

Bid #:13-B-018	Due Date: March 5, 2013 @ 3:00 PM Mail Date: February 5, 2013
Wynn Greene Sr. Procurement Analyst II	Respond: Purchasing and Contracting Administration 555 South Washington Avenue Titusville, Florida 32796
Bid Title/Name: Atomic Absorption Spectrometer Systems for Trace Metals	

**CITY OF TITUSVILLE
FORMAL INVITATION FOR SEALED BID**

PHONE (321) 383-5767

FAX (321) 383-5628

wynn.greene@titusville.com

This is not an order!

Critical Response Data

Name of Company Bidding:
Address:
Notes: 1. Sealed bids will be opened and the names of the firms that submitted bids will be announced in the City of Titusville Council Chamber, City Hall, 555 South Washington Avenue, Titusville, Florida at 3:00 pm on the 5th day of March, 2013. 2. Sealed bids must be submitted on the forms furnished by the City and in accordance with the specifications attached hereto and the list of quantities required and described herein. <u>An original and one copy of the bid package must be submitted in a sealed envelope.</u> 3. This completed form must appear as the top sheet for all bids submitted. 4. SEE ATTACHED SPECIFICATIONS AND LIST OF QUANTITIES DESIRED 5. IT IS THE BIDDER'S RESPONSIBILITY TO ASSURE THAT ALL ITEMS ARE BID
PRE-BID CONFERENCE INFORMATION
N/A
PURSUANT TO CITY POLICY FAILURE OF A VENDOR TO ADVISE THE CITY OF BID DISCREPANCIES IN ORDER TO GAIN A COMPETITIVE ADVANTAGE MAY BE GROUNDS FOR A CANCELLATION OF ANY CONTRACT OR PURCHASE ORDER AWARDED UNDER THIS BID.

Total Amount of Bid or Base Bid	
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Bidder's Signature:	Bidder's Title*:
Typed/Print Name:	
Date:	Phone:
Fax:	E-Mail:

***ONLY AUTHORIZED REPRESENTATIVES OF THE BIDDER SHOULD SIGN THIS FORM**

Content Page & Checklist

<u>Page</u>	<u>Description</u>	<u>Received by Initials</u>	<u>Items That Must Be Included With Submittal For Bid to Be Considered</u>
1	Cover Page	_____	COMPLETED FORM
2	Content Page	_____	COMPLETED FORM
3	Notice to Bidders – Statute Change	_____	COMPLETED FORM
4	Instructions/Response	_____	COMPLETED FORM
5	No Bid Form	_____	
6	General Terms & Conditions	_____	
13	Local Preference Policy	_____	
14	Insurance Requirements	_____	INSURANCE CERT.
15	Surety Requirements	_____	INSURANCE CERT.
16	Bidder’s Legal Certification	_____	COMPLETED FORM
17	Questionnaire	_____	COMPLETED FORM
18	Drug Free Workplace Certif.	_____	COMPLETED FORM
19	Public Entity Crimes	_____	COMPLETED FORM
22	Specifications	_____	
30	Price Proposal	_____	COMPLETED FORM
31	Vendor’s Information	_____	COMPLETED FORM
32	Product Specification Compliance	_____	COMPLETED FORM

Addendum/Other

(Please acknowledge receipt of each addendum by listing the addendum number and initialing the entry)

Proof that your firm is licensed to perform this work, proof of insurance, a completed Drug Free Workplace Form and a completed Public Entity Crimes Form must be included with this bid for your bid to be considered.

NOTICE TO BIDDERS

Florida Statute 119.071 provides that sealed bids, proposals or replies received by the agency (City) pursuant to a competitive solicitation are exempt from s. 119.07(1) and s. 24(a) Art. 1 of the State Constitution (becoming a public record) until such time as the City provides notice of its intended decision or until 30 days after opening bids, proposals, or final replies, whichever is earlier.

In addition, if the City rejects all bids, proposals, or replies submitted in response to a competitive solicitation and the City concurrently provides notice of its intent to reissue the competitive solicitation, the rejected bids, proposals or replies remain exempt from becoming a public record until such time as the City provides notice of its intended decision concerning the reissued competitive solicitation or until the City withdraws the reissued competitive solicitation. A bid, proposal or reply is not exempt for longer than 12 months after the initial City notice rejecting all bids, proposals or replies.

Accordingly all City personnel that have any involvement or dealing related to any City sealed bid or sealed proposal process have been notified not to disclose any information or details of any sealed bid or sealed proposal as provided for above.

Please sign on the line above and include with bid submittal.

CITY OF TITUSVILLE

INSTRUCTIONS/RESPONSE

Bid Name/Title **13-B-018 Atomic Absorption Spectrometer Systems for Trace Metals**

Preparation of Bids

- Bidders are expected to examine this bid form, attached drawings, specifications, if any, and all instructions. Failure to do so will be at bidder's risk.
- All prices and notations must be in ink or typewritten. No erasures are permitted. Mistakes may be crossed out and corrections must be made adjacent to mistake, initialed and dated in ink by the person authorized to sign the bid. A responsible officer or employee of that firm must sign with the firm or company name on all bids. Obligations assumed by such signatures must be fulfilled.
- Each bidder shall furnish the information required on the bid form and each accompanying sheet thereof, on which an entry is required.
- Unit price for each unit bid shall be shown and such price shall include packing in accordance with the general or any special conditions, unless otherwise specified. A total shall be entered into the amount column for each item bid. In case of discrepancy between a unit price and the extended price, the unit price will be presumed to be correct.

Special Items (applicable to this bid only)

- a. _____
- b. _____
- c. _____

Authorized Signature:

Name of Company:

"NO BID" RESPONSE TO INVITATION FOR SEALED BID

If your firm is unable to submit a bid at this time, please provide the information requested in the space provided below and return to:

City of Titusville
Purchasing & Contracting Division
555 South Washington Avenue
Titusville, FL 32796

Attention: Purchasing & Contracting Sr. Procurement Analyst II

We have received Invitation for Bid No. **13-B-018** due on **March 5, 2013 at 3:00 PM.**

Reason for "No Bid" (use company letterhead if necessary).

Would you like to be considered for this type of purchase in the future?

Yes () No ()

By:
Signature:

Name & Title, Typed or Printed

Company Name

Phone Number/Fax

GENERAL TERMS & CONDITIONS

1. **Receipt of Bids - Due Date:** Sealed bids (one original and two copies) shall be submitted to the Purchasing & Contracting Administration office, indicated below, no later than the date and time specified. Bids will not be accepted after the advertised time and date. Bids shall be addressed as follows:

For Delivery:

Purchasing & Contracting Administration
City of Titusville
555 S. Washington Avenue, 2nd Floor
Titusville, FL 32796

Each bid shall be submitted in a sealed envelope prior to the time established for the opening of bids, and the envelope shall be marked with the bid number, title of bid, and bid opening date. If submitted other than by mail, it shall be delivered to the office of the Purchasing & Contracting Administration. Bids submitted by mail must be received in the office of the Purchasing & Contracting Administration by the time specified herein for the bid opening. The City of Titusville will take no responsibility for delay caused by poor mail delivery or miscalculation of delivery by the bidder. Please follow up with the Purchasing Division at (321)383-5767 to ensure delivery has been made.

2. **Submittal of Bids:** Bids shall be submitted in a sealed envelope utilizing the bid form(s) provided herein. All bids shall be properly executed with all applicable blank spaces completed. The signatures of all persons signing shall be in longhand. Erasures, interlineations, or other corrections shall be authenticated by affixing in the margin immediately opposite the correction the initials of a person signing the bid. If the unit price and total amount stated by a bidder for any item are not in agreement, the unit price alone shall be considered, as representing the bidder's intention and the totals shall be corrected to conform thereto.
3. **Withdrawal of Bids:** Bidders may withdraw a bid after it has been delivered to the purchasing agent any time prior to the stipulated time for opening of the bids.
4. **Pre-Bid Conference:**
 - a. **Mandatory:** Mandatory pre-bid conferences must be attended by all Vendors interested in submitting a bid. Bids submitted by Vendors that did not attend the Mandatory pre-bid conference will not be considered.
 - b. **Non-Mandatory:** Bidders are encouraged to attend to obtain more information concerning this bid.

Prospective bidders will be invited to attend as designated in the Invitation for Bid Cover Page to inspect the job site and/or to discuss pertinent questions. Any changes to specifications derived from a pre-bid conference will be addressed in the form of an Addendum to all bidders. The type of pre-bid conference (if any) applicable to this project is designated on the cover page.

If, in the opinion of the City an inspection of the job site is required, a pre-bid conference will be scheduled at the job site as stated above.
5. **Familiarity with Site Conditions:** The responsibility for the determination of accurate measurements, the extent of the work to be performed, and the conditions surrounding the performance thereof shall belong to the bidder. Submission of a bid shall constitute acknowledgment by the bidder that it is familiar with all site and work conditions. The failure or neglect of a bidder to familiarize himself with the site of the proposed work shall in no way relieve him from any obligations with respect to his bid.
6. **Questions Regarding Specifications or Bid Process:**

To ensure fair consideration for all bidders, the City prohibits communication to or with any department, division, or employee during the bid process, except as provided in paragraphs "a, b, c" below. Additionally, the City prohibits communication initiated by a bidder to the City official or

employee evaluating or considering the bids prior to the time a bid decision has been made. Such communication initiated by a bidder may be grounds for disqualification of the offending bidder from consideration of award for the bid currently in evaluation and/or any future bids.

