



**Return Bids to:**

**Retourner Les Soumissions à:**  
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  
5320 122 Street NW  
Edmonton, AB  
T6H 0H8

<b>Title – Sujet</b> <b>Natural field helicopter electromagnetic survey over Mount Cayley, British Columbia</b>	
<b>Solicitation No. – No de l’invitation</b> <b>NRCan-5000067749</b>	<b>Date</b> October 25, 2022
<b>Requisition Reference No. - N° de la demande</b> 171989	
<b>Solicitation Closes – L’invitation prend fin at – à 02:00 PM Mountain Standard Time (MST) on – le November 25, 2022</b>	
<b>Address Enquiries to: - Adresse toutes questions à:</b> <a href="mailto:moira.farkas@nrca-nrcan.gc.ca">moira.farkas@nrca-nrcan.gc.ca</a>	
<b>Telephone No. – No de telephone</b> 403-462-1162	
<b>Destination – of Goods and Services:</b> <b>Destination – des biens et services:</b>  601 Booth Street Ottawa, Ontario K1A 0E8	
<b>Security – Sécurité</b>  There are no security requirements associated with this requirement.	
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l’entrepreneur</b>    <b>Telephone No.:- No. de téléphone:</b>  <b>Email – Courriel :</b>	
<b>Name and Title of person authorized to sign on behalf of Vendor/Firm (type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/de l’entrepreneur (taper ou écrire en caractères d’imprimerie)</b>    <hr/> <b>Signature</b> <span style="float: right;"><hr/><b>Date</b></span>	



## TABLE OF CONTENTS

<b>PART 1 - GENERAL INFORMATION .....</b>	<b>5</b>
1.1 INTRODUCTION.....	5
1.2 SUMMARY.....	5
1.3 DEBRIEFINGS .....	5
<b>PART 2 - BIDDER INSTRUCTIONS .....</b>	<b>6</b>
2.1 STANDARD INSTRUCTIONS, CLAUSES AND CONDITIONS.....	6
2.2 SUBMISSION OF BIDS.....	7
2.3 FORMER PUBLIC SERVANT .....	7
2.4 ENQUIRIES - BID SOLICITATION .....	9
2.5 APPLICABLE LAWS .....	9
2.6 IMPROVEMENT OF REQUIREMENT DURING SOLICITATION PERIOD .....	9
2.7 BASIS FOR CANADA'S OWNERSHIP OF INTELLECTUAL PROPERTY.....	9
2.8 BID CHALLENGE AND RECOURSE MECHANISMS.....	9
<b>PART 3 - BID PREPARATION INSTRUCTIONS .....</b>	<b>11</b>
3.1 BID PREPARATION INSTRUCTIONS.....	11
<b>PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION.....</b>	<b>12</b>
4.1 EVALUATION PROCEDURES .....	12
4.2 BASIS OF SELECTION.....	12
<b>PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION.....</b>	<b>13</b>
5.1 CERTIFICATIONS REQUIRED WITH THE BID .....	13
5.2 CERTIFICATIONS PRECEDENT TO CONTRACT AWARD AND ADDITIONAL INFORMATION.....	13
<b>PART 6 – SECURITY, FINANCIAL AND OTHER REQUIREMENTS .....</b>	<b>16</b>
6.1 SECURITY REQUIREMENTS .....	16
6.2 INSURANCE REQUIREMENTS.....	16
<b>PART 7 - RESULTING CONTRACT CLAUSES.....</b>	<b>17</b>
7.1 STATEMENT OF WORK.....	17
7.2 STANDARD CLAUSES AND CONDITIONS .....	17
7.3 SECURITY REQUIREMENTS .....	17
7.4 TERM OF CONTRACT .....	17
7.5 AUTHORITIES.....	17
7.6 PROACTIVE DISCLOSURE OF CONTRACTS WITH FORMER PUBLIC SERVANTS.....	18
7.7 PAYMENT.....	18
7.8 INVOICING INSTRUCTIONS .....	19
7.9 CERTIFICATIONS AND ADDITIONAL INFORMATION.....	19
7.10 APPLICABLE LAWS .....	20
7.11 PRIORITY OF DOCUMENTS.....	20
7.12 FOREIGN NATIONALS (CANADIAN CONTRACTOR).....	20
7.14 DISPUTE RESOLUTION.....	20



<b>ANNEX “A”</b> .....	<b>21</b>
STATEMENT OF WORK .....	21
<b>ANNEX “B”</b> .....	<b>27</b>
BASIS OF PAYMENT .....	27
<b>ANNEX “C”</b> .....	<b>28</b>
INSURANCE REQUIREMENTS .....	28
<b>APPENDIX “1” - EVALUATION CRITERIA</b> .....	<b>31</b>
1.    TECHNICAL CRITERIA .....	31
<b>APPENDIX “2” - FINANCIAL BID PRESENTATION SHEET</b> .....	<b>36</b>
2.    FINANCIAL CRITERIA .....	36
2.2    FIRM PRICE AND LIMITATION OF EXPENDITURE .....	37
2.2.1    FIRM PRICE .....	37
2.2.2    LIMITATION OF EXPENDITURE – SUPPLEMENTARY COSTS (ON DEMAND) .....	37



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, 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 the Insurance Requirements.

