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## PART 1 - GENERAL INFORMATION

### 1.1 Introduction

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

- Part 1 General Information: provides a general description of the requirement;
- Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation;
- Part 3 Bid Preparation Instructions: provides bidders with instructions on how to prepare their bid;
- Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, and the basis of selection;
- Part 5 Certifications: includes the certifications to be provided;
- Part 6 Security, Financial and Other Requirements: includes specific requirements that must be addressed by bidders; and
- Part 7 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

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

### 1.2 Summary

By means of the RFP, NRCan is seeking proposals from bidders for....

1.2.1 Experimental thermogravimetric analysis work will be performed to (1) study the reduction kinetics, (2) gain better understanding of the reduction mechanisms, and (3) assess/optimize various parameters during reduction of chromite ores/concentrate in the presence of various accelerants/catalysts.

### 1.3 Debriefings

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



## PART 2 - BIDDER INSTRUCTIONS

### 2.1 Standard Instructions, Clauses and Conditions

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

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

The [2003](#) (2016-04-04) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation with the modifications to the text below. If there is a conflict between the provisions of 2003 and this document, this document prevails.

- **In the complete text content (except Section 3) Delete:** Public Works and Government Services Canada” and **Insert:** “Natural Resources Canada.” **Delete:** “PWGSC” and **Insert:** “NRCan”
- **Section 2: Delete:** “Suppliers are required to” and **Insert:** “It is suggested that suppliers”
- **Subsection 1 of Section 8:**  
**Delete:** Unless specified otherwise in the bid solicitation, bids may be submitted by facsimile. The only acceptable facsimile number for responses to bid solicitations issued by PWGSC headquarters is 819-997-9776 or, if applicable, the facsimile number identified in the bid solicitation. The facsimile number for responses to bid solicitations issued by PWGSC regional offices is identified in the bid solicitation  
**Insert:** Unless specified otherwise in the bid solicitation, bids may be submitted by facsimile. The only acceptable facsimile number for responses to bid solicitations is the facsimile number identified in the bid solicitation.
- **Under Subsection 2 of Section 20:** Not applicable

### 2.2 Submission of Bids

It is the Bidders responsibility to ensure that proposals are sent to the following e-mail address, by the time and date indicated on page 1 of this RFP document:

[Len.Pizzi@Canada.ca](mailto:Len.Pizzi@Canada.ca)

#### **IMPORTANT**

It is requested that you write the following information in “Subject” of the e-mail: NRCan-5000024531 - Experimental investigation on the reduction of chromite ores by means of thermogravimetric analysis (TGA) coupled with off-gas measurement

The financial proposal should be presented, and identified, in a separate document from the technical proposal.

The address above is reserved for the submission of your proposal. No other communication should be sent to that address.

**NRCan will not assume responsibility for proposals directed to any other location.**

The onus is on the Bidder to ensure that the proposal is submitted correctly to the above address. Not complying with the above instructions may result in NRCan’s inability to ascertain reception date and/or to consider the bid prior to contract award. Therefore, NRCan reserves the right to reject any proposal not complying with these instructions.



### **2.3 Enquiries - Bid Solicitation**

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

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

### **2.4 Applicable Laws**

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

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

### **2.5 Improvement of Requirement During Solicitation Period**

Should bidders consider that the specifications or Statement of Work contained in the bid solicitation could be improved technically or technologically, bidders are invited to make suggestions, in writing, to the Contracting Authority named in the bid solicitation. Bidders must clearly outline the suggested improvement as well as the reason for the suggestion. Suggestions that do not restrict the level of competition nor favour a particular bidder will be given consideration provided they are submitted to the Contracting Authority at least five (5) days before the bid closing date. Canada will have the right to accept or reject any or all suggestions.



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## **PART 3 - BID PREPARATION INSTRUCTIONS**

### **3.1 Bid Preparation Instructions**

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

- Section I: Technical Bid (1 electronic copy)
- Section II: Financial Bid (1 electronic copy) in a separate file
- Section III: Certifications (1 electronic copy)
- Section IV: Additional Information (1 electronic copy)

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

Canada requests that Bidders follow the format instructions described below in the preparation of their bid:

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

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process [Policy on Green Procurement](http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, Bidders should:

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

#### **Section I: Technical Bid**

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

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

#### **Section II: Financial Bid**

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

**3.1.2 Exchange Rate Fluctuation**



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

### 3.1.3 **SACC Manual Clauses**

#### **Section III: Certifications**

Bidders must submit the certifications required under Part 5.



