Public Works and Government Services Canada

Travaux publics et Services gouvernementaux Canada

RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:

Bid Receiving - PWGSC / Réception des soumissions - TPSGC
11 Laurier St./ 11 rue, Laurier
Place du Portage, Phase III
Core 0A1 / Noyau 0A1
Gatineau, Québec K1A 0S5
Bid Fax: (819) 997-9776

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

Title - Sujet
SPECTROMETER

Solicitation No. - N° de l'invitation	**Date**
K8A21-130091/A	2013-09-05

Client Reference No. - N° de référence du client
K8A21-130091

GETS Reference No. - N° de référence de SEAG
PW-$$PV-883-63434

File No. - N° de dossier	**CCC No./N° CCC - FMS No./N° VME**
pv883.K8A21-130091	

Solicitation Closes - L'invitation prend fin
at - à 02:00 PM
on - le 2013-10-16

Time Zone
Fuseau horaire
Eastern Daylight Saving Time EDT

F.O.B. - F.A.B. Specified Herein - Précisé dans les présentes
Plant-Usine: ☐ **Destination:** ☐ **Other-Autre:** ☑

Address Enquiries to: - Adresser toutes questions à:	**Buyer Id - Id de l'acheteur**
Saunders, Lynda	pv883

Telephone No. - N° de téléphone	**FAX No. - N° de FAX**
(819) 956-6851 ( )	(819) 956-3814

Destination - of Goods, Services, and Construction:
Destination - des biens, services et construction:
DEPARTMENT OF THE ENVIRONMENT
AIR QUALITY RESEARCH
335 RIVER RD
MAHMOUD YASSINE
SCIENCE & TECHNOLOGY
OTTAWA
Ontario
K1A0H3
Canada

Instructions: See Herein

Instructions: Voir aux présentes

Vendor/Firm Name and Address
Raison sociale et adresse du fournisseur/de l'entrepreneur

Delivery Required - Livraison exigée	**Delivery Offered - Livraison proposée**
See Herein	

Vendor/Firm Name and Address
Raison sociale et adresse du fournisseur/de l'entrepreneur

Telephone No. - N° de téléphone
Facsimile No. - N° de télécopieur

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)

Signature **Date**

Issuing Office - Bureau de distribution
Scientific, Medical and Photographic Division / Division de l'équipement scientifique, des produits photographiques et pharmaceutiques
11 Laurier St./ 11 rue, Laurier
6B1, Place du Portage
Gatineau, Québec K1A 0S5

Canada

TABLE OF CONTENTS

PART 1 - GENERAL INFORMATION

1. Security Requirement
2. Requirement and Optional Requirements
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

PART 6 - RESULTING CONTRACT CLAUSES

1. Security Requirement
2. Requirement and Optional Requirements
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. SACC Manual Clauses

List of Annexes:

Annex A Technical Specifications
Annex B Basis of Payment

PART 1 - GENERAL INFORMATION

1. Security Requirement

There is no security requirement associated with this bid solicitation.

2. Requirement

Environment Canada has a requirement for the supply and installation of a Ultra High Performance Liquid Chromatography/Quadrupole Time-of-Flight Mass Spectrometry (UHPLC-QTOF-MS) complete with training and manuals as per specifications detailed at Annex A attached hereto.

2.1 Optional Requirement

An option to purchase additional components within one (1) year after contract award is also being included.

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

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 (2013-06-01) 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

1.1 SACC Manual Clauses

B1000T	Condition of Material	2007-11-30

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.

Due to the nature of the bid solicitation, bids transmitted by facsimile or electronic mail to PWGSC will not be accepted.

3. Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than ten (10) 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 Ontario, Canada.

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 (three (3) hard copies)
Section II: Financial Bid (two (2) hard copies)
Section III: Certifications (one (1) hard copy)

If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft 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 should:

1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and 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.

1.1 Section I: Technical Bid

In their technical bid, bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

The following applies to the Requirement and bidders must provide the following information in the bid where applicable:

1.1.1 Installation

On-site installation must be provided and shall be carried out by a qualified service technician.

Installation will be carried out within _____ calendar days of delivery and be completed within ____ ( ) calendar day.

1.1.2 Training

To provide an on-site or off-site training program for up to a maximum of three (3) users in English. All costs associated with the on-site or off-site training must be included in the quoted price.