### **1.2 Summary**

By means of the RFP, Natural Resources Canada (NRCan) is seeking proposals from bidders to:

- 1.2.1 Under the Geoscience for New Energy (GNES) Program geological studies are being conducted to assess the geothermal potential of volcanic belts in western Canada. This includes a project focused on the Garibaldi Volcanic Belt. As part of this research we are investigating the viability of natural field electromagnetic (EM) surveys as a lower cost approach to collect data in mountainous volcanic terrains and map subsurface alteration and fluid conduits/fractures. As such, a helicopter-borne natural field EM survey is proposed at Mount Cayley, British Columbia.
- 1.2.2 This bid solicitation allows bidders to use the CPC Connect service provided by Canada Post Corporation to transmit their bid electronically. Bidders must refer to Part 2 entitled Bidder Instructions, and Part 3 entitled Bid Preparation Instructions, of the bid solicitation, for further information.

### **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/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](#) (2022-03-29) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

#### **In the complete text content (except Section 1 and 3)**

**Delete:** Public Works and Government Services Canada”

**Insert:** “Natural Resources Canada.”

**Delete:** “PWGSC”

**Insert:** “NRCan”

#### **Section 2:**

**Delete:** “Suppliers are required to”

**Insert:** “It is suggested that suppliers”

#### **Subsection 1 of Section 8: Delete in its 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.pareceptiondessomissions-apbidReceiving.pwgsc@tpsgc-pwgsc.gc.ca](mailto:tpsgc.pareceptiondessomissions-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.pareceptiondessomissions-apbidReceiving.pwgsc@tpsgc-pwgsc.gc.ca](mailto:tpsgc.pareceptiondessomissions-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-apvisionnement@NRCan-RNCan.gc.ca>

#### **Subsection 2b of Section 8:**

**Delete:** “six business days”

**Insert:** “five business days”

#### **Under Subsection 2 of Section 20: Delete in its entirety**

Subsection 5.4 of [2003](#), Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days

Insert: 90 days



## 2.2 Submission of Bids

### **by CPC Connect only**

Bidders must submit all proposals using the Canada Post Canada (CPC) Connect service. 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.

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-provisionnement@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 RFP 5000067749: Natural field helicopter electromagnetic survey over Mount Cayley, British Columbia**

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 email, mail or facsimile to NRCan will not be accepted.

## 2.3 Former Public Servant

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to 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: 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.





## 2.4 Enquiries - Bid Solicitation

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

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

## 2.5 Applicable Laws

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

## 2.6 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 ten days before the bid closing date. Canada will have the right to accept or reject any or all suggestions.

## 2.7 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.

## 2.8 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 the Bidder submits its bid in separately bound sections as follows:

Section I: Technical Bid  
Section II: Financial Bid  
Section III: Certifications

If the Bidder chooses to submit its bid in hard copies, Canada requests that the Bidder submits its bid in separately bound sections as follows:

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

If there is a discrepancy between the wording of the soft copy on electronic media and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

If the Bidder is simultaneously providing copies of its bid using multiple acceptable delivery methods, and if there is a discrepancy between the wording of any of these copies and the electronic copy provided through CPC Connect service, the wording of the electronic copy provided through CPC Connect service will have priority over the wording of the other copies.

#### **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 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 Financial Bid Presentation Sheet in Appendix "2".

#### **3.1.2 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**

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

#### **4.1.1 Technical Evaluation**

Mandatory evaluation criteria are included in Appendix "1" – Evaluation Criteria.

#### **4.1.2 Financial Evaluation**

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

Mandatory financial evaluation criteria are included in Appendix "2" – Evaluation Criteria.  
*SACC Manual* Clause [A0220T](#) (2014-06-26), Evaluation of Price-Bid

### **4.2 Basis of Selection**

#### **4.2.1 Mandatory Technical and Financial Criteria**

*SACC Manual* Clause [A0031T](#) (2007-05-25), Basis of Selection – Mandatory Technical Criteria

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



## **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](http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html) website (<http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>), to be given further consideration in the procurement process.

#### **5.1.2 Additional Certifications Required with the Bid**

### **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 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.

#### **5.2.2 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 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-policy-eng.html) (<http://www.tpsgc-pwgsc.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.

