



RETURN BIDS TO:

RETOURNER LES SOUMISSIONS À:

Bid Receiving Public Works and Government
Services Canada/Réception des soumissions
Travaux publics et Services gouvernementaux
Canada

189 Prince William St Rm 405

189, rue Prince William, pièce 405

Saint-John, NB E2L 2B9

Bid Fax: (506) 636-4376

INVITATION TO TENDER

APPEL D'OFFRES

**Tender 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.

**Soumission 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 et sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaires

Vendor/Firm Name and Address

Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution

Saint John, NB (STJ)

189 Prince William St., Rm 405

189, rue Prince William, Pc 405

St. John, NB E2L 2B9

Title - Sujet Liquid Chroma. Mass Spectrometer	
Solicitation No. - N° de l'invitation K8B11-180219/A	Date 2017-07-10
Client Reference No. - N° de référence du client K8B11-180219	GETS Ref. No. - N° de réf. de SEAG PW-\$STJ-005-4154
File No. - N° de dossier STJ-7-40038 (005)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2017-08-22	
Time Zone Fuseau horaire Atlantic Daylight Saving Time ADT	
F.O.B. - F.A.B.	
Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Lomax (STJ), Sandra	Buyer Id - Id de l'acheteur stj005
Telephone No. - N° de téléphone (506) 636-4362 ()	FAX No. - N° de FAX (506) 636-4376
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF THE ENVIRONMENT ENVIRL SCIENCE CTR 443 UNIVERSITY AVENUE MONCTON New Brunswick E1A3E9 Canada	

Instructions: See Herein

Instructions: Voir aux présentes

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

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PART 1 - GENERAL INFORMATION

1.1 Security Requirements

There are no security requirements associated with this bid solicitation

1.2 Requirement - Bid

The Work to be performed is detailed under Article 2 of the resulting contract clauses

(Derived from - Provenant de: B4007T, 2014/06/26)

1.3 Debriefings

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

PART 2 - BIDDER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the *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 (2015/07/03) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

2.2 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.

- a) Bids must be complete and submitted on prescribed tender form;
- b) Include the tender call number/project number and description of proposed work;
- c) Include the closing date and time;
- d) Must be received prior to bid closing time and at the designated place and facsimile number - FACSIMILE NUMBER IS (506-636-4376).

NOTE: FACSIMILE BIDS

Only incorrect handling by the Department of Public Works and Government Services will excuse the delay of responses transmitted by facsimile. Misrouting, traffic volume, weather disturbances, or any cause for the late receipt of such responses are not acceptable.

Bid Receiving
Public Works and Government Services Canada
Room 421
189 Prince William Street
Saint John, New Brunswick
E2L 2B9
FACSIMILE NUMBER - 506-636-4376

2.2.1 Improvement of Requirement During Solicitation Period

Should bidders consider that the specifications or Statement of Work contained in the bid solicitation could be improved technically or technologically, bidders are invited to make suggestions, in writing, to the Contracting Authority named in the bid solicitation. Bidders must clearly outline the suggested improvement as well as the reason for the suggestion. Suggestions that do not restrict the level of competition nor favour a particular bidder will be given consideration provided they are submitted to the Contracting Authority at least seven (7) days before the bid closing date. Canada will have the right to accept or reject any or all suggestions.

(Derived from - Provenant de: A9076T, 2007/05/25)

2.3 Former Public Servant

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

Definitions

For the purposes of this clause,

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

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

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

"pension" means a pension or annual allowance paid under the [Public Service Superannuation Act](#) (PSSA), R.S., 1985, c.P-36, and any increases paid pursuant to the [Supplementary Retirement Benefits](#)

Act, R.S., 1985, c.S-24 as it affects the PSSA. It does not include pensions payable pursuant to the Canadian Forces Superannuation Act, R.S., 1985, c.C-17, the Defence Services Pension Continuation Act, 1970, c.D-3, the Royal Canadian Mounted Police Pension Continuation Act, 1970, c.R-10, and the Royal Canadian Mounted Police Superannuation Act, R.S., 1985, c.R-11, the Members of Parliament Retiring Allowances Act, R.S., 1985, c.M-5, and that portion of pension payable to the Canada Pension Plan Act, R.S., 1985, c.C-8.

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

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

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

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with Contracting Policy Notice: 2012-2 and the Guidelines on the Proactive Disclosure of Contracts.