- a. Any questions relative to interpretation of specifications or the bid process, shall be addressed to the designated agent in Purchasing & Contracting Administration, in writing, in ample time before the period set for the receipt and opening of bids. Inquiries received less than seven (7) days prior to the date set for the receipt of bids may not be given consideration. Any interpretation made to prospective bidders will be expressed in the form of an addendum to the specifications which, if issued, will be conveyed to all prospective bidders, if possible, no later than five (5) days before the date set for receipt of bids. Oral interpretations will not be provided.
 - b. It will be the responsibility of the bidder to contact the Purchasing & Contracting Administration prior to submitting a bid to ascertain if any addenda have been issued, to obtain all such addenda, and return executed addenda or acknowledgment thereof with the bid.
 - c. Inquiries shall be directed to Ms. Wynn Greene, in the Purchasing & Contracting Administration office at the City of Titusville, 555 S. Washington Ave, Titusville, FL 32796 or by fax (321) 383-5628 or by email to wynn.greene@titusville.com.
7. **Pricing/Shipment Cost:** Unless stipulated otherwise herein, all prices must be firm for the delivery schedule quoted herein. Bids stipulating "price in effect at time of shipment" or other similar conditions will be considered non responsive to the bid invitation and will not be accepted. All prices shall be quoted F.O.B. (Freight on Board) Destination; delivered to any City of Titusville department facility unless otherwise stipulated in the BID invitation or exceptions taken by the Bidder.
8. **Political Subdivision:** Under Florida Law, prices contained in State Term Contracts, State Negotiated Agreement Pricing Schedules (SNAPS), Cooperative Bids, or current bids shall, as a minimum, be made available to the City of Titusville unless otherwise exempted by the terms of this engagement. The City reserves the right to purchase any commodity or service from these said instruments if in the best interest of the City. Conversely, the City may disregard these instruments and purchase through alternate means.
9. **Bidder's Certification Form:**
- a. Each bidder shall complete the "Bidder's Certification" form included with this Invitation for Bid, and submit the form along with the bid.
 - b. The failure of a bidder to submit this form shall be cause for reject of the bid.
 - c. The form must be acknowledged before a Notary Public with a notary seal affixed on the document.
10. **"No Bid" Response Form:** In the event you elect not to bid on this requirement, please complete and return the attached "No Bid" form.
11. **Alternatives/Substitutions to Specifications:** Any alternatives or substitutions to the attached specifications must be clearly delineated, properly marked and submitted with the bid (use separate sheets of paper and make them part of the price quote if necessary.)
12. **Meeting Specifications:** The price you submit must meet or exceed specifications. If it does not, please indicate variances, no matter how slight, and attach your detailed specifications for discrepant item(s) bid. Please note that the inability to meet specifications may result in bid being considered non responsive and thus constitute grounds for disqualification and bid rejection.
13. **Period of Offer Validity:** Prices quoted in the bid must remain valid for a period of ninety (90) days from the date of the bid opening unless otherwise instructed.
14. **Bidder's Signature:** The City requires that when a municipality enters into a contractual agreement with a corporation licensed to do business in the State of Florida; such an agreement will be signed by a corporate official or principal (i.e., President, Vice President, Secretary, Treasurer, or other authorized official, e.g., Executive Director) with the corporate seal affixed. If the aforementioned corporate officers or the corporate seal are not readily available, a letter of authorization from a corporate official or principal may be submitted in lieu thereof. Such letter of authorization must be

on corporate stationery, must clearly state that the person who signed the referenced agreement is duly authorized to enter into such an agreement on behalf of the corporation and must be signed by said corporate officials. Failure to submit letters of authorization within two (2) weeks after notification of award may result in award withdrawal.

In the case of a partnership, the agreement must be signed by the general or managing partner and notarized as outlined above. In the case of a sole proprietorship the owner must sign the agreement and have such execution notarized.

If you have any questions regarding the execution of the signature page, please feel free to contact the Purchasing & Contracting Administration office at (321)383-5767, for further clarification. Strict adherence to criteria outlined above is of the utmost importance in the finalization of agreements awarded to successful bidders.

15. **Bidder Qualification:** The City reserves the right to conduct an inspection of the bidder's facility and equipment prior to the award of the agreement. The City will notify you in writing of our intent to conduct an inspection or survey of your facility. Bids will be considered from firms who have adequate personnel and equipment and who are so situated as to perform prompt services and who maintain the regular business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday, except for holidays. For the provision of services only (not supplies) – the City will only consider bids from licensed firms which are regularly engaged in the business as described in this bid package; with a satisfactory record performing similar work for a reasonable period of time, but not less than one (1) year, which have sufficient financial support, equipment, and organization to ensure that they can satisfactorily execute the services if awarded an agreement under the terms and conditions herein stated. The terms “equipment and organization” as used herein shall be construed to mean a fully equipped and well-established company in line with the best business practice in the industry and as determined by the City.
16. **Legal Requirements:** Federal, State, County and local laws, ordinances, rules and regulations that in any manner affect the item(s) to be procured hereby shall be duly observed. Lack of knowledge by the Bidder will in no way be cause for relief from responsibility and abidance. Failure to comply with all applicable legal requirements shall render your bid as non-responsive.
17. **Selection/Rejection of Options:** The City of Titusville reserves the right to select/reject options bid, based on specifications, price or other criteria deemed to be in the best interest of the City.
18. **Bid Tabulation:** Bidders may request copies of the bid tabulation documents in person or by enclosing a stamped, self-addressed envelope with the bid. Bid tabulations will be provided in accordance with Florida Statute 119.071 as stated in the Notice to Bidders on page 3 of this document.
19. **Evaluation of Bid Award:** Award shall be made to the bidder that submits the lowest bid price proposal (Unit Price Bids: The award will be made to the firm that submits the lowest price proposal or aggregate amount resulting from applying the unit price(s) submitted in the bid to the quantity(ies) shown in the price proposal), provided that its bid is both responsive and responsible as determined solely by the City. The City further reserves the right to consider matters such as, but not limited to, quality offered, delivery terms, discounts, and service reputation of the bidder, in determining the most advantageous bid.
20. **Criteria For Award or Rejection of Bids:** A purchase order or contract will be awarded to the lowest, most responsive, and most responsible bidder complying with all the provisions of the Invitation for Bid, provided the bid price is reasonable and it is in the best interest of the City to accept it. The City reserves the right to reject any and all bids and to waive any informality or irregularity in bid received whenever such rejection or waiver is in the City's best interest. The City also reserves the right to reject the bid of a bidder who has previously failed to perform properly or complete contracts or purchase orders on time, or a bid of a bidder who upon investigation shows not to be in a financial or other position to properly perform the contract.
In determining responsibility, the following criteria (not prioritized), in addition to price, will be considered by the City:

- a. The ability, capacity, and skill of the bidder to perform the services required.
 - b. Whether the bidder can perform or provide the requirements or provide the services promptly, or within the time specified, without delay or interference.
 - c. The character, integrity, reputation, judgment, experience, and efficiency of the bidder.
 - d. The quality of performance of previous contracts, purchase orders or services rendered.
 - e. Previous and existing compliance by the bidder with laws and ordinances relating to contracts, purchase orders or services.
 - f. The sufficiency of the financial resources as they relate to the ability of the bidder to perform the contract, purchase order, or provide the service.
 - g. The quality, availability, and adaptability of the supplies or services to the particular use required.
 - h. The ability of the bidder to provide future maintenance and service for the use of the subject matter if required by the bid specifications.
 - i. Whether the bidder is in arrears to the City on a debt or is a defaulter on surety to the City or, whether the bidders' taxes or assessments are delinquent.
 - j. Whether the bidder is in litigation or has caused the City to litigate against it or any of its associates, subsidiaries, etc. at any prior time.
 - k. Such other additional criteria as may be developed for a specific price quote.
21. **Bid Award:** Award will be made within approximately four weeks after the advertised bid opening date. It is incumbent on bidders to contact the Purchasing & Contracting Administration at (321)383-5767, to determine the apparent successful bidder(s). The City's governing body shall consider and award all orders or contracts exceeding \$15,000.
 22. **Execution of the Purchase Order/Contract:** The successful bidder shall, at the City's option, within fifteen (15) calendar days after notification of award is issued by the City of Titusville, enter into a purchase order or contract with the City on forms provided by the City for the performance of work awarded and shall simultaneously provide any required bonds, indemnities, insurance certificates or other required documentation. Failure to comply with the established deadline for submittal of required documents may be grounds for cancellation of the award.
 23. **Failure to Execute Purchase Order or Contract:** Failure of the successful bidder to accept the contract or purchase order as specified may be cause for cancellation of the award. In the event that the award is cancelled, the award may then be made to the second lowest responsive and responsible bidder, and such bidder shall fulfill every stipulation embraced herein as if he were the original party to whom the bid award was made; or the City may reject all the bids and rebid. Vendors who default may cause the City to reject future bids.
 24. **Failure to Execute Contract – Bid Guarantee Forfeited:** Should the successful Bidder fail to execute and deliver the contract to the Purchasing & Contracting Administrator within the allotted time, the City at its option may find said bidder no-responsive and deem his bid guarantee as forfeited pursuant to these instructions. Failure of the bidder to execute the Contract may also result in additional sanctions pertaining to the bidding of future Work by the forfeiting bidder.
 25. **Award Dispute Resolution:** Bid award challenges shall be posted in writing with the office of the Purchasing & Contracting Administrator who (as authorized by the City Manager) is the administrative head of the Purchasing & Contracting Administration Division. The Purchasing & Contracting Administrator will gather evidence and discern facts and make a recommendation to the City Manager. The City Manager will present his recommendations to the governing body which will make the final decision on the matter. All decisions of the governing body are final. Pursuant to Florida Statutes, Chapter 120.57, any person who is adversely affected by the City's decision or intended decision shall file a written notice of protest must be filed with Purchasing & Contracting Administration within 72 hours after the posting (electronic or otherwise) of one of the following, whichever occurs first: (i) notice of decision or (ii) bid tabulation stating the intended decision. The nature of protest must be followed within 10 days of filing by a formal written notice fully detailing all elements, which promulgated the protest.

