

Return Bids to:

Retourner Les Soumissions à:

Canada

Natural Resources Canada **Bid Receiving Natural Resources Canada** See herein for bid submission instructions

Request for Proposal (RFP) Demande de proposition (DDP)

Proposal To: Natural Resources Canada

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

Proposition à: Ressources Naturelles Canada

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

Comments – Commentaires

Issuing Office – Bureau de distribution

Finance and Procurement Management Branch Natural Resources Canada 580 Booth Street Ottawa, ON K1A 0E4

Title – Sujet

Application of Supercritical Fluid Extraction (SCFE) to extract and recover rare earth elements (REE) – Phase 3

Solicitation No. - No de l'invitation NRCan-5000068385

Date August 22, 2022

Requisition Reference No. - Nº de la demande 5000068385

Solicitation Closes – L'invitation prend fin

at - à 02:00 PM Eastern Daylight Savings Time (EDT)

on – le September 19, 2022

Address Enquiries to: - Adresse toutes questions à:

raymond.thai@NRCan-RNCan.gc.ca

Telephone No. – No de telephone

343-543-7427

Destination – of Goods and Services: Destination – des biens et services:

-As specified herein.

Security – Sécurité

There are no security requirements associated with this requirement.

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

Telephone No.:- No. de téléphone:

Email – Courriel :

Name and Title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/de l'entrepreneur (taper ou écrire en caractères d'imprimerie)

Date

Signature



TABLE OF CONTENTS

PART 1	- GENERAL INFORMATION	5
1.1	INTRODUCTION	5
1.2	SUMMARY	5
1.3	DEBRIEFINGS	5
PART 2	- BIDDER INSTRUCTIONS	6
2.1	Standard Instructions, Clauses and Conditions	6
2.1	SUBMISSION OF BIDS	
2.2	ENQUIRIES - BID SOLICITATION	
2.3	APPLICABLE LAWS	
2.5	IMPROVEMENT OF REQUIREMENT DURING SOLICITATION PERIOD.	
2.6	BASIS FOR CANADA'S OWNERSHIP OF INTELLECTUAL PROPERTY	
2.7	BID CHALLENGE AND RECOURSE MECHANISMS	
PART 3	- BID PREPARATION INSTRUCTIONS	9
3.1	BID PREPARATION INSTRUCTIONS	
	- EVALUATION PROCEDURES AND BASIS OF SELECTION	
4.1	Evaluation Procedures	
4.1 4.1.1		
4.1.1		
4.2	BASIS OF SELECTION	
4.2.1		
	- CERTIFICATIONS AND ADDITIONAL INFORMATION	
5.1	Certifications Required with the Bid	12
5.1.1	Integrity Provisions - Declaration of Convicted Offences	
5.2	CERTIFICATIONS PRECEDENT TO CONTRACT AWARD AND ADDITIONAL INFORMATION	
5.2.1		
5.2.2		
5.2.4		
5.2.5	FORMER PUBLIC SERVANT	14
5.2.6	Aboriginal Designation	
PART 6	- SECURITY AND OTHER REQUIREMENTS	17
6.1	Security Requirements	17
PART 7	- RESULTING CONTRACT CLAUSES	
7.1	STATEMENT OF WORK	
7.2	STANDARD CLAUSES AND CONDITIONS	
7.2.1	GENERAL CONDITIONS	
7.2.2	SUPPLEMENTAL GENERAL CONDITIONS	
7.3	DISPUTE RESOLUTION	
7.4	Security Requirements	
7.5	TERM OF CONTRACT	



RFP # NRCan-5000068385

7.5.1	Period of the Contract	19
7.6	COMPREHENSIVE LAND CLAIMS AGREEMENTS (CLCAS)	19
7.7	AUTHORITIES	19
7.7.1	CONTRACTING AUTHORITY	19
7.7.2	Project Authority	20
7.7.3	CONTRACTOR'S REPRESENTATIVE	20
7.8	PROACTIVE DISCLOSURE OF CONTRACTS WITH FORMER PUBLIC SERVANTS	20
7.9	PAYMENT	20
7.9.1	BASIS OF PAYMENT – FIRM PRICE	20
7.9.2	METHOD OF PAYMENT	21
7.10	INVOICING INSTRUCTIONS	
7.11	Certifications and Additional Information	21
7.11.	1 COMPLIANCE	21
7.12	Applicable Laws	21
7.13	Priority of Documents	
7.14	Foreign Nationals (Canadian Contractor OR Foreign Contractor)	22
7.15	INSURANCE	22
7.16	CONTRACT ADMINISTRATION	22
ANNEX	"A" - STATEMENT OF WORK	23
ANNEX	"B" - BASIS OF PAYMENT	27
APPEND	DIX "1" - EVALUATION CRITERIA	28
1. T	Technical Criteria	
1.1	MANDATORY EVALUATION CRITERIA	
1.2	EVALUATION OF RATED CRITERIA	31
2.	FINANCIAL CRITERIA	34
2.1	Mandatory Financial Criteria	
APPEN	DIX "2" - FINANCIAL PROPOSAL FORM	35
1.	Firm Price - Milestone Payments	35