On-site Training - On-site training is to take place at EC, Ottawa, Ontario

Off-site Training - Off-site training must be provided within 500 km of Ottawa, Ontario.

Training is to include basic operation, general applications, trouble shooting, hardware maintenance procedures and software usage by a trained service technician(s) familiar with the system being proposed. The exact date and time of the training will be mutually agreed between the Contractor and the Technical Authority stated herein.

On-site or off-site training is to be completed within _____ calendar days of installation.

The Bidder is to provide complete details of the on-site or off-site training. (e.g. duration, scope, number of technicians required to give course etc.). Training must be offered for at least three users for minimum of four days.

_____

_____

_____

_____

_____

1.1.3 Perpetual Software License

The Bidder shall provide a perpetual Software license to the purchaser to allow for remote off-line manipulation of data on another workstation connected via the network following the acceptance, at no additional cost.

The Bidder is to provide complete details of the software license being offered.

_____

_____

_____

_____

_____

1.1.4 Service (BIDDER TO COMPLETE)

Purchase of the system must include: regional technical support; technical phone support; support via the Internet; and support via a fax-back document system.

Response to service call: When a repair call is placed, a qualified repair person must be on site within 24 hours or less. If the issue cannot be resolved by the initial repair person, that person must be in a position to consult with a more experienced repair person while on our site. If a more qualified repair person needs to be dispatched to the site, they shall arrive within an additional 24 hours.

The instrument must have the capability to be accessed remotely by the service technician, by intrenet, for remote diagnostic check prior to a service call is placed.

Also, provide the following with your bid:

a) Location of available service facilities (after sales service and repair).

_____

_____

b) Locations of available replacement parts from consumables to major components.

_____

_____

_____

c) Response time re: service calls, and escalation schedule, i.e. (how many days with no resolution to a problem until a more experienced person is called in, and from which location).

_____

_____

_____

d) One (1) routine visit, per year, must be provided by a qualified service technician to provide routine annual inspection and preventive maintenance, if applicable and included in the price.

_____

_____

_____

1.1.5 **Point of Manufacture (BIDDER TO COMPLETE)**

The Bidder must state the point of manufacture/shipping of goods or where service is to be performed:

Location: _____

Postal Code: _____

1.1.6 **Delivery (BIDDER TO COMPLETE)**

While delivery is requested by March 31, 2014, please provide an answer to the following:

Yes, this delivery date can be met _____

OR

No, the best delivery date that can be offered is _____.

1.1.7 **Contacts**

Bidders are requested to provide the following: Information pertaining to Article 5.3 Contractor Representatives under Part 6, Resulting Contract Clauses.

1.2 Section II: Financial Bid

1.2.1 The Bidder must quote a firm, all inclusive lot price as detailed in Appendix 1 to Part 4, DDP Delivered Duty Paid (Ottawa, Ontario) Incoterms 2000. The total amount of Applicable Taxes must be shown separately.

1.2.2 **Optional Requirements** The Bidder must quote firm unit prices, for each component as detailed in Appendix 1 to Part 4, DDP Delivered Duty Paid (Ottawa, Ontario) Incoterms 2000 which must be fully compatible with the system being quoted.

1.2.3 **Exchange Rate Fluctuation**

C3011T Exchange Rate Fluctuation 2010-01-11

1.3 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

All bids submitted must be completed in full and provide all of the information requested in the Request for Proposal (RFP) package to enable a full and complete evaluation. If the requirement is not addressed in the bid, the bid will be considered incomplete or non-responsive and will be rejected. The onus is on the bidder to provide all the information necessary to ensure a complete and accurate assessment.

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Factors for Evaluation

1. **PRICING BASIS (MANDATORY):** Prices must be firm.

2. **ABILITY TO MEET THE TECHNICAL REQUIREMENT (MANDATORY):**

   a) For Items Defined by Specifications:
   The bidder is requested to cross reference the mandatory technical criteria contained herein to their supporting technical documentation.

   b) Provision of Supporting Technical Documentation:
   Supporting technical documentation for the stores offered shall be provided with the bid at time of bid closing. Technical brochures or technical data MUST be provided to verify compliancy to the technical mandatory specifications.

3. **COMPLIANCE WITH THE TERMS AND CONDITIONS OF THIS REQUEST FOR PROPOSAL (MANDATORY)**

4. **FOR CANADIAN SUPPLIERS ONLY**: Please note that the requirements of the Federal Contractors Program for Employment Equity may apply - see herein. (MANDATORY if applicable).

