the Project Authority as to the appropriate field sampling protocols, including but not limited to sampling materials (e.g. bottles) and any field sample preservation requirements, to ensure sample quality during sample storage, shipping and receiving.
- The Contractor will receive samples in coolers delivered by courier (ground or air) from Mondays through Fridays, except all statutory holidays, from ECCC. The samples will be accompanied by a sample submission sheet. ECCC will be responsible for shipping costs of coolers to the contractor.
- The Contractor's laboratory where the analysis will be conducted must be in a location where receipt of samples is achievable in 48 hours or less from time of shipment from ECCC shipping location (2645 Dollarton Highway, North Vancouver, BC, V7H 1B1). This timeframe must include potential customs clearance where relevant.
- The Contractor will promptly notify the Project Authority if any samples are damaged (container broken), spoiled (left unattended at ambient temperature), incorrectly analyzed, discarded, or lost. If the Contractor is found responsible for causing damage, spoilage, misidentification or loss of samples, or allows samples to exceed standard holding times for the specific analyses, the Contractor will agree to compensate the Project Authority for any direct re-sampling costs which will be determined by the Project Authority. This may include sample shipping costs and any other costs associated with re-sampling as deemed fit by the Project Authority.
- The Contractor must ensure that the site names and numbers on the sample containers correspond to those on the submission sheet; inspect sample containers to ensure all samples have been received in good condition, and measure and record sample temperature on arrival. These recordings must become part of the data report file. All discrepancies or problems with sample condition must be reported to the Project Authority immediately.
- The Contractor must ensure that all samples are properly preserved after receipt and prior to extraction or analysis. Any chemical preservatives added to samples upon receipt at the Contractor's premises must be documented and must be done according to the established or published methods as described in paragraphs one and two of the section "Quality Assurance/Quality Control (QA/QC)" below.
- The Contractor must establish a continuity/chain of custody form for sample tracking which must be appended to the final data report.

b) Sample analyses and storage

- The contractor will perform solvent extraction, clean-up, and analysis of whole water or sediment samples using methods appropriate for quantification of some or all of the parameters listed in detail in Annex 1.

- The Contractor must complete sample preservation and/or sample preparation within the specified holding time of the sample.
- The Contractor must report results within 6 weeks from receipt of sample. The Project Authority in his/her sole discretion may grant time extension on a case-by-case basis.
- The Contractor must store sample extracts and unanalyzed remainder of samples for a minimum of 90 days after delivery of the final data report at no additional cost to ECCC. Within those 90 days, the Project Authority has the right to request re-analysis and/or re-work if analysis was not performed in accordance with the Agreement. After 90 days the Contractor may dispose of the remaining samples or extracts, unless otherwise requested by the Project Authority. Disposal of samples must be conducted within the boundary of all applicable federal, provincial and city laws at no extra charge to ECCC.

c) Quality assurance and quality control

- All analyses must be performed following accredited methods where available, including International Standards Organization (ISO), Canadian Association for Laboratory Accreditation (CALA) and United States Environmental Protection Agency (USEPA).
- The Contractor must participate in, at its own expense, relevant Quality Assurance programs and proficiency tests to maintain accreditation. The Contractor must reveal to the Project Authority all the results, quality records, reports and correspondences in connection with the studies upon request and at no cost to the Project Authority. If any accreditation is revoked the Contractor must advise the Project Authority immediately.
- Prior to initial analysis, all proposed methodologies are to be provided to the Project Authority in order to obtain Valid Method Variable (VMV) codes. VMV codes are used by ECCC to ensure consistent use and tracking of variable name, method name, reporting unit and method detection limit.
- Proposed method changes by the Contractor during the duration of the contract must be discussed with the Project Authority. A comparison study of the existing method and proposed new methods may be requested, by the Project Authority, to demonstrate that the two methods are comparable. In addition, information on the new method must be provided so that appropriate VMV codes can be assigned.
- Method blanks, spiked blanks, and laboratory replicate analyses will be conducted as part of the Contractor's QA/QC program and are not considered as samples submitted.
- Samples must be analysed in a batch system, with each batch consisting of a matrix blank, a spiked matrix sample and no more than 21 samples. Blank corrections or blank subtractions must not be used.

d) Results and reporting

- Quality records will be maintained to demonstrate conformance to specified requirements and the effective operation of the quality system of the Contractor. All records will be legible and stored such that they are readily retrievable in facilities that provide a suitable environment to prevent damage or deterioration and to prevent loss.



- All raw data and pertinent internal quality control data will be made available for evaluation by the Project Authority or an alternative representative for an agreed period, and all such records must be archived for a minimum of 3 years. (Quality records may be in the form of any type of media, such as hard copy or electronic media, and may include raw data, control charts and chromatograms).
- The analytical services will include the submission of reports of the analytical results from all analyses to ECCC (as outlined in “Section 4.0 Deliverables”).

4.0 Deliverables

- a) The Contractor must submit, **within 6 weeks** following receipt of samples, a report including the **analyte concentration** in each sample and the **minimum detectable concentration** of each analyte (detection limit). Analyte mass may be reported in **nano or pico grams** depending on the particular analyte.
- b) All analytical data reports/certificates of analysis **must include pertinent QA/QC data** and must be approved and certified by authorized personnel of the Contractor prior to release to the Project Authority.
- c) Results must be **delivered via email** in both a **standard analytical report/certificate of analysis format (PDF preferred)**, and also in a **specific electronic transfer file** (xlsx, csv or txt) for upload into the relevant ECCC database, as described below and in Table 2, to the satisfaction of the Project Authority. The report (PDF) and data file must be received at the same time. There will be no extra charge to ECCC for formatting and delivery of results.
 - i. The transfer file must be provided with the required fields in Table 2 and must remain consistent. Unused (empty) fields are still to be included in all transfer files. The transfer file must include sample result data, and also batch blank results.
 - ii. A separate lab blank file must be produced, if required, in addition to the electronic transfer file. The lab blank file must include at minimum lab blank batch ID, lab blank results, lab blank detection limits and flags.
 - iii. Any media or data errors or any logical inconsistencies detected in the transfer files will cause some or all of the data set to be rejected. In that case the Contractor will be required to correct and resubmit the data. Rejection may occur at the parameter, package, sample or batch level, depending on the nature of the error. In any case, each data file containing one error or more will have to be resubmitted by the Contractor
 - iv. A trial run of transfer file upload should be made well in advance of delivery of the first data files, to become familiar with transfer procedures and requirements and ensure compatibility.