The Articles contained in this document are mandatory in their entirety, unless otherwise indicated. Acceptance of these Articles, in their entirety, as they appear in this document, is a Mandatory requirement of this RFP.

Suppliers submitting a proposal containing statements implying that their proposal is conditional on modification of these clauses or containing terms and conditions that purport to supersede these clauses or derogate from them will be considered non-responsive.

Bidders with concerns regarding the provisions of the Bid Solicitation document (including the Resulting Contract Clauses) should raise such concerns in accordance with the Enquiries provision of this RFP.



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 and Additional Information: includes the certifications and additional information to be provided;
- Part 6 Security 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 and the Basis of Payment.

The Appendixes include the Evaluation Criteria and the Financial Proposal Form.

1.2 Summary

By means of the RFP, NRCan is seeking proposals from bidders for the design and execution of a test program that utilize the Supercritical Fluid Extraction (SCFE) technology to extract and recover rare earth elements from mineral samples.

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 will be done in writing, by email.



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/standardacquisition-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 (2022-03-29) 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 1 and 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 entirety -
- Subsection 2 of Section 8: -

Delete: The only acceptable email address to use with CPC Connect for responses to bid solicitations issued by PWGSC headquarters is: tpsgc.pareceptiondessoumissions-apbidReceiving.pwgsc@tpsgc-pwgsc.gc.ca, or, if applicable, the email address identified in the bid solicitation. : The only acceptable email address to use with CPC Connect for responses to bid solicitations issued by PWGSC headquarters is: tpsgc.pareceptiondessoumissions-apbidReceiving.pwgsc@tpsgc-pwgsc.gc.ca, or, if applicable, the email address identified in the bid solicitation. Insert: The only acceptable email address to use with CPC Connect for responses to bid solicitation issued by NRCan is: mailto:procurement-approvisionnement@NRCan-RNCan.gc.ca

- Subsection 2b of Section 8: Delete: six business days Insert: five business days
- Under Subsection 2 of Section 20: Not applicable

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

Delete: 60 days Insert: 120 days

2.2 Submission of Bids

Bidders must submit all proposals electronically. Given the current constraints on NRCan's networks, the electronic mail system has a limit of 1GB per single message received and a limit of 20GB per conversation. NRCan encourages bidders to submit all bids earlier than the closing time.



Bids must be submitted no later than the date and time indicated on page 1 of the bid solicitation.

Only bids submitted using CPC Connect service will be accepted.

At least five (5) business days before the bid solicitation closing date, it is necessary for the Bidder to send an email requesting to open CPC Connect conversation to the following address:

mailto:procurement-approvisionnement@NRCan-RNCan.gc.ca

Note: Bids will not be accepted if e-mailed directly to this address. This e-mail address is to be used to open CPC Connect conversation, as detailed in the Standard Instructions 2003 (Subsection of Section 08), or to send bids through CPC Connect message if the bidder is using its own licensing agreement for CPC Connect.

IMPORTANT: It is requested that you write the bid solicitation number in "Subject" of the email:

NRCan 5000068385 - Application of Supercritical Fluid Extraction (SCFE) to extract and recover rare earth elements (REE) – Phase 3

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

The onus is on the Bidder to ensure that the bid is submitted correctly using CPC Connect service. Not complying with the 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.

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

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.