1.2 Financial Evaluation

a) The price of the bid will be evaluated in Canadian dollars, including any applicable Excise Taxes and Canadian Customs Duty (if applicable) and excluding Applicable Taxes. For evaluation purposes, bids received in a foreign currency will be converted to Canadian funds using the appropriate rate of exchange using the rate quoted by the Bank of Canada as being in effect on date of bid closing**.**

b) The price will be evaluated on DDP Delivered Duty Paid (Ottawa, Ontario) Incoterms 2000.

c) For evaluation purposes only, the total price shall be established as detailed in **Appendix 1** to Part 4 entitled "*Calculation of Total Price*".

2. Basis of Selection

A bid must comply with the requirements of the bid solicitation and meet all mandatory technical evaluation criteria to be declared responsive. The responsive bid with the lowest evaluated price will be recommended for award of a contract.

APPENDIX 1 TO PART 4 OF THE RFP

CALCULATION OF TOTAL PRICE

For evaluation purposes only, the total price shall be established as follows:

A. For the UHPLC-QTOF-MS System

Price is all inclusive of all components and accessories required to meet the mandatory technical specification attached hereto at Annex A.

Firm all inclusive (supply, installation, manuals, training, two-year warranty and perpetual software) lot price, DDP (Ottawa, Ontario) Incoterms 2000.

Part Number: _____ $_____

SUBTOTAL FOR A. $_____

B. Optional Requirements

Additional Components and Consumables

Bidders must provide a firm unit price, DDP (Ottawa, Ontario), Incoterms 2000 for the following additional components which must be fully compatible with the system being quoted.
Firm unit prices must be valid up to 31 March 2015.

	FIRM UNIT PRICE
A standard APCI source operated with the reference sprayer (facilitate automated exact mass measurements for compounds) Part Number: _____	$ _____
APPI Part Number: _____	$ _____
A Dual ESI/APCI (single probe) Part Number: _____	$ _____
A Combined APCI/APPI Part Number: _____	$ _____
Capillary Electrophoresis (CE) Interface Part Number: _____	$ _____
An Atmospheric Pressure Ionization Source for Gas Chromatography (APGC)/MS Part Number: _____	$ _____

SUBTOTAL FOR B. $_____

TOTAL BID PRICE (A+B) $_____

Applicable Taxes $ _____

TOTAL OVERALL COST $ _____

PART 5 - CERTIFICATIONS

Bidders must provide the required certifications and documentation 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, if any certification made by the Bidder is found to be untrue whether 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 with this request will also render the bid non-responsive or will constitute a default under the Contract.

1. Mandatory Certifications Required Precedent to Contract Award

1.1 Code of Conduct and Certifications - Related documentation

By submitting a bid, the Bidder certifies that the Bidder and its affiliates are in compliance with the provisions as stated in Section 01 Code of Conduct and Certifications - Bid of Standard Instructions 2003. The related documentation therein required will assist Canada in confirming that the certifications are true.

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 Human Resources and Skills Development Canada (HRSDC) - 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.

PART 6 - RESULTING CONTRACT CLAUSES

1. Security Requirement

There is no security requirement applicable to this Contract.

2. Requirement

Environment Canada has a requirement for the supply and installation of a Ultra High Performance Liquid Chromatography/Quadrupole Time-of-Flight Mass Spectrometry (UHPLC-QTOF-MS) complete with training and manuals as per specifications detailed at Annex A attached hereto.

2.1 Manuals

One complete set of operational, calibration and maintenance manuals, available in print copy or online, in either English or Bilingual format must be supplied with the instrument.

2.2 Installation

On-site installation must be provided and shall be carried out by a qualified service technician.

Installation will be carried out within (***to be completed at time of contract award)*** calendar days of delivery and be completed within (***to be completed at time of contract award)*** calendar days.

2.3 Training

On-site or off-site training is to be provided for up to a maximum of three (3) users in English. All costs associated with the on-site or off-site training must be included in the price.

On-site Training - On-site training is to take place at EC, Ottawa, Ontario

Off-site Training - Off-site training must be provided within 500 km of Ottawa, Ontario.

