

**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**  
**Bid Receiving Public Works and Government  
Services Canada/Réception des soumissions  
Travaux publics et Services gouvernementaux  
Canada**  
**800 Burrard Street, 12th Floor**  
**800, rue Burrard, 12e étage**  
**Vancouver, BC V6Z 2V8**  
**Bid Fax: (604) 775-7526**

## REQUEST FOR PROPOSAL DEMANDE DE PROPOSITION

**Proposal To: Public Works and Government  
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services  
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

**Comments - Commentaires**

<b>Title - Sujet</b> UHPLC-MS	
<b>Solicitation No. - N° de l'invitation</b> H4134-123265/B	<b>Date</b> 2013-01-03
<b>Client Reference No. - N° de référence du client</b> H4134-123265	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$VAN-532-6884	
<b>File No. - N° de dossier</b> VAN-2-35301 (532)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2013-02-13</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Pacific Standard Time PST
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Takasaki, Alan H.	<b>Buyer Id - Id de l'acheteur</b> van532
<b>Telephone No. - N° de téléphone</b> (604) 775-7605 ( )	<b>FAX No. - N° de FAX</b> (604) 775-7526
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> DEPARTMENT OF HEALTH WESTERN REGIONAL LABORATORY 3155 WILLINGDON GREEN BURNABY British Columbia V5G4P2 Canada	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

**Vendor/Firm Name and Address**

**Raison sociale et adresse du  
fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**

Public Works and Government Services Canada - Pacific  
Region  
800 Burrard Street, 12th Floor  
800, rue Burrard, 12e étage  
Vancouver, BC V6Z 2V8

<b>Delivery Required - Livraison exigée</b> See Herein	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

## TABLE OF CONTENTS

### PART 1 - GENERAL INFORMATION

1. Security Requirement
2. Requirement
3. Debriefings

### PART 2 - BIDDER INSTRUCTIONS

1. Standard Instructions, Clauses and Conditions
2. Submission of Bids
3. Enquiries - Bid Solicitation
4. Applicable Laws

### PART 3 - BID PREPARATION INSTRUCTIONS

1. Bid Preparation Instructions

### PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

1. Evaluation Procedures
2. Basis of Selection

### PART 5 - CERTIFICATIONS

1. Mandatory Certifications Required Precedent to Contract Award
2. Additional Certifications Precedent to Contract

### PART 6 - RESULTING CONTRACT CLAUSES

1. Security Requirement
2. Requirement
3. Standard Clauses and Conditions
4. Term of Contract
5. Authorities
6. Payment
7. Invoicing Instructions
8. Certifications
9. Applicable Laws
10. Priority of Documents
11. Insurance
12. Warranty
13. SACC Manual Clauses

#### List of Annexes:

Annex A	Requirement
Annex B	Basis of Payment
Annex C	Point Rated Technical

#### Forms

Form 1	BID SUBMISSION FORM
Form 2	Substantiation of Technical Compliance Form - Mandatory
Form 3	Substantiation of Technical Compliance Form - Point rated

## PART 1 - GENERAL INFORMATION

### 1. Security Requirement

There is no security requirement associated with the requirement.

### 2. Requirement

The requirement is detailed under Article 2 of the resulting contract clauses.

### 3. Debriefings

After contract award, 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

### 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 *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 (2012-11-19) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: sixty (60) days  
Insert: ninety (90) days

### 2. Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

### 3. Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than fourteen (14) 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

questions or may request that the Bidder do so, so that the proprietary nature of the question is eliminated, and the enquiry can be answered with copies to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

#### 4. 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.

### PART 3 - BID PREPARATION INSTRUCTIONS

#### 1. Bid Preparation Instructions

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

- Section I: Technical Bid ( 2 hard copies)
- Section II: Financial Bid ( 1 hard copy )
- Section III: Certifications ( 1 hard copy)

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:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process Policy on Green Procurement

(<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, bidders are encouraged to:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and/or containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

#### Section I: Technical Bid

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

The technical bid must 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.

(b) The technical bid consists of the following:

- i. **Bid Submission Form:** Bidders are requested to include the Bid Submission Form with their bids. It provides a common form in which bidders can provide information required for evaluation and contract award, such as a contact name, the Bidder's Procurement Business Number, the Bidder's status under the Federal Contractors Program for Employment Equity, etc. Using the form to provide this information is not mandatory, but it is recommended. If Canada determines that the information required by the Bid Submission Form is incomplete or requires correction, Canada will provide the Bidder with an opportunity to do so.
- ii. **Substantiation of Technical Compliance Form - Mandatory:** The technical bid must substantiate the compliance of the Bidder and its proposed product with the specific articles of Annex A (Requirement) identified in the Substantiation of Technical Compliance Form, which is the requested format for providing the substantiation. The Substantiation of Technical Compliance Form is not required to address any parts of this bid solicitation not referenced in the form. The substantiation must not simply be a repetition of the requirement(s), but must explain and demonstrate how the Bidder will meet the requirements and carry out the required Work. Simply stating that the Bidder or its proposed solution or product complies is not sufficient. Where Canada determines that the substantiation is not complete, the Bidder will be considered non-responsive and disqualified. The substantiation may refer to additional documentation submitted with the bid - this information can be referenced in the "Reference" column of the Substantiation of Technical Compliance Form, where bidders are requested to indicate where in the bid the reference material can be found, including the title of the document, and the page and paragraph numbers; where the reference is not sufficiently precise, Canada may request that the Bidder direct Canada to the appropriate location in the documentation.
- iii. **Substantiation of Technical Compliance Form - Point Rated:** The Substantiation of Technical Compliance Form is not required to address any parts of this bid solicitation not referenced in the form. The substantiation must not simply be a repetition of the requirement(s), but must explain and demonstrate how the Bidder will meet the requirements and carry out the required Work. Simply stating that the Bidder or its proposed solution or product complies is not sufficient. The substantiation may refer to additional documentation submitted with the bid - this information can be referenced in the "Reference" column of the Substantiation of Technical Compliance Form, where bidders are requested to indicate where in the bid the reference material can be found, including the title of the document, and the page and paragraph numbers; where the reference is not sufficiently precise, Canada may request that the Bidder direct Canada to the appropriate location in the documentation.

The rated requirements are described in Annex C

iv. **Description of the Bidder's Maintenance and Support Services:** The Bidder must include a description of its maintenance and support services for [hardware/software], which must be consistent with all the requirements described in the Resulting Contract Clauses, including the Statement of Work. At a minimum, the Bidder must describe its:

- (a) Problem reporting and response procedures;
- (b) Escalation procedures;
- (c) On-site support availability; and
- (d) Any enhancements to the basic requirements that the Bidder is offering.

The Bidder may also describe any other information it considers relevant.