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

### **4.1 Evaluation Procedures**

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

#### **4.1.1 Technical Evaluation**

Mandatory and point rated technical evaluation criteria are included in Annex "C".

#### **4.1.2 Financial Evaluation**

##### **4.1.2.1 Mandatory Financial Criteria**

Mandatory financial evaluation criteria are included in Annex "C".

##### **Evaluation of Price**

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

### **4.2 Basis of Selection**

#### **4.2.1 Highest Combined Rating of Technical Merit and Price**

1. To be declared responsive, a bid must:
  - a. comply with all the requirements of the bid solicitation; and
  - b. meet all mandatory criteria; and
  - c. obtain the required minimum of 70 points overall for the technical evaluation criteria which are subject to point rating.  
The rating is performed on a scale of 100 points.
2. Bids not meeting (a) or (b) or (c) will be declared non-responsive.
3. The selection will be based on the highest responsive combined rating of technical merit and price. The ratio will be 70% for the technical merit and 30% for the price.
4. To establish the technical merit score, the overall technical score for each responsive bid will be determined as follows: total number of points obtained / maximum number of points available multiplied by the ratio of 70%.
5. To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 30%.
6. For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.





7. Neither the responsive bid obtaining the highest technical score nor the one with the lowest evaluated price will necessarily be accepted. The responsive bid with the highest combined rating of technical merit and price will be recommended for award of a contract.

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

<b>Basis of Selection - Highest Combined Rating Technical Merit (60%) and Price (40%)</b>				
		<b>Bidder 1</b>	<b>Bidder 2</b>	<b>Bidder 3</b>
<b>Overall Technical Score</b>		115/135	89/135	92/135
<b>Bid Evaluated Price</b>		\$55,000.00	\$50,000.00	\$45,000.00
<b>Calculations</b>	<b>Technical Merit Score</b>	$115/135 \times 60 = 51.11$	$89/135 \times 60 = 39.56$	$92/135 \times 60 = 40.89$
	<b>Pricing Score</b>	$45/55 \times 40 = 32.73$	$45/50 \times 40 = 36.00$	$45/45 \times 40 = 40.00$
<b>Combined Rating</b>		83.84	75.56	80.89
<b>Overall Rating</b>		1st	3rd	2nd



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## **PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION**

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

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

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

### **5.1 Certifications Required with the Bid**

Bidders must submit the following duly completed certifications as part of their bid.

#### **5.1.1 Declaration of Convicted Offences**

In accordance with the Ineligibility and Suspension Policy (<http://www.tpsgcpwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

### **5.2 Certifications Precedent to Contract Award and Additional Information**

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

#### **5.2.1 Integrity Provisions – List of Names**

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

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

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

#### **5.2.2 Federal Contractors Program for Employment Equity - Bid Certification**

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

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



### **5.2.3 Additional Certifications Precedent to Contract Award**

#### **5.2.3.1 Status and Availability of Resources**

The Bidder certifies that, should it be awarded a contract as a result of the bid solicitation, every individual proposed in its bid will be available to perform the Work as required by Canada's representatives and at the time specified in the bid solicitation or agreed to with Canada's representatives. If for reasons beyond its control, the Bidder is unable to provide the services of an individual named in its bid, the Bidder may propose a substitute with similar qualifications and experience. The Bidder must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement. For the purposes of this clause, only the following reasons will be considered as beyond the control of the Bidder: death, sickness, maternity and parental leave, retirement, resignation, dismissal for cause or termination of an agreement for default.

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

#### **5.2.3.2 Rate or Price Certification**

The Bidder certifies that the price proposed is not in excess of the lowest price charged anyone else, including the Bidder's most favoured customer, for the like quality and quantity of the goods, services or both.