- 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: \_\_\_\_\_

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

**5.2.4 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 available at the bottom of the page of the [Employment and Social Development Canada \(ESDC\) - Labour's](#) website.



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

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

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



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

### **6.1 Security Requirements**

There are no security requirements associated with this procurement.

### **6.2 Insurance Requirements**

The Bidder must provide a letter from an insurance broker or an insurance company licensed to operate in Canada stating that the Bidder, if awarded a contract as a result of the bid solicitation, can be insured in accordance with the Insurance Requirements specified in Annex “C”.

If the information is not provided in the bid, the Contracting Authority will so inform the Bidder and provide the Bidder with a time frame within which to meet the requirement. Failure to comply with the request of the Contracting Authority and meet the requirement within that time period will render the bid non-responsive.

The Contractor must comply with the insurance requirements specified in Annex “C”. The Contractor must maintain the required insurance coverage for the duration of the Contract. Compliance with the insurance requirements does not release the Contractor from or reduce its liability under the Contract.

The Contractor is responsible for deciding if additional insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any additional insurance coverage is at the Contractor's expense, and for its own benefit and protection.

The Contractor must forward to the Contracting Authority within ten (10) days after the date of award of the Contract, a Certificate of Insurance evidencing the insurance coverage and confirming that the insurance policy complying with the requirements is in force. For Canadian-based Contractors, coverage must be placed with an Insurer licensed to carry out business in Canada, however, for Foreign-based Contractors, coverage must be placed with an Insurer with an A.M. Best Rating no less than “A-”. The Contractor must, if requested by the Contracting Authority, forward to Canada a certified true copy of all applicable insurance policies.





## 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 "A" 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

[2035](#) (2022-05-12), General Conditions - Higher Complexity - Services, apply to and form part of the Contract. [If 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 and form part of this contract:

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

### 7.3 Security Requirements

7.3.1 There is no security requirement applicable to the Contract.

### 7.4 Term of Contract

#### 7.4.1 Period of the Contract

The period of the Contract is from date of Contract to \_\_\_\_\_ inclusive.

### 7.5 Authorities

#### 7.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Moira Farkas  
Title: Procurement Officer  
Natural Resources Canada (NRCan)  
Procurement Services Unit  
Address: 5320 122 Street NW, Edmonton, AB T6H 0H8  
Telephone: 403-462-1162  
E-mail address: [moira.farkas@nrcan-rncan.gc.ca](mailto:moira.farkas@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.

**7.5.2 Project or Technical Authority**

The Project Authority for the Contract is:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_ - \_\_\_ - \_\_\_\_\_

Facsimile: \_\_\_ - \_\_\_ - \_\_\_\_\_

E-mail address: \_\_\_\_\_

In its absence, the Project Authority 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: 2019-01](#) of the Treasury Board Secretariat of Canada.

**7.7 Payment**

**7.7.1 Basis of Payment – Firm rate (s) subject to a Limitation of Expenditure**

1. Canada's total liability to the Contractor under the Contract must not exceed \$ \_\_\_\_\_. Customs duties are included and Applicable Taxes are extra.
2. No increase in the total liability of Canada or in the price of the Work resulting from any design changes, modifications or interpretations of the Work, will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been approved, in writing, by the Contracting Authority before their incorporation into the Work. The Contractor must not perform any work or provide any service that would result in Canada's total liability being exceeded before



obtaining the written approval of the Contracting Authority. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:

- a. when it is 75 percent committed, or
- b. four (4) months before the contract expiry date, or
- c. as soon as the Contractor considers that the contract funds provided are inadequate for the completion of the Work, whichever comes first.

If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

### 7.7.2 Method of Payment

#### 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.

### 7.8 Invoicing Instructions

Invoices shall be submitted using **the following method**:

E-mail:

[Invoicing-Facturation@nrcan-rncan.gc.ca](mailto: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: \_\_\_\_\_

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

### 7.9 Certifications and Additional Information

#### 7.9.1 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.



## 7.10 Applicable Laws

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

## 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 [4007](#) (2010-08-16), Canada to Own Intellectual Property Rights in Foreground Information;
- (c) the general conditions [2035](#) (2022-05-12), Higher Complexity – Services;
- (d) Annex A, Statement of Work;
- (e) Annex B, Basis of Payment;
- (f) Annex C Insurance Requirements;
- (j) the Contractor's bid dated.

## 7.12 Foreign Nationals (Canadian Contractor)

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

## 7.13 Insurance – Specific Requirements

The Contractor must comply with the insurance requirements specified in Annex “C”. The Contractor must maintain the required insurance coverage for the duration of the Contract. Compliance with the insurance requirements does not release the Contractor from or reduce its liability under the Contract.

The Contractor is responsible for deciding if additional insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any additional insurance coverage is at the Contractor's expense, and for its own benefit and protection.