26. **Bid Award Cancellation:** The City reserves the right to withdraw all bid awards at anytime for any reason.
27. **Conflict of Interest:** The award hereunder is subject to all applicable portions of Chapter 112, Florida Statutes. All Bidders must disclose prior to or with their bid the name of any officer or employee, or officer/employee's spouse or child, who is also an officer or employee of the City of Titusville. Further, all Bidders must disclose the name of any City of Titusville officer or employee, or officer/employee's spouse or child who owns, directly or indirectly, or has an interest in one or more of the Bidder's firm(s) or any of its branches.
28. **References:** If required by the bid document, bidders shall submit as a part of the bid package, three (3) account references, with name of account, address, contact person, and telephone number. Governmental references are preferred.
29. **Trade Names:** In cases where an item to be bid is identified by a manufacturer's name, trade name, catalog number, or reference, it is understood that the bidder proposes to furnish the item so identified and does not propose to furnish an "EQUAL" unless the proposed "EQUAL" is indicated in the bid response therein by the bidder. Generally, the reference to a name brand is intended to be descriptive but not restrictive and only to indicate to the prospective bidder articles that will be deemed acceptable. Bids on other makes and catalogs will be considered provided each bidder clearly states in his bid or proposal exactly what alternative he proposes to furnish and forwards with his bid a cut illustration or other descriptive material which will clearly indicate the character of the article covered in this bid.
- The City reserves the right to approve as an equal, or to reject as not being equal, any article the bidder proposes to furnish which contains major or minor variations from the specification requirements but may comply substantially therewith.
- If no particular brand, model, or make is specified and if no data is required to be submitted with the bid, before the successful award and before manufacturing or shipment the vendor may be required to submit working drawings or detailed descriptive data sufficient to enable the City to judge if such data and specifications are in compliance with the City's requirements.
30. **Right to Audit Records:** The City shall be entitled to audit the books and records of the contractor or subcontractor to the extent that such books and records relate to the performance of the Purchase Order or any supplement to the Purchase Order. Such books and records shall be maintained by the contractor or subcontractor for a period of three (3) years from the date of final payment under the Purchase Order unless a shorter period is otherwise authorized in writing by the City.
31. **Fiscal Year Funding Appropriation:**
- Specified Period: Unless otherwise provided by law, a purchase order for supplies or services may be entered into for any period of time deemed to be in the best interest of the City, provided the term of the purchase order and conditions of renewal or extension, if any, are included in the solicitations and funds are available for the initial fiscal period of the purchase order. Payment and performance obligations for succeeding fiscal periods shall be subject to the annual appropriation by City Council.
 - Cancellation Due to Unavailability of Funds in Succeeding Final Periods: When funds are not appropriated or otherwise made available to support continuation of performance in a subsequent fiscal period, the purchase order shall be cancelled and the contractor shall be entitled to reimbursement for the reasonable value of any work performed to the date of cancellation.
32. **Florida Prompt Payment Act/Invoicing and Payment:** Subject to the receipt and acceptance by the City of Titusville of equipment, goods, supplies, products or services provided by vendors, vendors shall be paid in accordance with the State of Florida Prompt Payment Act, Section 218.70 of the Florida Statutes, upon submission of proper invoice(s) to: Accounts Payable Division, City of Titusville, P.O. Box 2806, Titusville, Florida 32781-2806. Invoices are to be billed at the prices

stipulated on the purchase order and as outlined in this BID. All invoices must show the City of Titusville purchase order number.

33. **Discounts:** Bidders may offer a cash discount for prompt payments. Discounts will be computed from the date of satisfactory delivery at place of acceptance and/or from receipt of correct invoice at the office specified whichever is later. Bidders are encouraged to reflect cash discounts in the unit prices bid.
34. **Florida Statutes on Drug-Free Workplace Programs:** In case of tie bids, preference must be given to vendors submitting a certification with their bid/proposal certifying they have a drug-free workplace in accordance with Section 287.087, Florida Statutes. This form is included with this Invitation for Bid and must be completed and returned with your bid.
35. **Equal Opportunity Employer:** The City is an Equal Employment Opportunity (EEO) employer and as such encourages all contractors or vendors to voluntarily comply with EEO regulations with regards to gender, age, race, veteran status, country of origin, and creed. In addition, the contractor or vendor or anyone under his employ shall comply with all applicable rules, regulations and promulgation's thereby pertaining to the avoidance or appearance of sexual harassment or on the job discrimination. The contractor or vendor shall maintain a working environment free of discrimination or unwelcome actions of a personal nature. Any sub-contracts entered into shall make reference to this clause with the same degree of application being encouraged. When applicable, the contractor or vendor shall comply with all new State and Federal EEO Regulations.
36. **Public Entity Crime:** A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017 for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list.
37. **Suspension or Rescindment of Bidding Privileges:**

The City of Titusville may rescind bidding privileges of any vendor, contractor, supplier, service provider, or other entity for violation of one or more of the issues listed below.

 - Continued failure to deliver products, services, work in accordance with the terms and conditions of the engagement documentation.
 - Disregard for the prudent use of taxpayer's funds.
 - Causing the City to litigate.
 - Shoddy workmanship.
 - Deliberate attempts to deceive the City.

THE CITY RESERVES THE RIGHT TO MODIFY, REMOVE, ADD CONDITIONS AT ANY TIME TO THESE GENERAL CONDITIONS TO PROTECT ITS BEST INTERESTS.

LOCAL PREFERENCE POLICY

(Ordinance No. 6-1994 and as amended by Ordinances No. 10-1995 and 46-2009)

The City of Titusville grants preference to those vendors, contractors or service providers whose primary business location is within the physical limits of the City of Titusville or Brevard County and have held a valid occupational license (Business Tax Receipts) for a period of no less than one year. Local business shall be defined in accordance with said ordinance which is available for review in the City Clerk's or Purchasing & Contracting Administrator's office and will be provided if requested for the cost of copying it.

Local City of Titusville Preference:

1. Five (5) percent of the low bid amount for project awards up to and including \$500,000.00,
2. Three (3) percent of the low bid amount for project awards greater than \$500,000.00 up to and including \$1,000,000.00, and
3. Two (2) percent of the low bid amount for project awards greater than \$1,000,000.00 up to and including \$1,500,000.00.

Local Brevard County Preference:

1. Two (2) percent of the low bid amount for project awards up to and including \$500,000.00,
2. One (1) percent of the low bid amount for project awards greater than \$500,000.00 up to and including \$1,000,000.00, and
3. Sixty six hundredths (0.66) of one percent of the low bid amount for project awards greater than \$1,000,000.00 up to and including \$1,500,000.00.

Preference consideration will be applied to offerors to this bid proposal.

Insurance Requirements

The following represent the insurance requirements for this bid and are the minimum insurance requirements to be provided by the awarded bidder prior to issuance of the Notice to Proceed:

Commercial general liability coverage on an occurrence basis in the minimum amount of \$1,000,000 per occurrence and \$1,000,000 policy aggregate (defense cost shall be in excess of the limit of liability). Coverage shall include premises and operations, products and completed operations, personal injury and advertising liability and medical payments. The State shall be named as an Additional Insured.

Automobile liability insurance covering all vehicles, owned or otherwise, used in connection with this contract, with a minimum combined single limit of \$1,000,000, including hired and non-owned liability and \$10,000 medical payment.

Workers' compensation and employer's liability insurance in accordance with Chapter 440 of the Florida Statutes, with minimum employers' liability limits of \$100,000 per accident, \$100,000 per person, and \$500,000 policy aggregate. Such policy shall cover all employees engaged in any Contract work. Employers who have employees who are engaged in work in Florida must use Florida rates, rules, and classifications for those employees. In the construction industry, only corporate officers of a corporation or any group of affiliated corporations may elect to be exempt from worker's compensation coverage requirements. Such exemptions are limited to a maximum of three per corporation and each exemption holder must own at least 10% of the corporation or be a member of a limited liability company owning at least 10% of the company. Independent contractors, sole proprietors and partners in the construction industry cannot elect to be exempt and must maintain worker's compensation insurance.

The General Liability and Auto Liability certificates of insurance shall indicate that the policies have been endorsed to cover the City as an additional insured and that these policies may not be canceled or modified without thirty (30) days prior written notice to the City. All policies should be underwritten by insurance agencies licensed to do business in the State of Florida and with an A.M. Best rating of no less than A- and with a Financial Size Category of no less than VI.

The insurance coverage enumerated above constitutes the *minimum* requirements and shall in no way lessen or limit the liability of the Bidder/Contractor under the terms of the Contract. Subcontractor's insurance shall be the responsibility of the Bidder/Contractor.

SURETY REQUIREMENTS

The following are the surety and bonding requirements for this bid.

Surety Qualifications: As to companies being rated acceptable to City:

- (a) The Surety shall be rated as “A-” or better as to General Policyholders Rating and Class X or better as to Financial Category by Best’s Key Rating Guide, published by Alfred M. Best Company, Inc., of 75 Fulton Street, New York, New York, 10038.
- (b) The Surety shall be listed on the U.S. Department of the Treasury, Fiscal Service, Bureau of Government Financial Operations, Circular 570, (Latest Revision) entitled, “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies”.
- (c) All Surety Companies are subject to approval and may be rejected by the Owner without cause, in the same manner that bids may be rejected.
- (d) Limitations: Bonding Limits or Bonding Capacity refer to the limit or amount of Bond acceptable on any one risk. The bonding limit of the Surety shall not exceed ten percent (10%) of the policyholder surplus (capital and surplus) as listed by the aforementioned Best’s Key Rating Guide, on any one risk (penalty or amount of any one bond).
- (e) Requirements: Policyholder’s surplus is required to be 10 times the amount of any one bond.

BONDING WILL NOT BE REQUIRED FOR THIS SOLICITATION.

BIDDER'S LEGAL CERTIFICATION

As witnessed by my signature below, I have carefully examined the Invitation for Bid, Instructions to Bidders, General and/or Special Conditions, Vendor's Notes, Specifications, proposed Agreement, and any/all other documents accompanying or made part of this bid invitation.