Work Force Adjustment Directive

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

If so, the Bidder must provide the following information:

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

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

(Derived from - Provenant de: A3025T, 2014/06/26)

2.4 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than seven (7) calendar days before the bid closing date. Enquiries received after that time may not be answered.

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

eliminated, and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

2.5 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in **New Brunswick**.

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

3.1 Bid Preparation Instructions

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

Section I: Technical Bid (1 hard copy)
Section II: Financial Bid (1 hard copy)
Section III: Certifications (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) (<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.

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.

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Basis of Payment in Annex "B". The total amount of Applicable Taxes must be shown separately.

3.1.1 Exchange Rate Fluctuation

C3011T (2013/11/06), Exchange Rate Fluctuation

Section III: Certifications

Bidders must submit the certifications required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

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

4.1.1 Technical Evaluation

4.1.1.1 Mandatory Technical Criteria

Mandatory Technical Criteria as specified in Annex "C"

4.1.2 Financial Evaluation

SACC Manual Clause A0220T (2014/06/26), Evaluation of Price (*if applicable*)

4.2 Basis of Selection

SACC Reference	Section	Date
A0031T	Basis of Selection - Mandatory Technical Criteria	2010/08/16

PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

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

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

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

5.1 Certifications Precedent to Contract Award and Additional Information

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

5.1.1 Integrity Provisions – List of Names

Bidders who are incorporated, including those bidding as a joint venture, must provide a complete list of names of all individuals who are currently directors of the Bidder.

Bidders bidding as sole proprietorship, as well as those bidding as a joint venture, must provide the name of the owner(s).

Bidders bidding as societies, firms or partnerships do not need to provide lists of names.

5.1.2 Federal Contractors Program for Employment Equity - Bid Certification

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

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

Canada will also have the right to terminate the Contract for default if a Contractor, or any member of the Contractor if the Contractor is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](#)" list during the period of the Contract.

The Bidder must provide the Contracting Authority with a completed annex [Federal Contractors Program for Employment Equity - Certification](#), before contract award. If the Bidder is a Joint Venture, the Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, for each member of the Joint Venture.

PART 6 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

6.1 Security Requirements

There is no security requirement applicable to this Contract.

6.2 Requirement

Statement of Work - Contract

The Contractor must provide the items detailed under the "Requirement" at Annex "A".

(Derived from - Provenant de: B4008C, 2014/06/26)

6.3 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) (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) issued by Public Works and Government Services Canada.

6.3.1 General Conditions

[2010A](#) (2015/07/03), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

6.4 Term of Contract

6.4.1 Delivery Date

The goods must be received on or before October 31, 2017.

(Derived from - Provenant de: A9022C, 2007/05/25)

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Sandra Lomax
Title: Supply Officer
Public Works and Government Services Canada
Acquisitions Branch
Address: 189 Prince William St
Saint John, New Brunswick
E2L 2B9

Telephone: (506) 636-4362
Facsimile: (506) 636-4376
E-mail address: Sandra.lomax@pwgsc-tpsgc.gc.ca

Solicitation No. - N° de l'invitation
K8B11-180219
Client Ref. No. - N° de réf. du client
K8B11-180219

Amd. No. - N° de la modif.
File No. - N° du dossier
STJ-7-40038

Buyer ID - Id de l'acheteur
STJ005
CCC No./N° CCC - FMS No./N° VME

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.

6.5.2 Project Authority

The Project Authority for the Contract is: *will be identified at contract award*

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

Telephone : _____
Facsimile: _____
E-mail address: _____

The Project 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 Project Authority, however the Project Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

6.5.3 Contractor's Representative

Name: _____
Title: _____
Organization: _____
Address: _____
Telephone: _____
Facsimile: _____
E-mail: _____

6.6 Payment

6.6.1 Basis of Payment - Firm Price

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm lot price, as specified in Annex B for a cost of \$ _____ (insert the amount of the contract award)

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.

(Derived from - Provenant de: C0207C, 2013/04/25)

6.6.2 Limitation of Price

SACC Manual clause [C6000C](#) (2011/05/16) Limitation of Price

(Derived from - Provenant de: C4005C, 2014/06/26)

6.6.3 Terms of Payment

SACC Manual Clause H1000C (2008/05/12) Single Payment

6.7 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.
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.

(Derived from - Provenant de: H5001C, 2008/12/12)

6.8 Certifications

6.8.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing additional information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the additional information, 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.