The Contractor must forward to the Contracting Authority within ten (10) days after the date of award of the Contract, a Certificate of Insurance evidencing the insurance coverage and confirming that the insurance policy complying with the requirements is in force. For Canadian-based Contractors, coverage must be placed with an Insurer licensed to carry out business in Canada, however, for Foreign-based Contractors, coverage must be placed with an Insurer with an A.M. Best Rating no less than “A-”. The Contractor must, if requested by the Contracting Authority, forward to Canada a certified true copy of all applicable insurance policies.

## 7.14 Dispute Resolution

The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.

- (a) The parties agree to consult and co-operate with each other in the furtherance of the contract and promptly notify the other party or parties and attempt to resolve problems or differences that may arise.
- (b) If the parties cannot resolve a dispute through consultation and cooperation, the parties agree to consult a neutral third party offering alternative dispute resolution services to attempt to address the dispute.
- (c) Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading “[Dispute Resolution](#)”.



## ANNEX “A”

### STATEMENT OF WORK

#### 1. TITLE: Natural field helicopter electromagnetic survey over Mount Cayley, British Columbia

#### 2. BACKGROUND AND OBJECTIVES

Under the Geoscience for New Energy (GNES) Program geological studies are being conducted to assess the geothermal potential of volcanic belts in western Canada. This includes a project focused on the Garibaldi Volcanic Belt. As part of this research we are investigating the viability of natural field electromagnetic (EM) surveys as a lower cost approach to collect data in mountainous volcanic terrains and map subsurface alteration and fluid conduits/fractures. As such, a helicopter-borne natural field EM survey is proposed at Mount Cayley.

#### 3. SCOPE

The work program described here (see Figure 1) is defined within the green box. The following section outlines the technical specifications of the work program. It is followed by a task list and list of deliverables.

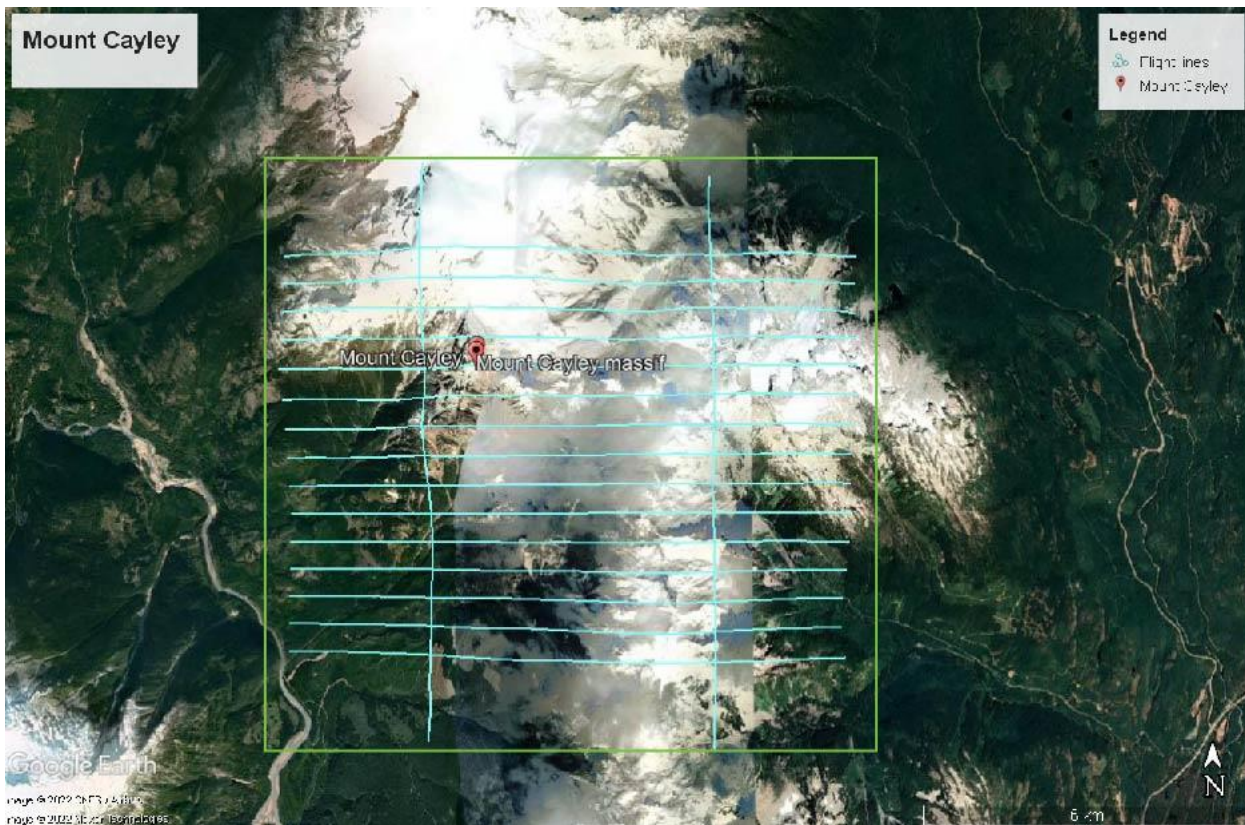


Figure 1: Location of survey area (green box) and flight lines (teal).