#### **5.2.3.3 Education and Experience**

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

#### **5.2.3.4 Former Public Servant**

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

#### **Definitions**

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

- a. an individual;
- b. an individual who has incorporated;



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

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

"pension" means a pension or annual allowance paid under the *Public Service Superannuation Act* (PSSA), R.S., 1985, c. P-36, and any increases paid pursuant to the *Supplementary Retirement Benefits Act*, R.S., 1985, c. S-24 as it affects the PSSA. It does not include pensions payable pursuant to the *Canadian Forces Superannuation Act*, R.S., 1985, c. C-17, the *Defence Services Pension Continuation Act*, 1970, c. D-3, the *Royal Canadian Mounted Police Pension Continuation Act*, 1970, c. R-10, and the *Royal Canadian Mounted Police Superannuation Act*, R.S., 1985, c. R-11, the *Members of Parliament Retiring Allowances Act*, R.S. 1985, c. M-5, and that portion of pension payable to the *Canada Pension Plan Act*, R.S., 1985, c. C-8.

#### **Former Public Servant in Receipt of a Pension**

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

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

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

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

#### **Work Force Adjustment Directive**

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

If so, the Bidder must provide the following information:

- a. name of former public servant;
- b. conditions of the lump sum payment incentive;
- c. date of termination of employment;
- d. amount of lump sum payment;
- e. rate of pay on which lump sum payment is based;
- f. period of lump sum payment including start date, end date and number of weeks;



g. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

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

#### 5.2.3.4 Aboriginal Designation

An Aboriginal business, which can be:

- i. a band as defined by the Indian Act
- ii. a sole proprietorship
- iii. a limited company
- iv. a co-operative
- v. a partnership
- vi. a not-for-profit organization

in which Aboriginal persons have at least 51 percent ownership and control,

OR

A joint venture consisting of two or more Aboriginal businesses or an Aboriginal business and a non-Aboriginal business(es), provided that the Aboriginal business(es) has at least 51 percent ownership and control of the joint venture.

This is to confirm:

- Our Company is an Aboriginal Firm, as identified above
- Our Company is NOT an Aboriginal Firm

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Date



## **PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENTS**

### **6.1 Security Requirements**

There is no security requirement applicable to this Contract.

### **6.2 Insurance Requirements**

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



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## PART 7 - RESULTING CONTRACT CLAUSES

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

### 7.1 Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex "\_\_\_" and the Contractor's technical bid entitled \_\_\_\_\_, dated \_\_\_\_\_.

### 7.2 Standard Clauses and Conditions

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

#### 7.2.1 General Conditions

[2010B \(2016-04-04\)](#), General Conditions – Professional Services - Medium Complexity, apply to and form part of the Contract.

As applicable, replace references to Public Works and Government Services Canada (PWGSC) with Natural Resources Canada (NRCan).

#### 7.2.2 Supplemental General Conditions

The following clauses apply to this contract:

[4006 \(2010-08-16\)](#), Contractor to Own Intellectual Property Rights in Foreground Information

##### 7.2.2.1 Dispute Resolution

###### *Mediation*

If a dispute arising from this contract cannot be settled amicably through negotiation, then the parties agree in good faith to submit the dispute to mediation as administered by the Arbitration and Mediation Institute of Canada Inc. (AMIC). The parties acknowledge receipt of the rules of AMIC. The cost of mediation shall be borne equally by the parties.

###### *Arbitration*

If the parties cannot resolve the dispute through mediation within sixty (60) days, the parties agree to submit the dispute to arbitration pursuant to the Commercial Arbitration Act (Canada). The party requesting such arbitration shall do so by written notice to the other party/parties. The cost of the arbitration and fees of the arbitrator shall be borne equally by the parties. The arbitration shall take place in the city where the contractor carries on business before a single arbitrator to be chosen jointly by the parties. If the parties cannot agree on the choice of arbitrator within thirty (30) days of written notice to submit the dispute to arbitration, each party will choose a representative who will select the arbitrator. The parties may determine the procedure to be followed by the arbitrator in conducting the proceedings, or may ask the arbitrator to do so. The arbitrator shall issue a written award within thirty (30) days of hearing the parties. The award may be entered in any court having jurisdiction and enforced as a judgment of that court.