2.6 Basis for Canada's Ownership of Intellectual Property

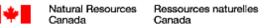
Natural Resources Canada has determined that any intellectual property rights arising from the performance of the Work under the resulting contract will belong to Canada, on the following reasons: as set out in the Policy on Title to Intellectual Property Arising Under Crown Procurement Contracts

Where the main purpose of the Crown Procurement Contract, or the deliverables contracted for, is:

To generate knowledge and information for public dissemination. 0

2.7 **Bid Challenge and Recourse Mechanisms**

- (a) Several mechanisms are available to potential suppliers to challenge aspects of the procurement process up to and including contract award.
- (b) Canada encourages suppliers to first bring their concerns to the attention of the Contracting Authority. Canada's Buy and Sell website, under the heading "Bid Challenge and Recourse Mechanisms" contains information on potential complaint bodies such as:
 - Office of the Procurement Ombudsman (OPO) •
 - Canadian International Trade Tribunal (CITT)
- (c) Suppliers should note that there are strict deadlines for filing complaints, and the time periods vary depending on the complaint body in question. Suppliers should therefore act quickly when they want to challenge any aspect of the procurement process.



PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

If the Bidder chooses to submit its bid electronically, Canada requests that the Bidder submits its bid in accordance with section 08 of the 2003 standard instructions. The CPC Connect system has a limit of 1GB per single message posted and a limit of 20GB per conversation.

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

Section I: Technical Bid (1 PDF File)

Section II: Financial Bid (1 PDF File) in <u>a separate file and document</u>

Section III: Certifications (1 PDF File) in <u>a separate file and document</u>

Prices should appear in the financial bid only. No prices should 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) format;
- (b) use a numbering system that corresponds to the bid solicitation.

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

Bidders must submit their financial bid in accordance with the Financial Proposal Form in Appendix #2. The total amount of Applicable Taxes must be shown separately.

Exchange Rate Fluctuation

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



Section III: Certifications

Bidders must submit the certifications and additional information required under Part 5.



PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 **Evaluation Procedures**

Canada

- (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 Appendix #1 – Evaluation Criteria.

Financial Evaluation 4.1.2

Mandatory financial criteria are included in Appendix #1 - Evaluation Criteria.

4.2 **Basis of Selection**

4.2.1 Highest Rated Within Budget

- 1. To be declared responsive, a bid must:
 - a. Comply with all the requirements of the bid solicitation;
 - b. Meet all mandatory technical criteria;
 - c. Obtain the required minimum of 43 points overall for the technical evaluation criteria which are subject to point rating. The rating is performed on a scale of 72 points; and
 - d. Comply with the maximum funding requirement.

The maximum funding available for the Contract resulting from the bid solicitation is <u>\$65,000.00</u> (Applicable Taxes extra). Bids valued in excess of this amount will be considered non-responsive. This disclosure does not commit Canada to pay the maximum funding available.

Bids not meeting (a) or (b) or (c) will be declared non responsive. The responsive bid with the highest number of points will be recommended for award of a contract, provided that the total evaluated price does not exceed the budget available for this requirement.



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. Unless specified otherwise, 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 Integrity Provisions - Declaration of Convicted Offences

In accordance with the Integrity Provisions of the Standard Instructions, all bidders must provide with their bid, if applicable, the Integrity declaration form available on the Forms for the Integrity Regime website (http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html), 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 – Required Documentation

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real property agreement of the Ineligibility and Suspension Policy (http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policyeng.html), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

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 or, in the case of a private company, the owners of the company.



- 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 partnerships do not need to provide lists of names.

Name of Bidder: _____

Canada

OR

Name of each member of the joint venture:

Member 1:	
Member 2:	
Member 3:	
Member 4:	

Identification of the administrators/owners:

SURNAME	NAME	TITLE

5.2.2 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, gualifications 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. Failure to comply with the request may result in the bid being declared non-responsive.

5.2.4 **Education and Experience**

Canada

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.

5.2.5 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;
- a partnership made of former public servants; or c.
- 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: 2019-01 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.

Professional fees

Amount

Page 15 of - de 35



5.2.6 Aboriginal Designation

Who is eligible?

- a) 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

b. 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.

When an Aboriginal business has six or more full-time employees at the date of submitting the bid, at least thirtythree percent of them must be Aboriginal persons, and this ratio must be maintained throughout the duration of the contract.

The bidder must certify in its submitted bid that it is an Aboriginal business or a joint venture constituted as described above.

□ Our Company is <u>NOT an Aboriginal Firm</u>, as identified above.

□ Our Company is an Aboriginal Firm, as identified above.