The Proponent must provide all of the necessary facilities, equipment (including helicopter) and materials, to collect and deliver high quality magnetotelluric data as outlined in the detailed technical specifications and task list. All major hardware and software to be utilized for the survey should be documented in the bid with an explanation of how this equipment specifically satisfies the required technical standards.



## 4. DETAILED TECHNICAL SPECIFICATIONS

### General

The principal target is measuring the resistivity of the subsurface to 500 m or deeper. We are proposing 170 line-km over one survey block at Mount Cayley, British Columbia.

### Proposed Survey Parameters

The following specifications are provided as a guide to the field procedures for data gathering; alternative parameters or methods to obtain the data are welcomed and will be considered if justified.

Final field specifications will be mutually agreed by the Proponent and the Technical Authority (TA) or their delegate. Prior to mobilization the Proponent must provide to the TA or their delegate a list of all hardware and software to be utilized for the survey.

#### 4.1 Traverse line and Control line bearing and spacing

The actual locations will be only in the green box (Figure 1). The survey lines proposed in Figure 1 are only for planning purposes; however the survey will have traverse lines spaced 500 m apart and two control lines spaced 5000 m apart, oriented east-west (90–270°) and north-south (0–180°), respectively. The final survey lines will be defined and agreed upon in advance of crew mobilization.

#### Mount Cayley Project Bounds

WGS84 UTM 10N

X Y

475724 5553847

475859 5546933

485108 5546606

485838 5553973

#### 4.2 Height

The contractor must calculate the smooth drape surface of the digital elevation model (DEM). In areas of steep terrain, the smooth drape surface is to be calculated using a grade (rate of climb and descent) of **25%**. The Contractor's smooth drape surface must be submitted to the Technical Authority for approval prior to mobilization to the field. The gridded smooth drape surface data must be accompanied by information specifying the source of the data, method of generation and any relevant information that can be used to evaluate the data.

The contractor must calculate a smooth 2D drape surface based on a digital elevation model (DEM). The nominal EM transmitter flying **height is 80 m, 95 m for the magnetic sensor and 150 m for the helicopter**, except in areas where Transport Canada regulations prevent flying at these heights. In areas where obstacles or topography conflict with the drape surface, the pilot will require approval from the TA to adjust flying in height where obstacles or topography conflict with the drape surface.. The survey height must be controlled according to the pre-defined smooth drape surface. The Contractor's smooth drape surface and the DEM must be included in the survey proposal as Geosoft Montaj-compatible files. Also, the method of generation and any relevant information that can be used to evaluate the data must accompany the proposal.

Where the above exceptions do not apply, traverse lines and control line altitudes must be flown within **+/- 15 metres** of the pre-planned drape surface.

#### 4.3 Airspeed

Normal helicopter airspeed will be approximately 90–110 km/hr, but this may vary in areas of rugged terrain.



## 4.4 Equipment Specifications

### 4.4.1 EM system

The survey will use a helicopter-borne natural field EM system to record the vertical EM field that is remotely referenced to the horizontal field recorded by a horizontal coils base station. The horizontal magnetic field sensors must be level and their orientation known, both to better than  $\pm 1^\circ$ . Unless there are compelling logistical reasons to the contrary, the horizontal sensors must be in geographic coordinates north south and east west. The horizontal coils used will be at right angles to each other and must be buried in trenches of at least 0.5 m in depth.

Measurements must be made in the 30 Hz to 360 Hz frequency range with best effort to acquire 360 Hz signal and 720 Hz delivered when available.

### 4.4.2 Magnetometer

The sensor will be mounted in a bird towed under the aircraft or in a stinger rigidly attached to the aircraft or in the EM system with a resolution of 0.02 nT or better.

### 4.4.3 Radar Altimeter

Minimum range: 0–800 m  
Accuracy (minimal): 7%

### 4.4.4 Helicopter

Contractor must provide a suitable **helicopter** capable of draping the topographic surface at a sustained rate of climb/descent.

### 4.4.5 Electronic Navigation

Complete GNSS coverage is required with a positional accuracy of 1.5 m.

#### Additional recording requirements

- A magnetic base station and GPS system will be setup to record the GPS time and magnetic data.
- EM data to be processed to remove spheric events and filtered to reduce any system noise. Following the filtering process, base level adjustments will be made to the EM profile data, as required.