Solicitation No. - N° de l'invitation
K8B11-180219
Client Ref. No. - N° de réf. du client
K8B11-180219

Amd. No. - N° de la modif.
File No. - N° du dossier
STJ-7-40038

Buyer ID - Id de l'acheteur
STJ005
CCC No./N° CCC - FMS No./N° VME

6.9 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in **New Brunswick**

6.10 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 (2015/07/03), General Conditions - Goods (Medium Complexity)
- (c) Annex A, Requirement;
- (d) the Contractor's bid dated _____

Annex "A" Statement of Work

Fully automated Liquid Chromatography Triple Quadrupole Mass Spectrometer (LC-QQQ-MS) System for the Atlantic Laboratory for Environmental Testing of Environment Canada in Moncton (NB), Chemistry Section.

Background

The Atlantic Laboratory for Environmental Testing (ALET) is an Environment Canada accredited laboratory (ISO 17025) and is currently part of the Water Science and Technology Division of the Science and Technology Branch. ALET is also one of a group of five Environment Canada laboratories located in different regions across Canada. ALET is currently located at 443 Université Avenue in Moncton (NB).

The Chemistry Section of the Atlantic Laboratory for Environmental Testing (ALET) located in Moncton, NB requires the purchase of a Liquid Chromatography Triple Quadrupole Mass Spectrometer (LC-QQQ-MS) system for the quantitative and qualitative analysis of a wide variety of traces level environmental organic compounds.

This instrument will replace a Liquid Chromatography Mass Spectrometer (LC-MS) system. It will be used for the analysis of specific emerging pesticides and other contamination in a variety of matrices in support of the Environmental Enforcement Investigations and enhancing pesticides monitoring for the Science and Technology (S&T) Science programs.

Request Statement

To obtain a fully automated, new Liquid Chromatography Triple Quad Mass Spectrometer (LC- QQQ-MS) System for the Chemistry Section of the Atlantic Laboratory for Environmental Testing. The System must be installed on-site and the Chemistry Section staff be trained on its usage. The System must come equipped with all the necessary hardware and qualitative and quantitative analysis software that allows detection, interpretation and determination of trace organic chemicals in the environmental samples.

Instructions for Manufacturer/ Supplier (Bidder)

The manufacturer/ supplier (bidder) must answer all system requirements listed in this document. Additionally, proposals will have to be clearly laid out and concise with supporting documentation, such as accompanying literature and reference documents (i.e. application notes, brochures, etc...). It is the responsibility of the bidder to provide all pertinent and additional documentation that would clearly demonstrate that their instrument can meet (or exceed) the requirements listed in this request for proposal.

The bidder must not simply answer by “Yes”, “No” or, “meet requirement” to indicate that they meet any of the enumerated requirements. The bidder must offer a statement of confirmation and an annotation or preferably, a link to the page, bullet point and/ or section I.D. of their documentation where each of their specifications meeting our requirements can be found.

IMPORTANT NOTE: *Proposals can only be evaluated based on the information provided at the time of proposal submission. For instance, we are not permitted to access and/ or review any additional information other than that provided by the bidder at the time of proposal submission to evaluate proposals: i.e. access to the internet, verifying references, etc. It is therefore to the manufacturer/supplier bidder best interest to provide the purchaser with all the **relevant** information required so they can make an informed decision with respect to the system that best meet their requirements.*

Furthermore, once the instrument has been received and installed, the bidder will have the responsibility to demonstrate through the analysis of real standards and reference materials samples that their instrument meets the purchaser specifications and performance criteria. Failure to demonstrate system performance on real samples (and not only artificially prepared samples) may result in the system being returned to the bidder at their expense.

It is understood that, by submitting their proposal(s), bidder accepts and will respect all conditions set forth in this request for proposal should their proposal result in a successful award of sales contract.

Intellectual Property

It is understood that all software (service packs, upgrades, etc.) provided with the instrument by the bidder is the sole property of the bidder but, that any and all data generated by the purchaser using this software remains the sole property of the purchaser: in this case, Her Majesty the Queen in Right of Canada, represented by the Minister of Public Works and Government Services Canada, (i.e. The Government of Canada).

Specification

Liquid Chromatography Triple Quadrupole Mass Spectrometer (LC-QQQ-MS)

The Liquid Chromatography Triple Quadrupole Mass Spectrometer (LC-QQQ-MS) System shall 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.