###### *Meaning of "Dispute"*



The parties agree that the word "dispute" in this clause refers to a dispute of fact or of law, other than a dispute of public law.

The parties understand that the Procurement Ombudsman appointed pursuant to Subsection 22.1(1) of the *Department of Public Works and Government Services Act* will, on request or consent of the parties to participate in an alternative dispute resolution process to resolve any dispute between the parties respecting the interpretation or application of a term and condition of this contract and their consent to bear the cost of such process, provide to the parties a proposal for an alternative dispute resolution process to resolve their dispute. The Office of the Procurement Ombudsman may be contacted by telephone at 1-866-734-5169 or by e-mail at [boa.opo@boa.opo.gc.ca](mailto:boa.opo@boa.opo.gc.ca).

**7.3 Security Requirements**

**7.3.1** There is no security requirement applicable to this Contract.

**7.4 Term of Contract**

**7.4.1 Period of the Contract**

The period of the Contract is from date of Contract to March 31, 2017 inclusive.

**7.5 Authorities**

**7.5.1 Contracting Authority**

The Contracting Authority for the Contract is:

Name: Len Pizzi  
Title: Procurement Officer  
Organization: Natural Resources Canada  
Address: 183 Longwood Road South, Hamilton, ON, L8P 0A5  
Telephone: (905) 645-0676  
Facsimile: (905) 645-0831  
E-mail address: Len.Pizzi@Canada.ca

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

**7.5.2 Project Authority**

The Project Authority for the Contract is:

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

The Project Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Project Authority; however, the





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

**7.5.3 Contractor's Representative**

**7.6 Proactive Disclosure of Contracts with Former Public Servants**

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

**7.7 Payment**

**7.7.1 Basis of Payment – Firm Price**

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm price as specified in Annex “\_\_\_” for a cost of \$ \_\_\_\_\_. Customs duties are included and Applicable Taxes are extra.

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

**7.7.2 Method of Payment**

**Single Payment**

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

- a. an accurate and complete invoice and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- b. all such documents have been verified by Canada;
- c. the Work delivered has been accepted by Canada.

**7.8 Invoicing Instructions**

Invoices shall be submitted using **one of the following methods:**

<p><u>E-mail:</u></p> <p><a href="mailto:NRCan.invoice_imaging-service_dimagerie_des_factures.RNCan@canada.ca">NRCan.invoice_imaging-service_dimagerie_des_factures.RNCan@canada.ca</a></p> <p><b>Note:</b> Attach “PDF” file. No other formats will be accepted</p>	<p><b>OR</b></p>	<p><u>Fax:</u></p> <p>Local NCR region: <b>613-947-0987</b> Toll-free: <b>1-877-947-0987</b></p> <p><b>Note:</b> Use highest quality settings available.</p>
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Please do not submit invoices using more than one method as this will not expedite payment.



Invoices and all documents relating to a contract must be submitted on the Contractor's own form and shall bear the following reference numbers: Contract number: \_\_\_\_\_

**Invoicing Instructions to suppliers:** <http://www.nrcan.gc.ca/procurement/3485>

## 7.9 Certifications

### 7.9.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing additional information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the additional information, or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

### 7.10 Applicable Laws

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

### 7.11 Priority of Documents

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

- (a) the Articles of Agreement;
- (b) the supplemental general conditions 4006 (2010-08-16) - Contractor to Own Intellectual Property Rights in Foreground Information;
- (c) the general conditions 2010B (2016-04-04), General Conditions – Professional Services - Medium Complexity;
- (d) Annex A, Statement of Work;
- (e) Annex B, Basis of Payment; and
- (f) the Contractor's bid dated \_\_\_\_\_.

### 7.12 Foreign Nationals (Canadian Contractor *OR* Foreign Contractor)

SACC Manual clause A2000C (2006-06-16) Foreign Nationals (Canadian Contractor)

**OR**

SACC Manual clause A2001C (2006-06-16) Foreign Nationals (Foreign Contractor)

### 7.14 Insurance

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

### 7.15 Contract Administration

The parties understand that the Procurement Ombudsman appointed pursuant to Subsection 22.1(1) of the *Department of Public Works and Government Services Act* will review a complaint filed by [*the*



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*supplier or the contractor or the name of the entity awarded this contract*] respecting administration of this contract if the requirements of Subsection 22.2(1) of the *Department of Public Works and Government Services Act* and Sections 15 and 16 of the *Procurement Ombudsman Regulations* have been met, and the interpretation and application of the terms and conditions and the scope of the work of this contract are not in dispute. The Office of the Procurement Ombudsman may be contacted by telephone at 1-866-734-5169 or by e-mail at [boa.opo@boa.opo.gc.ca](mailto:boa.opo@boa.opo.gc.ca).