Table 2. Electronic transfer file requirements

Field	Example	Definition
Lab Code	123	Code identifying each analytical lab; provided by ECCC

Client ID	BRN17	Sample ID. Provided by ECCC upon sample submission
Submitter ID	JSmith	Name of sampler/submitter. Provided by ECCC upon sample submission
VMV Code	108001	Code identifying unique variable+method combination; provided by ECCC or created with Contractor as needed
Detection Limit	9.74	Sample Detection Limit
Flag		"<" flag, if applicable
Result	24.2	
Unit	ng/L	Unit of measurement
Analysis Date	2017.12.21	Date of sample extraction
Station	BC08NH0059	Code indicating sample site. Provided by ECCC upon sample submission
Sample Date	2017.11.21	Provided by ECCC upon sample submission
Sample Time	16:32	Provided by ECCC upon sample submission
Time Zone	PDT	Provided by ECCC upon sample submission
Lab ID	J2470-1	Sample ID given by lab
Method	EPA1631e	Brief method title, reference or description
Receipt Date	2017.12.12	Date sample was received by lab
Batch ID	B62331	Analytical batch number/ID
Run Date	2017.12.24	Date of sample instrument run
Received Temperature	0.5	Degrees Celsius
Lab QA Flag	C	Lab-specific QA flag(s) or qualifiers applied to data, if applicable
Sample Matrix Code	water	Sample matrix
Sample Type Code	1	ECCC Sample Type Code. Provided by ECCC upon sample submission
Collection Code	14	ECCC Collection Code. Provided by ECCC upon sample submission
Project Number	PYGB06	ECCC Project Code. Provided by ECCC upon sample submission
Lab blank batch ID		Lab blank batch number/ID
Lab blank flag	B	Lab-specific QA flag(s) or qualifiers applied to lab blank batch data
Lab blank result (ng or pg/L)	1.22	
Reporting Limit (RL) in ng or pg/L	1	



- d) A **narrative** documenting any problems with the set of samples or data, including any corrective actions taken, resolutions, and explanation of any flagged data are to be reported.
- e) **Chain of custody** and sample submittal documentation is also to be provided electronically.
- f) If requested, **all proposed methodologies** are to be provided to the ECCC Project Authority in order to obtain Valid Method Variable (VMV) codes. VMV codes are used by ECCC to ensure consistent use and tracking of variable name, method name, reporting unit and method detection limit.
- g) **Proposed method changes** by the contractor during the duration of the contract should be discussed with the ECCC Scientific Authority. A comparison study of the existing method and proposed new methods should be provided to demonstrate that the two methods are comparable. In addition, information on the new method should be provided so that appropriate VMV codes can be assigned

6.0 Official Languages

English will be the language or preference for correspondences under this contract.

Note: The department is under the obligation to respect the spirit and the letter of the Official Languages Act R.S.1985,C.31 (4th Suppl.). It is therefore imperative that the Contractor when representing the Crown ensures that verbal communications are in the preferred official language of the participants. Written communications will be in the language(s) of the participants and must be submitted to the Project Authority before they are issued. If participants are required to communicate by telephone with the Contractor or his/her representatives, the Contractor must ensure that all persons, including receptionists and other contacts who will be receiving these calls, are bilingual.

7.0 Work Location

The work will take place at the Contractor's facilities. There is no requirement for any work to occur at any ECCC facilities. Any required meetings will be conducted virtually or by telephone.

ANNEX 1

Table A1. Legacy and current use pesticide analytes by HRMS detection limits required for each.

Matrix	Water	Sediment	Tissue
Analyte	Typical Sample Detection Limit (SDL)		
	ng/L based on 1L sample	ng/g based on 5g sample	ng/g based on 5g sample
TECNAZENE	0.1	0.07	0.05
HEXACHLOROBENZENE (HCB)	0.03	0.01	0.01
QUINTOZENE	0.1	0.06	0.04
HEPTACHLOR	0.02	0.02	0.02
HCH, ALPHA	0.03	0.01	0.02
HCH, GAMMA	0.04	0.01	0.03
HCH, BETA	0.04	0.01	0.03
HCH, DELTA	0.03	0.01	0.03
CHLOROTHALONIL	0.1	0.02	0.04
ALDRIN	0.04	0.01	0.02
DACTHAL	0.1	0.04	0.04
OCTACHLOROSTYRENE	0.06	0.01	0.02
OXYCHLORDANE	0.06	0.01	0.2
HEPTACHLOR-EPOXIDE	0.05	0.01	0.08
T-CHLORDANE	0.05	0.01	0.1
C-CHLORDANE	0.05	0.01	0.1
T-NONACHLOR	0.06	0.01	0.1
C-NONACHLOR	0.04	0.01	0.06
ALPHA-ENDOSULPHAN	0.5	0.1	0.4
BETA-ENDOSULPHAN	0.4	0.1	0.3
DIELDRIN	0.03	0.01	0.05
2,4'-DDD	0.1	0.01	0.1
4,4'-DDD	0.1	0.01	0.1
2,4'-DDE	0.1	0.01	0.2
4,4'-DDE	0.2	0.01	0.2
2,4'-DDT	0.2	0.02	0.1
4,4'-DDT	0.1	0.01	0.1
CAPTAN	0.6	0.2	0.6
PERTHANE	0.8	0.1	0.5
ENDRIN	0.04	0.01	0.04
ENDOSULPHAN-SULPHATE	0.1	0.02	0.3
MIREX	0.02	0.02	0.01
METHOXYCHLOR	0.2	0.03	0.6
ENDRIN-KETONE	0.1	0.03	0.1
SIMAZINE	0.5	0.3	0.5
ATRAZINE	1	0.4	0.9
AMETRYN	0.1	0.1	0.05
DESETHYLATRAZINE	0.1	0.1	0.1
METRIBUZIN	0.4	0.1	0.5
CYANAZINE	2	0.4	1
HEXAZINONE	0.5	0.1	0.4
PHORATE	0.3	0.1	0.5