- A high performance liquid chromatography (LC) pump
- An autodegasser
- An Autosampler
- A thermostated column compartment

- A Triple Quadrupole mass spectrometer (QQQ-MS)
- A high capacity nitrogen generator to accommodate the systems
- Operating/Data System Software
- Operating/Data System Hardware
- System Implementation and Training
- Service & Support
- System Performance Specifications

Part 1- Essential (or mandatory) requirements

1.1 Liquid Chromatography (LC)

- 1.1.1 The LC Subsystem must be an integrated part of the total system and designated for unattended operation. It must be under complete control of the operating/data computer system.
- 1.1.2 The LC Subsystem must include a high performance LC pump, an autodegasser (integrated or standalone), an autosampler and thermostated column compartment.
- 1.1.3 All mobile phase back pressures, flow rates, leak detection and flows to inlets and detectors electronically controlled via the computer system.
- 1.1.4 All tubing, fitting, and regulators required for system installation must be included.
- 1.1.5 The LC method must be part of the full method along with Automatic Sampling parameters, Mass Spectrometer settings, Data Processing options and Reporting Options.
- 1.1.6 The LC system is able to run sub 2 µm particle size columns at a flow rate of up to 2.0 mL/min.
- 1.1.7 Flow rate range: 0.050 to 2 mL/min or higher.
- 1.1.8 Accommodate at least 2 solvents during a gradient run, and be able to select from 4 different solvent reservoirs.
- 1.1.9 Maximum operating pressure: at least 600 bar.
- 1.1.10 Minimum capacity: 48 vials or more up to 2 mL capacity each.
- 1.1.11 Degasser: automatic and continuous on-line vacuum degassing.
- 1.1.12 pH range: pH 2 to 12.
- 1.1.13 Column thermostat compartment: Maintain temperatures in range of 5°C above ambient to 40 °C or higher in no more than 1°C increments.
- 1.1.14 Injection volume: 0.1 to 100 µL or higher in 0.1 µL increments with no hardware changes.
- 1.1.15 Large Volume Injection: 10 to 1000 µL in 10 µL increments.
- 1.1.16 Carryover : <0.004 % or better.
- 1.1.17 Integral Cooling unit for samples: with a temperature range programmable from ambient to 4°C (Temperature settable from 4 - 40°C), in no more than 1°C increments.
- 1.1.18 Switching valve: under software control.
- 1.1.19 In-line degasser: internal volume of 2 mL or less per channel.
- 1.1.20 Solvent reservoirs require for the system

- 1.1.21 LC parts: any other items, including hardware and software not explicitly stated, required for the system to be qualified as per protocols stipulated by the vendor and accompanying documentation thereof.
- 1.1.22 The system must have the possibility to be easily upgraded with an online Solid Phase Extraction (SPE) module. By easily, we mean the upgraded module must be controlled with the same software that controls the LC-QQQ-MS and that it is manufactured by the same manufacturer as the LC-QQQ-MS to make that upgrade the easiest possible if ever needed.

1.2 Triple Quadrupole Mass Spectrometer (QQQ-MS)

- 1.2.1 The QQQ-MS Subsystem must be an integrated part of the total system and designated for unattended operation and dedicated to perform LC-QQQ-MS. The QQQ-MS Subsystem must include a tripe quadrupole mass spectrometer, a high capacity nitrogen generator to accommodate the proposed LC-QQQ-MS systems, all relevant operating/Data System Software, operating/Data System Hardware, system Implementation and training, service & support and system performance specifications.
- 1.2.2 Supplied with appropriate source for Electrospray (ESI) and Atmospheric Pressure Chemical Ionization (APCI) interfaces.
- 1.2.3 The mass stability must be ≤ 0.1 Da over a 24 hour period
- 1.2.4 Mass resolution of 0.5 Da at full width at half maximum (FWHM)
Note: Vendor must provide definition and condition of achieving the specified resolution
- 1.2.5 The instrument must have a maximum scan speed of at least 16000 Da/sec
Note: vendor must provide definition and conditions of achieving the specified scan speed.
- 1.2.6 MS operating modes must include: Full scan, Selected Ion Monitoring/Recording (SIM or SIR), Precursor (Parent) ion scan, Product (Daughter) ion scan, and Multiple Reaction Monitoring (MRM)
- 1.2.7 MRM sensitivity in ESI positive of 1pg of reserpine injected on column on the transition m/z 609 to 195 must be higher than 70000:1 signal to noise (S/N).
Note: Vendor must provide definition and condition of achieving the specified sensitivity
- 1.2.8 MRM sensitivity instrument detection limit (IDL) in ESI positive of 10 fg of reserpine injected on column, quantify on the transition m/z 609 to 195, the instrument detection limit (IDL) must be lower than 5 fg
Note: Vendor must provide definition and condition of achieving the specified sensitivity instrument detection limit.
- 1.2.9 MRM sensitivity in ESI negative of 1pg of chloramphenicol injected on column on the transition m/z 321 to 152 must be higher than 30000:1 signal to noise (S/N).
Note: Vendor must provide definition and condition of achieving the specified sensitivity