Training is to include basic operation, general applications, trouble shooting, hardware maintenance procedures and software usage by a trained service technician(s) familiar with the system being proposed. The exact date and time of the training will be mutually agreed between the Contractor and the Technical Authority stated herein.

On-site or off-site training is to be completed within (***to be completed at time of contract award*** calendar days of installation.

2.4 Service

Purchase of the system must include: regional technical support; technical phone support; support via the Intranet; and support via a fax-back document system.

Response to service call: When a repair call is placed, a qualified repair person must be on site within 24 hours or less. If the issue cannot be resolved by the initial repair person, that person must be in a position to consult with a more experienced repair person while on our site. If a more qualified repair person needs to be dispatched to the site, they shall arrive within an additional 24 hours.

2.5 **Perpetual Software License**

The Contractor must provide a perpetual Software license to allow for remote control (by intrenet) for monitoring of all instrument parameters, supplies, instrument tuning access to all error logs and maintenance screens, sample analysis, including start-up and shutdown and off-line data processing following the acceptance, at no additional cost**.**

2.6 **Software Upgrades**

The Contractor shall provide all software updates and new releases for all software licenses to the purchaser for a period of five (5) years following the acceptance, at no additional cost.

Note: The word "updates" means all enhancements, extensions or other modifications to the software. The word "releases" means enhancements or modifications to the software or new modules or supplementary modules that function in conjunction with the software, that represent the next generation of software, and which the Contractor has decided to make available to its customers usually for an additional charge.

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 (2013-04-25), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

Subsection 9 of 2010A (2013-04-25) General Conditions - Goods or Services, is amended as follows:

Delete: Subsection 9 in his entirety.

Insert: “The Work is subject to inspection and acceptance by Canada. Despite prior acceptance of the Work and without restricting any conditions or warranty imposed by law, the Contractor, if requested by the Minister to do so, must replace, repair or correct at its option and its own expense any Work which becomes defective or which fails to conform to the Contract requirements, where applicable. For goods, the on-site full service warranty period will be twenty-four (24) months after installation and acceptance or the length of the Contractor's or manufacturer's standard warranty period, whichever is longer. The on-site full service warranty covers all parts (including consumables and non-consumables), labor and all related expenses. As well, as an addition, the warranty will include one (1) visit per year by a qualified service technician to provide routine annual inspection and preventive maintenance. Such a visit will include the complete realignment of the entire system including but not limited to replacement of parts and installation of the replacement parts. Any Work replaced, repaired or corrected pursuant to this section is subject to all provisions of the contract to the same extent as Work initially performed.”

3.2 Supplemental General Conditions

The following supplemental general conditions shall apply to and form part of this Contract.

4003 (2010-08-16) - Licensed Software
4004 (2013-04-25) - Maintenance and Support Services for Licensed Software

4. Term of Contract

4.1 Delivery Date

All the deliverables must be received on or before ***(to be inserted at time of contract award).***

4.2 Shipping Instructions - Delivery at Destination

Goods must be consigned to the destination specified in the Contract and delivered:

(a) DDP Delivered Duty Paid (Ottawa, Ontario) Incoterms 2000 for shipments from a commercial contractor.

The Contractor will be responsible for all delivery charges, costs and risks of transport and customs clearance, including the payment of customs duties and taxes.

5. Authorities

5.1 Contracting Authority

The Contracting Authority for the Contract is:

Lynda Saunders
Supply Specialist
Public Works and Government Services Canada
Acquisitions Branch
Commercial Consumer Products Directorate
11 Laurier Street,
6A2, Phase III, Place du Portage
Gatineau, Quebec
K1A 0S5

Telephone: (819) 956-6851
Facsimile: (819) 956-3814
E-mail address: lynda.c.saunders@tpsgc-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:

(To be inserted at time of contract award)

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 (*Bidder to Complete*)

General enquiries	**Delivery Follow-up**
Name: _____	Name: _____
Telephone No: _____	Telephone No: _____
Facsimile No: _____	Facsimile No: _____
E-mail address: _____	E-mail address: _____

6. Payment

6.1 Basis of Payment - Firm Lot Price (Refer to Annex B)

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm lot price, DDP (Ottawa, Ontario) Incoterms 2000, as detailed under Annex B, in the Contract for a cost of ***$ (to be inserted at time of contract award***). Customs duties are included, and Applicable Taxes is extra.