TERBUFOS	0.2	0.1	0.2
DIAZINON-OXON	0.6	0.3	0.7
DIAZINON	0.5	0.1	0.4
DISULFOTON	0.6	0.1	0.8
FONOFOS	0.1	0.1	0.04
DIMETHOATE	5	0.4	6.0
CHLORPYRIPHOS-METHYL	0.1	0.1	0.04
PARATHION-METHYL	3	0.3	3.0
PIRIMIPHOS-METHYL	0.1	0.1	0.08
CHLORPYRIPHOS	0.1	0.1	0.08
FENITROTHION	0.3	0.1	0.2
MALATHION	1	0.5	2.0
PARATHION-ETHYL	0.5	0.1	0.4
CHLORPYRIPHOS-OXON	0.2	0.1	0.2
DISULFOTON SULFONE	0.1	0.1	0.1
ETHION	0.2	0.1	0.1
PHOSMET	0.3	0.1	0.3
AZINPHOS-METHYL	0.8	0.1	2.0
TOTAL-PERMETHRINS	0.2	0.1	0.4
TOTAL-CYPERMETHRINS	0.7	0.3	2.0
ALACHLOR	0.2	0.1	0.3
BUTRALIN	1	0.4	1.6
BUTYLATE	0.1	0.1	0.1
DIMETHENAMID	0.1	0.1	0.1
ETHALFLURALIN	0.2	0.1	0.4
FLUFENACET	0.2	0.1	0.8
FLUTRIAFOL	1	0.1	1.2
LINURON	2	0.3	2.5
METHOPRENE	7	4	20.8
METOLACHLOR	0.5	0.4	0.6
PENDIMETHALIN	1	0.2	1.7
TEBUCONAZOL	0.8	0.1	0.6
TRIALATE	0.1	0.1	0.2
TRIFLURALIN	0.1	0.1	0.1

Table A2. PCB analytes by HRMS method USEPA 1668C and detection limits required for each.

Matrix	Water	Sediment	Tissue
Analyte	Typical Sample Detection Limit (SDL)		
	pg/L based on 1L sample	pg/g based on 10g sample	pg/g based on 10g sample
CL1-PCB1	1	0.1	0.1
CL1-PCB2	1	0.1	0.1
CL1-PCB3	1	0.1	0.1
CL2-PCB4	2	0.2	0.2
CL2-PCB5	2	0.2	0.2
CL2-PCB6	2	0.2	0.2
CL2-PCB7	2	0.2	0.2

CL2-PCB8	2	0.2	0.2
CL2-PCB9	2	0.2	0.2
CL2-PCB10	2	0.2	0.2
CL2-PCB11	2	0.2	0.2
CL2-PCB12/13	2	0.2	0.2
CL2-PCB14	2	0.2	0.2
CL2-PCB15	2	0.2	0.2
CL3-PCB16	1	0.1	0.1
CL3-PCB17	1	0.1	0.1
CL3-PCB19	1	0.1	0.1
CL3-PCB21/33	1	0.1	0.1
CL3-PCB22	1	0.1	0.1
CL3-PCB23	1	0.1	0.1
CL3-PCB24	1	0.1	0.1
CL3-PCB25	1	0.1	0.1
CL3-PCB26/29	1	0.1	0.1
CL3-PCB27	1	0.1	0.1
CL3-PCB28/20	1	0.1	0.1
CL3-PCB30/18	1	0.1	0.1
CL3-PCB31	1	0.1	0.1
CL3-PCB32	1	0.1	0.1
CL3-PCB34	1	0.1	0.1
CL3-PCB35	1	0.1	0.1
CL3-PCB36	1	0.1	0.1
CL3-PCB37	1	0.1	0.1
CL3-PCB38	1	0.1	0.1
CL3-PCB39	1	0.1	0.1
CL4-PCB41/40/71	1	0.1	0.1
CL4-PCB42	1	0.1	0.1
CL4-PCB43	1	0.1	0.1
CL4-PCB44/47/65	1	0.1	0.1
CL4-PCB45/51	1	0.1	0.1
CL4-PCB46	1	0.1	0.1
CL4-PCB48	1	0.1	0.1
CL4-PCB50/53	1	0.1	0.1
CL4-PCB52	1	0.1	0.1
CL4-PCB54	1	0.1	0.1
CL4-PCB55	1	0.1	0.1
CL4-PCB56	1	0.1	0.1
CL4-PCB57	1	0.1	0.1
CL4-PCB58	1	0.1	0.1
CL4-PCB59/62/75	1	0.1	0.1
CL4-PCB60	1	0.1	0.1
CL4-PCB61/70/74/76	1	0.1	0.1
CL4-PCB63	1	0.1	0.1
CL4-PCB64	1	0.1	0.1
CL4-PCB66	1	0.1	0.1
CL4-PCB67	1	0.1	0.1
CL4-PCB68	1	0.1	0.1



CL4-PCB69/49	1	0.1	0.1
CL4-PCB72	1	0.1	0.1
CL4-PCB73	1	0.1	0.1
CL4-PCB77	1	0.1	0.1
CL4-PCB78	1	0.1	0.1
CL4-PCB79	1	0.1	0.1
CL4-PCB80	1	0.1	0.1
CL4-PCB81	1	0.1	0.1
CL5-PCB82	1	0.1	0.1
CL5-PCB83/99	1	0.1	0.1
CL5-PCB84	1	0.1	0.1
CL5-PCB88/91	1	0.1	0.1
CL5-PCB89	1	0.1	0.1
CL5-PCB92	1	0.1	0.1
CL5-PCB94	1	0.1	0.1
CL5-PCB95/100/93/102/98	1	0.1	0.1
CL5-PCB96	1	0.1	0.1
CL5-PCB103	1	0.1	0.1
CL5-PCB104	1	0.1	0.1
CL5-PCB105	1	0.1	0.1
CL5-PCB106	1	0.1	0.1
CL5-PCB107/124	1	0.1	0.1
CL5-PCB108/119/86/97/125/87	1	0.1	0.1
CL5-PCB109	1	0.1	0.1
CL5-PCB110/115	1	0.1	0.1
CL5-PCB111	1	0.1	0.1
CL5-PCB112	1	0.1	0.1
CL5-PCB113/90/101	1	0.1	0.1
CL5-PCB114	1	0.1	0.1
CL5-PCB117/116/85	1	0.1	0.1
CL5-PCB118	1	0.1	0.1
CL5-PCB120	1	0.1	0.1
CL5-PCB121	1	0.1	0.1
CL5-PCB122	1	0.1	0.1
CL5-PCB123	1	0.1	0.1
CL5-PCB126	1	0.1	0.1
CL5-PCB127	1	0.1	0.1
CL6-PCB128/166	1	0.1	0.1
CL6-PCB130	1	0.1	0.1
CL6-PCB131	1	0.1	0.1
CL6-PCB132	1	0.1	0.1
CL6-PCB133	1	0.1	0.1
CL6-PCB134/143	1	0.1	0.1
CL6-PCB136	1	0.1	0.1
CL6-PCB137	1	0.1	0.1
CL6-PCB138/163/129/160	1	0.1	0.1
CL6-PCB139/140	1	0.1	0.1
CL6-PCB141	1	0.1	0.1
CL6-PCB142	1	0.1	0.1