## Section II: Financial Bid

- (a) **Pricing:** Bidders must submit their financial bid in accordance with the Basis of Payment in Annex "B". The total amount of Goods and Services Tax or Harmonized Sales Tax must be shown separately, if applicable.
- (b) **All Costs to be Included:** The financial bid must include all costs for the requirement described in the bid solicitation for the entire Contract Period, including any option years. The identification of all necessary equipment, software, peripherals, cabling and components required to meet the requirements of the bid solicitation and the associated costs of these items is the sole responsibility of the Bidder.
- (c) **Blank Prices:** Bidders are requested to insert "\$0.00" for any item for which it does not intend to charge or for items that are already included in other prices set out in the tables. If the Bidder leaves any price blank, Canada will treat the price as "\$0.00" for evaluation purposes and may request that the Bidder confirm that the price is, in fact, \$0.00. No bidder will be permitted to add or change a price as part of this confirmation. Any bidder who does not confirm that the price for a blank item is \$0.00 will be declared non-responsive.
- (d) **SACC Manual Clauses**  
C3011T (2010-01-11), Exchange Rate Fluctuation
- (e) **Maximum Funding (Initial Order)**  
The maximum funding available for the Contract resulting from the bid solicitation is \$503,000.00 (Goods and Services Tax or Harmonized Sales Tax extra, as appropriate). Bids valued in excess of this amount will be considered non-responsive. This disclosure does not commit Canada to pay the maximum funding available.

## Section III: Certifications

Bidders must submit the certifications required under Part 5.

## PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

### 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.

### 1.1 Technical Evaluation

#### 1.1.1 Mandatory Technical Criteria

Each bid will be reviewed to determine whether it meets the mandatory requirements of the bid solicitation. All elements of the bid solicitation that are mandatory requirements are identified specifically with the words "must" or "mandatory". Bids that do not comply with each and every mandatory requirement will be considered non-responsive and be disqualified.

Claims in a bid that a future upgrade or release of any of product included in the bid will meet the mandatory requirements of the bid solicitation, where the upgrade or release is not available at bid closing, will not be considered.

The mandatory requirements are described in Annex "A".

#### 1.1.2 Point Rated Technical Criteria

Each bid will be rated by assigning a score to the rated requirements, which are identified in the bid solicitation by the word "rated" or by reference to a score. Bidders who fail to submit complete bids with all the information requested by this bid solicitation will be rated accordingly. The rated requirements are described in Annex C

### 1.2 Financial Evaluation

- (a) The financial evaluation will be conducted by calculating the Total Bid Price using the Pricing Tables completed by the bidders.

Total Bid Price = Initial Order + Optional Service

- (b) SACC Manual Clause A0220T (2007-05-25), Evaluation of Price

## 2. Basis of Selection

### 2.1 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; and
  - (b) meet all mandatory criteria; and

(c) obtain the required minimum of 350 points overall for the technical evaluation criteria which are subject to point rating.

The rating is performed on a scale of 500 points.

2. Bids not meeting (a) or (b) or (c) will be declared non-responsive.
3. The selection will be based on the highest responsive combined rating of technical merit and price. The ratio will be 80 % for the technical merit and 20 % 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 80 % .
5. To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 20 %.
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, provided that the total evaluated price (Initial Order) does not exceed the budget available for this requirement.

The table below illustrates an example where all three bids are responsive and the selection of the contractor is determined by a 60/40 ratio of technical merit and price, respectively. The total available points equals 135 and the lowest evaluated price is \$45,000 (45).

#### **Basis of Selection - Highest Combined Rating Technical Merit (60%) and Price (40%)**

		<b>Bidder 1</b>	<b>Bidder 2</b>	<b>Bidder 3</b>
Overall Technical Score		115/135	89/135	92/135
Bid Evaluated Price		55,000	50,000	45,000
Calculations	Technical Merit Score	$115/135 \times 60 = 51.11$	$89/135 \times 60 = 39.56$	$92/135 \times 60 = 40.89$
	Pricing Score	$45/55 \times 40 = 32.73$	$45/50 \times 40 = 36.00$	$45/45 \times 40 = 40.00$
Combined Rating		83.84	75.56	80.89
Overall Rating		1st	3rd	2nd

## **PART 5 - CERTIFICATIONS**

Bidders must provide the required certifications to be awarded a contract. Canada will declare a bid non-responsive if the required certifications are not completed and submitted as requested.



Compliance with the certifications bidders provide to Canada is subject to verification by Canada during the bid evaluation period (before award of a contract) and after award of a contract. The Contracting Authority will have the right to ask for additional information to verify bidders' compliance with the certifications before award of a contract. The bid will be declared non-responsive if any certification made by the Bidder is untrue, whether made knowingly or unknowingly. Failure to comply with the certifications or to comply with the request of the Contracting Authority for additional information will also render the bid non-responsive.

## **1. Mandatory Certifications Required Precedent to Contract Award**

### **1.1 Code of Conduct and Certifications - Related documentation**

#### **1.1.1** By submitting a bid, the Bidder certifies, for himself and his affiliates, to be in compliance with the Code of Conduct and Certifications clause of the Standard instructions. The related documentation hereinafter mentioned will help Canada in confirming that the certifications are true. By submitting a bid, the Bidder certifies that it is aware, and that its affiliates are aware, that Canada may request additional information, certifications, consent forms and other evidentiary elements proving identity or eligibility. Canada may also verify the information provided by the Bidder, including the information relating to the acts or convictions specified herein, through independent research, use of any government resources or by contacting third parties. Canada will declare non-responsive any bid in respect of which the information requested is missing or inaccurate, or in respect of which the information contained in the certifications is found to be untrue, in any respect, by Canada. The Bidder and any of the Bidder's affiliates, will also be required to remain free and clear of any acts or convictions specified herein during the period of any contract arising from this bid solicitation.

Bidders who are incorporated, including those bidding as a joint venture, must provide with their bid or promptly thereafter a complete list of names of all individuals who are currently directors of the Bidder. Bidders bidding as sole proprietorship, including those bidding as a joint venture, must provide the name of the owner with their bid or promptly thereafter. Bidders bidding as societies, firms, partnerships or associations of persons do not need to provide lists of names. If the required names 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 will render the bid non-responsive. Providing the required names is a mandatory requirement for contract award.

Canada may, at any time, request that a Bidder provide properly completed and Signed Consent Forms (Consent to a Criminal Record Verification form- PWGSC-TPSGC 229) (<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/formulaires-forms-eng.html>) for any or all individuals aforementioned within the time specified. Failure to provide such Consent Forms within the time period provided will result in the bid being declared non-responsive.

## **2. Additional Certifications 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 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.

## **2.1 Federal Contractors Program - Certification**

### **2.1.2 Federal Contractors Program - \$200,000 or more**

- 1) The Federal Contractors Program (FCP) requires that some suppliers, including a supplier who is a member of a joint venture, bidding for federal government contracts, valued at \$200,000 or more (including all applicable taxes), make a formal commitment to implement employment equity. This is a condition precedent to contract award. If the Bidder, or, if the Bidder is a joint venture and if any member of the joint venture, is subject to the FCP, evidence of its commitment must be provided before the award of the Contract.

Suppliers who have been declared ineligible contractors by Human Resources and Skills Development Canada (HRSDC) are no longer eligible to receive government contracts over the threshold for solicitation of bids as set out in the Government Contracts Regulations. Suppliers may be declared ineligible contractors either as a result of a finding of non-compliance by HRSDC, or following their voluntary withdrawal from the FCP for a reason other than the reduction of their workforce to less than 100 employees. Any bids from ineligible contractors, including a bid from a joint venture that has a member who is an ineligible contractor, will be declared non-responsive.