- I hereby propose to furnish the goods or services specified in the Invitation at the prices or rates quoted in my bid. **I agree that my bid will remain firm for a period of up to ninety (90) days in order to allow the city adequate time to evaluate the bids.**
- I agree to abide by all conditions of this bid and understand that the Titusville Law Enforcement Department prior to bid award may conduct a background investigation.
- I certify that all information contained in this bid is truthful to the best of my knowledge and belief. I further certify that I am duly authorized to submit this bid on behalf of the vendor/contractor as its act and deed and that the vendor/contractor is ready, willing, and able to perform if awarded the bid.
- I further certify, under oath, that this bid is made without prior understanding, agreement, connection, discussion, or collusion with any other person, firm, or corporation submitting a bid for the same product or service; no officer, employee, or agent of any other bidder is interested in said bid; and that the undersigned executed this Bidder's Certification with full knowledge and understanding of the matters therein contained and was duly authorized to do so.

Company Name: _____

By: _____
Signature Name & Title, Typed or Printed

Mailing Address (City, State & Zip Code):

Telephone/Fax Number: _____

State of _____

County of _____

Sworn and subscribed before me this _____ day of _____, 20 _____.

Notary Public

- Personally Known
- Produced I.D. _____

QUESTIONNAIRE

This form is to be utilized to provide general information about your firm/company to the City of Titusville. **Please submit this form with your sealed bid.**

Name of Company _____ Fed I.D. # _____

City of Titusville Occupation License Number (as applicable): _____

Please answer the following:

- 1. Number of years your firm/company has been in business: _____ years.
- 2. Is your firm incorporated in the State of Florida? ____ Yes ____ No
- 3. Number of years your firm/company has provided the type of product/service required by the Invitation for Bid: _____ years.
- 4. Headquarter address if different from business address _____
- 5. Names of key employees who will work on this project and their years of experience in the type of service related to work specified in this proposal:

	<u>Name and Title</u>	<u>Years of Experience</u>
A.	_____	_____
B.	_____	_____
C.	_____	_____

	<u>References Name/Title</u>	<u>Phone Number</u>
A.	_____	_____
B.	_____	_____
C.	_____	_____

Please indicate any certifications or licenses held to perform the work on which you are bidding. Use additional pages as needed.

Certification issued by: _____ Exp. Date: _____
License issued by: _____ Exp. Date: _____

Please indicate below the names and addresses of your primary/secondary suppliers for the product covered under this proposal (if applicable.)

Primary

Name: _____ Phone No. _____

Address: _____ Contact: _____

Secondary

Name: _____ Phone No. _____

Address: _____ Contact: _____

Name and Title of Person Completing Form:	
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DRUG-FREE WORKPLACE CERTIFICATION

In case of tie bids, preference must be given to vendors submitting a certification with their bid/ proposal certifying they have a drug-free workplace in accordance with Section 287.087, Florida Statutes. The drug-free certification form below must be signed and returned with your bid.

In order to have a drug-free workplace program, a business shall:

(1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition. (2) Inform employees about the dangers of drug abuse in the workplace, the business' policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations. (3) Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in the first paragraph. (4) In the statement specified in the first paragraph, notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction. (5) Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted. (6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

Vendor's Signature, Title, Date

STATE OF _____
COUNTY OF _____

PERSONALLY APPEARED BEFORE ME, the undersigned authority _____
who, after being first sworn by me, affixed his/her signature in the space provided above on this _____ day
of _____, 20 _____.

____ Personally known Produced I.D. _____

Notary Public

PLEASE COMPLETE AND SUBMIT WITH BID

PUBLIC ENTITY CRIMES

Any person submitting a bid, proposal or reply in response to this invitation or a contract, must execute the enclosed form PUR. 7069, sworn statement under section 287.133(3)(a), FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES, including proper check(s), in the space(s) provided, and enclose it with his quote, bid, or proposal. If you are submitting a quote, bid or proposal on behalf of dealers or suppliers who will ship commodities and receive payment from the resulting contract, it is your responsibility to see that copy(ies) of the form are executed by them and are included with your quote, bid, or proposal. Corrections to the form will not be allowed after the quote, bid, or proposal opening time and date. Failure to complete this form in every detail and submit it with your quote, bid, or proposal may result in immediate disqualification of your bid or proposal.

The 1989 Florida Legislature passed Senate Bill 458 creating Sections 287.132 - 133, Florida Statutes, effective July 1, 1989. Section 287.132(3)(d), Florida Statutes, requires the Florida Department of General Services to maintain and make available to other political entities a "convicted vendor" list consisting of persons and affiliates who are disqualified from public contracting and purchasing process because they have been found guilty of a public entity crime. A public entity crime is described by Section 287.133, Florida Statutes, as a violation of any State or Federal law by a person with respect to and directly related to the transaction of business with any public entity in Florida or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or with an agency or political subdivision and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

A public entity may not accept any bid, proposal or reply from, award any contract to, or transact any business in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO with any person or affiliate on the convicted vendor list for a period of 36 months following the date that person or affiliate was placed on the convicted vendor list unless that person or affiliate has been removed from the list pursuant to Section 287.133(3)(f), Florida Statutes.

Therefore, effective October 1, 1990, prior to entering into a contract (formal contract or purchase order in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO) to provide goods or services to **THE CITY OF TITUSVILLE**, a person shall file a sworn statement with the contracting officer or Purchasing Director, as applicable. The attached statement or affidavit will be the form to be utilized and must be properly signed in the presence of a notary public or other officer authorized to administer oaths and properly executed.

THE INCLUSION OF THE SWORN STATEMENT OR AFFIDAVIT SHALL BE SUBMITTED CONCURRENTLY WITH YOUR BID, PROPOSAL OR REPLY DOCUMENTS. NON-INCLUSION OF THIS DOCUMENT MAY NECESSITATE REJECTION OF YOUR QUOTE, PROPOSAL OR BID.

SWORN STATEMENT UNDER SECTION 287.133(3)(a),
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICER AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted with the Bid/Proposal #13-B-018 Atomic Absorption Spectrometer System for THE CITY OF TITUSVILLE.

2. This sworn statement is submitted by _____ whose business address is _____ and (if applicable) its Federal Employer Identification (FEIN) is _____.

3. My name is _____ (please print name of individual signing) and my relationship to the entity named above is _____.

4. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid, proposal, reply or contract for goods or services, any lease for real property, or any contract for the construction or repair of a public building or public work, involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

5. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

6. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means:
(1) A predecessor or successor of a person convicted of a public entity crime; or
(2) An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

7. I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

8. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies.)

_____ Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.

_____ The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989, AND (Please indicate which additional statement applies.)

_____ There has been a proceeding concerning the conviction before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order.)

_____ The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order.)

_____ The person or affiliate has not been placed on the convicted vendor list. (Please describe any action taken by or pending with the Department of General Services.)

(Signature)

Date: _____

STATE OF FLORIDA
COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 20____ by _____, _____ (title) on behalf of _____ . He/she is personally known to me or has produced _____ as identification and did () did not () take an oath.

(Notary Signature)

Name: _____

My Commission Expires: _____

Commission Number: _____

PLEASE COMPLETE AND SUBMIT WITH BID

Specifications for Flame, Furnace and ICP Systems

1. Bid will be awarded based on low bid by item.
2. The City wishes to trade in the following equipment toward the final cost of the new equipment: ICP-OES Iris Intrepid II XSP Dual View – purchased 2003 and Thermo Electron model M6AA (600229) purchased 1999
3. All instruments must be certified to ISO 9001 standards. Certificate of Manufacture Registration must be provided.
4. Instruments will be used for the analyses of drinking water, environmental water and sludge.
5. A consumable kit to include, but not limited to, one year supply of tubing, O-rings, sample injection and spray chamber replacement part, nebulizer, and calibration or background standard, must be included for the ICP-OES system.
6. A consumable kit to include, but not limited to, one year supply of tubing, O-rings, explosion disks, spray chamber and graphite replacement parts, calibration or background standard, must be included for the Flame and Furnace Atomic Absorption Spectrometer System.
7. Vendor must provide 2-3 days of on-site training for each piece of equipment, with a minimum of a half-day of software training.

Specifications for Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) System

General

1. The ICP-OES must be a bench top design.
2. The ICP-OES must come with a table designed to sustain its weight. Table must have drawers for storage of ICP-OES accessories.
3. System must include a water recirculator.
4. System must include an autosampler designed to work with the ICP-OES. Provide specifications on autosampler capabilities.
5. The system should be capable of operating in laboratory conditions that range from 10-35°C and relative humidity of 10-80% non-condensing.
6. The instrument should be capable of operating with temperature changes of up to 2.5°C per hour without any degradation of performance.
7. The ICP-OES system should include a computer, 19" SVGA flat panel color monitor, color laser jet printer and all required software necessary to operate the system.
8. All software must be preloaded.
9. The ICP-OES must be able to determine all desired elements in one analytical method pass.
10. Instrument must be supported or have a life cycle of at least ten years.
11. The ICP-OES must be new and a model currently in use by other environmental laboratories. Refurbished or demonstrator instrument will not be accepted.
12. The ICP-OES system must have a minimum of a one-year warranty shall include parts, labor and travel. Extended warranty options (2, 3, and 5 years) if available are to be priced on price proposal sheet.
13. The computer shall have a three year warranty.

Sample Introduction System

1. The ICP-OES must include an ergonomically designed sample introduction area for ease of access and maintenance.
2. Plasma torch must be interchangeable various size quartz centre tubes or with ceramic centre tubes for use with highly aggressive sample matrices.
3. The ICP-OES must be able to accommodate commercially available, specialty nebulizers manufactured by third parties for maximum analytical flexibility.
4. The system must include a variable speed, computer controlled peristaltic pump for liquid sample introduction.
5. The peristaltic pump should be able to automatically rotate slowly when set to standby mode to prevent damage to the pump tubing with the plasma automatically switches off.
6. The instrument must include a cyclonic spray chamber and low flow concentric nebulizer.

RF Generator

1. The system must monitor gas pressures and flows, interlocks, water flows and plasma stability.
2. The safety interlocks must be continuously monitored and if any interlock is interrupted, the plasma is shutdown automatically. All failure events must be recorded to an electronic journal and must include event description, time and date.
3. Plasma ignition, operating power and shutdown must be computer controlled to enable optimized parameters to be stored in an analytical method and recalled and provide the ability to automatically alter plasma parameters during run.
4. The ICP-OES spectrometer must employ a water cooled solid state RF generator exhibiting <78% efficiency of energy transfer.
5. The power output stability should be better than 0.1%.
6. Duo plasma view configuration must have a user definable output power of 750 to at least 1350W.