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## **ANNEX “A”**

### **STATEMENT OF WORK**

Experimental investigation on the reduction of chromite ores by means of thermogravimetric analysis (TGA) coupled with off-gas measurement

#### **SW 1.0 Background**

In recent years, a steady, reliable, and secure supply of critical metals has become increasingly important to major industrialized economies that seek to sustain their industrial base and develop advanced technologies, such as clean energy. In light of this, Canada, with its significant critical metal reserves, has an opportunity to supply some of the global demand for critical metals. However, to transition from promising mineral deposits to marketable products, investment in fundamental R&D and expertise is needed to address the complex technological challenges around the production, separation and processing of critical metals, and to better understand the global market for these key commodities.

Chromium represents an opportunity for Canada to enter an emerging and globally strategic market. The main application of chromium is in the stainless steel industry which is a vital to modern industry. A Ring of Fire deposit in northern Ontario is the only commercial quantities of chromite in North America and the fourth deposits in the world. However, the location of these deposits makes mining of this deposits quite challenging. Moreover, processing of chromite ore to marketable ferrochromium alloy is the other restriction for this development in Ontario due to expensive local electricity.

Natural Resources Canada has been directed through Budget 2015 to undertake a significant effort to support the development of Rare Earth Elements and chromite in order to maximize Canadian value and benefits from these deposits. As such, we conducted an exploratory level assessment of the full reduction technology as it applies to the processing of Ring of Fire chromite ores in year 1. The results of these studies were used to design the research plan for year 2. The initial screening provided a better understanding of the catalytic behaviour of different additives and a more detailed investigation is required to identify the optimum reduction conditions.

#### **SW 2.0 Objective**

Experimental TGA work will be performed to (1) study the reduction kinetics, (2) gain better understanding of the reduction mechanisms, and (3) assess/optimize various parameters during reduction of chromite ores/concentrate in the presence of various accelerants/catalysts.

#### **SW 3.0 Work To Be Performed**

The TGA reduction tests will be performed on chromite ores/concentrate mixed with a reductant and a catalyst. For each experiment, the proportions of chromite ore/concentrate, reductant and catalyst, along with other experimental conditions, will be determined by NRCan. The contractor will mix the powders of ore/concentrate, reductant and catalyst as per the specifications provided by NRCan. The powder mixture will be subjected to TGA-DTA or TGA-DSC tests in combination with continuous off-gas analysis preferably using a mass spectrometer. Controlled Air flow will be used. Although the sample size will be small, residual sample from each test should be collected by the contractor for further characterization by NRCan. Samples and test results including TG, DTA/DSC, and off-gas compositions (CO, CO<sub>2</sub>, and O<sub>2</sub>) as a function of temperature and time should be delivered to NRCan as specified at the beginning of each call against the standing offer contract (usually within 1 or 2 weeks). Test conditions cannot be changed without obtaining a written permission from NRCan.

#### **Task 1. Sample preparation**

Mix the ore sample with reductant and catalysts according to the mass ratio indicated for the experiments.



## **Task 2. TGA Reduction tests**

High temperature (up to **1500 °C**) reduction tests will be performed with TG-DTA or TG-DSC coupled with continuous off-gas analysis preferably using a mass spectrometer. The concentrations of CO, CO<sub>2</sub>, and O<sub>2</sub> in the off gas will be recorded. Controlled flow of Ar will be used. Sample size of each test will range from 10 mg to 100 mg. Alumina crucibles will be used. For some tests, the crucible will be covered by a lid with one pin-hole at its centre during the test. Heating rates should be in the 5 to 30 °C range. The TGA instrument used should be able to reach a maximum cooling rate of  $\geq 30$  °C. Maximum cooling will be applied for each test, and the sample product will be collected for future characterization by NRCan.