- 2) If the Bidder does not fall within the exceptions enumerated in 3.(a) or (b) below, or does not have a valid certificate number confirming its adherence to the FCP, the Bidder must fax (819-953-8768) a copy of the signed form LAB 1168, Certificate of Commitment to Implement Employment Equity, to the Labour Branch of HRSDC.
- 3) The Bidder, or, if the Bidder is a joint venture the member of the joint venture, certifies its status with the FCP, as follows:

The Bidder or the member of the joint venture

- a) ( ) is not subject to the FCP, having a workforce of less than 100 full-time or part-time permanent employees, and/or temporary employees having worked 12 weeks or more in Canada;
- b) ( ) is not subject to the FCP, being a regulated employer under the Employment Equity Act, S.C. 1995, c. 44;
- c) ( ) is subject to the requirements of the FCP, having a workforce of 100 or more full-time or part-time permanent employees, and/or temporary employees having worked 12 weeks or more in Canada, but has not previously obtained a certificate number from HRSDC (having not bid on requirements of \$200,000 or more), in which case a duly signed certificate of commitment is attached;
- d) ( ) is subject to the FCP, and has a valid certificate number as follows: \_\_\_\_\_ (e.g. has not been declared an ineligible contractor by HRSDC).

Further information on the FCP is available on the HRSDC Web site.

## PART 6 - RESULTING CONTRACT CLAUSES

### 1. Security Requirement

There is no security requirement associated with the requirement.

### 2. Requirement

The Contractor must provide the supply, delivery, installation and training of a Liquid Chromatography Tandem Mass Spectrometer (LC/HRMS) System for

- a. Quantitative analysis of small molecules, including amino acids and phytoestrogens in complex food matrices: high resolution and high mass accuracy will enable the unambiguous identification of coeluting and isobaric species; combined with complementary techniques including higher-order MS experiments (e.g. MS3 or MSn) would allow investigation of breakdown products and metabolites;
- b. Identification and quantitation of food allergens: quantitative top down and bottom up (reconstruction of the protein based on peptides) proteomics analysis either for characterization of the allergenic protein or by a targeted approach for sensitive detection/quantification; a hybrid quadrupole instrument will enhance our partnership with the Food Directorate lab in Ottawa in their implementation of an allergen characterization methodology. Identical instrument is not required, in fact different instruments would enhance the ruggedness of the method;
- c. Identification and quantitative analysis of persistent organic chemical contaminants in foods e.g. acrylamide, melamine, HBCDs, PFAs, chloropropanol esters. High resolution and mass accuracy are essential for differentiating and quantifying isomeric species, especially of chemical groups such as HBCDs and chloropropanols,

in accordance with the Requirement at Annex "A".

### 3. Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the 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.

#### 3.1 General Conditions

2010A (2012-11-19), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

### 4. Term of Contract

#### 4.1 Delivery Date

##### 4.1.1 Equipment Order

All the deliverables must be received on or before March 28, 2013.

**4.1.2 Installation, Training and initial Warranty/ Maintenance & Service Order**

The Contractor must make the complete delivery within \_\_\_\_\_ calendar days from the effective date of the Contract amendment.

**4.2 Period of Contract:**

The period of the Contract is from \_\_\_\_\_ (*installation date of equipment*) to \_\_\_\_\_ (*2 year period*) inclusive.

**4.3 Option to Extend the Contract - Warranty / Maintenance and Support Extension:**

The Contractor grants to Canada the irrevocable option to extend the term of the Contract by up to two additional one 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.

**5. Authorities****5.1 Contracting Authority**

The Contracting Authority for the Contract is:

Name: Alan Takasaki  
 Title: Supply Specialist  
 Public Works and Government Services Canada  
 Acquisitions Branch Vancouver,  
 Address 641 - 800, 800 Burrard St  
 Vancouver, BC V6Z 2V8  
 Telephone: (604)775-7605 Facsimile: (604)775-7526  
 E-mail address: al.takasaki@pwgsc.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.

**5.2 Technical Authority**

The Technical Authority for the Contract is:

Name: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Organization: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Telephone : \_\_\_\_\_ Facsimile: \_\_\_\_\_  
 E-mail address: \_\_\_\_\_

The Technical Authority 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 Technical Authority, however the Technical 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.

### 5.3 Contractor's Representative

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Organization: \_\_\_\_\_

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

Telephone : \_\_\_\_\_ Facsimile: \_\_\_\_\_

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

## 6. Payment

### 6.1 Basis of Payment - Firm Price, Firm Unit Price(s) or Firm Lot Price(s)

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm lot price(s), as specified in in Annex B for a cost of \$ \_\_\_\_\_.  
Customs duties are included and Goods and Services Tax or Harmonized Sales Tax is extra, if applicable.

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.

### 6.2 Method of Payment

#### 6.2.1 Milestone Payments

Canada will make milestone payments in accordance with the Schedule of Milestones detailed in the Contract and the payment provisions of the Contract if:

- (a) an accurate and complete claim for payment using PWGSC-TPSGC 1111, Claim for Progress Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- (b) all the certificates appearing on form PWGSC-TPSGC 1111 have been signed by the respective authorized representatives;
- (c) all work associated with the milestone and as applicable any deliverable required has been completed and accepted by Canada.

#### 6.2.2 Schedule of Milestones

MS #	Description of Deliverable	Firm Amount	Due Date or Delivery Date
1	Order -Equipment	\$	March 28, 2013
2	Order - Installation, Training Warranty/ Maintenance and Servicing	\$	_____

### **6.2.3 Advance Payment**

Canada will pay the Contractor in advance for the warranty / maintenance and support services 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.

Payment in advance does not prevent Canada from exercising any or all potential remedies in relation to this payment or any of the Work, if the Work performed later proves to be unacceptable.

## **7. Invoicing Instructions - Progress Payment Claim**

1. The Contractor must submit a claim for payment using form PWGSC-TPSGC 1111, Claim for Progress Payment.

Each claim must show:

- A. all information required on form PWGSC-TPSGC 1111;
- B. all applicable information detailed under the section entitled "Invoice Submission" of the general conditions;
- C. a list of all expenses;
- D. the description and value of the milestone claimed as detailed in the Contract.

2. The Contractor must prepare and certify one original and two (2) copies of the claim on form PWGSC-TPSGC 1111, and forward it to the Technical Authority identified under the section entitled "Authorities" of the Contract for appropriate certification after inspection and acceptance of the Work takes place.

The Technical Authority will then forward the original and two (2) copies of the claim to the Contracting Authority for certification and onward submission to the Payment Office for the remaining certification and payment action.

3. The Contractor must not submit claims until all work identified in the claim is completed.

## **8. Certifications**

- 8.1 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.

## **9. Applicable Laws**

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

## **10. 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) the general conditions 2010A (2012-11-19) - Goods (Medium Complexity);
- (c) Annex A, Requirement;
- (d) Annex B, Basis of Payment
- (e) the Contractor's bid dated \_\_\_\_\_ (*insert date of bid*) (*If the bid was clarified or amended, insert at the time of contract award: “, as clarified on \_\_\_\_\_” or “, as amended on \_\_\_\_\_” and insert date(s) of clarification(s) or amendment(s)*)

## **11. Insurance**

SACC Manual clause G1005C (2008-05-12) Insurance

## **12 Warranty**

Section 09 of general conditions 2010A

### **12.1 Warranty Period**

Section 09 of general conditions 2010A is amended by replacing the period of twelve (12 ) months with twenty-four (24) months.