Fore-Optics

1. Model configuration must provide fore-optics to enable Duo plasma viewing (axial & radial plasma viewing).
2. Axial and radial plasma viewing must be automatically optimized under full software control and the viewing mode must be automatically switchable within a method.
3. It must be possible to view analytes in axial, or all in radial, or with an automatic pre-defined view or with specific user definable element selection.

Optical Design

1. Instrument must be able to provide simultaneous measurement of analyte, background and internal standard wavelengths.
2. The ICP spectrometer must employ an Echelle-based optical system to ensure high image quality, analytical resolution and minimization of stray light.
3. Provide analytical resolution in picometer (pm) at 200 nm.
4. The optical design must be able to ensure optimized light transfer for both UV and Visible wavelengths.
5. The optical design must provide a distributed Argon or Nitrogen purged optical pathway from the plasma to the detector without the requirements of an air compressor accessory.
6. The rate of gas consumption for optical purge should not exceed 3 L/min during routine sample analysis.

Detector

1. The ICP-OES must employ a Charge Injection Device (CID) detector or a Charge Coupled Device (CCD) to ensure a high contrast/low noise imaging and quantification of all wavelengths in the analytical range without blooming.
2. The detector must be photoactive over the whole surface area to enable continuous wavelength coverage and must contain a minimum of 540 x 540 pixels.
3. The detector must be cooled by a Peltier device to minimize detector dark current thereby enhancing instrument performance and detection limits.

Analytical Performance

1. The ICP-OES must enable the analysis of a minimum of 33,000 analytical wavelengths up to 785 nm.
2. The ICP-OES must provide data acquisition mode to enable capture spectral data for the entire working wavelength range of the instrument.
3. The system must have an option which allows all lines to be presented in a single image at the optimized integration setting.
4. Signal stability of a 20 ppb multi-element solution in 2% nitric acid matrix should exhibit less than 1% change per hour measured at the claimed resolution in a thermally stable environment using default method settings.
5. Relative standard deviation for 10 replicates of a solution with analyte concentrations 1000 times greater than the stated instrument detection limit should be <0.5%.
6. Provide documentation of most recent Method Detection Limits (MDL's) achieved by the instrument for all analytes listed in EPA 200.7 and EPA 6010. Note wavelength at which data was obtained.
7. Provide documentation of most recent Instrument Detection Limits (IDL's) achieved by the instrument for all analytes listed in EPA 200.7 and EPA 6010. Note wavelength at which data was obtained.
8. Provide documentation of most recent Linear Dynamic Ranges (LDR's) achieved by the instrument for all analytes listed in EPA 200.7 and EPA 6010.
9. Provide documentation of most recent Precision and Recovery Data for drinking water, wastewater, soils/sludge.

Software

1. Full instrument control must be provided using integrated software tools operational on Windows operating system, preferable 32-bit system operating under Microsoft Windows XP or Windows 7 or Vista platform.
2. Specify the database that methods and data are stored in (i.e. Microsoft's SQL 2005 database).
3. Software must at a minimum have the following:
 - a. Fully automated and auto-initializing wavelength calibration routines must be employed to ensure that there are no user requirement to map (or re-map) the wavelength positions.
 - b. Internal diagnostics must be provided to include error reporting and a complete fault log.
 - c. Automatic identification of possible spectral interferences when selection wavelengths for analysis.
 - d. Automatic interference corrections must be enabled in all measurement modes.
 - e. Full data reprocessing capabilities must be provided including editing samples, blanks, standards, calibration curves, elements, check tables, interference corrections and internal standard inclusion/exclusion without the need to rerun samples.
 - f. After data editing, all results related to the edited solution must be automatically updated and date and time edited log in audit tracking.
 - g. Must have complete data audit trail, easily accessible and printable.

- h. All data must be automatically date and time stamped.
 - i. Fully integrated and user definable complete Quality Control software package that includes the following protocols, at a minimum, when performing automated or manual sample analysis: QC Blank, QC Standard, QC Spike, Duplicates, Precision (replicate %RSD), and Correlation Coefficient. Each test should provided a choice of user elected error options, including Stop, Flag and Continue, Retry, Recalibrate and Repeat and Switch to Next Method.
 - j. Must have the ability to do customize reporting. Specify how this is accomplished and what program is used (i.e. Crystal Report, etc.).
 - k. Must be able to print reports with all quality control data listed for each analysis. This is to include, at a minimum, percent recovery of all quality controls samples, RSD, Standard Deviation, upper/lower control acceptance limits, pass/fail noted. Provide examples of these types of reports.
 - l. All raw data must be saved and easily accessed.
 - m. Calibration curves must be stored and be easily retrieved.
 - n. Must support calibration with up to a minimum of eight (8) standards in both normal calibration and standard additions mode.
 - o. Calibration equations must provide a choice of least squares best fit calibration algorithms to include linear, Quadratic, weighted fit, non-linear, and force through blank options. Specify any additional algorithms available.
 - p. Specify all curve fit diagnostics supplied (i.e. slope, X and Y intercepts, etc.).
 - q. Must be able to export final results to Promium Laboratory Information Management software, which is currently used in the City's lab, with minimum human intervention at highest speed possible. Specify how this process is achieved.
 - r. Automatic selection of optimum peak integration and lowest background correction positions with the possibility of varying the size and locations of the integration regions on a wavelength by wavelength basis and allow for user to override these and select peak and background positions.
 - s. Should have the option to modify the scale of the spectral display, zoom to a specific region and display the pixel data for easy identification of interference.
 - t. Must have multi-tasking capability to enable the setup of new methods and to enable reprocessing on data acquired from a previous analysis on the instrument PC while an analysis is being acquired.
 - u. Must provide a comprehensive HELP system with context sensitive content.
 - v. Must include some form of password management including protection against modification and deletion of data, methods and sequences.
 - w. To meet GLP chain of custody requirements, all stored graphics and raw sample data must be identified by their sample or solution label.
 - x. Different number replicates must be selectable for both standards and samples.
 - y. Should have the option to have data stored in both height and area so that the peak measurement mode can be changed after analysis. All associated sample results should be updated automatically when changing the measurement mode and date and time logged in the audit file.
4. Provide any additional information about the software not listed.

Computer

1. Computer must have, at a minimum, Ethernet port RJ 45, either 10/100 or 10/100/1000 for network, keyboard, mouse, 8 MB RAM, high speed processor (I core 7), large cache (1 GB).
2. Provide all computer specifications (i.e. video card, optical drive, sound card, etc.).

Specifications for Flame and Furnace Atomic Absorption Spectrometer System**General**

1. The system must be a bench top design.
2. The system must come with a table designed to sustain its weight. Table must have drawers for storage of accessories.
3. Instrument must be supported or have a life cycle of at least ten years.
4. System must include an autosampler design to work specifically for flame and specifically for furnace analysis. Provide specifications on both autosampler capabilities.
5. System must have automatic operation and multi element capability.
6. System operation must have true dual atomization, in one instrument.
7. Each atomizer must be permanently aligned for immediate use.
8. System must be fully automated double beam spectrometer.
9. System must have a wavelength ranged of up to at least 852.1 nm.
10. System must have computer controlled wavelength and slit selection with automatic peaking on each analytical wavelength.
11. Slit height setting should be adjustable to up to at least 1.0 nm.
12. System must have easily accessible lamp carousel.
13. Lamp carousel must support a minimum of four lamps.
14. Must be compatible with coded lamps, uncoded lamps, single or multi element lamps.
15. Optical system must be fully sealed from ambient air.
16. Should provide option to leave lamps on or automatically switch off at the end of analysis.
17. Must have both Zeeman and Deuterium background correction options. (Smith-Heiftje background correction is not acceptable.)
18. The deuterium lamp must be adjustable and user replaceable.
19. Must have guaranteed background correction for up to 2 Abs background with maximum error of 2%. Provide documentation of performance achieved.
20. Atomizer mounting mechanism should be suitable for flame, vapor and graphite furnace.
21. The system should be capable of operating in laboratory conditions that range from 10-35°C and relative humidity of 10-80% non-condensing. Please specify system operating conditions for temperature and non-condensing.
22. The instrument should be capable of operating with temperature changes of up to 2.5°C per hour without any degradation of performance. Please provide instrument temperature specification.
23. The system should include a computer, 19" SVGA flat panel color monitor, color laser printer and all required software necessary to operate the system. Please provide spec sheet for monitor.
24. All software must be preloaded.
25. System should include a continuous flow vapor generation system for the determination of mercury at the ppb levels.
26. The system must be new and a model currently in use by other environmental laboratories. Refurbished or demonstrator instrument will not be accepted.
27. The system must have a minimum of a one-year warranty which shall include parts, labor and travel. Extended warranty options (2, 3, and 5 years) if available are to be priced on price proposal sheet.
28. The computer must have a three-warranty.

Flame System

1. Universal Finned Titanium 100mm burner suitable for air/acetylene and nitrous, oxide/acetylene flame, 50mm, types must be supplied.