Signature

Date



PART 6 - SECURITY AND OTHER REQUIREMENTS

6.1 Security Requirements

There are no security requirements associated with this requirement.



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

Canada

The Contractor must perform the Work in accordance with the Statement of Work at Annex "A" and the Contractor's technical bid entitled _____, dated _____. (to be completed at contract award)

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-andconditions-manual) issued by Public Works and Government Services Canada.

7.2.1 General Conditions

2010B (2022-01-28), 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:

4007 (2010-08-16), Canada to Own Intellectual Property Rights in Foreground Information.

7.3 **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"

Canada

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.

7.4 **Security Requirements**

7.4.1 There is no security requirement applicable to the Contract.

7.5 Term of Contract

7.5.1 Period of the Contract

The period of the Contract is from date of Contract Award to June 30, 2023.

7.6 Comprehensive Land Claims Agreements (CLCAs)

The Contract is not subject to any Comprehensive Land Claims Agreements.

7.7 **Authorities**

7.7.1 **Contracting Authority**

The Contracting Authority for the Contract is:

Name: **Raymond Thai** Title: **Procurement Specialist** Organization: Natural Resources Canada Address: 580 Booth Street, Ottawa, ON K1A 0E4 Telephone: 343-543-7427 E-mail address: raymond.thai@NRCan-RNCan.gc.ca



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

7.7.2 **Project Authority** (to be provided at contract award)

The Project Authority for the Contract is:

Name: Title: Organization: Address: Telephone: 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.

Contractor's Representative (to be provided at contract award) 7.7.3

Name:	
Title:	
Organization:	
Address:	
Telephone:	
E-mail address	

Proactive Disclosure of Contracts with Former Public Servants 7.8

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: 2019-01 of the Treasury Board Secretariat of Canada.

7.9 Payment

7.9.1 **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 "B" for a cost of \$_____ (to be provided at contract award). 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.

7.9.2 Method of Payment

Canada

Milestone Payments

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

- a. an accurate and complete claim for payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- b. all work associated with the milestone and as applicable any deliverable required has been completed and accepted by Canada.

7.10 **Invoicing Instructions**

Due to Covid-19, NRCan will only accept invoices as follows:

E-mail: Invoicing-Facturation@nrcan-rncan.gc.ca Note: Attach "PDF" file. No other formats will be accepted

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 Contract number: _ (to be provided at contract award)

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

Certifications and Additional Information 7.11

7.11.1 Compliance

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing additional information are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

7.12 **Applicable Laws**

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



7.13 **Priority of Documents**

Canada

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 4007 (2010-08-16) Canada to Own Intellectual Property Rights in Foreground Information);
- c) the general conditions **2010B** (2022-01-28), Professional Services Medium Complexity;
- d) Annex A, Statement of Work;
- e) Annex B, Basis of Payment;
- f) the Contractor's bid dated _____, (to be inserted at contract award)

7.14 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)

7.15 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.

Contract Administration 7.16

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 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.



ANNEX "A" - STATEMENT OF WORK

SW1 Title

Application of Supercritical Fluid Extraction to extract and recover REE – Phase 3

SW2 Background

Global demand for critical minerals is increasing to support the transition to a low emissions global economy. Canada can leverage its mining and processing expertise and world leading environmental, social and governance credentials, and become the global supplier of choice for clean and advanced technologies. CanmetMINING is undertaking a significant effort in the research and development of critical minerals, such as rare earth elements (REE), nickel, cobalt, vanadium, graphite and lithium, in order to help advance Canadian mining projects to production and maximize Canadian value and benefits.

Supercritical fluid extraction (SCFE) is an emerging green technology that recently has been used for the recovery of various metals, and is gaining interest in the extraction and separation of lanthanides and actinides. This is a fastgrowing field due to the desirable properties of supercritical fluids (SCFs) as solvents.

In 2019 and 2020, NRCan contracted work to complete an initial investigation on the extraction of REE from a Canadian REE-bearing mineral concentrate and leach residue [1, 2]. The investigations showed promising results that warrant further studies.