## 5. TASK LIST AND DELIVERABLES:

### The Proponent shall:

Conduct the natural field EM survey according to the 4. **DETAILED TECHNICAL SPECIFICATIONS**, and deliver field data to the Technical Authority (TA) in the formats specified below. Required tasks are:

#### *Equipment tests*

The contractor must calibrate all equipment immediately prior to, and immediately subsequent to, data acquisition. All equipment must be inspected and adjusted according to manufacturer's specifications. The contractor will also satisfy/demonstrate to the Technical Authority or their delegate that the equipment is functioning properly prior to the survey.



### **Data quality assurance**

The Proponent's Observer is responsible for shutting down the operation under the following circumstances to ensure data quality and high quality control of both the acquisition system and recorded data, and resuming operation when conditions improve:

1. Significant equipment malfunction;
2. Significant decrease in signal-to-noise ratio across more than 20% of the line due to high wind conditions;
3. Very high or low magnetic field activity,
4. Any other potential conditions which may affect the quality of the data.

The EM data must be processed in the field and there must be the capability to display to the Technical Authority.

All data provided to the Technical Authority or his/her delegate (i.e., the in field data displays and the final deliverables) will be in System International (SI) units. Final processing of the data may be conducted in the field or at the contractor's processing centre, but the preliminary maps must be delivered shortly after acquisition.

### **Data delivery**

The following preliminary maps will be produced 2 weeks as soon after the completion of flying:

- Low Frequency Total Phase-Rotated In-Phase (TPR IP) or In-Phase Total Divergence (DT) Map
- Middle Frequency Total Phase-Rotated In-Phase (TPR IP) or In-Phase Total Divergence (DT) Map
- High Frequency Total Phase-Rotated In-Phase (TPR IP) or In-Phase Total Divergence (DT) Map
- Middle Frequency In-Phase Total Divergence (IP DT) or In-Phase TPR Map
- Total Magnetic Field Map
- Digital Elevation Model Map
- Power Line Monitor Map

The final standard maps must be provided in digital format that includes the In-Phase and Quadrature of the Ratios of the Z over X components and Z over Y components at each measured frequency as well as the Total Magnetic Field data geo-referenced in Oasis gdb database form. The Proponent will also provide an .EDI file for each measurement point along the survey lines containing the vertical magnetic field information in the Society for Exploration Geophysicists (SEG) MT/EMAP Data Interchange Standard format.

Map products for Delivery:

- High Frequency In-Phase DT or Total Phase-Rotated Map
- Mid Frequency In-Phase DT or Total Phase-Rotated Map
- Low Frequency In-Phase DT or Total Phase-Rotated Map
- Total Magnetic Intensity (Reduced to Pole)
- Digital Elevation Model
- Z/X (In-line) In-Phase Multi-frequency Profiles over Phase Rotated In-Phase Z/X grid
- Z/X (In-line) Quadrature Multi-frequency Profiles over Phase Rotated Quadrature Z/X grid
- Z/Y (Cross-line) In-Phase Multi-frequency Profiles over Phase Rotated In-Phase Z/Y grid
- Z/Y (Cross-line) Quadrature Multi-frequency Profiles over Phase Rotated Quadrature Z/Y grid

2D EM Inversions:

- 2D A priori model testing for selected line(s) over the surveyed block(s)
- 2D Resistivity Inversions (in-line component only) for all survey lines over surveyed block(s) includes Georeferenced 2D sections (GRD) and resistivity depth slices (RDS).
- 3D Resistivity Depth Voxel and database (GDB) from 2D inversions for the surveyed block(s).





The processed digital data will be delivered in two copies on two USB flash drive. The line data will be delivered in the Geosoft Montaj GDB format. The maps will be delivered in the Geosoft Montaj MAP and PDF format. Full descriptions of the digital data formats will be included in the final report and as text files on each USB.

Two copies of the final operational report will be delivered. The report will describe the acquisition, processing, and presentation of the data and discussion of the survey results.

### ***Field survey report***

Creating a detailed log of the following:

- The name and location of the natural field EM survey
- The name and address of the Proponent, the phone and email addresses of the company
- The date of the survey
- A list of contents; a description of the survey's progress
- Copies of licenses and government approval documents
- A map showing the location of all the sites recorded base showing the location of Mount Cayley
- Site-specific layout notes including but not limited to:
  - discussions of major deviations from the site layout
  - serial number of all sensors and recorders
  - azimuthal alignment in degrees from True North of all sensors

The text will include discussion of:

- The problems encountered during the survey and how they were resolved with (e.g., bad weather days, shut downs for instrumental problems, etc.)
- Details of subcontracting companies (e.g., surveyors, etc.)
- Details of the recording equipment used
- Details and plots of the typical response functions of the field recording system, its filters, etc.
- Details of the processing sequence

An annex will contain:

- Complete lists of testing equipment available (if any)
- Personnel list showing who was in charge for the survey over what time interval, Party Manager, Observer(s), with relevant qualifications and experience documented
- Complete equipment list.