2. Must have burner recognition system to ensure correct gas for burner type fitted.
3. Must have full safety interlocks to include, at a minimum, pressure sensors on all lines, power failure protection, flame sensor and burner installation. Please list all safety interlock features.
4. Fuel and oxidant flow rates must be software controlled.
5. Must have automatic flame ignition and flame off sequencing.
6. Must have automatic flame optimization.
7. Flame and gas flow optimization should be by computer control of burner height and gas flow to maximum signal. Must have the capability of performing this function automatically.
8. A pressure relief bung or equivalent is required to relieve pressure in case of flashback. The ejection of the burner and the use of restraining cables or keys on the burner are not acceptable. If a pressure relief bung is not used please state what system is used to relieve pressure in case of flashback.
9. Liquid trap must be fixed to the spray chamber and the liquid level interlock must be an integral part of the liquid trap.
10. Impact bead required with mechanism to allow external adjustment.
11. Impact bead must be available for use with both air-acetylene and nitrous oxide-acetylene flames.
12. Spray chamber must be capable of handling acids, alkalis and organic solvents. Aluminum or polypropylene construction is not acceptable. Specify construction materials.
13. Must have one spray chamber configuration and burner for all gas mixtures and sample types.
14. Must be fitted with an adjustable nebulizer with inert capillary and venture. Specify construction materials.
15. Must allow rotation of the burner through a full 90 degrees without having to extinguish the flame.
16. Provide most recent flame performance documentation on all analytes listed in Standard Methods 3111 and all EPA 7000 methods, to include:
 - a. Method Detection Limit (MDL's)
 - b. Linear Dynamic Range (LDR's)
 - c. Instrumentation Detection Limit (IDL's)
 - d. Precision and Recovery for drinking water, wastewater, soils/sludge

Furnace System

1. The system must provide accurate, constant cuvette temperatures. Specified how this is achieved.
2. Cuvettes used should be self aligning and system should provide rapid release mechanism for easy tube replacement. If not self aligning, specify how cuvette alignment is achieved.
3. Furnace heating rate must be software controlled for reproducibility.
4. System should provide 20 temperature program steps either ramp or hold, with programmable temperatures. Specify maximum number of temperature program steps.
5. Specify all safety interlocks provided with the system.
6. System must have a furnace vision system (Graphite Furnace TeleVision – GFTV) or equivalent.
7. The furnace must incorporate graphite cuvettes, sheath and end loaded contact cones to provide an all graphite, closed environment to provide a metal contamination and corrosion free analysis zone.
8. Provide most recent flame performance documentation on all analytes listed in Standard Methods 3113 and all appropriate EPA 7000 methods, to include:
 - a. Method Detection Limit (MDL's)
 - b. Linear Dynamic Range (LDR's)
 - c. Instrumentation Detection Limit (IDL's)
 - d. Precision and Recovery for drinking water, wastewater, soils/sludge

Software

1. Full instrument control must be provided using integrated software tools operational on Windows operating system, preferable 32-bit system operating under Microsoft Windows XP or Windows 7.
2. Software must have at a minimum the following:
 - a. Fully automated and auto-initializing wavelength calibration routines must be employed.
 - b. Internal diagnostics must be provided to include error reporting and a complete fault log.
 - c. Automatic interference corrections must be enabled in all measurement modes.
 - d. Full data reprocessing capabilities must be provided including editing samples, blanks, standards, calibration curves, elements, check tables, interference corrections and internal standard inclusion/exclusion without the need to rerun samples.
 - e. Should have the option to have data stored in both height and area so that the peak measurement mode can be changed after analysis. All associated sample results should be updated automatically when changing the measurement mode and date and time logged in the audit file.
 - f. After data editing, all results related to the edited solution must be automatically updated and date and time edited logged in audit tracking file.
 - g. Must have complete data audit trail easily accessible and printable.
 - h. All data must be automatically date and time stamped.
 - i. Fully integrated and user definable complete Quality Control software package that includes the following protocols, at a minimum, when performing automated or manual sample analysis: QC Blank, QC Standard, QC Spike, Duplicates, Precision (replicate %RSD), Correlation Coefficient. Each test should provide a choice of user selected error options, including Stop, Flag and Continue, Retry, Recalibrate and Repeat and Switch to Next Method.
 - j. Must have the capability of customize reporting. Please specify how this is accomplished and what program is used (i.e. Crystal Report, etc.).
 - k. Must be capable of printing reports with all quality control data listed for each analysis. This is to include, at a minimum, percent recovery of all quality control samples, RSD, Standard Deviation, upper/lower control acceptance limits, pass/fail noted. Provide examples of these types of reports.
 - l. All raw data must be saved and easily accessed.
 - m. Calibration curves must be stored and easily recalled.
 - n. Must support calibration with up to a minimum of eight (8) standards in both normal calibration and standard additions modes.
 - o. Calibration equations must provide a choice of least squares best fit calibration algorithms to include linear, Quadratic, weighted fit, non-linear, and force through blank options. Specify any additional algorithms available.
 - p. Specify all curve fit diagnostics supplied (i.e. slope, X and Y intercepts, etc.)
 - q. Must be able to export final results to Promium Laboratory Information Management software, which is currently used in the City's lab, with minimum human intervention and at highest speed possible. Specify how this process is achieved.
 - r. Automatic selection of optimum peak integration and lowest background correction positions with the possibility of varying the size and location of the integration regions on a wavelength by wavelength basis and allow for user to override these and select peak and background positions.
 - s. Should have the option to modify the scale of the spectral display, zoom to a specific region and display the pixel data for easy identification of interference.
 - t. Must have multi-tasking capability to enable the setup of new methods and to enable re-processing on data acquired from a previous analysis on the instrument PC while an analysis is being acquired.
 - u. Should have the capability to record lamp usage and cuvette firings.
 - v. Must provide a comprehensive HELP system with context sensitive content.

- w. Must include some form of password management including protection against modification and deletion of data, methods and sequences.
 - x. To meet GLP chain of custody requirements all stored graphics and raw sample data must be identified by their sample or solution label.
 - y. Different number of replicates must be selectable for both standards and samples.
 - z. Software must allow for a sequence to be set with both flame and furnace analyses so that after flame analyses is completed it will automatically switch over to furnace or vice versa and analyze samples for the specified analyte.
3. Provide any additional information about the software capabilities not listed.

Computer

- 1. Computer must have, at a minimum, Ethernet port RJ 45, either 10/100 or 10/100/1000 for network, keyboard, mouse, 8 MB RAM, high speed processor (I core 7), large cache (1 GB).
- 2. Provide all computer specifications (i.e. video card, optical drive, sound card, etc.).

<i>THIS IS NOT AN ORDER - Please quote on the following items.</i>					
Offer shall be for units requested and prices shall remain valid for 90 days for the purpose of evaluation of this solicitation. Prices shall include delivery and installation of specified products to City's Laboratory located at Blue Heron Reclamation Facility, 4800 Deep Marsh Road, Titusville, FL 32780					
ITEM	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL COST
1a	Inductively Coupled Plasma Optical Emission Spectroscopy including Consumable Kit as specified	1	EA		
1b	2-3 day on site training for ICP-OES	1	LS		
1c	Trade-In Allowance for City owned 2003 Iris Intrepid II XSP Dual View ICP-OES	1	LS	N/A	()
Total Cost Items 1a, 1b and 1c					
2a	Flame and Furnace Atomic Absorption Spectrometer System including Consumable Kit as specified	1	EA		
2b	2-3 day on site training for Flame and Furnace Atomic Absorption Spectrometer System	1	LS		
2c	Trade-In Allowance for City owned 1999 Thermo Electron Model M6AA Flame and Furnace Atomic Absorption Spectrometer	1	LS	N/A	()
Total Cost Items 2a, 2b and 2c					
<i>TOTAL BID AMOUNT</i>					
The City's State Tax Exemption number is 85-80126221699C-3; the FEID number is 59-6000440. Any questions regarding this price quote are to be directed to the attention of the Procurement Analyst stated above at least five (5) days prior to due date.					

The City reserves the right to make an award either to the firm that submits the lowest total base bid amount or to multiple firms based on low bid by item, provided that such bid is responsive and responsible.

PLEASE PROVIDE ALL SPECIFICATION SHEETS, CERTIFICATION AND WARRANTY INFORMATION FOR EACH PIECE OF EQUIPMENT WITH BID SUBMITTAL.

SPECIFY EXPECTED DELIVERY AND INSTALLATION FROM RECEIPT OF PURCHASE ORDER - _____ DAYS.

RETURN BY DUE DATE – MARCH 5, 2013 @ 3:00 PM
TO BUYER: Wynn T. Greene, Sr. Procurement Analyst II
City of Titusville, 555 S. Washington Avenue, Titusville, FL 32781-2806

Any questions regarding this bid may be faxed to the attention of the Purchasing & Contracting Administration at 321-383-5628 or emailed to wynn.greene@titusville.com **no later than seven (7) days prior to bid opening date.**

By signing below, I certify that I have read the attached bid document and agree to its contents.

VENDOR INFORMATION:

COMPANY NAME AND ADDRESS:	PHONE # _____ FAX # _____ E-MAIL _____ FEIN # _____
AUTHORIZED SIGNATURE: _____ PRINTED SIGNATURE: _____ TITLE: _____	
DATE SIGNED:	DATE DUE@ 3:00 pm

Proof that your firm is licensed to perform this work, proof of insurance, a completed Drug Free Workplace Form and a completed Public Entity Crimes Form must be included with this bid for your bid to be considered.