### **12.2 Warranty - Contractor responsible for all costs**

Section 09 entitled Warranty of general conditions 2010A is amended by deleting subsection 2 in its entirety and replacing it with the following:

2. The Contractor must pay the transportation cost associated with returning the Work or any part of the Work to the Contractor's plant for replacement, repair or making good. The Contractor must also pay the transportation cost associated with forwarding the replacement or returning the Work or part of the Work when rectified to the delivery point specified in the Contract or to another location as directed by Canada. If, in the opinion of Canada, it is not expedient to remove the Work from its location, the Contractor must carry out any necessary repair or making good of the Work at that location. In such cases, the Contractor will be responsible for all Costs (including travel and living expenses) incurred in so doing, Canada will not reimburse these Costs.

**12.3** All other provisions of the warranty section remain in effect.

## **13. SACC Manual Clauses**

B1501C (2006-06-16), Electrical Equipment

B7500C (2006-06-16), Excess Goods

## **ANNEX "A"**

### **REQUIREMENT**

#### **A) Title**

The Purchase of an Ultra-High Pressure Liquid Chromatography Tandem High Resolution Mass Spectrometer (LC/HRMS) System for Health Canada's Food Program Western Region Laboratory (WRL).

#### **B) Background**

WRL currently has two triple quadrupole tandem mass spectrometers and a Q-ToF instrument, in addition to a low resolution LC/MS system which is obsolete and which this purchase is intended to replace. WRL requires a complementary mass spectrometry solution to enable and enhance the following program areas:

1. Quantitative analysis of small molecules, including amino acids and phytoestrogens in complex food matrices: high resolution and high mass accuracy will enable the unambiguous identification of coeluting and isobaric species; combined with complementary techniques including higher-order MS experiments (e.g. MS3 or MSn) would allow investigation of breakdown products and metabolites.
2. Identification and quantitation of food allergens: quantitative top down and bottom up (reconstruction of the protein based on peptides) proteomics analysis either for characterization of the allergenic protein or by a targeted approach for sensitive detection/quantification; a hybrid quadrupole instrument will enhance our partnership with the Food Directorate lab in Ottawa in their implementation of an allergen characterization methodology. Identical instrument is not required, in fact different instruments would enhance the ruggedness of the method.
3. Identification and quantitative analysis of persistent organic chemical contaminants in foods e.g. acrylamide, melamine, HBCDs, PFAs, chloropropanol esters. High resolution and mass accuracy are essential for differentiating and quantifying isomeric species, especially of chemical groups such as HBCDs and chloropropanols.

#### **C) Objective**

Based on this requirement and extensive research in the available instrumentation, we believe the best solution is a high resolution, accurate mass tandem mass spectrometer.

#### **D) The Work**

An LC/HRMS System will be purchased and installed in the Western Region Laboratory (WRL). WRL staff will be trained on instrument use and maintenance. The instrument will come equipped with an auto sampler and qualitative and quantitative analysis software that allows detection, interpretation and determination of trace organic chemicals in food samples. Specifications of the LC/HRMS System are outlined below.

#### **E) Specifications**

##### **1.0 General**



Health Canada's Food Program Western Region Laboratory (WRL) in Burnaby, BC requires to supply, deliver and install an Ultra-High Pressure Liquid Chromatography Tandem Mass Spectrometer (LC/HRMS) System at 3155 Willingdon Green, Burnaby BC, for the quantitative and qualitative analysis of a wide variety of trace level organic compounds in food.

Instrument system must meet all applicable ISO, UL and CSA standards. All instruments must be CSA certified and listed.

The supplied LC/HRMS System must include all parts/equipment/software necessary for analysis. It is incumbent upon the contractor to recommend a specific hardware configuration for a COMPLETE SYSTEM that is demonstrated suitable in the supplied documents. Contractors must submit documentation with their bid package that CLEARLY AND PRECISELY DEMONSTRATES how their system complies with the required specifications.

## **2.0 Liquid Chromatography Tandem High Resolution Mass Spectrometer (LC/HRMS)**

The Ultra-High Pressure Liquid Chromatography Tandem Mass Spectrometer (LC/HRMS) System must consist of, but not be limited to, the following major components, complete with all software/hardware and interfacing necessary to make a fully integrated system.

- Two high performance LC pumps
- Autodegasser
- Thermostated Autosampler
- Thermostated column compartment
- A high resolution and high mass accuracy mass spectrometer
- Operating/Data System Software
- Operating/Data System Hardware
- System Implementation and Training
- Service & Support
- System Performance Specifications
- System Warranty

### **2.1 Liquid Chromatography Subsystem (LC)**

2.1.1 The Liquid Chromatograph Subsystem must be an integrated part of the total system and designed for unattended operation. The LC must be under complete control of the operating/data computer system. MANDATORY

2.1.2 The LC must include two high performance LC pumps, an autodegasser, a thermostated autosampler, and a thermostated column compartment. MANDATORY

2.1.3 The LC's mobile phase back pressures, flow rates, leak detection and flows to inlets and detectors must be electronically controlled via the computer system. MANDATORY

2.1.4 All required tubings, fittings, and regulators for system installation must be included. MANDATORY

2.1.5 The LC method must be part of the full method along with automatic sampling parameters, Mass Spectrometer settings, Data Processing options and Reporting Options. MANDATORY

2.1.6 The LC maximum operating pressure must be at least 12,000 psi. MANDATORY

2.1.7 The LC should be capable of performing as either a 'fast', 'ultra-performance' LC or as conventional LC. When used as an 'ultra-performance' LC system, it can provide analysis run times at least 75% shorter than conventional HPLC with no loss of resolution. This can be accomplished through a combination of higher operating pressures and flows, new column separation technologies, or by other means. (Point rated - 1.1)

2.1.8 The LC is able to run sub 2 µm particle size columns at a flow rate of up to 2.0 mL/min. (Point rated - 1.2)

2.1.9 The LC flow rate range must be 0.050 to 2 mL/min (MANDATORY) or higher (up to 5 mL/min). Point rated - 1.3)

2.1.10 The LC should accommodate 4 solvents during a gradient run, selectable from 4 different solvent reservoirs. This should be accomplished by means of additional integrated high performance pumps or automated switching valves. (Point rated - 1.4)

2.1.11 The LC Degasser is automatic and continuous on-line vacuum degassing. (Point rated - 1.5)

2.1.12 The LC pH range is pH 2 to12. (Point rated - 1.6)

2.1.13 The LC Column Thermostat Compartment maintains temperatures in the range of 5°C above ambient to 60 °C or higher in no more than 1°C increments (MANDATORY), or higher temperature in no more than 1°C increments. (Point rated - 1.7)

2.1.14 The LC Column Thermostat Compartment must accommodate a minimum of 2 columns (MANDATORY) or more (up to 6 columns). (Point rated - 1.8)

2.1.15 The LC Carryover (UV) is <0.004 % or better. (Point rated - 1.9)

2.1.16 The LC In-line degasser is stackable self-contained with internal volume less than 1 mL per channel and is capable of accommodating up to 5 mL/min per channel. (Point rated - 1.10)