SW3 Objectives

The objective of this proposal will be to continue the evaluation of the SCFE technology using CO₂ as the solvent with TBP/HNO₃ adduct as the chelating agent for its potential to extract rare earth elements from mineral samples. One or more mineral samples will be used as feeds for this project, potentially a mineral concentrate and a leach residue. Supercritical CO₂ containing TBP/HNO₃ complex would be used to extract REE directly from the solid matrices. The extraction results on these feeds will be analyzed and optimized in order to understand the REE extraction achievable from each. The effect of de-pressurizing the Pregnant Leach Solution (PLS) from the SCFE process, and the potential of selectively separating REE in groups or individually at the de-pressurization step will be explored if attaching a control valve to the SCFE reactor becomes feasible. The benefits of a fairly low temperature caustic/alkaline cracking as a pretreatment to SCFE will be studied.

[1] Zhang, J. (2019). Application of supercritical fluid extraction to extract and recover rare earth elements. Prepared by CERCL Inc. for CanmetMINING, Natural Resources Canada, Ottawa, Ontario, December 3, 2019.

[2] Lambert, A. (2021). Application of Supercritical Fluid Extraction to Extract and Recover Rare Earth Elements – Phase II. Prepared by CERCL Inc. for CanmetMINING, Natural Resources Canada, Ottawa, Ontario, June 2021.

SW4 Project Requirements

SW4.1 Tasks, Deliverables, Milestones and Schedule

The Contractor MUST design, plan, and conduct a comprehensive Design of Experiments (DOE) to extract and recover REE, and investigate the fate of Zr, using supercritical CO₂ within the stated maximum cost.



One (1) feed sample will be provided for this study, which will be discussed with the contractor. The DOE **MUST** include an appropriate statistical analysis, which consists of three basic stages: screening, response surface methodology, and model validation of the data. The proposed DOE MUST also follow randomization, acceptable power, adequate number of replicates, proper use of the sparsity of effects principle and design resolutions (e.g., no main effect or two-factor interaction is aliased with any other main effect or two-factor interaction). In the case of fractional factorial design, a resolution four should be considered as a minimum. To maximize the value of this and the previous phase of work, sequential experimentation is highly suggested, i.e., combine the runs of fractional factorials in Phase one of this project to construct sequentially a larger design to estimate the factor effects and interactions. Statistical significance of the results **MUST** be investigated using proper tests (e.g, ANOVA). Diagnostic checks (e.g., normality, constant variance and independence of observations) MUST also be included in the DOE.

Due to the intricacies of analyzing REE sample, it is crucial that all analyses are conducted in a consistent manner. All solid and liquid samples (if analysis on the organic phase is feasible) produced from the testwork program are to be analysed at one ISO accredited analytical facility. Digestion of solid samples must be done using either lithium metaborate fusion or sodium peroxide fusion technique. The costs for analyzing the solid and the potential liquid samples, the shipping fees associated, and the turnaround time of the assays (usually 3 weeks) must be considered and included in the proposal.

Under the guidance of CanmetMINING, the Contractor **MUST** perform the following tasks:

SW4.1.1 Through the addition of appropriate values and instrumentations, investigate the effect of depressurization of the SCFE reactor on the PLS. Investigate the possibility of selectively separate REE in groups or individually at the de-pressurization step.

SW4.1.2 Perform experiments at a larger scale using a larger quantity of feeds (e.g., 15–25 g) if the equipment permits. The quantity **MUST** be selected such that there will be enough residue remaining after the experiment for mineralogical studies (to be performed by NRCan-CanmetMINING). The number of larger-scale tests and the quantity of feed **MUST** be described in the proposed work plan. Two (2) key parameters to understand would be the effect of residence time and the adduct: feed ratio. Preliminary Techno-economic analysis (TEA) indicates these parameters are cost drivers and need to be significantly reduced to make this process more viable.

SW4.1.3 Investigate the effect of caustic cracking as a pre-treatment on the recovery rate of REE and Zr.

SW4.1.4 Perform a preliminary Techno-economic analysis (TEA) based on the achieved results.

SW4.1.5 Discuss results and identify further area of work in SCFE for REE processing.

SW4.1.6 Deliverables:

SW4.1.6.1 Deliverable 1: An initial meeting within ten (10) working days of the Contract Award Date (CAD). The date, type (telephone, videoconference, 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 proposed work plan, in general, and to clarify the schedule and the work breakdown table.

SW4.1.6.2 Deliverable 2: Interim Report. The Contractor **MUST** provide one electronic copy via email of the interim report, which must contain all work completed by March 1st 2023 as outlined in the Statement of Work

SW4.1.6.3 Deliverable 3: Draft Report. The Contractor MUST provide one (1) electronic copy via email of the draft report, which must contain all the study findings as per this Statement of Work (SOW), by June 1st 2023. Natural Resources Canada (NRCan) will review and provide comments to the Contractor within ten (10) working days after receiving the draft report.