CL6-PCB144	1	0.1	0.1
CL6-PCB145	1	0.1	0.1
CL6-PCB146	1	0.1	0.1
CL6-PCB147/149	1	0.1	0.1
CL6-PCB148	1	0.1	0.1
CL6-PCB150	1	0.1	0.1
CL6-PCB151/135/154	1	0.1	0.1
CL6-PCB152	1	0.1	0.1
CL6-PCB153/168	1	0.1	0.1
CL6-PCB155	1	0.1	0.1
CL6-PCB156/157	1	0.1	0.1
CL6-PCB158	1	0.1	0.1
CL6-PCB159	1	0.1	0.1
CL6-PCB161	1	0.1	0.1
CL6-PCB162	1	0.1	0.1
CL6-PCB164	1	0.1	0.1
CL6-PCB165	1	0.1	0.1
CL6-PCB167	1	0.1	0.1
CL6-PCB169	1	0.1	0.1
CL7-PCB170	1	0.1	0.1
CL7-PCB171/173	1	0.1	0.1
CL7-PCB172	1	0.1	0.1
CL7-PCB174	1	0.1	0.1
CL7-PCB175	1	0.1	0.1
CL7-PCB176	1	0.1	0.1
CL7-PCB177	1	0.1	0.1
CL7-PCB-178	1	0.1	0.1
CL7-PCB-179	1	0.1	0.1
CL7-PCB180/93	1	0.1	0.1
CL7-PCB181	1	0.1	0.1
CL7-PCB182	1	0.1	0.1
CL7-PCB183/185	1	0.1	0.1
CL7-PCB184	1	0.1	0.1
CL7-PCB186	1	0.1	0.1
CL7-PCB187	1	0.1	0.1
CL7-PCB188	1	0.1	0.1
CL7-PCB189	1	0.1	0.1
CL7-PCB190	1	0.1	0.1
CL7-PCB191	1	0.1	0.1
CL7-PCB192	1	0.1	0.1
CL8-PCB194	1	0.1	0.1
CL8-PCB195	1	0.1	0.1
CL8-PCB196	1	0.1	0.1
CL8-PCB197/200	1	0.1	0.1
CL8-PCB198/199	1	0.1	0.1
CL8-PCB201	1	0.1	0.1
CL8-PCB202	1	0.1	0.1
CL8-PCB203	1	0.1	0.1
CL8-PCB204	1	0.1	0.1



CL8-PCB205	1	0.1	0.1
CL9-PCB206	1	0.1	0.1
CL9-PCB207	1	0.1	0.1
CL9-PCB208	1	0.1	0.1
CL10-PCB209	1	0.1	0.1

Table A3. PBDE analytes by HRMS method USEPA 1614 and detection limits required for each.

Matrix	Water	Sediment	Tissue
Analyte	Typical Sample Detection Limit (SDL)		
	pg/L based on 1L sample	pg/g based on 10g sample	pg/g based on 10g sample
BR2-DPE-7	10	1	1
BR2-DPE-8/11	10	1	1
BR2-DPE-10	10	1	1
BR2-DPE-12/13	10	1	1
BR2-DPE-15	10	1	1
BR3-DPE-17/25	10	1	1
BR3-DPE-28/33	10	1	1
BR3-DPE-30	10	1	1
BR3-DPE-32	10	1	1
BR3-DPE-35	10	1	1
BR3-DPE-37	10	1	1
BR4-DPE-47	10	1	1
BR4-DPE-49	10	1	1
BR4-DPE-51	10	1	1
BR4-DPE-66	10	1	1
BR4-DPE-71	10	1	1
BR4-DPE-75	10	1	1
BR4-DPE-77	10	1	1
BR4-DPE-79	10	1	1
BR5-DPE-85	10	1	1
BR5-DPE-99	10	1	1
BR5-DPE-100	10	1	1
BR5-DPE-105	10	1	1
BR5-DPE-116	10	1	1
BR5-DPE-119/120	10	1	1
BR5-DPE-126	10	1	1
BR6-DPE-128	10	1	1
BR6-DPE-138/166	10	1	1
BR6-DPE-140	10	1	1
BR6-DPE-153	10	1	1
BR6-DPE-154	10	1	1
BR6-DPE-155	10	1	1
BR7-DPE-181	20	2	2
BR7-DPE-183	20	2	2
BR7-DPE-190	20	2	2
BR7-DPE-203	20	2	2
BR7-DPE-206	100	10	10

BR7-DPE-207	100	10	10
BR7-DPE-208	100	10	10
BR7-DPE-209	200	20	20

Table A4. Dioxins and Furans analytes by HRMS and detection limits required for each.

Matrix	Water	Sediment	Tissue
Analyte	Typical Sample Detection Limit (SDL)		
	pg/L based on 1L sample	pg/g based on 10g sample	pg/g based on 10g sample
2,3,7,8-TCDD	0.5	0.05	0.05
1,2,3,7,8-PECDD	0.5	0.05	0.05
1,2,3,4,7,8-HXCDD	0.5	0.05	0.05
1,2,3,6,7,8-HXCDD	0.5	0.05	0.05
1,2,3,7,8,9-HXCDD	0.5	0.05	0.05
1,2,3,4,6,7,8-HPCDD	0.5	0.05	0.05
OCDD	0.5	0.05	0.05
2,3,7,8-TCDF	0.5	0.05	0.05
1,2,3,7,8-PECDF	0.5	0.05	0.05
2,3,4,7,8-PECDF	0.5	0.05	0.05
1,2,3,4,7,8-HXCDF	0.5	0.05	0.05
1,2,3,6,7,8-HXCDF	0.5	0.05	0.05
1,2,3,7,8,9-HXCDF	0.5	0.05	0.05
2,3,4,6,7,8-HXCDF	0.5	0.05	0.05
1,2,3,4,6,7,8-HPCDF	0.5	0.05	0.05
1,2,3,4,7,8,9-HPCDF	0.5	0.05	0.05
OCDF	0.5	0.05	0.05

Table A5. PFAS analytes by LC-MS/MS and reporting limits required for each.