6.1.1 Optional Requirement (Refer to Annex B)

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid the firm unit prices, DDP (Ottawa, Ontario) Incoterms 2000, as detailed under Annex B in the Contract. Customs duties are included and Applicable Taxes is extra.

6.2 Limitation of Price

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.

6.3 SACC Manual Clauses

C2000C	Taxes - Foreign-based Contractor	2007-11-30
H1000C	Single Payment	2008-05-12

7. Invoicing Instructions

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

   FOR PROMPT PAYMENTS, ENSURE THE CONTRACT NO./P.O.NUMBER APPEARS ON ALL DOCUMENTATION AND THE NAME OF THE TECHNICAL AUTHORITY.

2. 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.

   b) One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

8. Certifications

8.1 Compliance

Compliance with the certifications and related documentation 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, provide the related documentation or if 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.

8.2 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 HRSDC-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 HRSDC will constitute the Contractor in default as per the terms of the Contract.

9. Applicable Laws

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

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 supplemental general conditions 4003 (2010-08-16), Software License; and 4004 (2013-04-25), Maintenance and Support Services for Licensed Software;
c) the general conditions 2010A (2013-04-25), Goods (Medium Complexity);
d) Annex A, Technical Specifications;
e) Annex B, Basis of Payment; and
f) the Contractor's bid dated (*insert date of bid*).

11. SACC Manual Clauses

A2000C	Foreign Nationals (Canadian Contractor)	2006-06-16
A2001C	Foreign Nationals (Foreign Contractor)	2006-06-16
A9068C	Government Site Regulations	2010-01-11
B1501C	Electrical Equipment	2006-06-16

ANNEX A
TECHNICAL SPECIFICATIONS

Ultra High Performance Liquid Chromatography
Quadrupole Time Of Flight Mass Spectrometry System

Bidders MUST ensure that they do a cross-reference compliance with each area of the specification with their own technical literature, diagrams, data, etc. in order to verify compliancy. Insufficient information to verify compliancy will result in the bidder failing to meet the mandatory criteria.

MANDATORY SPECIFICATIONS

1.0 GENERAL

The Ultra High Performance Liquid Chromatography/ Quadrupole-Time Of Flight Mass Spectrometry combined with ion mobility analyzer (UHPLC/Q-TOF MS) is to be used for characterization, identification, structural elucidation, and analyzing unknown polar organics in particulate matter (PM)/ environmental pollutants in support of NAPS, PERD, and other programs. The system must provide multi-purpose analytical capabilities and precise analytical results. The Q-TOF MS unit will be also hyphenated to the existing Capillary Electrophoresis (CE) systems (Agilent and/or Beckman) and allow research and method development using CE/Q-TOF MS (to provide accurate assessment of the polar components in the PM, including primary and secondary organic aerosols).

2.0 EQUIPMENT SPECIFICATIONS

2.1 The UHPLC and Q-TOF MS including the ion mobility analyzer must be a completely integrated system controlled by a single software and must consist of the following major components:

- UHPLC with Photo-Diode Array (PDA) Detector
- Q-TOF MS Detector including Ion Mobility Analyzer;
- Nitrogen Generator; and
- Computer and Software System

2.2 UHPLC with Photo-Diode Array (PDA) Detector

2.2.1 **Ultra High Pressure Binary Pump must**:

a) have pressure limit of at least 1200 bar (18,000 psi; 120 MPa) with flow rates of 2 mL/min or higher.
b) have high flow precision (<0.1% RSD).
c) have pump flow accuracy of ±1.0% at 0.5 mL/min
d) have integrated solvent degasser with low internal volume (>500 µL).
e) be equipped with an automatic and programmable seal wash.
f) have low mixer dead volume less than 50 µL.
g) have automatic and continuous compressibility compensation based on the mobile phase selection.
h) be able to deliver different gradient programs including linear, convex and concave gradient curve shapes.
i) be designed to select between four solvents using switching valves.
j) be able to set the solvent composition from 0-100% in 0.1% increments.
k) have the pump compositional accuracy of ±0.5%.