SW4.1.6.4 Deliverable 4: Final Report and Sample Disposal. Submission of the final report (in English), which must address all changes/comments provided by NRCan in Deliverable 4. One (1) electronic copy via email **MUST** be received by NRCan, by June 30th 2023. All test products including solids and solutions, properly labelled, MUST be returned to NRCan-CanmetMINING, or an address that will be provided by NRCan-CanmetMINING, at the completion of this work.

SW4.1.7 Schedule:

Milestones	Task	Dates
#1	Initial Meeting (Deliverable #1)	Within 10 working days of Contract Award Date (CAD).
#2	Interim Report (Deliverable #2)	By March 1 st 2023
#3	Draft Report (Deliverable #3)	By June 1 st 2023
#4	Final Report (Deliverable #4)	By June 30 th 2023
#5	Return Samples (Deliverable #5)	At the completion of work

SW5 OTHER TERMS AND CONDITIONS OF THE SOW

SW.5.1 Contractor's Obligations

In addition to the obligations outlined in Section SW3 and SW4 of this Statement of Work, the Contractor MUST:

SW5.1.1 submit all written reports in electronic Microsoft Office Word format. Participate in telephone or videoconferences, as needed;

Scientific Integrity Policy:

In satisfying the requirements of this agreement, the Recipient is encouraged to comply with the provisions and intent of the NRCan Scientific Integrity Policy (SIP) and to discharge its contractual obligations in support of research, science, or related activities in a manner consistent with all relevant NRCan SIP provisions. For more information on



the Scientific Integrity Policy, please visit the NRCan website at: <u>https://www.nrcan.gc.ca/scientific-integrity/21665#a20</u>

SW.5.2 NRCan's Obligations

- provide comments on draft reports within five (10 working days) and/or,
- provide other assistance or support.

SW.5.3 Location of Work, Work Site and Delivery Point

The work will be completed at the Contractor's place of business. The report will be submitted electronically through email to the project authority.



ANNEX "B" - BASIS OF PAYMENT

(to be completed at contract award)

Canada



APPENDIX "1" - EVALUATION 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.

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.

1. **Technical Criteria**

1.1 Mandatory Evaluation 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.



Criterion ID	Mandatory Criteria	Proposal Page #	Pass/Fail
M1	Work Plan		
	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 all deliverables described in this Statement of Work will be met.		
	The work plan must include:		
	 Identification of the Project technical lead (primary contact); Detailed information on the work to be performed, a complete description of the activities to be carried out, the approach to completing the activities, and resources name(s) allocated for completing each task. A table showing the breakdown of all the tasks to be performed, the resource name(s) allocated for each, the anticipated number of work hours to complete each task, with the anticipated schedule and all deliverable dates (as weeks after contract signing). 		
M2	Bidder's Proposed Resources Experience		
	The Bidder MUST identify a Project technical lead who will be responsible for the technical findings and recommendations of this study and report. The Project technical lead MUST have each of the following:		
	 A Post Graduate Degree (Masters or PhD) from a recognized university, demonstrated by providing the Name of the University, Department, and Year obtained. 		
	 Experience in extractive metallurgy using Supercritical fluid extraction (SCFE), as evidenced by publications. Minimum two (2) journal publication within the last five (5)* years. The Bidder <u>MUST</u> provide a curriculum vitae (CV) of the Project technical lead to demonstrate how they meet the above criteria. 		
	*From the date of bid solicitation closing on Page #1 of the RFP.		



Criterion ID	Mandatory Criteria	Proposal Page #	Pass/Fail
Mandatory Criteria			
M4	Bidder's Proposed Equipment	Page # Page # rice vitae (CV) for all proposed vFE reactor, equipped with a control valve. This can be on on the equipment, where	
	modifier pump and a depressurization control valve. This can be demonstrated by providing a description on the equipment, where the equipment is from and if applicable, by providing a model		



1.2 Evaluation of rated criteria

The criteria contained herein will be used by NRCan to evaluate each proposal that has met all of the mandatory criteria.