Matrix	Water	Sediment	Tissue
Analyte	RL based on low calibration standard		
	ng/L based on 0.5L sample	ng/g based on 5g sample	ng/g based on 2 g sample
Perfluorobutanoate (PFBA)	1.6	0.16	0.4
Perfluoropentanoate (PFPeA)	0.8	0.08	0.2
Perfluoroheptanoate (PFHxA)	0.4	0.04	0.1
Perfluoroheptanoate (PFHpA)	0.4	0.04	0.1
Perfluorooctanoate (PFOA)	0.4	0.04	0.1
Perfluorononanoate (PFNA)	0.4	0.04	0.1
Perfluorodecanoate (PFDA)	0.4	0.04	0.1
Perfluoroundecanoate (PFUnA)	0.4	0.04	0.1
Perfluorododecanoate (PFDoA)	0.4	0.04	0.1
Perfluorotridecanoate (PFTTrDA)	0.4	0.04	0.1
Perfluorotetradecanoate (PFTTeDA)	0.4	0.04	0.1
Perfluorobutanesulfonate (PFBS)	0.4	0.04	0.1
Perfluoropentanesulfonate (PFPeS)	0.4	0.04	0.1



Perfluorohexanesulfonate (PFHxS)	0.4	0.04	0.1
Perfluoroheptanesulfonate (PFHpS)	0.4	0.04	0.1
Perfluorooctanesulfonate (PFOS)	0.4	0.04	0.1
Perfluorononanesulfonate (PFNS)	0.4	0.04	0.1
Perfluorodecanesulfonate (PFDS)	0.4	0.04	0.1
Perfluorododecanesulfonate (PFDoS)	0.4	0.04	0.1
4:2 fluorotelomersulfonate (4:2 FTS)	1.6	0.16	0.4
6:2 fluorotelomersulfonate (6:2 FTS)	1.6	0.16	0.4
8:2 fluorotelomersulfonate (8:2 FTS)	1.6	0.16	0.4
N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	0.4	0.04	0.1
N-Methylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	0.4	0.04	0.1
Perfluorooctanesulfonamide (PFOSA), a.k.a FOSA	0.4	0.04	0.1
N-Methylperfluorooctanesulfonamide (N-MeFOSA)	0.4	0.04	0.1
N-Ethylperfluorooctanesulfonamide (N-EtFOSA)	0.4	0.04	0.1
N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	4	0.4	1.0
N-Ethylperfluorooctanesulfonamidoethanol (N-EtFOSE)	4	0.4	1.0
Perfluoro-2-propoxypropanoate (HFPO-DA)	1.6	0.16	0.4
4-dioxa-3H-perfluorononanoate (ADONA)	1.6	0.16	0.4
9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	1.6	0.16	0.4
11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	1.6	0.16	0.4
3:3 perfluorohexanoic acid (3:3 FTCA)	1.6	0.16	0.4
5:3 perfluorooctanoic acid (5:3 FTCA)	10	1	2.5
7:3 perfluorodecanoic acid (7:3 FTCA)	10	1	2.5
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	0.4	0.04	0.1
Perfluoro-4-methoxybutanoate (PFMBA)	0.4	0.04	0.1
Perfluoro-3-methoxypropanoate (PFMPA)	0.8	0.08	0.2
Perfluoro-3,6-dioxaheptanoate (NFDHA)	0.8	0.08	0.2

Table A6. PAH analytes by LR-GC/MS detection limits required for each.

Matrix	Water	Sediment	Tissue
Analyte	Typical Sample Detection Limit (SDL)		
	ng/L based on 1L sample	ng/g based on 10g dry weight sample	ng/g based on 10g sample
Naphthalene	1.0	0.5	0.1
Acenaphthylene	1.0	0.5	0.1
Acenaphthene	1.0	0.5	0.1
Fluorene	1.0	0.5	0.1
Phenanthrene	1.0	0.5	0.1
Anthracene	1.0	0.5	0.1
Fluoranthene	1.0	0.5	0.1
Pyrene	1.0	0.5	0.1
Benz(a)anthracene	1.0	0.5	0.1

Chrysene	1.0	0.5	0.1
Benzo(b)fluoranthene	1.0	0.5	0.1
Benzo(j/k)fluoranthene	1.0	0.5	0.1
Benzo(e)pyrene	1.0	0.5	0.1
Benzo(a)pyrene	2.0	1.0	0.2
Perylene	2.0	1.0	0.2
Dibenzo(ah)anthracene	2.0	1.0	0.2
Indeno(1,2,3-cd)pyrene	2.0	1.0	0.2
Benzo(ghi)perylene	2.0	1.0	0.2
2-Methylnaphthalene ¹	2.0	1.0	0.2
2,6-Dimethylnaphthalene ¹	2.0	1.0	0.2
2,3,5-Trimethylnaphthalene ¹	2.0	1.0	0.2
1-Methylphenanthrene	2.0	1.0	0.2
Dibenzothiophene	1.0	0.5	0.1
1-Methylnaphthalene	2.0	1.0	0.2
C1-Naphthalenes	2.0	1.0	0.2
1,2-Dimethylnaphthalene	2.0	1.0	0.2
C2-Naphthalenes	2.0	1.0	0.2
2,3,6-Trimethylnaphthalene ¹	2.0	1.0	0.2
C3-Naphthalenes ¹	2.0	1.0	0.2
1,4,6,7-Tetramethylnaphthalene ¹	2.0	1.0	0.2
C4-Naphthalenes ¹	2.0	1.0	0.2
2-Methylphenanthrene	2.0	1.0	0.2
3-Methylphenanthrene	2.0	1.0	0.2
9/4-Methylphenanthrenes	2.0	1.0	0.2
2-Methylantracene	2.0	1.0	0.2
C1-Phenanthrenes/Anthracenes	2.0	1.0	0.2
1,7-Dimethylphenanthrene	2.0	1.0	0.2
1,8-Dimethylphenanthrene	2.0	1.0	0.2
2,6-Dimethylphenanthrene	2.0	1.0	0.2
3,6-Dimethylphenanthrene	2.0	1.0	0.2
C2-Phenanthrenes/Anthracenes	2.0	1.0	0.2
1,2,6-Trimethylphenanthrene	2.0	1.0	0.2
C3-Phenanthrenes/Anthracenes	2.0	1.0	0.2
Retene	2.0	1.0	0.2
C4-Phenanthrenes/Anthracenes	2.0	1.0	0.2
Biphenyl	2.0	1.0	0.2
C1-Biphenyls	2.0	1.0	0.2
C2-Biphenyls	2.0	1.0	0.2
C1-Acenaphthenes	1.0	0.5	0.2
2-Methylfluorene	2.0	1.0	0.2
C1-Fluorenes	2.0	1.0	0.2
1,7-Dimethylfluorene	2.0	1.0	0.2
C2-Fluorenes	2.0	1.0	0.2
C3-Fluorenes	2.0	1.0	0.2
2/3-Methyldibenzothiophenes	2.0	1.0	0.2
C1-Dibenzothiophene	2.0	1.0	0.2
2,4-Dimethyldibenzothiophene	2.0	1.0	0.2
C2-Dibenzothiophene	2.0	1.0	0.2