### ***Safety and environment***

Providing and enforcing a safe work environment to all members of the field crew, including sub-contractors. The Proponent will ensure that crew member have valid licenses or permits required to perform their specific task, have an Emergency Response Plan and use acquisition procedures and equipment minimizing the environmental impact of the survey. All health, safety, and environmental incidents shall be reported immediately to the TA. Daily logs shall include all health, safety, and environmental incidents and concerns (including near-miss) related to the survey.

## **6. MOBILIZATION/DEMobilIZATION**

The Proponent is responsible for the mobilization, and subsequent demobilization, of all equipment, materials, and field crew required for the survey to the acquisition of sites in British Columbia. Pre-mobilization field test is to be included in the general cost of mobilization and demobilization. Mobilization should not proceed until the TA or delegate have indicated that the specific equipment to be provided satisfies technical requirements.



## **7. MEETINGS/Kick-Off**

The Proponent is required to meet with the TA via teleconference prior to commencement of the work. The purpose of this meeting is for the TA to answer any questions from the Proponent.

## **8. SCHEDULE**

The survey is expected to occur after date of contract award. All final deliverable items must be received by **March 31, 2023**.



**ANNEX "B"**

**BASIS OF PAYMENT**



## ANNEX "C"

### INSURANCE REQUIREMENTS

#### Aviation Liability Insurance

1. The Contractor must obtain Aviation Liability Insurance for Bodily Injury (including passenger Bodily Injury) and Property Damage, and maintained it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than \$5,000,000 per accident or occurrence and in the annual aggregate.
2. The Aviation Liability policy must include the following:
  - a) Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada should read as follows: Canada, represented by Natural Resources Canada (NRCan).
  - b) Notice of Cancellation: The Insurer will endeavour to provide the Contracting Authority thirty (30) days written notice of policy cancellation.
  - c) Cross Liability/Separation of Insureds: Without increasing the limit of liability, the policy must protect all insured parties to the full extent of coverage provided. Further, the policy must apply to each Insured in the same manner and to the extent as if a separate policy had been issued to each.
  - d) Contractual Liability: The policy must, on a blanket basis or by specific reference to the Contract, extend to assumed liabilities with respect to contractual provisions.
  - e) Employees and, where applicable, Volunteers must be included as Additional Insured.
  - f) Aviation Passenger Liability and inclusive Medical Payments: If sub-limits are applicable to Contractor's policy conforming to international carriage agreements or otherwise, such sub-limits must in any event be, not less than \$300,000 per person. The per accident limit should be no less than \$300,000 multiplied by the number of passengers.
  - g) If the policy is written on a claims-made basis, coverage must be in place for a period of at least 12 months after the completion or termination of the Contract.
  - h) Employers Liability (unless we have confirmation that all employees are covered by Worker's Compensation (WSIB) or similar program).
  - i) Airport Tenants' Legal Liability Broad Form: To protect the Contractor for liabilities arising from its occupancy of leased airport premises.
  - j) Non-owned Aircraft Liability: To protect the Contractor for liabilities arising from its occupancy of leased airport premises.
  - k) Litigation Rights: Pursuant to subsection 5(d) of the Department of Justice Act, S.C. 1993, c. J-2, s.1, if a suit is instituted for or against Canada which the Insurer would, but for this clause, have the right to pursue or defend on behalf of Canada as an Additional Named Insurer under the insurance policy, the Insurer must promptly contact the Attorney General of Canada to agree on the legal strategies by sending a letter, by registered mail or by courier, with an acknowledgement of receipt.



For the Province of Quebec, send to:  
Director business Law Directorate,  
Quebec Regional Office (Ottawa)  
Department of Justice  
284 Wellington Street, Room SAT-6042  
Ottawa, Ontario, K1A 0H8

For other Provinces and Territories, send to:  
Senior General Counsel  
Civil Litigation Section  
Department of Justice  
234 Wellington Street, East Tower  
Ottawa, Ontario, K1A 0H8

A copy of the letter must be sent to the Contracting Authority, Canada reserves the right to co-defend any action brought against Canada. All expenses incurred by Canada to co-defend such actions will be at Canada's expense. If Canada decides to co-defend any action brought against it, and Canada does not agree to a proposed settlement agreed to by the Contractor's insurer and the plaintiff(s) that would result in the settlement or dismissal of the action against Canada, then Canada will be responsible to the Contractor's insurer for any difference between the proposed settlement amount and the amount finally awarded or paid to the plaintiffs (inclusive of costs and interest) on behalf of Canada.