The total number of tests during the contract will vary from 50 up to 100, but there is no guarantee for the total number of tests. The experimental conditions and the quantity of the reactants will be determined by NRCan. Quality of the TGA tests must be ensured. In case of accidental failure in some test(s), repetition of the test(s) will be performed at the contractor's expense.

## **Task 3. Reporting**

Deliverables include the following:

1. All solid products from the TGA tests should be provided to NRCan. In cases where the sample sintered onto the crucible, the crucible with sample should be provided to NRCan for further characterization.
2. Test results including TG, DTA/DSC, and off gas compositions (CO, CO<sub>2</sub>, and O<sub>2</sub>) as a function of temperature and time should be provided in a digital format that are readable by Excel. Proper labelling of data columns is required.
3. Brief reports should be provided summarising the testing conditions, methodologies, equipment that are used, QA/QC protocols employed and observations.

## **SW 4.0 Contact at Natural Resources Canada**

After the contract has been signed, NRCan will identify a resource liaison that the supplier may contact if more information is needed.

## **SW 5.0 Deliverables**

**Deliverable 1:** An initial meeting within one (1) week of signing the contract. The date, type (telephone, video-conference, WebEx, in person) and place of the meeting (if in person) will be decided jointly between NRCan and the supplier. The objective of the meeting is to discuss the proposal, in general, and to clarify the work, schedule and deliverables.

**Deliverable 2:** Additional meetings may be required to discuss the expected experimental objectives and requirements.

**Deliverable 3:** Brief reports outlining the methodology and QA/QC procedures employed, data files (Excel or text files) and products from the TGA experiments

## **SW 6.0 Schedule**

The deliverable 3 must be submitted to NRCan at specific dates usually after two weeks of receiving the samples by the contractor. This will be determined after each call against the standing offer contract. Products from the TGA experiments must be shipped to NRCan along with the experimental details and data files. The details of the delivery schedule will be discussed during the initial meeting as per Deliverable 1.



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<b>Task</b>	<b>Dates</b>
Initial Meeting (deliverable #1)	Within 5 working days of Contract Award Date (CAD).
Meeting (provisional) before each set of experiments (deliverable #2)	5 working days before the start of the new set of experiments
Brief Reports and products from crucible experiments (deliverable #3)	As specified for each call against the standing offer contract



**ANNEX “B”**

**BASIS OF PAYMENT**

**Bidder tendered all-inclusive firm price to perform the work is \$ \_\_\_\_\_ in Canadian funds, GST/HST excluded. Any Travel and Living Expenses, in accordance with Treasury Board Guidelines, and other miscellaneous expenses must be included in the firm price.**

<b>Deliverable</b>	<b>Description of Deliverable</b>	<b>Deliverable Firm Price (GST/HST excluded)</b>
1	Brief reports outlining the methodology and QA/QC procedures employed, data files (Excel or text files) and products from the TGA experiments	\$
	<b>Total Firm Price</b>	\$

**B2 FINANCIAL PROPOSAL**

**B2.1 TAXES AS RELATED TO BIDS RECEIVED**

For Canadian-based bidders, prices/rates, as applicable, are requested to be firm (in Canadian funds) with Canadian customs duties and excise taxes as applicable **included**, and Goods and Services Tax (GST) or Harmonized Sales Tax (HST) as applicable, **excluded**;

For foreign-based bidders, prices/rates, as applicable, are requested to be firm (in Canadian funds) and **exclude** Canadian customs duties, excise taxes and GST or HST, as applicable. Canadian customs duties and excise taxes payable by the consignee will be added, for evaluation purposes only, to the prices submitted by foreign-based bidders. If the prices submitted in the financial proposal are not in Canadian Funds the exchange rate in effect on the date of bid closing will be applied for evaluation purposes only.