C3-Dibenzothiophene	2.0	1.0	0.2
C4-Dibenzothiophene	2.0	1.0	0.2
3-Methylfluoranthene/Benzo(a)fluorene	2.0	1.0	0.2
C1-Fluoranthenes/Pyrenes	2.0	1.0	0.2
C2-Fluoranthenes/Pyrenes	2.0	1.0	0.2
C3-Fluoranthenes/Pyrenes	2.0	1.0	0.2
C4-Fluoranthenes/Pyrenes	2.0	1.0	0.2
1-Methylchrysene	2.0	1.0	0.2
5/6-Methylchrysenes	2.0	1.0	0.2
C1-Benz(a)anthracenes/Chrysenes	2.0	1.0	0.2
5,9-Dimethylchrysene	2.0	1.0	0.2
C2-Benz(a)anthracenes/Chrysenes	2.0	1.0	0.2
C3-Benz(a)anthracenes/Chrysenes	2.0	1.0	0.2
C4-Benz(a)anthracenes/Chrysenes	2.0	1.0	0.2
7-Methylbenzo(a)pyrene	2.0	1.0	0.2
C1-Benzofluoranthenes/Benzopyrenes	2.0	1.0	0.2
C2-Benzofluoranthenes/Benzopyrenes	2.0	1.0	0.2

Table A7. PPCP analytes by LC-MS/MS and reporting limits required for each.

Matrix	Water	Sediment	Tissue
Analyte	RL based on low calibration standard		
	ng/L based on 0.5 L sample	ng/g based on 0.5 (dry) g, but not more than 2.5 g wet sample	ng/g based on 1.25 (wet) g for acid extractions and based on 0.5 (wet) g for basic extractions (italicized)
Acetaminophen	15	15	6
Azithromycin	1.5	1.5	0.6
Caffeine	15	15	6
Carbadox	1.5	1.5	0.6
Carbamazepine	1.5	1.5	0.6
Cefotaxime	6	6	2.4
Ciprofloxacin	6	6	2.4
Clarithromycin	1.5	1.5	0.6
Clinafloxacin	6	6	2.4
Cloxacillin	3	3	1.2
Dehydronifedipine	0.6	0.6	0.24
Digoxigenin	6	6	2.4
Digoxin	6	6	2.4
Diltiazem	0.3	0.3	0.12
1,7-Dimethylxanthine	60	60	24
Diphenhydramine	0.6	0.6	0.24
Enrofloxacin	3	3	1.2
Erythromycin-H2O	0.3	0.3	0.12
Flumequine	1.5	1.5	0.6
Fluoxetine	1.5	1.5	0.6
Lincomycin	3	3	1.2

Lomefloxacin	3	3	1.2
Miconazole	1.5	1.5	0.6
Norfloxacin	15	15	6
Norgestimate	3	3	1.2
Ofloxacin	1.5	1.5	0.6
Ormetoprim	0.6	0.6	0.24
Oxacillin	3	3	1.2
Oxolinic acid	0.6	0.6	0.24
Penicillin G	3	3	1.2
Penicillin V	3	3	1.2
Roxithromycin	0.3	0.3	0.12
Sarafloxacin	15	15	6
Sulfachloropyridazine	1.5	1.5	0.6
Sulfadiazine	1.5	1.5	0.6
Sulfadimethoxine	0.3	0.3	0.12
Sulfamerazine	0.6	0.6	0.24
Sulfamethazine	0.6	0.6	0.24
Sulfamethizole	0.6	0.6	0.24
Sulfamethoxazole	0.6	0.6	0.24
Sulfanilamide	15	15	6
Sulfathiazole	1.5	1.5	0.6
Thiabendazole	1.5	1.5	0.6
Trimethoprim	1.5	1.5	0.6
Tylosin	6	6	2.4
Virginiamycin	3	3	1.2
Anhydrochlortetracycline	15	not available for soils/sediments	6.0
Anhydrotetracycline	15	not available for soils/sediments	6.0
Chlortetracycline	6	not available for soils/sediments	2.4
Demeclocycline	15	not available for soils/sediments	6.0
Doxycycline	6	not available for soils/sediments	2.4
4-Epianhydrochlortetracycline	60	not available for soils/sediments	24.0
4-Epianhydrotetracycline	15	not available for soils/sediments	6.0
4-Epichlortetracycline	15	not available for soils/sediments	6.0
4-Epioxytetracycline	6	not available for soils/sediments	2.4
4-Epitetracycline	6	not available for soils/sediments	2.4
Isochlortetracycline	6	not available for soils/sediments	2.4
Minocycline	60	not available for soils/sediments	24.0