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- 1.2.10 MRM sensitivity instrument detection limit (IDL) in ESI negative of 10 fg of chloramphenicol injected on column, quantify on the transition m/z 321 to 152, the instrument detection limit (IDL) must be lower than 5 fg
Note: Vendor must provide definition and condition of achieving the specified sensitivity instrument detection limit.
 - 1.2.11 Linear dynamic range: up to 6 orders magnitude.
 - 1.2.12 MS Range: at least m/z 10-2000.
 - 1.2.13 Vacuum pumps: must provide all vacuum pumps required for instrument operation.
 - 1.2.14 Nitrogen gas generation: Must provide standalone nitrogen gas generator capable of providing high purity sheath gas for ESI and APCI interface (and accompanying air compressor if incompatible with existing on-site air compressor). The compressed air available at the lab is produced from an oil-less compressor. The compressed air is dry with an air dryer. The compressor starts when the air pressure at the exit of the air dryer is 105psi and stops at 140 psi.
 - 1.2.15 In-house libraries: capable of 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.
 - 1.2.16 The system's data acquisition must allow acquisition using dynamic MRM scheduling rather than time domains for more than 1200 transition in a single run and must also allow threshold triggering of a MRM transition to monitor a minimum of 6 other MRM transition when that threshold is reached.
 - 1.2.17 Positive and negative mode polarities: Capable of switching and stabilization between positive and negative mode rapidly. System must be able to perform positive-negative ionization mode switching during one data acquisition run in 30ms or less.
 - 1.2.18 Instrument tune capability: Must have a built-in calibrant delivery system and an "auto-tune" capability for optimization of ion optics and mass axis calibration in positive and negative ion.
 - 1.2.19 MS software compatibility: The MS software must permit simple, direct data transfer to popular 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. Please provide a detailed list of these features.
 - 1.2.20 MS software must have the ability to export the data in a CSV type file.
- 1.3 Operating/Data Computer System Software
- 1.3.1 Operating system: The PC computer system's operating system must be Microsoft Windows 7 or greater
 - 1.3.2 Network compatibility: The PC computer must provide networking compatible with popular network protocols: TCP/IP, Novell, DecNet, etc.
 - 1.3.3 Instrument control: full control of instrumentation operation including fully automated system start-up and shut down, initial instrument calibration,

parameter optimization, routine operations, calibration, data processing, report generation, etc.

- 1.3.4 Multi-tasking capabilities: the PC must provide multi-tasking capabilities and be able to acquire and process data in real time.
- 1.3.5 Graphical display: full graphical instrument control window with the ability to display system parameters concurrently in real time.
- 1.3.6 Diagnostics tools: provide internal diagnostics including error checking, troubleshooting and a complete fault log.
- 1.3.7 Calibration tools: various calibration modes including external and internal calibration. Multilevel linear and multilevel non-linear calibration capacity.
- 1.3.8 Software Help: comprehensive context sensitive help including hypertext links and index.
- 1.3.9 Data processing: full data processing and reprocessing capabilities including control or editing of chromatogram integration, compound identification, calibration curves, quantitation and reporting parameters without the need to re-run samples.
- 1.3.10 Sample sequence control: ability to insert samples without stopping and restarting a previously started acquisition sequence.
- 1.3.11 Instrument Tuning: provide software based automatic tuning of QQQ-MS instruments.