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

Proposals will be evaluated based on the following criteria:

Item	Requirement	Points Breakdown for each requirement	Maximum Points	Proposal Page #
R1	Bidders Proposed Resources Academic Qualifications: Academic qualifications for each proposed resource	 Maximum 6 points to be awarded, as follows: Technical diploma (1 point) Bachelor degree level (2 points) Master degree level (3 points) Doctoral degree level (4 points) 	6	
R2	Bidder's Proposed Resource Experience:	A maximum of 18 points (6 points per project) will be awarded as follows:		
	The Bidder's proposed technical lead should have experience leading research projects related to SCFE, demonstrated by providing up to three (3) project* examples with a brief description provided for each project example. Experiences in processing rare earth elements (REE) with SCFE technology would be considered an asset. *Project completed within the last five (5) years from date of bid solicitation closing on Page #1 of the RFP.	 Description of project leading research on SCFE points: Project example contains brief description of leading research on SCFE of REE processing points: Project example contains brief description of leading research on SCFE only pts: No description of leading research on SCFE provided. Level of involvement with leading the project points: Proposed technical lead was directly involved and lead the whole project point: Proposed technical lead played a minimal part in the project and did not lead the project. 	18	



R3	Bidder's Proposed Resources Experience using SCFE reactor	Up to a maximum 12 points (6 points per project) will be awarded as follows:		
	The Bidder should provide up to two (2) resources with each resource having experience performing experiments using a SCFE reactor, demonstrated by providing up to two (2) project examples* for each resource, with a brief description provided for each project example The technical lead (R2) can count as a resource if they meet the above experience.	 6 points: Description of resource performing SCFE experiments using SCFE reactor is provided. 0 points: Description of resource performing SCFE experiments using SCFE reactor is not provided. 	12	
	*Project completed within the last five (5) years from date of bid solicitation closing on Page #1 of the RFP.			
R4	Work PlanThe Bidder's work plan should address the following elements:1) Applicability: Overview on the applicability and advantages of the SCFE technology in the extraction and recovery of critical minerals.2) Research Approach: Detailed description of the overall approach, including the preparation of feed, equipment to be used, what/where the samples will be analyzed	 A maximum of 36 points will be awarded as follows: <u>1) Applicability and Advantage (Maximum of 8 points)</u> <u>4 Points:</u> Explained the applicability for SCFE in the extraction and recovery of critical minerals <u>4 Points:</u> Addressed and explained at least three (3) advantages of SCFE in the extraction of critical minerals <u>2) Research Approach (Maximum of 4 points)</u> 	36	
	<u>3) Experimental Plan:</u> Provided an experimental plan to address the research goal including the number and batch size of tests, operating parameters to be investigated, verification of results, analysis and interpretation.	 1 point: Addressed and explained how the feed will be prepared 1 point: Addressed and explained the equipment that will be used 2 points: Addressed and explained what samples will be analyzed, using what methods and where 		





2. Financial Criteria

2.1 Mandatory Financial Criteria

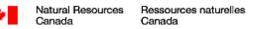
Bidders must provide financial details as requested in this appendix. Proposals which do not contain pricing details as requested below shall be considered incomplete and non-responsive.

MANDATORY FINANCIAL CRITERIA

The maximum funding available for the Contract resulting from the bid solicitation is **\$65,000.00** (Applicable Taxes excluded). Bids valued in excess of this amount will be considered non-responsive. This disclosure does not commit Canada to pay the maximum funding available.

Any bids received in excess of this maximum funding will be automatically deemed non-responsive and will not be evaluated.

Item	Mandatory Criteria	Proposal Page #
MF1	The total cost of the Bidder's financial proposal <u>must</u> not exceed \$65,000.00 CAD (Applicable Taxes extra)	



APPENDIX "2" - FINANCIAL PROPOSAL FORM

1. Firm Price - Milestone Payments

Bidder tendered all-inclusive firm price to perform the work is in Canadian funds, applicable taxes excluded. Any Travel and Living Expenses and other miscellaneous expenses must be included in the firm price.

Milestone #	Description of Milestone	Firm Price (Applicable Taxes Excluded)
1	Initial Meeting (Deliverable #1)	
		\$
	Completed within ten (10) working days after Contract Award.	
2	Interim Report (Deliverable #2)	
		\$
	Completed by March 1, 2023	
3	Draft Report (Deliverable #3)	
		\$
	Completed by June 1, 2023	
4	Final Report (Deliverable #4)	
		\$
	Completed by June 30, 2023	
	\$	