Oxytetracycline	6	not available for soils/sediments	2.4
Tetracycline	6	not available for soils/sediments	2.4
Bisphenol A	6	6	2.4
Furosemide	4	4	1.6
Gemfibrozil	0.8	0.8	0.32
Glipizide	0.8	0.8	0.32
Glyburide	0.8	0.8	0.32
Hydrochlorothiazide	16	16	6.4
2-hydroxy-ibuprofen	4	4	1.6
Ibuprofen	4	4	1.6
Naproxen	2	2	0.8
Triclocarban	0.4	0.4	0.16
Triclosan	6	6	2.4
Warfarin	0.4	0.4	0.16
Albuterol	0.3	0.3	0.3
Amphetamine	1.5	1.5	1.5
Atenolol	0.6	0.6	0.6
Atorvastatin	1.5	1.5	1.5
Cimetidine	0.6	0.6	0.6
Clonidine	1.5	1.5	1.5
Codeine	3	3	3
Cotinine	1.5	1.5	1.5
Enalapril	0.3	0.3	0.3
Hydrocodone	1.5	1.5	1.5
Metformin	3	3	3
Oxycodone	0.6	0.6	0.6
Ranitidine	0.6	0.6	0.6
Triamterene	0.3	0.3	0.3
Alprazolam	0.3	0.3	0.12
Amitriptyline	0.3	0.3	0.12
Amlodipine	1.5	1.5	0.6
Benzoyllecgonine	0.3	0.3	0.12
Benzotropine	0.3	0.3	0.12
Betamethasone	1.5	1.5	0.6
Cocaine	0.15	0.15	0.06
DEET	0.6	0.6	0.24
Desmethyldiltiazem	0.15	0.15	0.06
Diazepam	0.3	0.3	0.12
Fluocinonide	6	6	2.4
Fluticasone propionate	2	2	0.8
Hydrocortisone	60	60	24
10-hydroxy-amitriptyline	0.15	0.15	0.06
Meprobamate	4	4	1.6
Methylprednisolone	4	4	1.6
Metoprolol	1.5	1.5	0.6
Norfluoxetine	1.5	1.5	0.6
Norverapamil	0.15	0.15	0.06

Paroxetine	4	4	1.6
Prednisolone	6	6	2.4
Prednisone	20	20	8
Promethazine	0.4	0.4	0.16
Propoxyphene	0.3	0.3	0.12
Propranolol	2	2	0.8
Sertraline	0.4	0.4	0.16
Simvastatin	20	20	8
Theophylline	60	60	24
Trenbolone	4	4	1.6
Trenbolone acetate	0.3	0.3	0.12
Valsartan	4	4	1.6
Verapamil	0.15	0.15	0.06
Amsacrine	0.08	0.08	0.032
Azathioprine	2	2	0.8
Busulfan	4	4	1.6
Citalopram	0.4	0.4	0.16
Clotrimazole	0.4	0.4	0.16
Colchicine	0.8	0.8	0.32
Cyclophosphamide	0.8	0.8	0.32
Daunorubicin	8	8	3.2
Diatrizoic acid	24	24	9.6
Doxorubicin	24	24	9.6
Drospirenone	8	8	3.2
Etoposide	2	2	0.8
Iopamidol	80	80	32
Medroxyprogesterone acetate	4	4	1.6
Melphalan	24	24	9.6
Metronidazole	4	4	1.6
Moxifloxacin	4	4	1.6
Oxazepam	4	4	1.6
Rosuvastatin	4	4	1.6
Tamoxifen	0.4	0.4	0.16
Teniposide	4	4	1.6
Venlafaxine	0.4	0.4	0.16
Zidovudine	24	24	9.6

Table A8. Alkylphenols analytes by LR-GC/MS and detection limits required by each.

Matrix	Water	Sediment	Tissue
Analyte	Typical Sample Detection Limit (SDL)		
	ng/L based on 1L sample	ng/g based on 5g sample	ng/g based on 2g wet
Nonylphenol (NP)	10.0	5.0	5 - 50
4-Nonylphenol monoethoxylate (NP1EO)	50.0	25.0	5 - 50
4-Nonylphenol diethoxylate (NP2EO)	50.0	25.0	5 - 50
Octylphenol (OP)	50.0	25.0	5 - 50



Table A9. Bisphenols and required detection limits in nanograms.

Matrix	Water	Sediment
Analyte	RL based on low calibration standard	
	ng/L based on 0.2L sample	ng/g based on 1g sample
Bisphenol A	2.0	0.4
Bisphenol AF	2.0	0.4
Bisphenol B	2.0	0.4
Bisphenol E	5.0	1.0
Bisphenol F	5.0	1.01
Bisphenol S	1.3	0.25

Table A10. Glyphosate analytes by LC-MS/MS and required reporting limits for each.

Matrix	Water	Sediment	Tissue
Analyte	RL based on low calibration standard		
	ng/L based on 100 mL sample	ng/g based on 5g sample	
Glyphosate	10.0	25.0	NA
Glufosinate	10.0	25.0	NA
Aminomethyl Phosphonic Acid (AMPA)	10.0	25.0	NA

Table A11. Organophosphate Flame Retardants by LC-MS/MS and reporting limits required for each.

Matrix	Water	Sediment	Tissue
Analyte	RL based on low calibration standard		
	ng/L based on 0.5L sample	ng/g based on 10g (wet) sediment sample	
Triethyl phosphate (TEP)	0.1	0.005	NA
Tris(2-chloroethyl) phosphate (TCEP)	1.0	0.050	NA
Tripropyl phosphate (TPrP)	0.1	0.005	NA
Tris(2-chloroisopropyl) phosphate (TCPP)	0.5	0.025	NA
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	5.0	0.250	NA
Triphenyl phosphate (TPP)	0.5	0.025	NA
Tris(2,3-dibromopropyl) phosphate (TDBPP)	3.0	0.150	NA
Tributyl phosphate (TBP)	0.1	Up to 1.2	NA
Tricresyl phosphate (TCrP)	0.2	0.010	NA
2-Ethylhexyl-diphenyl phosphate (EHDPP)	5.0	0.250	NA
Tris(2-butoxyethyl) phosphate (TBEP)	20	Up to 18	NA
Tris(2-ethylhexyl) phosphate (TEHP)	0.2	0.010	NA
Tetrakis(2-chlorethyl)dichloroisopentyldiphosphate (V6)	0.5	0.025	NA

Table A12. Brominated and Chlorinated Flame Retardants using GC-(ECNI)-MS and detection limits required for each.

Matrix	Water	Sediment	Tissue
Analyte	Typical Sample Detection Limit (SDL)		
	ng/L based on 1L sample	ng/g based on 5 g with 1/2 split for an effective size of 2.5 g	ng/g based on 2.5g with 1/2 split for an effective size of 1.25 g
Dechlorane	0.4	0.16	0.32
DP Anti	0.4	0.16	0.32
DP Syn	0.2	0.08	0.16
Dec 602	0.1	0.05	0.10
Dec 603	0.1	0.05	0.10
Dec 604 Component A	8.0	3.20	6.40
HCDBCO	0.4	0.16	0.32
ATE	0.8	0.32	0.64
BATE	2.4	0.96	1.92
DPTE	4.8	1.92	3.84
BTBPE	10	4.00	8.00
BEHTBP	8.0	3.20	Not analyzed
EHTBB	4.0	1.60	3.20
Total TBECH	16	6.40	12.8
HBB	0.6	0.24	0.48
PBBZ	0.6	0.24	0.48
1,2,4,5-TBB	0.2	0.08	0.16
1,2,3,5-TBB	0.2	0.08	0.16
1,2,4-TriBB	6.0	2.40	4.80
1,2-DiBB	2.4	0.96	1.92
1,4-DiBB	4.8	1.92	3.84
PBT	0.4	0.16	0.32
PBEB	0.6	0.24	0.48
PBBB	30	12.0	24.0
pTBX	6.0	2.40	4.80
TBCT	0.6	0.24	0.48

Table A13. Acid extractable herbicides by GC/HRMS and detection limits required for each.