2.2.2 **Autosampler must:**

a) be compatible with binary pump operating pressure up to 1200 bar (18000 psi; 120 MPa) for ultra high pressure LC analysis.
b) have temperature control from 4 to 40°C in 1°C increments (temperature accuracy of ±1 °C and temperature stability of ±1 °C).
c) have a shade to block light from entering the sample compartment.
d) have a total system dwell volume of <100 µL.
e) support at least two injection modes- full loop and partial loop.
f) have injection volume range between 0.1-100 µL (precision of <0.5% for injection volumes).
g) be able to support about 100 vials of the standard LC vials.
h) have random access to any vial for multi-operations.
i) have carryover less <0.004% from sample to sample.
j) have an integrated wash station for both the inner and outer surfaces of the needle.
k) have injection cycle of <20 sec with load a head.

2.2.3 **Thermostatotted column compartment must**:

a) be designed for UHPLC operations with maximum pressure limit of 1200 bar (18000 psi; 120 Mpa).
b) have a minimal contribution to the delay volume (<5 µL) with active preheating.
c) be able to heat from 10 to 90°C.
d) have the ability to run temperature gradient (temperature stability ±0.3°C).
e) be able to support at least four columns (2.1 x100 mm) with precolumns.
f) be able support optional column switching without changing the pluming.

2.2.4 **UV/Vis detection (Photo-Diode Array; PDA) must:**

a) be designed for UHPLC operations with maximum pressure limit of 1200 bar (18000 psi; 120 Mpa).
b) have optical flow cell with path-length of at least 10 mm with minimum volume of 500 nL.
c) have a 1024-Element Photodiode Array.
d) have a wavelength range from 190 nm to 800 nm with wavelength accuracy of ±1 nm.
e) have data collection rate of at least 50 Hz.
f) have noise level below ±3 µAU and baseline drift better than 0.5 mAU/hour.

2.2.5 **The UHPLC system must:**

a) be able to tolerate solvents pH from 2-12.
b) include a solvent tray
c) support leak sensing with at least 3 days diagnostic data through software
d) prevent analysis and shut down the pump when one of the solvents level in the reservoirs falls below certain amount (set by the operator).
e) include at least five (2.1x100 mm) UHPLC columns with different stationary phases (e.g. high/low pH, polar/nonpolar)

2.3 Q-TOF MS Detector including Ion Mobility Analyzer

2.3.1 The Q-TOF system must:

a) be composed of: ion source; quadrupole analyzer; collision cell; orthogonal acceleration Time-of-Flight; Ion mobility device; and vacuum system.
b) be configured for MS and MS/MS.
c) provide a mass accuracy of less than 1 ppm RMS in both MS and MS/MS mode for high confidence identification and to reduce false positive.
d) provide a mass resolving power of over 40,000 FWHM at 1000 m/z.
e) provide the best sensitivity in both positive and negative modes (≤1 pg per injection in positive mode and ≤5 pg per injection in negative mode).
f) be able to produce full spectral data at rates of at least 30 spectra/sec at high resolution for high-speed chromatography and capillary electrophoresis.
g) be able to achieve five orders of magnitude of linear dynamic response range with no compromise on the sensitivity at low abundance ions.
h) be able to perform fast alternating between low and high collision energy (<30 msec) in the same run with no compromise of the Q-TOF sensitivity. Fast alternating between low and high collision energy enables the determination of the elemental composition data on procurer as well as the fragment ions in each spectrum that would greatly enhance the confidence in ion structure assignments from a single experiment (one injection run).
i) have infusion device integrated to the instrument and be controlled from the instrument software.
j) include an automated tuning and calibrating capability in the hardware setup.
k) have all gas flows fully integrated into the source and no tubing connections should be externally exposed.

2.3.2 Ion source must:

a) be equipped with electrospray ionization (ESI) interface. The ESI must incorporates a heated gas flow operate up to a temperature of ~650 °C for efficient desolvation and ionization at high flow rates.
b) have the ESI source needle grounded for safety.
c) have an orthogonal design between the ESI sprayer and the sampling orifice.
d) have a dual nebulizer ion source, one to supply the sample and the other to supply a reference compound (to allow automated exact mass measurements). The two sprayers must not be mixed inside the ion source chamber and preferably be separated from each other by a divider (to avoid ion suppression, mass interferences and solvent effects).
e) have the ion guide (between the inlet skimmer and the quadrupole) composed of dual stage off-axis stacked ring electrodes device for efficient transport of ions and to allow the ion beam to be separated from neutrals and gas load.
f) have an isolation valve that allows removing of the ion source building blocks for cleaning without breaking instrument vacuum.
g) be capable of positive and negative ionization.
h) have nano-electrospray device for nano-flow UHPLC. The device must contain a nano-spray emitter (supply the sample) and a nano-reference sprayer (supply the reference compound) to allow automated mass measurements. The two sprayers must not be mixed inside the ion source chamber and preferably be separated from each other by a divider to avoid ion suppression, mass interferences and solvent effects).
i) have solid sample introduction probe to analyze solid samples like particulate matter.