2.1.17 The LC minimum capacity is 48 vials or more up to 2 mL capacity each. (Point rated - 2.1)

2.1.18 The LC Injection Volume is 0.1 to 100 µL or higher in 0.1 µL increments with no hardware changes. (Point rated - 2.2)

2.1.19 The LC Large Volume Injection is 10 to 2000 uL in 10 uL increments. (Point rated - 2.3)

2.1.20 The LC integral heater and cooler for samples is programmable from 4-40 °C, in no more than 1°C increment. (Point rated - 2.4)

2.1.21 The LC Column switching valve must be included and under software control.  
MANDATORY

2.1.22 The LC must include any other items, including hardware and software not explicitly stated, required for the system to be qualified as per protocols stipulated by the contractor and accompanying documentation thereof. MANDATORY

## 2.2 High Resolution Mass Spectrometer Subsystem (HRMS)

2.2.1 The HRMS Subsystem must be an integrated part of the total system and designed for unattended operation and dedicated to perform LC/HRMS. The HRMS Subsystem must include a high resolution and high mass accuracy mass spectrometer, all relevant operating/Data System Software, operating/Data System Hardware, system implementation and training, service & support and system performance specifications. MANDATORY

2.2.2 The HRMS must be of the high resolution and high accuracy type with a minimum resolution of 20,000 FWHM (MANDATORY), or higher (greater than 40,000 FWHM). (Point rated - 3.1).

*Note: Contractor must provide clear definition and specific conditions of achieving the specified resolution.*

2.2.3 The HRMS must include the appropriate source for Electrospray (ESI) and Atmospheric Chemical Ionization (APCI). MANDATORY

2.2.4 The HRMS must have the MS sensitivity of detecting 10 pg of reserpine on column at 10:1 signal to noise (S/N). MANDATORY

*Note: Contractor must provide definition and conditions of achieving the specified sensitivity.*

2.2.5 The HRMS must have the MS/MS sensitivity of detecting 10 pg of reserpine on column at 50:1 signal to noise (S/N). MANDATORY

*Note: Contractor must provide definition and conditions of achieving the specified sensitivity.*

2.2.6 The HRMS must have the mass accuracy (MS mode) of less than 1 ppm. MANDATORY

*Note: Contractor must provide definition and conditions of achieving the required mass accuracy.*

2.2.7 The HRMS has a Mass stability that maintains a <1 ppm mass accuracy variation when ambient temperature differs  $\pm 3$  °C from calibration temperature. (Point rated - 3.2)

2.2.8 The HRMS has a mass stability that maintains better than 3 ppm mass accuracy over a minimum of 48 hours between mass calibrations. (Point rated - 3.3)

2.2.9 The HRMS range is at least m/z 50-3000. (Point rated - 3.4)

2.2.10 The HRMS has a linear dynamic range up to a 5 order magnitude. (Point rated - 3.5)

*Note: Contractor should provide definition and conditions of achieving the specified linear dynamic range.*

2.2.11 The HRMS has a scan speed that is at least 10 full scan spectra/second.; (Point rated - 3.6)

*Note: Contractor should provide definition and conditions of achieving the specified scan speed.*

2.2.12 The ESI interface operates at flow rates between 10µL/min and 1mL/min using 100% water without splitting. (Point rated - 3.7)

2.2.13 The HRMS is capable of switching and stabilization between positive and negative mode rapidly. The system should be able to perform positive-negative ionization mode switching during one data acquisition run, i.e. from one single injection of sample. (Point rated - 3.8)

*Note: Contractor is to comment in detail if this can occur only between scans.*

2.2.14 The HRMS' detector specification provides analog-to-digital conversion rate and data acquisition speed. (Point rated - 3.9)

*Note: Contractor is to state and comment whether the detector preserves isotope ratio information (important for identification of unknown compounds).*

2.2.15 The HRMS must include all vacuum pumps required for instrument operation.  
MANDATORY

2.2.16 Gas supplies required for ESI and ApCI interfaces must be provided. This must be accomplished either through full operability using the existing nitrogen generator (equivalent to Parker Balston model N2-45), or the HRMS must include a standalone nitrogen gas generator (and accompanying air compressor if incompatible with existing on-site air compressor) that provides high purity sheath gas for ESI and APCI interfaces. MANDATORY

*Note: Contractor should provide detailed information of OEM models and specifications of the proposed nitrogen generator and air compressor. (Point rated - 3.10)*

2.2.17 The HRMS has Reference and Calibrant infusion that is capable of infusion of standards for automated optimization of ion optics and full MS mass axis calibration. Ideally, the HRMS is equipped with an on-board pumped infusion system capable of delivering reference solutions from

stored standards under computer control. The instrument software must be capable of using both internal standards and lock mass functions. (Point rated - 3.11)

2.2.18 The HRMS has unique features for general unknown screening. (Point rated - 3.12)

*Note: Bidder should provide detailed information about the unique features that could contribute the success in the proposed projects at WRL.*

2.2.19 The HRMS has data acquisition capable of generating empirical formulae using MS data comprising (1) exact mass of parent, (2) exact mass spacing of all isotopes and (3) intensities of isotopes; capable of identifying peaks corresponding to a list of compounds with known formula and retention time (in an automated fashion); generate, in an automated fashion, high resolution Extracted Ion Chromatograms within +/- 1.5 mDa error for screening of unknown compounds from complex matrices. (Point rated - 3.13)

2.2.20 The HRMS is capable of creating in-house MS/MS libraries for identification/confirmation of compounds of interests with the ability to use a compound database library manager to create and edit entries. (Point rated - 4.1)

2.2.21 Software tool for large molecular compounds: the software should provide the capabilities or tools to carry out automated molecular weight determination of proteins and peptides. Ideally this should include entropy algorithms and molecular features extractor. (Point rated - 4.2)

2.2.22 MS software compatibility: The MS software should permit simple, direct data transfer to common programs such as Microsoft Word, Excel, Power Point, etc. and the capability to generate pdf format files, export images and text files, and save data in standard format(s) readable by other MS software packages etc. (Point rated - 4.3)

*Note: Contractor should provide a detailed list of these features*

## **2.3 Computer System (CS) and Operating/Data Computer System Software**

2.3.1 The Computer System's operating system should be Microsoft Windows 7 or (the latest Microsoft operating system) (Point rated - 4.4)

2.3.2 The CS should include built-in networking compatible with standard network protocols such as TCP/IP, Novell, DecNet, etc. (Point rated - 4.5)

2.3.3 The CS must have full control of instrumentation operation that provides fully automated system start-up and shut down, initial instrument calibration, parameter optimization, routine operations, calibration, data processing, report generation, etc. MANDATORY

2.3.4 The CS must include multi-tasking capabilities and be able to acquire and process data in real time. MANDATORY

2.3.5 The CS must include a graphical display that has a full graphical instrument control window with the ability to display system parameters concurrently in real time. MANDATORY

2.3.6 The CS should include a diagnostics tool that provides internal diagnostics that has error checking, troubleshooting and a complete fault log. (Point rated - 4.6)

2.3.7 The CS should include a Software Help that has a comprehensive context sensitive help with hypertext links and index. (Point rated - 4.7)

2.3.8 The CS must include full data processing and reprocessing capabilities that can perform chromatogram integration, compound identification, creation of calibration curves, quantitation and report generation without the need to re-run samples. MANDATORY