1.4 Operating/Data Computer System Hardware

- 1.4.1 The PC must at least be an i5 4 type processor operating at 3.2 GHz or better
- 1.4.2 The desktop have a graphic board with 1 GB RAM or better.
- 1.4.3 16 GB (or greater) RAM.
- 1.4.4 2 Tb (or greater) hard drive.
- 1.4.5 16x (or greater) DVD-/+r RW drive
- 1.4.6 If the instrument requires a dedicated network card for communications then an additional 10/100/1000 Base-T LAN interface must be provided for access to the laboratory's network.
- 1.4.7 The PC must be equipped with a minimum 24" LCD color monitor that features a minimum resolution of 1280x1024

Part 2 – Overall System Requirements

2.1 System Requirements

- 2.1.1 System must include a list of all necessary components for fully automated Liquid Chromatography Triple Quadrupole Mass Spectrometer
- 2.1.2 The entire system must meet the Canadian Standard Association electrical requirements (for laboratory use)

2.1.3 The system must be supplied with at least 1 set of consumable parts and tool kit necessary for maintaining operation.

2.2 Manufacturer/Supplier (Bidder) Requirements/Obligation

- 2.2.1 Upon granting of the contract award and prior to delivery of the instrument, the manufacturer/supplier (Bidder) must provide the purchaser with 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).
- 2.2.2 The manufacturer/supplier (bidder) that will be awarded the sales contract must install and demonstrate instrumentation performance and the ability of the system to meet the purchaser's performance specification within the purchaser's laboratory spaces and the manufacturer's performance specifications.
- 2.2.3 Following the installation, the manufacturer/supplier (bidder) must provide on-site basic training on the use of the instrument and software/controller that runs the system. This training will include but not limited to, an overview of hardware components, software/controller functions and a session on hardware and preventative maintenance.
- 2.2.4 System must be supplied with a minimum of two (2) year service warranty including parts, labor and travel, including one preventive maintenance visit per year, on all components. Both on-site and telephone support must be included as standard. Explanation of the two (2) years on-site parts and labor warranty/maintenance policies for the System, and detailing the labor and equipment coverage and any limitations.
- 2.2.5 On-site service technicians must be available within 2 business days of a service request. Bidders must provide in writing their guarantee of a service response.
- 2.2.6 Application chemists must be available for method development, customized on-site or on-line applications support.
- 2.2.7 Telephone support service calls must be responded to within one business day.
- 2.2.8 Entire analytical system consisting of liquid chromatography, Triple Quadrupole mass spectrometer, autosampler, and software must be manufactured, serviced and warranted by one bidder.
- 2.2.9 Long term technical support: provide instrument technical support for 7 years or greater.
- 2.2.10 System must be delivered on or before October 31, 2017.
- 2.2.11 All quotations must be in Canadian dollars

Solicitation No. - N° de l'invitation
K8B11-180219
Client Ref. No. - N° de réf. du client
K8B11-180219

Amd. No. - N° de la modif.
File No. - N° du dossier
STJ-7-40038

Buyer ID - Id de l'acheteur
STJ005
CCC No./N° CCC - FMS No./N° VME

Annex "B"

The Contractor is to provide the following items, in the following quantities, to Environment Canada, Atlantic Laboratory for Environmental Testing (ALET) located in Moncton, NB, New Brunswick.

All deliverables must be received on or before October 31, 2017.

Item	Description	Quantity	Price
1	Liquid Chromatography Triple Quadrupole Mass Spectrometer as per specifications in Annex A - Requirement.	1 lot	\$ _____
2	Shipping Charges	1 lot	\$ _____
3	Installation Fees	1 lot	\$ _____
4	Basic Training Fees	1 lot	\$ _____
Total Costs			\$ _____

ANNEX "C"

REQUIREMENT MANDATORY REQUIREMENTS:

The complete specifications and/or descriptive literature should be submitted with the proposal but may be submitted afterwards. If the complete specifications and/or descriptive literature are not submitted as requested, the Contracting Authority will so inform the Bidder and provide the Bidder with a time frame within which to meet this 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

Any proposal which fails to meet all mandatory requirements will be deemed non-responsive. Each requirement should be addressed separately.

Technical Specifications	Comply Yes/No	Supplier's Cross Reference to Technical Offer (indicate page #)	Supplier's Comments
1.1			
1.1.1.			
1.1.2			
1.1.3			
1.1.4			
1.1.5			
1.1.6			
1.1.7			
1.1.8			