**B2.2 FUNDING LIMITATION**

NRCan has allocated a maximum of \$ 50,000.00 in funding for this requirement, **inclusive of a) the Price to perform the Work, and b) any Travel and Living and c) Miscellaneous Expenses that may be required**; Goods and Services Tax (GST) or Harmonized Sales Tax (HST) is extra to the Funding Limitation; **any bids received in excess of this maximum funding will be automatically deemed non-responsive and will not be evaluated.**

**B2.3 PRICING DETAILS TO BE PROVIDED IN FINANCIAL PROPOSAL**

The Bidder hereby offers to NRCan, as requested by the Minister, to furnish all necessary expertise, supervision, materials, equipment and other items necessary to performing the work as described in the statement of work of this Request for Proposal and in accordance with the terms and conditions of the Request for Proposal, to the satisfaction of the Minister, or his or her authorized representative, for the following price(s).

Bidders must provide financial details as requested in this Annex. Proposals which do not contain pricing details as requested below shall be considered incomplete and non-responsive.



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## **ANNEX “C” to PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**

### **C.1 MANDATORY TECHNICAL CRITERIA**

The Mandatory Criteria listed below will be evaluated on a simple pass/fail basis. Proposals which fail to meet the mandatory criteria will be deemed non-responsive.

Bidders are advised to address each criterion in sufficient depth to permit a complete requisite analysis and assessment by the evaluation team. Proposals failing to adequately respond to the mandatory criteria may be excluded from further considerations. The technical proposal should address each of the criteria in the order in which they appear.

Bidders are advised that only listing experience without providing any supporting data to describe responsibilities, duties and relevance to the criteria will not be considered demonstrated for the purpose of this evaluation.

The Bidder should provide complete details as to where, when (month and year) and how (through which activities/ responsibilities) the stated qualifications/experience were obtained. Experience gained during formal education shall not be considered work experience. All criteria for work experience shall be obtained in a legitimate work environment as opposed to an educational setting. Co-op terms are considered work experience provided they are related to the required services.

Bidders are also advised that the month(s) of experience listed for a project whose time frame overlaps that of another referenced project will only be counted once. For example: project one time frame is July 2001 to December 2001; project two time frame is October 2001 to January 2002; the total months of experience for these two project references is seven (7) months.





Criterion ID	Mandatory Criteria	Proposal Page #	Pass/Fail
<b>M1</b>	<p><b>General description of the work to be performed</b></p> <p>The bidder must provide a proposal including a detailed work plan for fulfilling the mandate, specifically describing the work to be done to meet the requirements and a full description of how the three deliverables described in this Statement of Work will be met.</p> <p>The work plan must include:</p> <ul style="list-style-type: none"><li>- <u>Introduction</u> - that demonstrates the bidder understands the project mandate, the Ring of Fire chromite issues and its stakeholders, the NRCan program for REE and chromite R&amp;D, and potential challenges and risks associated with the contract.</li><li>- <u>Detailed Work Plan</u> - information on the work to be performed, including a complete description of the activities to be carried out, such as setting up and performing the experiments, measures to be employed for ensuring the product quality and representativeness, QA/QC, health and safety procedures, resources to be used, and contingencies for mitigating risks to ensure deliverables are completed on time.</li><li>- <u>List of equipment</u> – an overview of the relevant and available equipment in facility and brief description of their uses during the project and a mitigation plan should there is an equipment failure.</li><li>- <u>Task Framework</u> - a table showing the breakdown of work including the number of hours allowed on each task, delivery dates of each deliverable and the resource name.</li></ul>		
<b>M2</b>	<p><b>Bidders Company Experience in Reduction and Smelting Tests</b></p> <p>Bidder must provide at least one project example related to previous work of a similar nature completed within the past 10 years. The project example should contain the following:</p> <ul style="list-style-type: none"><li>➤ Project Description</li><li>➤ Time Period (e.g. October 2012 to July 2016);</li></ul> <p>Client name and point of contact info (for validation purposes only);</p>		



Criterion ID	Mandatory Criteria	Proposal Page #	Pass/Fail
M3	<p><b>Bidders Proposed Resources</b></p> <p>Bidder must demonstrate in their CV that the proposed resource has minimum 5 years of experience conducting similar test work; All experience requirements must have been acquired within the last ten (10) years. The bidder may propose more than one resource but at a minimum, one resource must have the minimum required years of experience in each field.</p> <ul style="list-style-type: none"> <li><b>Copies of the curriculum vitae (CV)</b></li> </ul>		

**C.1.1 POINT RATED TECHNICAL CRITERIA**

The criteria contained herein will be used by NRCan to evaluate each proposal that has met all of the mandatory criteria. Bidders are advised to address these criteria in the following order and in sufficient depth in their proposals to enable a thorough assessment. NRCan’s assessment will be based solely on the information contained within the proposal. NRCan may confirm information or seek clarification from bidders.