2.3.9 The CS should include software that has data analysis that provides comprehensive tools for statistical analysis, data mining and visualization, such as Analysis of variance (ANOVA); Principal component analysis (PCA); t-tests; Volcano plots; Hierarchical trees (dendrograms); Self-organizing maps (SOMs); Quality threshold (QT) clustering; Support vector machines (SVMs). Ideally, the data results should be capable of searching the METLIN database, established by the Scripps Research Institute for metabolomic identifications (Point rated - 4.8)

2.3.10 The CS must include sample sequence control that has the ability to insert samples without stopping and restarting a previously started acquisition sequence. MANDATORY

2.3.11 The CS must include a software based automatic tuning of HRMS instruments. MANDATORY

## 2.4 Operating/Data Computer System Hardware

The computer system must include and meet or exceed the following minimum specifications and are considered MANDATORY (unless stated as Point rated):

2.4.1 A Pentium 4 type processor operating at 2.5GHz or higher;

2.4.2 A dedicated graphic board with 1 GB RAM (or greater) for fast chromatogram rendition. (Point rated - 4.9)

2.4.3 4 GB RAM;

2.4.4 1 Tb hard drive;

2.4.5 16x DVD-/+r RW drive,

2.4.6 An on-board or dedicated, 10/100/1000 Base-T LAN network interface card to access the laboratory's network;

2.4.7 A 24" LCD colour monitor that features a minimum resolution of 1280x1024;

2.4.8 A network capable color laser printer with printing speed of at least 10 pages per minute and with at least one high speed USB 2.0 port.

## 2.5 System Implementation and Training

2.5.1 The system must be either CSA approved or UL listed. MANDATORY

2.5.2 The system must include pre-installation site specifications to ensure site-readiness for installation. Specify SITE REQUIREMENTS including bench space, temperature and operating range, electrical connections (voltages and numbers), gases required, and any special requirements (venting, etc). MANDATORY

2.5.3 The primary components of the system (LC, HRMS, CS) must be accommodated on a benchtop surface. MANDATORY

2.5.4 Training must be a minimum of 4 days of on-site training for a minimum of 3 staff. MANDATORY

*Note: The bidder should be able to provide additional in-depth training in troubleshooting and method development (Point rated - 5.1)*

2.5.5 Provide training CD/DVD with instrument or on-line continuing training. (Point rated - 5.2)

2.5.6 The system must be supplied with a minimum of 1 set of consumable parts and a tool kit necessary for maintaining operation. MANDATORY

2.5.7 The contractor should provide removal and disposal of our existing system (consisting of a Waters Quattro Ultima MS/MS, Agilent 1100 HPLC, and two external oil-based roughing pumps). (Point rated - 5.3)

*Note: Bidder should provide definition and conditions for removal, disposal, and any trade-in value.*

## 2.6 Warranty, Service & Support

2.6.1 The warranty must be for two years on-site inclusive of all parts, labour and travel and living expenses. The warranty must include one preventative maintenance visit per year on all components. Both on-site and telephone support must be included as standard. MANDATORY.

Pricing for additional warranty periods should be included as options. (Point rated - 5.4)

The warranty will begin on the DATE OF ACCEPTANCE of the system by the Technical Authority. The DATE OF ACCEPTANCE will be determined (after installation) and the contractor

demonstrates that the SYSTEM meets the user requirements, and the manufacturers own performance specifications. MANDATORY

2.6.2 Technicians must be on-site within 5 business days of a service request. MANDATORY

*Note: Bidders must provide in writing their policy of a service response.*

2.6.3 The Contractor must respond within one business day on receipt of a telephone support service. MANDATORY

*Note: Bidders must provide in writing their policy of service response.*

2.6.4 Application chemists must be available for method development, customized on-site or on-line applications support. MANDATORY

*Note: Bidders must provide in writing their policy of service response.*

2.6.5 Entire analytical system consisting of liquid chromatography, tandem high resolution mass spectrometer, autosampler and software must be supplied, serviced and warranted by one manufacturer. MANDATORY

2.6.6 Long term technical support: provide instrument technical support for at least 7 years. (Point rated - 5.5)

## **2.7 Value Added Items**

*Note: Bidder may list items and their relevant cost and specifications that may become part of this tender.*

2.7.1 Direct Insertion Probe (DIP) source

2.7.2 GC/APCI source

2.7.3 Oil-free vacuum roughing pump

2.7.4 Open access software

2.7.5 Other accessories or components that will enhance the performance or capacities of the proposed system.



## **Annex B**

### **BASIS OF PAYMENT**

#### **B.1 Financial Proposal Instructions**

##### **1. Pricing Requirements**

Health Canada requires a fully installed and functional Liquid Chromatography Tandem High Resolution Mass spectrometer (LC/HRMS) system. It is mandatory that the successful Bidder must supply, deliver and install all equipment, accessories and materials necessary for a fully functional system. Any materials and equipment necessary for the proper operation of the system not specified or described be deemed as part of the specification.

Any technological upgrades, such as new software versions, system ROM upgrades, etc., that are released after the system is ordered but before delivery and acceptance, be included at no charge. The cost(s) of any items(s) omitted from the quote that are required to meet system requirements and specifications as described herein, are to be the sole responsibility of the bidder.

##### **2 Firm Price**

Pricing must include DELIVERY to and system INSTALLATION at Health Canada's Food Program Western Region Laboratory (WRL).

Pricing must be in Canadian dollars, Harmonized Sales Tax excluded, FOB destination, Canadian customs duties and excise taxes included.

Bidders must provide a separate firm price for the Base Bid for each item of equipment listed in this RFP, FOB destination, installed, include all delivery charges separately, to be valid for a period of up to 90 days from the date of the closing of the contract bid.

The unit price and the details of calculations leading up to the total bid price will be clearly shown as a total dollar figure and must include itemized; equipment, software with any License fees, installation, set-up, labour and any delivery charges. Pricing proposal should include five (5) parts:

- a. The cost of the equipment;
- b. The cost of the training;
- c. The cost of the installation and verification/commissioning charge - including any travel or accommodation costs;
- d. Explanation of the two (2) years on-site parts and labour warranty/maintenance policies for the System, and detailing the labour and equipment coverage and any limitations;
- e. The cost of for extended warranty period as an option.

3. The terms and conditions in B.2 and the proposed price will be included as Annex B - Basis of Payment in the resulting contract.

#### **B.2 Resulting Annex B - Basis of Payment for the Contract**

All technological upgrades, such as new software versions, system ROM upgrades, etc., that are released after the system is ordered but before delivery and acceptance must be included at no additional charge.

The cost of any item that is omitted but are required to meet the system requirements and specifications are the sole responsibility of the Contractor.

Prices must be in Canadian dollars, Harmonized Sales Tax excluded, FOB destination, Canadian customs duties and excise taxes included.