Technical Specifications		Comply Yes/No	Supplier's Cross Reference to Technical Offer (indicate page #)	Supplier's Comments
1.1.9	Maximum operating pressure: at least 600 bar.			
1.1.10	Minimum capacity: 48 vials or more up to 2 mL capacity each.			
1.1.11	Degasser: automatic and continuous on-line vacuum degassing.			
1.1.12	pH range: pH 2 to12.			
1.1.13	Column thermostat compartment: Maintain temperatures in range of 5°C above ambient to 40 °C or higher in no more than 1°C increments.			
1.1.14	Injection volume: 0.1 to 100 µL or higher in 0.1 µL increments with no hardware changes.			
1.1.15	Large Volume Injection: 10 to 1000 µL in 10 µL increments.			
1.1.16	Carryover : <0.004 % or better.			
1.1.17	Integral Cooling unit for samples: with a temperature range programmable from ambient to 4°C (Temperature settable from 4 - 40°C), in no more than 1°C increments.			
1.1.18	Switching valve: under software control.			
1.1.19	In-line degasser: internal volume of 2 mL or less per channel.			
1.1.20	Solvent reservoirs require for the system			
1.1.21	LC parts: any other items, including hardware and software not explicitly stated, required for the system to be qualified as per protocols stipulated by the vendor and accompanying documentation thereof.			
1.1.22	The system must have the possibility to be easily upgraded with an online Solid Phase Extraction (SPE) module. By easily, we mean the upgraded module must be controlled with the same software that controls the LC-QQQ-MS and that it is manufactured by the same manufacturer as the LC-QQQ-MS to make that upgrade the easiest possible if ever needed.			
1.2	Mass Spectrometer (MS)			
1.2.1	The QQQ-MS Subsystem must be an integrated part of the total system and			

Technical Specifications	Comply Yes/No	Supplier's Cross Reference to Technical Offer (indicate page #)	Supplier's Comments
designated for unattended operation and dedicated to perform LC-QQQ-MS. The QQQ-MS Subsystem must include a tripe quadrupole mass spectrometer, a high capacity nitrogen generator to accommodate the proposed LC-QQQ-MS systems, all relevant operating/Data System Software, operating/Data System Hardware, system Implementation and training, service & support and system performance specifications.			
1.2.2 Supplied with appropriate source for Electrospray (ESI) and Atmospheric Pressure Chemical Ionization (APCI) interfaces.			
1.2.3 The mass stability must be ≤ 0.1 Da over a 24 hour period			
1.2.4 Mass resolution of 0.5 Da at full width at half maximum (FWHM) Note: Vendor must provide definition and condition of achieving the specified resolution			
1.2.5 The instrument must have a maximum scan speed of at least 16000 Da/sec Note: vendor must provide definition and conditions of achieving the specified scan speed.			
1.2.6 MS operating modes must include: Full scan, Selected Ion Monitoring/Recording (SIM or SIR), Precursor (Parent) ion scan, Product (Daughter) ion scan, and Multiple Reaction Monitoring (MRM)			
1.2.7 MRM sensitivity in ESI positive of 1pg of reserpine injected on column on the transition m/z 609 to 195 must be higher than 70000:1 signal to noise (S/N). Note: Vendor must provide definition and condition of achieving the specified sensitivity			
1.2.8 MRM sensitivity instrument detection limit (IDL) in ESI positive of 10 fg of reserpine injected on column, quantify on the transition m/z 609 to 195, the instrument detection limit (IDL) must be lower than 5 fg Note: Vendor must provide definition and condition of achieving the specified sensitivity instrument detection limit.			

Technical Specifications	Comply Yes/No	Supplier's Cross Reference to Technical Offer (indicate page #)	Supplier's Comments
1.2.9 MRM sensitivity in ESI negative of 1pg of chloramphenicol injected on column on the transition m/z 321 to 152 must be higher than 30000:1 signal to noise (S/N). Note: Vendor must provide definition and condition of achieving the specified sensitivity			
1.2.10 MRM sensitivity instrument detection limit (IDL) in ESI negative of 10 fg of chloramphenicol injected on column, quantify on the transition m/z 321 to 152, the instrument detection limit (IDL) must be lower than 5 fg Note: Vendor must provide definition and condition of achieving the specified sensitivity instrument detection limit.			
1.2.11 Linear dynamic range: up to 6 orders magnitude.			
1.2.12 MS Range: at least m/z 10-2000.			
1.2.13 Vacuum pumps: must provide all vacuum pumps required for instrument operation.			
1.2.14 Nitrogen gas generation: Must provide standalone nitrogen gas generator capable of providing high purity sheath gas for ESI and APCI interface (and accompanying air compressor if incompatible with existing on-site air compressor). The compressed air available at the lab is produced from an oil-less compressor. The compressed air is dry with an air dryer. The compressor starts when the air pressure at the exit of the air dryer is 105psi and stops at 140 psi.			
1.2.15 In-house libraries: capable of 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.			
1.2.16 The system's data acquisition must allow acquisition using dynamic MRM scheduling rather than time domains for more than 1200 transition in a single run and must also allow threshold triggering of a MRM transition to monitor a minimum of 6 other MRM transition when that threshold is reached.			