2.3.3 **Quadrupole analyzer must:**

a) have a mass (m/z) range of 20-2000 Da.
b) be able to switch between rf-only MS (for efficient transmission of ions) mode and MS/MS (for selection of precursor ions) acquisition modes in no more than 30 msec without compromising either MS or MS/MS data quality.
c) have all lenses and analyzer voltages digitally controlled.

2.3.4 **Collision cell must:**

a) have high efficiency with a beam focusing capability as ions enter the TOF analyzer.
b) be able to directly monitor the collision gas pressure (range 1 x 10^{-4} to 1 mbar).
c) be able to digitally control the collision energy.
d) be programmable to allow accumulation of ions before transfer them to TOF analyzer.

2.3.5 **Orthogonal Acceleration Time-of-Flight (OA TOF) must:**

a) be positioned after the collision cell.
b) be able to maintain focused ion beam by using a series of digitally controlled lenses and grids before entering the analyzer.
c) be able to pulsed the ion beam orthogonally into the drift tube using a high field pusher (3-10kV) at high repetition rate (up to 30 kHz).
d) have at least one reflectron (ion mirror) as energy focusing device to improve mass resolution.
e) have the detector to be automatically protected against ion signal overload.
f) have ultra fast analog to digital converter (ADC) with an acquisition rate of at least 3 GHz to provide excellent peak definition and mass accuracy.
g) be able to eliminate or compensate for the mass drift that occur due to temperature changes and maintain the mass accuracy of less than 1 ppm in both MS and MS/MS modes (the system must be able to maintain this mass accuracy in a lab environment with temperature range of 15 to 35°C though out the day and temperature variation up to 3°C/hr).

2.3.6 **Ion mobility device must:**

a) be able to differentiate between compounds that have same molecular formula and different structure (structural isomers). This can be achieved by using high-efficiency ion mobility separation device where analytes can be differentiated based on size, shape, mass and charge. This would be very important for unequivocal determination of the structural formula of isomers.
b) allow an efficient transport of the separated ions to the TOF detector.
c) be able to calculate the collision cross-sectional area of ions.
d) have ion mobility resolution of more than 40.
e) maintain system performance (sensitivity, resolution, and dynamic range) with or without the ion mobility device (the Q-TOF performance must be maintained without removing the ion mobility analyzer from the system).
f) be fully controlled by the same software that control the UHPLC/Q-TOF MS system.

2.3.7 **Vacuum system must:**

a) be automated and differentially pumped system.
b) be clean and not promote the migration of contaminants to the ion optics and MS analyzer.
c) have a rough pump (oil-free pump) for backing of the turbomolecular pump and a rough pump for the first source vacuum stage (oil free pump).

2.4 Nitrogen Generator

The system must include a Nitrogen Generator with the capability of providing up to 100 psi and purity of at least 95% nitrogen gas (preferable N2-14 Parker Balston nitrogen generator).

2.5 Computer and Software System

2.5.1 The system must have:

- one computer including two monitors (no less than 23 inches)
- colour printer
- accessories necessary for software (UHPLC/Q-TOF MS system); and
- an extra LAPTOP personal computer (with 15.4 inch wide screen, intel core processor of a least 2.5 GHz, RAM of at least 8 GB, and hard disk capacity of a least 1 TB) operated under Windows 7 (64 bits) for off-line data processing with all necessary software.

2.5.2 **The operating system software for the UHPLC/Q-TOF MS control must:**

a) be operated under WINDOWS 7 (64 bits).
b) be able to control all UHPLC/Q-TOF MS instrument features and functionality including the ion mobility device.
c) include automated monitoring of instrument vacuum, gas flows, and voltages to warn the user of out-of-tolerance parameters.
d) be able to attach the collision gas pressures and flows parameters used during data acquisition to the relevant data file.
e) include automatically report on system performance by employing user-defined criteria for compound retention time, peak area/height and signal-to-noise over a specified number of injections.
f) be able to run at the same time as other programs on the computer such as word processors and databases.
g) digitally monitor and control the vacuum read backs and system vent/pump cycles, and be able to ensure fail-safe operation in the event of power failure.
h) be qualified for use in a GLP/GMP compliant environment. The vendor must be able to provide and, perform installation qualification (IQ), operational qualification (OQ) for each component of the UHPLC and Q-TOF MS system (including software) and performance qualification for the entire system.