**Sample Pricing Table: Note that this only an example and your price proposal should be in a similar format.**

#### Initial Order

Item #	Part Number	Description	U of I	Qty	Unit Cost	Extended total
1	xxxxx	LC Subsystem Base Unit	ea	1		
1a	xxxxa	High performance pump	ea	2		
1b	xxxxb	autodegasser	ea	1		
1c	xxxxc	Thermostated autosampler	ea	1		
1d	xxxxd	Thermostated column compartments	ea	1		
		etc.				
2	zzzzz	HRMD Subsystem base Unit	ea	1		
		etc	ea	1		
3	aaaa	Installation ....	Lot	1		
4	bbbb	On-site training	Lot	1		
5	cccc	Initial Warranty/Maintenance and Support	Yr	2		

#### Optional Services

6	dddd	Year 3 - warranty / maintenance and support extension	lot	1		
7	eeee	Year 4 - warranty / maintenance and support extension	lot	1		

## Annex C

### Technical Criteria - Point Rated

Total points: 500

Item # (spec #)	Description	# pts
<b>1</b>	<b>Liquid Chromatography (LC) Total Points = 60</b>	
1.1 (2.1.7)	The LC system performs as either a 'fast', 'ultra- 10 performance' LC or as conventional LC. When used as an 'ultra-performance' LC system, it can provide analysis run times at least 75% shorter than conventional HPLC with no loss of resolution. This can be accomplished through a combination of higher operating pressures and flows, new column separation technologies, or by other means.	15
1.2 (2.1.8)	The HPLC system is able to run sub 2 µm particle size columns at a flow rate of up to 2.0 mL/min.	5
1.3 (2.1.9)	Flow rate range: 0.050 to 2 mL/min or higher (up to 5 mL/min).	5
1.4 (2.1.10)	Accommodate 4 solvents during a gradient run, and be able to select from 4 different solvent reservoirs	5
1.5 (2.1.11)	Degasser: automatic and continuous on-line vacuum degassing.	5
1.6 (2.1.12)	pH range: pH 2 to 12.	5
1.7 (2.1.13)	Column thermostat compartment: Maintain temperatures in range of 5°C above ambient to 60 °C or higher in no more than 1°C increments.	5
1.8 (2.1.14)	Column thermostat compartment: Accommodate more than 2 columns (up to 6 columns)	5
1.9 (2.1.15)	Carryover (UV): <0.004 % or better.	5
1.10 (2.1.16)	In-line degasser: stackable self-contained with internal volume less than 1 mL per channel. Capable of accommodating up to 5 mL/min per channel.	5
<b>2</b>	<b>LC Autosampler (AS) Total Points = 25</b>	
2.1 (2.1.17)	Minimum capacity: 48 vials or more up to 2 mL capacity each.	5
2.2 (2.1.18)	Injection volume: 0.1 to 100 uL or higher in 0.1 iL increments with no hardware changes.	5
2.3 (2.1.19)	Large Volume Injection: 10 to 1000 uL or higher in 10 uL increments Note: Points will be granted for the increase of large injection using hardware approach.	10
2.4 (2.1.20)	Integral heater and cooler for samples: programmable from 4-40 °C, in no more than 1°C increments.	5
<b>3</b>	<b>Mass Spectrometer (MS) Total Points = 185</b>	
3.1 (2.2.2)	High resolution: greater than 40,000 FWHM Note: Contractor must provide clear definition and specific conditions of achieving the specified resolution.	20
3.2 (2.2.7)	Mass stability: maintain <1 ppm mass accuracy variation when ambient temperature <3 °C from calibration temperature.	10

Item # (spec #)	Description	# pts
3.3 (2.2.8)	Mass stability: maintain better than 3 ppm mass accuracy over 48 hours between mass calibrations.	30
3.4 (2.2.9)	MS Range: at least m/z 50 - 3000.	5
3.5 (2.2.10)	Linear dynamic range: up to 5 orders magnitude. Note: Contractor should provide definition and conditions of achieving the specified linear dynamic range.	20
3.6 (2.2.11)	Scan speed: at least 10 full scan spectra/second. Note: Contractor should provide definition and conditions of achieving the specified scan speed.	10
3.7 (2.2.12)	ESI interface operates at flow rates between 10 µL/min and 1 mL/min without splitting.	10
3.8 (2.2.13)	Positive and negative mode polarities: rapid switching and stabilization between positive and negative mode. The system must be able to perform positive-negative ionization mode switching during one data acquisition run. Note: Contractor is to comment in detail if this can occur only between scans.	20
3.9 (2.2.14)	Detector specification: Provide analog-to-digital conversion rate and data acquisition speed. Note: Contractor is to state and comment whether the detector preserves isotope ratio information (important for identification of unknown compounds).	10
3.10 (2.2.16)	High volume Nitrogen generator and matching air compressor for multiple systems: list the proposed make, model, capacity and other specifications. Note: Contractor should provide detailed information of OEM models and specifications of the proposed nitrogen generator and air compressor.	10
3.11 (2.2.17)	Reference and calibrant infusion: infuses standards or for automated optimization of ion optics and full MS mass axis calibration. Includes on-board pumped infusion system capable of delivering reference solutions from stored standards under computer control. The instrument software must be capable of using both internal standards and lock mass functions.	10
3.12 (2.2.18)	Unique features for general unknown screening: contractor to provide detailed information about the unique features that could contribute the success in the proposed projects at WRL. Note: Bidder should provide detailed information about the unique features that could contribute the success in the proposed projects at WRL.	10
3.13 (2.2.19)	Data acquisition: generates empirical formulae using MS data comprising (1) exact mass of parent, (2) exact mass spacing of all isotopes, and (3) intensities of isotopes. Identifies peaks corresponding to a list of compounds with known formula and retention time (in an automated fashion). Generates, in an automated fashion, high resolution Extracted Ion Chromatograms within +/- 1.5 mDa error for screening of unknown compounds from complex matrices.	20
<b>4</b>	<b>Operating/Data Computer System Software Total Points = 65</b>	
4.1 (2.2.20)	In-house libraries: capable for creating MS/MS libraries for Identification / confirmation of compounds of interests with the ability to use a compound database library manager to create and edit entries.	5

Item # (spec #)	Description	# pts
4.2 (2.2.21)	Software tools for large molecular compounds such as peptide and proteins: the software must provide the capabilities or tools to carry out automated molecular weight determination of proteins and peptides. Ideally this should include entropy algorithms and molecular features extractor.	10
4.3 (2.2.22)	MS software compatibility: MS software permits simple, direct data transfer to common programs such as Microsoft Word, Excel, Power Point, etc. and the capability to generate pdf format files, export images and text files, and save data in standard format(s) readable by other MS software packages etc. Note: Contractor should provide a detailed list of these features	10
4.4 (2.3.1)	Operating system: The PC computer's operating system must be the latest Microsoft operating system.	5
4.5 (2.3.2)	Network compatibility: The PC computer provides built-in networking compatible with standard network protocols: TCP/IP, Novell, DecNet, etc.	5
4.6 (2.3.6)	Diagnostics tools: provide internal diagnostics including error checking, trouble shooting and a complete fault log.	10
4.7 (2.3.7)	Software Help: comprehensive context sensitive help including hypertext links and index.	5
4.8 (2.3.9)	The software includes comprehensive tools for statistical analysis, data mining, and visualization, such as Analysis of variance (ANOVA); Principal component analysis (PCA); t-tests; Volcano plots; Hierarchical trees (dendrograms); Self-organizing maps (SOMs); Quality threshold (QT) clustering; Support vector machines (SVMs). Ideally, the data results should be capable of searching the METLIN database, established by the Scripps Research Institute for metabolomic identifications.	10
4.9 (2.4.2)	The desktop features a dedicated graphic board with at least 1 GB RAM for fast chromatogram rendition.	5
<b>5</b>	<b>System Warranty, Implementation and Training Total Points = 80</b>	
5.1 (2.5.4)	Additional in-depth on-site training on the operation and application of the system by qualified staff from the contractor up to 10 days. Note: The bidder should be able to provide additional in-depth training in troubleshooting and method development	30
5.2 (2.5.5)	Provide CD/DVD with instrument or on-line continuing training.	5
5.3 (2.5.7)	Removal and disposal of obsolete unit: The contractor provides removal and disposal of our existing system (consisting of a Waters Quattro Ultima MS/MS, Agilent 1100 HPLC, and two external oil-based roughing pumps). Note: Bidder should provide definition and conditions for removal, disposal, and any trade-in value.	20
5.4 (2.6.1)	Additional total warranty of the LC/HRMS system up to five year in increments of one year (including one annual preventive maintenance visit). Note: clearly list all the covered items and conditions.	20
5.5 (2.6.6)	Long term technical support: provide instrument technical support for at least 7 years.	5