Proposals must achieve the stated minimum points required for each rated criterion to be assessed as responsive under the point rated technical criteria section; proposals not meeting the minimum required points will be deemed non-responsive.

Only those proposals which are responsive (compliant) with all of the mandatory criteria and then achieve (or exceed) the stated minimum points required for the point rated technical criteria section (which is equivalent to 70 points of the total points available) will be further considered for award of a contract. Proposals not meeting the minimum points required will be deemed non-responsive.

Criterion ID	Point Rated Technical Criteria	Minimum Points /Maximum Points	Proposal Page #
R1	<p><b>Resource Qualifications</b></p> <p>The proposal should demonstrate that the proposed resource(s) has (have) knowledge and experience directly related to the project requirements. (CV of resources including the list of projects completed)</p> <p><b>a) 20 points</b> for Bidder’s company experience in conducting reduction/smelting test work. Project example(s) to be provided.</p> <ul style="list-style-type: none"> <li>- 0 = No projects provided</li> <li>- 5 = 1 project provided</li> <li>- 10 = 2 projects provided</li> <li>- 15 = 3 projects provided</li> <li>- 20 = More than 3 projects provided (max. 5 projects)</li> </ul>	50	



	<p><b>b) 30 points</b> for Bidder’s company experience in TG-DTA or TG-DSC. Project example(s) to be provided.</p> <ul style="list-style-type: none"> <li>- 0 = No projects provided</li> <li>- 5 = 1 project provided</li> <li>- 10 = 2 projects provided</li> <li>- 20 = 3 projects provided</li> <li>- 30 = More than 3 projects provided (max. 5 projects)</li> </ul>		
<b>R2</b>	<p><b>Approach and Method</b></p> <p>The bidder must present a method clearly demonstrating an approach that will lead to the successful completion of the project.</p> <p>The proposal will be evaluated based on the following factors:</p> <p><b>a) comprehension of the project needs and objectives (10 points);</b></p> <p><b>1) 10 points</b> for comprehension of the project needs and objectives</p> <p>0 – 3 = comprehension of the project needs and objectives and how the proposal addresses them poorly demonstrated.</p> <p>4 – 6 = comprehension of the project needs and objectives demonstrated, but little indication of how the proposal addresses needs.</p> <p>7 – 10 = comprehension of the project needs and objectives clearly demonstrated, and excellent description of how the proposal addresses needs</p> <p><b>2) 30 points</b> for research plan - the bidder’s approach specifies:</p> <ul style="list-style-type: none"> <li>➤ equipment to be utilized to complete test work and its availability;</li> <li>➤ ability to complete tasks as described and as per the proposed QA/QC plan;</li> <li>➤ contingencies for mitigating risks and ensuring deliverables are met on time.</li> </ul> <p><b>b) 30 points</b> for the research plan</p> <p>0 – 9 = limited description of research plan; requirements not all addressed clearly.</p> <p>10 – 19 = basic description of research plan, but not all requirements addressed.</p> <p>20 – 30 = extensive description of research plan, with all requirements clearly addressed.</p>	<b>40</b>	
<b>R3</b>	<p><b>Task Framework</b></p> <p>The bidder must submit a clear, logical and well organized table indicating:</p> <ul style="list-style-type: none"> <li>➤ tasks;</li> <li>➤ proposed resources;</li> <li>➤ milestones;</li> </ul>	<b>10</b>	



	<p>➤ schedule</p> <p><b>10 points</b> for the task framework</p> <p>0 – 3 = table is not well organized and/or does not contain all required information</p> <p>4 – 6 = table is well organized and clearly shows all required information</p> <p>7 – 10 = table is well organized, clearly shows all required information and demonstrates a realistic means of achieving deliverables.</p>		
<b>Total points</b>			