2.5.3 **The software must:**

a) be able to export raw data to other programs and file formats (for example, Clipboard, DIF, CSV, WMF, etc.).
b) be able to store each analytical method including instrument set points, data acquisition, data evaluation and reporting parameters.
c) be able to acquire simultaneous positive and negative ion data during a single UHPLC/Q-TOF MS experiment.
d) be capable of processing data acquisition of high and low collision energy simultaneously to provide fragmentation information for the target analytes.
e) incorporate an elemental composition calculator with an algorithms for isotope pattern modelling (the isotopic ratios and spacing of the complete isotopic patterns).

2.5.4 **The software must acquire spectral data in:**

a) A profile (continuum) data mode.
b) A histogram (bar graph) data mode.
c) Tabular listing data mode.

2.5.5 **The software must:**

a) be able to provide simultaneous 2D and 3D representation of the PDA spectra (retention time, intensity, and wavelength).
b) be able to provide peak detection in three dimensions (retention time, m/z, and collisional cross-section of the ions as well as the intensity).
c) be able to report on the defined criteria for quality control samples, blanks and internal standards in real time during acquisition of the sample set.
d) be able to perform target (specific compounds) and non-target (unknowns) data mining that combine information of isotopes, adduct, and multi-charge stage.
e) be able to perform multivariate statistics including principal component analysis, cluster analysis, T-test and other statistical tools.
f) be able to store the quantification and quality control parameters for each compound and can be loaded into new methods.

2.5.6 **The software must:**

a) allow the system to run unattended.
b) be capable to monitor the instrument during acquisition and record both instrument performance parameters: temperature, pressure and including ambient temperature.
c) be capable to monitor any unusual or unexpected events that would affect the integrity or quality of the results.
d) be able to log to record each functional step the software executes.
e) be able to log to record when and who modified methods.
f) allow programmed shutdown of the instrument, including the pumps, lamps in the detector and MS analyzer.

2.5.7 **Perpetual Software License:**

The Contractor must provide a perpetual Software licence to allow for remote control (by intrenet) for monitoring of all instrument parameters, supplies, instrument tuning access to all error logs and maintenance screens, sample analysis, including start-up and shutdown and off-line data processing**.**

2.6 Other Requirements

2.61 The system must have an uninterrupted power supply (UPS) unit dedicated to the Q-TOF MS with the ion mobility analyzer to prevent instabilities in the local main power and to assure system reliability and performance.

2.6.2 Integrated configuration includes all possible and interchangeable ionization probes (i.e., ESI, APCI, and APPI) for UHPLC and capillary electrophoresis (CE).

ANNEX B

BASIS OF PAYMENT

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid the prices specified below, DDP (Ottawa, Ontario), Incoterms 2000. Customs duties are included, and Applicable Taxes is extra.

B1. <u>For the UHPLC-QTOF-MS System</u>

Price is all inclusive of all components and consumables and non-consumables required to meet the mandatory technical specification attached hereto at Annex A.

Firm all inclusive (supply, installation, manuals, training, two-year warranty and perpetual software license) lot price.

Part Number: _____ $_____

B2. Optional Requirements

Bidders are requested to provide a firm unit price, DDP (Ottawa, Ontario), Incoterms 2000 for the following additional components which must be fully compatible with the system being quoted. Firm unit prices will be applicable up to 31 March 2015.

	FIRM UNIT PRICE
A standard APCI source operated with the reference sprayer (facilitate automated exact mass measurements for compounds) Part Number: _____	$ _____
APPI Part Number: _____	$ _____
A Dual ESI/APCI (single probe) Part Number: _____	$ _____
A Combined APCI/APPI Part Number: _____	$ _____
Capillary Electrophoresis (CE) Interface Part Number: _____	$ _____
An Atmospheric Pressure Ionization Source for Gas Chromatography (APGC)/MS Part Number: _____	$ _____