Matrix	Water	Sediment	Tissue
Analyte	Sample Detection Limit		
	ng/L based on 1L sample		
DICAMBA	0.5-1.0	NA	NA
MCPP	0.5-1.0	NA	NA
MCPA	0.5-1.0	NA	NA
DICHLORPROP	0.5-1.0	NA	NA
2,4-D	0.5-1.0	NA	NA
TRICLOPYR	0.5-1.0	NA	NA
2,4,5-TP	0.5-1.0	NA	NA
2,4,5-T	0.5-1.0	NA	NA
2,4-DB	0.5-1.0	NA	NA



DINOSEB	0.5-1.0	NA	NA
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Table A14. HBCDD analytes by LCMS and reporting limites required for each.

Matrix	Water	Sediment
Analyte	Required Detection Limit Water (1L sample)	Required Detection Limit Sediment (10g sample)
	ng/L	ng/g
ALPHA-HBCDD	NA	0.1
BETA-HBCDD	NA	0.1
GAMMA-HBCDD	NA	0.1

Table A15. Chlorinated alkanes (aka Polychlorinated paraffins) analytes by LCMSMS and reporting limits for each.

Matrix	Water	Sediment	Tissue
Analyte			RL based on Low Calibration Standard
		ng/g based on 10 g sample	ng/g based on 10g sample
Short-chain (C10 to C13)	NA	NA	0.1
C10Cl5	50	5	5
C10Cl6	15	1.5	1.5
C10Cl7	50	5	5
C10Cl8	30	3	3
C11Cl5	50	5	5
C11Cl6	50	5	5
C11Cl7	50	5	5
C11Cl8	30	3	3
C11Cl9	30	3	3
C12Cl5	50	5	5
C11Cl6	50	5	5
C11Cl7	50	5	5
C11Cl8	30	3	3
C11Cl9	30	3	3
C12Cl5	50	5	5
C12Cl6	50	5	5
C12Cl7	30	3	3
C12Cl8	30	3	3
C12Cl9	20	2	2
C12Cl10	10	1	1
C13Cl5	25	2.5	2.5
C13Cl6	20	2	2
C13Cl7	25	2.5	2.5
C13Cl8	50	5	5
C13Cl9	20	2	2
C13Cl10	20	2	2
Medium Chain (C14 to C17)	NA	NA	NA

C14C15	5	0.5	0.5
C14C16	15	1.5	1.5
C14C17	30	3	3
C14C18	30	3	3
C14C19	50	5	5
C14C110	10	1	1
C14C111	10	1	1
C15C15	10	1	1
C15C16	30	3	3
C15C17	35	3.5	3.5
C15C18	35	3.5	3.5
C15C19	15	1.5	1.5
C15C110	15	1.5	1.5
C15C111	15	1.5	1.5
C16C15	30	3	3
C16C16	100	10	10
C16C17	100	10	10
C16C18	30	3	3
C16C19	100	10	10
C16C110	20	2	2
C16C111	5	0.5	0.5
C17C15	10	1	1
C17C16	10	1	1
C17C17	20	2	2
C17C18	20	2	2
C17C19	50	5	5
C17C110	10	1	1
C17C111	5	0.5	0.5
Long Chain (C18 to C20)	NA	NA	NA
C18C15	20	2	2
C18C16	650	65	65
C18C17	130	13	13
C18C18	100	10	10
C18C19	50	5	5
C18C110	50	5	5
C19C15	200	20	20
C19C16	30	3	3
C19C17	50	5	5
C19C18	40	4	4
C19C19	20	2	2
C19C110	30	3	3
C20C15	60	6	6
C20C16	50	5	5
C20C17	30	3	3
C20C18	20	2	2
C20C19	20	2	2



ANNEX B
BASIS OF PAYMENT

(to be completed upon contract award)

ANNEX C
FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY – CERTIFICATION

I, the Bidder, by submitting the present information to the Contracting Authority, certify that the information provided is true as of the date indicated below. The certifications provided to Canada are subject to verification at all times. I understand that Canada will declare a bid non-responsive, or will declare a contractor in default, if a certification is found to be untrue, whether during the bid evaluation period or during the contract period. Canada will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply with any request or requirement imposed by Canada may render the bid non-responsive or constitute a default under the Contract.

For further information on the Federal Contractors Program for Employment Equity visit [Employment and Social Development Canada \(ESDC\) – Labour's](#) website.

Date: _____(YYYY/MM/DD)

Complete both A and B.

A. Check only one of the following:

- A1. The Bidder certifies having no work force in Canada.
- A2. The Bidder certifies being a public sector employer.
- A3. The Bidder certifies being a [federally regulated employer](#) being subject to the [Employment Equity Act](#).
- A4. The Bidder certifies having a combined work force in Canada of less than 100 employees (combined work force includes: permanent full-time, permanent part-time and temporary employees [temporary employees only includes those who have worked 12 weeks or more during a calendar year and who are not full-time students]).

A5. The Bidder has a combined workforce in Canada of 100 or more employees; and
 A5.1. The Bidder certifies already having a valid and current [Agreement to Implement Employment Equity](#) (AIEE) in place with ESDC-Labour.

OR

A5.2. The Bidder certifies having submitted the [Agreement to Implement Employment Equity \(LAB1168\)](#) to ESDC-Labour. As this is a condition to contract award, proceed to completing the form Agreement to Implement Employment Equity (LAB1168), duly signing it, and transmit it to ESDC-Labour.

B. Check only one of the following:

B1. The Bidder is not a Joint Venture.

OR

B2. The Bidder is a Joint venture and each member of the Joint Venture must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification. (Refer to the Joint Venture section of the Standard Instruction