Technical Specifications		Comply Yes/No	Supplier's Cross Reference to Technical Offer (indicate page #)	Supplier's Comments
1.2.17	Positive and negative mode polarities: Capable of switching and stabilization between positive and negative mode rapidly. System must be able to perform positive-negative ionization mode switching during one data acquisition run in 30ms or less.			
1.2.18	Instrument tune capability: Must have a built-in calibrant delivery system and an "auto-tune" capability for optimization of ion optics and mass axis calibration in positive and negative ion.			
1.2.19	MS software compatibility: The MS software must permit simple, direct data transfer to popular 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. Please provide a detailed list of these features.			
1.2.20	MS software must have the ability to export the data in a CSV type file.			
1.3	Operating/Data Computer System Software			
1.3.1	Operating system: The PC computer system's operating system must be Microsoft Windows 7 or greater			
1.3.2	Network compatibility: The PC computer must provide networking compatible with popular network protocols: TCP/IP, Novell, DecNet, etc.			
1.3.3	Instrument control: full control of instrumentation operation including fully automated system start-up and shut down, initial instrument calibration, parameter optimization, routine operations, calibration, data processing, report generation, etc.			
1.3.4	Multi-tasking capabilities: the PC must provide multi-tasking capabilities and be able to acquire and process data in real time.			
1.3.5	Graphical display: full graphical instrument control window with the ability			

Technical Specifications	Comply Yes/No	Supplier's Cross Reference to Technical Offer (indicate page #)	Supplier's Comments
1.3.6			
1.3.7			
1.3.8			
1.3.9			
1.3.10			
1.3.11			
1.4			
1.4.1			
1.4.2			
1.4.3			
1.4.4			
1.4.5			
1.4.6			
1.4.7			
2			

Technical Specifications		Comply Yes/No	Supplier's Cross Reference to Technical Offer (indicate page #)	Supplier's Comments
2.1	System Requirements			
2.1.1	System must include a list of all necessary components for fully automated Liquid Chromatography Triple Quadrupole Mass Spectrometer			
2.1.2	The entire system must meet the Canadian Standard Association electrical requirements (for laboratory use)			
2.1.3	The system must be supplied with at least 1 set of consumable parts and tool kit necessary for maintaining operation.			
2.2	Manufacturer/Supplier (Bidder) Requirements/Obligation			
2.2.1	Upon granting of the contract award and prior to delivery of the instrument, the manufacturer/supplier (Bidder) must provide the purchaser with 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).			
2.2.2	The manufacturer/supplier (bidder) that will be awarded the sales contract must install and demonstrate instrumentation performance and the ability of the system to meet the purchaser's performance specification within the purchaser's laboratory spaces and the manufacturer's performance specifications.			
2.2.3	Following the installation, the manufacturer/supplier (bidder) must provide on-site basic training on the use of the instrument and software/controller that runs the system. This training will include but not limited to, an overview of hardware components, software/controller functions and a session on hardware and preventative maintenance.			
2.2.4	System must be supplied with a minimum of two (2) year service warranty including parts, labor and travel, including one preventive maintenance visit per year, on			

Technical Specifications	Comply Yes/No	Supplier's Cross Reference to Technical Offer (indicate page #)	Supplier's Comments
all components. Both on-site and telephone support must be included as standard. Explanation of the two (2) years on-site parts and labor warranty/maintenance policies for the System, and detailing the labor and equipment coverage and any limitations.			
2.2.5 On-site service technicians must be available within 2 business days of a service request. Bidders must provide in writing their guarantee of a service response.			
2.2.6 Application chemists must be available for method development, customized on-site or on-line applications support.			
2.2.7 Telephone support service calls must be responded to within one business day.			
2.2.8 Entire analytical system consisting of liquid chromatography, Triple Quadrupole mass spectrometer, autosampler, and software must be manufactured, serviced and warranted by one bidder.			
2.2.9 Long term technical support: provide instrument technical support for 7 years or greater.			
2.2.10 System must be delivered on or before October 31, 2017.			
2.2.11 All quotations must be in Canadian dollars			