THE FOLLOWING PAGES MUST BE SUBMITTED WITH BID**Product Specification Compliance****Specifications for Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) System****General**

1. The ICP-OES must be a bench top design. Yes No
2. The ICP-OES must come with a table designed to sustain its weight. Table must have drawers for storage of ICP-OES accessories. Yes No
3. System must include a water recirculator. Yes No
4. System must include an autosampler designed to work with the ICP-OES. Provide specifications on autosampler capabilities. Yes No
5. The system should be capable of operating in laboratory conditions that range from 10-35°C and relative humidity of 10-80% non-condensing. Yes No
6. The instrument should be capable of operating with temperature changes of up to 2.5°C per hour without any degradation of performance. Yes No
7. The ICP-OES system should include a computer, 19" SVGA flat panel color monitor, color laser jet printer and all required software necessary to operate the system. Yes No
8. All software must be preloaded. Yes No
9. The ICP-OES must be able to determine all desired elements in one analytical method pass. Yes No
10. Instrument must be supported or have a life cycle of at least ten years. Yes No
11. The ICP-OES must be new and a model currently in use by other environmental laboratories. Refurbished or demonstrator instrument will not be accepted. Yes No
12. The ICP-OES system must have a minimum of a one-year warranty shall include parts, labor and travel. Extended warranty options (2, 3, and 5 years) if available are to be priced on price proposal sheet. Yes No
13. The computer shall have a three year warranty. Yes No

Sample Introduction System

1. The ICP-OES must include an ergonomically designed sample introduction area for ease of access and maintenance. Yes No
2. Plasma torch must be interchangeable various size quartz centre tubes or with ceramic centre tubes for use with highly aggressive sample matrices. Yes No
3. The ICP-OES must be able to accommodate commercially available, specialty nebulizers manufactured by third parties for maximum analytical flexibility. Yes No
4. The system must include a variable speed, computer controlled peristaltic pump for liquid sample introduction. Yes No
5. The peristaltic pump should be able to automatically rotate slowly when set to standby mode to prevent damage to the pump tubing with the plasma automatically switches off. Yes No
6. The instrument must include a cyclonic spray chamber and low flow concentric nebulizer. Yes No

RF Generator

1. The system must monitor gas pressures and flows, interlocks, water flows and plasma stability. _____ Yes _____ No
2. The safety interlocks must be continuously monitored and if any interlock is interrupted, the plasma is shutdown automatically. All failure events must be recorded to an electronic journal and must include event description, time and date. _____ Yes _____ No
3. Plasma ignition, operating power and shutdown must be computer controlled to enable optimized parameters to be stored in an analytical method and recalled and provide the ability to automatically alter plasma parameters during run. _____ Yes _____ No
4. The ICP-OES spectrometer must employ a water cooled solid state RF generator exhibiting <78% efficiency of energy transfer. _____ Yes _____ No
5. The power output stability should be better than 0.1%. _____ Yes _____ No
6. Duo plasma view configuration must have a user definable output power of 750 to at least 1350W. _____ Yes _____ No

Fore-Optics

1. Model configuration must provide fore-optics to enable Duo plasma viewing (axial & radial plasma viewing). _____ Yes _____ No
2. Axial and radial plasma viewing must be automatically optimized under full software control and the viewing mode must be automatically switchable within a method. _____ Yes _____ No
3. It must be possible to view analytes in axial, or all in radial, or with an automatic pre-defined view or with specific user definable element selection. _____ Yes _____ No

Optical Design

1. Instrument must be able to provide simultaneous measurement of analyte, background and internal standard wavelengths. _____ Yes _____ No
2. The ICP spectrometer must employ an Echelle-based optical system to ensure high image quality, analytical resolution and minimization of stray light. _____ Yes _____ No
3. Provide analytical resolution in picometer (pm) at 200 nm. _____ Yes _____ No
4. The optical design must be able to ensure optimized light transfer for both UV and Visible wavelengths. _____ Yes _____ No
5. The optical design must provide a distributed Argon or Nitrogen purged optical pathway from the plasma to the detector without the requirements of an air compressor accessory. _____ Yes _____ No
6. The rate of gas consumption for optical purge should not exceed 3 L/min during routine sample analysis. _____ Yes _____ No

Detector

1. The ICP-OES must employ a Charge Injection Device (CID) detector or a Charge Coupled Device (CCD) to ensure a high contrast/low noise imaging and quantification of all wavelengths in the analytical range without blooming. _____ Yes _____ No
2. The detector must be photoactive over the whole surface area to enable continuous wavelength coverage and must contain a minimum of 540 x 540 pixels. _____ Yes _____ No
3. The detector must be cooled by a Peltier device to minimize detector dark current thereby enhancing instrument performance and detection limits. _____ Yes _____ No

Analytical Performance

1. The ICP-OES must enable the analysis of a minimum of 33,000 analytical wavelengths up to 785 nm. _____Yes _____No
2. The ICP-OES must provide data acquisition mode to enable capture spectral data for the entire working wavelength range of the instrument. _____Yes _____No
3. The system must have an option which allows all lines to be presented in a single image at the optimized integration setting. _____Yes _____No
4. Signal stability of a 20 ppb multi-element solution in 2% nitric acid matrix should exhibit less than 1% change per hour measured at the claimed resolution in a thermally stable environment using default method settings. _____Yes _____No
5. Relative standard deviation for 10 replicates of a solution with analyte concentrations 1000 times greater than the stated instrument detection limit should be <0.5%. _____Yes _____No
6. Provide documentation of most recent Method Detection Limits (MDL's) achieved by the instrument for all analytes listed in EPA 200.7 and EPA 6010. Note wavelength at which data was obtained. _____Yes _____No
7. Provide documentation of most recent Instrument Detection Limits (IDL's) achieved by the instrument for all analytes listed in EPA 200.7 and EPA 6010. Note wavelength at which data was obtained. _____Yes _____No
8. Provide documentation of most recent Linear Dynamic Ranges (LDR's) achieved by the instrument for all analytes listed in EPA 200.7 and EPA 6010. _____Yes _____No
9. Provide documentation of most recent Precision and Recovery Data for drinking water, wastewater, soils/sludge. _____Yes _____No

Software

1. Full instrument control must be provided using integrated software tools operational on Windows operating system, preferable 32-bit system operating under Microsoft Windows XP or Windows 7 or Vista platform. _____Yes _____No
2. Specify the database that methods and data are stored in (i.e. Microsoft's SQL 2005 database). _____Yes _____No
3. Software must at a minimum have the following:
 - a. Fully automated and auto-initializing wavelength calibration routines must be employed to ensure that there are no user requirement to map (or re-map) the wavelength positions. _____Yes _____No
 - b. Internal diagnostics must be provided to include error reporting and a complete fault log. _____Yes _____No
 - c. Automatic identification of possible spectral interferences when selection wavelengths for analysis. _____Yes _____No
 - d. Automatic interference corrections must be enabled in all measurement modes. _____Yes _____No
 - e. Full data reprocessing capabilities must be provided including editing samples, blanks, standards, calibration curves, elements, check tables, interference corrections and internal standard inclusion/exclusion without the need to rerun samples. _____Yes _____No
 - f. After data editing, all results related to the edited solution must be automatically updated and date and time edited log in audit tracking. _____Yes _____No
 - g. Must have complete data audit trail, easily accessible and printable. _____Yes _____No
 - h. All data must be automatically date and time stamped. _____Yes _____No
 - i. Fully integrated and user definable complete Quality Control software package that includes the following protocols, at a minimum, when performing automated or manual sample analysis: QC Blank, QC Standard, QC Spike, Duplicates, Precision (replicate %RSD), and Correlation

Coefficient. Each test should provided a choice of user elected error options, including Stop, Flag and Continue, Retry, Recalibrate and Repeat and Switch to Next Method.

- j. Must have the ability to do customize reporting. Specify how this is accomplished and what program is used (i.e. Crystal Report, etc.). _____Yes _____No
 - k. Must be able to print reports with all quality control data listed for each analysis. This is to include, at a minimum, percent recovery of all quality controls samples, RSD, Standard Deviation, upper/lower control acceptance limits, pass/fail noted. Provide examples of these types of reports. _____Yes _____No
 - l. All raw data must be saved and easily accessed. _____Yes _____No
 - m. Calibration curves must be stored and be easily retrieved. _____Yes _____No
 - n. Must support calibration with up to a minimum of eight (8) standards in both normal calibration and standard additions mode. _____Yes _____No
 - o. Calibration equations must provide a choice of least squares best fit calibration algorithms to include linear, Quadratic, weighted fit, non-linear, and force through blank options. Specify any additional algorithms available. _____Yes _____No
 - p. Specify all curve fit diagnostics supplied (i.e. slope, X and Y intercepts, etc.). _____Yes _____No
 - q. Must be able to export final results to Promium Laboratory Information Management software, which is currently used in the City's lab, with minimum human intervention at highest speed possible. Specify how this process is achieved. _____Yes _____No
 - r. Automatic selection of optimum peak integration and lowest background correction positions with the possibility of varying the size and locations of the integration regions on a wavelength by wavelength basis and allow for user to override these and select peak and background positions. _____Yes _____No
 - s. Should have the option to modify the scale of the spectral display, zoom to a specific region and display the pixel data for easy identification of interference. _____Yes _____No
 - t. Must have multi-tasking capability to enable the setup of new methods and to enable reprocessing on data acquired from a previous analysis on the instrument PC while an analysis is being acquired. _____Yes _____No
 - u. Must provide a comprehensive HELP system with context sensitive content. _____Yes _____No
 - v. Must include some form of password management including protection against modification and deletion of data, methods and sequences. _____Yes _____No
 - w. To meet GLP chain of custody requirements, all stored graphics and raw sample data must be identified by their sample or solution label. _____Yes _____No
 - x. Different number replicates must be selectable for both standards and samples. _____Yes _____No
 - y. Should have the option to have data stored in both height and area so that the peak measurement mode can be changed after analysis. All associated sample results should be updated automatically when changing the measurement mode and date and time logged in the audit file. _____Yes _____No
4. Provide any additional information about the software not listed.

Computer

- 1. Computer must have, at a minimum, Ethernet port RJ 45, either 10/100 or 10/100/1000 for network, keyboard, mouse, 8 MB RAM, high speed processor (I core 7), large cache (1 GB). _____Yes _____No
- 2. Provide all computer specifications (i.e. video card, optical drive, sound card, etc.).