Solicitation No. - N° de l'invitation

H4134-123265/B

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

van532

Client Ref. No. - N° de réf. du client

File No. - N° du dossier

CCC No./N° CCC - FMS No/ N° VME

H4134-123265

VAN-2-35301

---

Item # (spec #)	Description	# pts
6	<b>Total Instrument Package Suitability Total Points = 85</b>	
6.1	State the suitability of the proposed system to meet the challenges of the work in WRL, including quantitative analysis of small molecules (including amino acids), general unknown screening, identification and quantitation of food allergens, identification and quantitative analysis of persistent organic chemical contaminants, and suitability for differentiation and quantitation of isomeric and isobaric species.	85

Solicitation No. - N° de l'invitation

H4134-123265/B

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

van532

Client Ref. No. - N° de réf. du client

H4134-123265

File No. - N° du dossier

VAN-2-35301

CCC No./N° CCC - FMS No/ N° VME

**Form 1: BID SUBMISSION FORM**

<b>Bidder's full legal name</b>			
<b>Authorized Representative of Bidder for evaluation purposes (e.g., clarifications)</b>		Name	
		Title	
		Address	
		Telephone #	
		Fax #	
		Email	
<b>Bidder's Procurement Business Number (PBN)</b> [see the Standard Instructions 2003]			
<b>Jurisdiction of Contract:</b> Province in Canada the bidder wishes to be the legal jurisdiction applicable to any resulting contract (if other than as specified in solicitation)			
<b>Federal Contractors Program for Employment Equity (FCP EE) Certification:</b>  If the bidder is exempt, please indicate the basis for the exemption to the right. If the bidder does not fall within the exceptions enumerated to the right, the Program requirements do apply and the bidder is required either to:  (a) submit to the Department of HRSD form LAB 1168, Certificate of Commitment to Implement Employment Equity, DULY SIGNED; or (b) submit a valid Certificate number confirming its adherence to the FCP-EE.  Bidders are requested to include their FCP EE Certification or signed LAB 1168 with their bid; if this information is not provided in the bid, it must be provided upon request by the Contracting Authority during evaluation.  For joint ventures, be sure to provide this information for each of the members of the joint venture.		On behalf of the bidder, by signing below, I also confirm that the bidder [ <i>check the one that applies</i> ]:	
		( ) a. is not subject to Federal Contractors Program for Employment Equity (FCP-EE), because it has a workforce of less than 100 permanent full or part-time employees in Canada;	
		( ) (b) is not subject to FCP-EE, because it is a regulated employer under the <i>Employment Equity Act</i> ;	
		( ) (c) is subject to the requirements of FCP-EE, because it has a workforce of 100 or more permanent full or part-time employees in Canada, but has not previously obtained a certificate number from the Department of Human Resources and Skills Development (HRSD) (having not bid on requirements of \$200,000 or more), in which case a duly signed certificate of commitment is attached; OR	
		( ) (d) is subject to FCP-EE, and has a valid certification number as follows: _____ (and has not been declared an Ineligible Contractor by HRSD).	
On behalf of the Bidder, by signing below, I confirm that I have read the entire bid solicitation including the documents incorporated by reference into the bid solicitation and I certify that: 1. The Bidder considers itself and its products able to meet all the mandatory requirements described in the bid solicitation; 2. This bid is valid for the period requested in the bid solicitation; 3. All the information provided in the bid is complete, true and accurate; and 4. If the Bidder is awarded a contract, it will accept all the terms and conditions set out in the resulting contract clauses included in the bid solicitation.			
<b>Signature of Authorized Representative of Bidder</b>			

Solicitation No. - N° de l'invitation

H4134-123265/B

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

van532

Client Ref. No. - N° de réf. du client

File No. - N° du dossier

CCC No./N° CCC - FMS No/ N° VME

H4134-123265

VAN-2-35301

**Form 2****Substantiation of Technical Compliance Form - Mandatory**

<b>Item # Annex A</b>	<b>All Mandatory Articles of Annex A require substantiation by the Bidder</b>	<b>Bidder Substantiation</b>	<b>Reference to additional Substantiating Materials included in Bid</b>

**Form 3****Substantiation of Technical Compliance Form - Point rated**

<b>Item # Annex C</b>	<b>All Point rated Articles of Annex C require substantiation by the Bidder</b>	<b>Bidder Substantiation</b>	<b>Reference to additional Substantiating Materials included in Bid</b>



Solicitation No. - N° de l'invitation

H4134-123265/B

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

van532

Client Ref. No. - N° de réf. du client

H4134-123265

File No. - N° du dossier

VAN-2-35301

CCC No./N° CCC - FMS No/ N° VME

---

**NOTE TO BIDDERS:** Please use ONE of the two mailing labels below and affix it securely to the outside of the envelope or package containing your bid submitted by mail or courier. For bids submitted by facsimile (Bid receiving fax (604) 775-7526), use this sheet as the cover sheet. Always ensure your company name, return address, open bidding solicitation number and closing date appear legibly on the outside of your bid submission.

**AVIS AUX FOURNISSEURS:** Pour le retour par la poste ou par messenger, veuillez utiliser UNE des étiquettes d'envoi ci-dessous et apposez-la à l'extérieur de votre enveloppe ou du colis contenant votre offre. Pour les offres soumises par télécopieur (n° du télécopieur pour la réception des offres: (604) 775-7526), utilisez cette page comme bordereau de télécopie. Assurez-vous que le nom de votre compagnie, l'adresse de retour, le numéro de l'invitation ouverte à soumissionner et la date de clôture soient lisibles à l'extérieur de votre offre.

-----  
**Bid Receiving**  
**Public Works & Government Services Canada**  
**12TH FLOOR - 800 BURRARD STREET**  
**VANCOUVER BC V6Z 2V8**

**Solicitation No. : H4134-123265/B**

**Solicitation Closes at : 2:00 PM PT**  
**on : February 13 2013**

-----  
**Réception des soumissions**  
**Travaux publics et services gouvernementaux Canada**  
**800 rue Burrard, 12e étage**  
**Vancouver (C.-B) V6Z 2V8**

**N° de l'invitation : : H4134-123265/B**

**La réception des soumissions prend fin le : 13 février 2013**  
**à : 14:00 PT**

-----