THE FOLLOWING PAGES MUST BE SUBMITTED WITH BID**Product Specification Compliance****Specifications for Flame and Furnace Atomic Absorption Spectrometer System****General**

1. The system must be a bench top design. Yes No
2. The system must come with a table designed to sustain its weight. Table must have drawers for storage of accessories. Yes No
3. Instrument must be supported or have a life cycle of at least ten years. Yes No
4. System must include an autosampler design to work specifically for flame and specifically for furnace analysis. Provide specifications on both autosampler capabilities. Yes No
5. System must have automatic operation and multi element capability. Yes No
6. System operation must have true dual atomization, in one instrument. Yes No
7. Each atomizer must be permanently aligned for immediate use. Yes No
8. System must be fully automated double beam spectrometer. Yes No
9. System must have a wavelength ranged of up to at least 852.1 nm. Yes No
10. System must have computer controlled wavelength and slit selection with automatic peaking on each analytical wavelength. Yes No
11. Slit height setting should be adjustable to up to at least 1.0 nm. Yes No
12. System must have easily accessible lamp carousel. Yes No
13. Lamp carousel must support a minimum of four lamps. Yes No
14. Must be compatible with coded lamps, uncoded lamps, single or multi element lamps. Yes No
15. Optical system must be fully sealed from ambient air. Yes No
16. Should provide option to leave lamps on or automatically switch off at the end of analysis. Yes No
17. Must have both Zeeman and Deuterium background correction options. (Smith-Heiftje background correction is not acceptable.) Yes No
18. The deuterium lamp must be adjustable and user replaceable. Yes No
19. Must have guaranteed background correction for up to 2 Abs background with maximum error of 2%. Provide documentation of performance achieved. Yes No
20. Atomizer mounting mechanism should be suitable for flame, vapor and graphite furnace. Yes No
21. The system should be capable of operating in laboratory conditions that range from 10-35°C and relative humidity of 10-80% non-condensing. Please specify system operating conditions for temperature and non-condensing. Yes No
22. The instrument should be capable of operating with temperature changes of up to 2.5°C per hour without any degradation of performance. Please provide instrument temperature specification. Yes No
23. The system should include a computer, 19" SVGA flat panel color monitor, color laser printer and all required software necessary to operate the system. Please provide spec sheet for monitor.
24. All software must be preloaded. Yes No
25. System should include a continuous flow vapor generation system for the determination of mercury at the ppb levels. Yes No
26. The system must be new and a model currently in use by other environmental laboratories. Refurbished or demonstrator instrument will not be accepted. Yes No

- 27. The system must have a minimum of a one-year warranty which shall include parts, labor and travel. Extended warranty options (2, 3, and 5 years) if available are to be priced on price proposal sheet. _____Yes _____No
- 28. The computer must have a three-warranty. _____Yes _____No

Flame System

- 1. Universal Finned Titanium 100mm burner suitable for air/acetylene and nitrous, oxide/acetylene flame, 50mm, types must be supplied. _____Yes _____No
- 2. Must have burner recognition system to ensure correct gas for burner type fitted. _____Yes _____No
- 3. Must have full safety interlocks to include, at a minimum, pressure sensors on all lines, power failure protection, flame sensor and burner installation. Please list all safety interlock features. _____Yes _____No
- 4. Fuel and oxidant flow rates must be software controlled. _____Yes _____No
- 5. Must have automatic flame ignition and flame off sequencing. _____Yes _____No
- 6. Must have automatic flame optimization. _____Yes _____No
- 7. Flame and gas flow optimization should be by computer control of burner height and gas flow to maximum signal. Must have the capability of performing this function automatically. _____Yes _____No
- 8. A pressure relief bung or equivalent is required to relieve pressure in case of flashback. The ejection of the burner and the use of restraining cables or keys on the burner are not acceptable. If a pressure relief bung is not used please state what system is used to relieve pressure in case of flashback. _____Yes _____No
- 9. Liquid trap must be fixed to the spray chamber and the liquid level interlock must be an integral part of the liquid trap. _____Yes _____No
- 10. Impact bead required with mechanism to allow external adjustment. _____Yes _____No
- 11. Impact bead must be available for use with both air-acetylene and nitrous oxide-acetylene flames. _____Yes _____No
- 12. Spray chamber must be capable of handling acids, alkalis and organic solvents. Aluminum or polypropylene construction is not acceptable. Specify construction materials. _____Yes _____No
- 13. Must have one spray chamber configuration and burner for all gas mixtures and sample types. _____Yes _____No
- 14. Must be fitted with an adjustable nebulizer with inert capillary and venture. Specify construction materials. _____Yes _____No
- 15. Must allow rotation of the burner through a full 90 degrees without having to extinguish the flame. _____Yes _____No
- 16. Provide most recent flame performance documentation on all analytes listed in Standard Methods 3111 and all EPA 7000 methods, to include:
 - a. Method Detection Limit (MDL's) _____Yes _____No
 - b. Linear Dynamic Range (LDR's) _____Yes _____No
 - c. Instrumentation Detection Limit (IDL's) _____Yes _____No
 - d. Precision and Recovery for drinking water, wastewater, soils/sludge. _____Yes _____No

Furnace System

1. The system must provide accurate, constant cuvette temperatures. Specified how this is achieved.
_____ Yes _____ No
2. Cuvettes used should be self aligning and system should provide rapid release mechanism for easy tube replacement. If not self aligning, specify how cuvette alignment is achieved. _____ Yes _____ No
3. Furnace heating rate must be software controlled for reproducibility. _____ Yes _____ No
4. System should provide 20 temperature program steps either ramp or hold, with programmable temperatures. Specify maximum number of temperature program steps. _____ Yes _____ No
5. Specify all safety interlocks provided with the system. _____ Yes _____ No
6. System must have a furnace vision system (Graphite Furnace TeleVision – GFTV) or equivalent.
_____ Yes _____ No
7. The furnace must incorporate graphite currettes, sheath and end loaded contact cones to provide an all graphite, closed environment to provide a metal contamination and corrosion free analysis zone.
_____ Yes _____ No
8. Provide most recent flame performance documentation on all analytes listed in Standard Methods 3113 and all appropriate EPA 7000 methods, to include:
 - a. Method Detection Limit (MDL's) _____ Yes _____ No
 - b. Linear Dynamic Range (LDR's) _____ Yes _____ No
 - c. Instrumentation Detection Limit (IDL's) _____ Yes _____ No
 - d. Precision and Recovery for drinking water, wastewater, soils/sludge. _____ Yes
_____ No

Software

1. Full instrument control must be provided using integrated software tools operational on Windows operating system, preferable 32-bit system operating under Microsoft Windows XP or Windows 7.
_____ Yes _____ No
2. Software must have at a minimum the following:
 - a. Fully automated and auto-initializing wavelength calibration routines must be employed.
_____ Yes _____ No
 - b. Internal diagnostics must be provided to include error reporting and a complete fault log.
_____ Yes _____ No
 - c. Automatic interference corrections must be enabled in all measurement modes. _____ Yes
_____ No
 - d. Full data reprocessing capabilities must be provided including editing samples, blanks, standards, calibration curves, elements, check tables, interference corrections and internal standard inclusion/exclusion without the need to rerun samples. _____ Yes _____ No
 - e. Should have the option to have data stored in both height and area so that the peak measurement mode can be changed after analysis. All associated sample results should be updated automatically when changing the measurement mode and date and time logged in the audit file. _____ Yes
_____ No
 - f. After data editing, all results related to the edited solution must be automatically updated and date and time edited logged in audit tracking file. _____ Yes _____ No
 - g. Must have complete data audit trail easily accessible and printable. _____ Yes _____ No
 - h. All data must be automatically date and time stamped. _____ Yes _____ No
 - i. Fully integrated and user definable complete Quality Control software package that includes the following protocols, at a minimum, when performing automated or manual sample analysis: QC Blank, QC Standard, QC Spike, Duplicates, Precision (replicate %RSD), Correlation Coefficient.

- Each test should provide a choice of user selected error options, including Stop, Flag and Continue, Retry, Recalibrate and Repeat and Switch to Next Method. _____ Yes _____ No
- j. Must have the capability of customize reporting. Please specify how this is accomplished and what program is used (i.e. Crystal Report, etc.). _____ Yes _____ No
 - k. Must be capable of printing reports with all quality control data listed for each analysis. This is to include, at a minimum, percent recovery of all quality control samples, RSD, Standard Deviation, upper/lower control acceptance limits, pass/fail noted. Provide examples of these types of reports. _____ Yes _____ No
 - l. All raw data must be saved and easily accessed. _____ Yes _____ No
 - m. Calibration curves must be stored and easily recalled. _____ Yes _____ No
 - n. Must support calibration with up to a minimum of eight (8) standards in both normal calibration and standard additions modes. _____ Yes _____ No
 - o. Calibration equations must provide a choice of least squares best fit calibration algorithms to include linear, Quadratic, weighted fit, non-linear, and force through blank options. Specify any additional algorithms available. _____ Yes _____ No
 - p. Specify all curve fit diagnostics supplied (i.e. slope, X and Y intercepts, etc.) _____ Yes _____ No
 - q. Must be able to export final results to Premium Laboratory Information Management software, which is currently used in the City's lab, with minimum human intervention and at highest speed possible. Specify how this process is achieved. _____ Yes _____ No
 - r. Automatic selection of optimum peak integration and lowest background correction positions with the possibility of varying the size and location of the integration regions on a wavelength by wavelength basis and allow for user to override these and select peak and background positions. _____ Yes _____ No
 - s. Should have the option to modify the scale of the spectral display, zoom to a specific region and display the pixel data for easy identification of interference. _____ Yes _____ No
 - t. Must have multi-tasking capability to enable the setup of new methods and to enable re-processing on data acquired from a previous analysis on the instrument PC while an analysis is being acquired. _____ Yes _____ No
 - u. Should have the capability to record lamp usage and curvette firings. _____ Yes _____ No
 - v. Must provide a comprehensive HELP system with context sensitive content. _____ Yes _____ No
 - w. Must include some form of password management including protection against modification and deletion of data, methods and sequences. _____ Yes _____ No
 - x. To meet GLP chain of custody requirements all stored graphics and raw sample data must be identified by their sample or solution label. _____ Yes _____ No
 - y. Different number of replicates must be selectable for both standards and samples. _____ Yes _____ No
 - z. Software must allow for a sequence to be set with both flame and furnace analyses so that after flame analyses is completed it will automatically switch over to furnace or vice versa and analyze samples for the specified analyte. _____ Yes _____ No
3. Provide any additional information about the software capabilities not listed.

Computer

1. Computer must have, at a minimum, Ethernet port RJ 45, either 10/100 or 10/100/1000 for network, keyboard, mouse, 8 MB RAM, high speed processor (I core 7), large cache (1 GB). _____ Yes _____ No
2. Provide all computer specifications (i.e. video card, optical drive, sound card, etc.).