#### Commercial General Liability Insurance

1. The Contractor must obtain Commercial General Liability Insurance, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than \$2,000,000 per accident or occurrence and in the annual aggregate.
2. The Commercial General Liability policy must include the following:
  - a) Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada should read as follows: Canada, as represented by Natural Resources Canada.
  - b) Bodily Injury and Property Damage to third parties arising out of the operations of the Contractor.
  - c) Products and Completed Operations: Coverage for bodily injury or property damage arising out of goods or products manufactured, sold, handled, or distributed by the Contractor and/or arising out of operations that have been completed by the Contract.
  - d) Personal Injury: While not limited to, the coverage must include Violation of Privacy, Libel and Slander, False Arrest, Detention or Imprisonment and Defamation of Character.
  - e) Cross Liability/Separation of Insureds: Without increasing the limit of liability, the policy must protect all insured parties to the full extent of coverage provided. Further, the policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued for each.
  - f) Blanket Contractual Liability: The policy must, on a blanket basis or by specific reference to the Contract, extend to assumed liabilities with respect to contractual provisions.
  - g) Employees and, if applicable, Volunteers must be included as Additional Insured.



- h) Employers' Liability (or confirmation that all employees are covered by Worker's Compensation (WSIB) or similar program).
- i) Broad Form Property Damage including Completed Operations: Expands the Property Damage coverage to include certain losses that would otherwise be excluded by the standard care, custody or control exclusion found in a standard policy.
- j) Notice of Cancellation: The Insurer will endeavour to provide the Contracting Authority thirty (30) days written notice of policy cancellation.
- k) If the policy is written on a claims-made basis, coverage must be in place for a period of at least 12 months after the completion or termination of the Contract.
- l) Owners' or Contractors' Protective Liability: Covers the damages that the Contractor becomes legally obligated to pay arising out of the operations of a subcontractor.
- m) Sudden and Accidental Pollution Liability (minimum 120 hours): To protect the Contractor for liabilities arising from damages caused by accidental pollution incidents.
- n) Litigation Rights: Pursuant to subsection 5(d) of the Department of Justice Act, S.C. 1993, c. J-2, s.1, if a suit is instituted for or against Canada which the Insurere would, but for this clause, have the right to pursue or defend on behalf of Canada as an Additional Named Insured under the insurance policy, the Insurer must promptly contact the Attorney General of Canada to agree on the legal strategies by sending a letter, by registered mail or by courier, with an acknowledgement of receipt.

For the Province of Quebec, send to:

Director Business Law Directorate  
Quebec Regional Office (Ottawa)  
Department of Justice  
284 Wellington Street, Room SAT-6042  
Ottawa, Ontario, K1A 0H8

For other provinces and territories, send to:

Senior General Counsel  
Civil Litigation Section  
Department of Justice  
234 Wellington Street, East Tower  
Ottawa, Ontario, K1A 0H8

A copy of the letter must be sent to the Contracting Authority. Canada reserves the right to co-defend any action brought against Canada. All expenses incurred by Canada to co-defend such actions will be at Canada's expense. If Canada decides to co-defend any action brought against it, and Canada does not agree to a proposed settlement agreed to by the Contractor's insurer and the plaintiff(s) that would result in the settlement or dismissal of the action against Canada, then Canada will be responsible for the Contractor's insurer for any difference between the proposed settlement amount and the amount finally awarded or paid to the plaintiffs (inclusive of costs and interest) on behalf of 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.

For the purposes of the technical criteria specified below, the experience of the Bidder and its sub-contractors, affiliates and suppliers will be taken into account, as long as the Bidder is responsible for the entire project.

Item	Requirement	Compliant (Y/N) (to be completed by the technical evaluator)	Reference/page number to the bidder’s proposal
M1	<p><b><u>Passive Electromagnetic (EM) Survey Qualification and Experience</u></b></p> <p>The Bidder and its subcontractors combined <b><u>must</u></b> have experience and demonstrated capability to carry out the required work and to compile the resultant data into map form. This will require that the Bidder has suitable survey aircraft, equipment, instrumentation and compilation facilities. The Bidder will be deemed to have demonstrated its capability and experience if it has flown and compiled at least one passive EM survey of at least 10,000 line kilometers <b><u>using GPS navigation aids to fly a pre-planned drape surface</u></b>.</p>	Yes No	



M2	<p><b><u>Qualified Personnel</u></b>          Personnel qualifications will be <b><u>evaluated only on the basis of information shown on resumes</u></b> provided. Personnel will be evaluated on educational qualifications and experience. The Bidder <b>must</b> propose personnel with the following level of education and experience:</p> <p><b>a)Project Manager (Office or Field):</b>          Geophysicist, with a degree in earth sciences from a recognized university or geoscientist with applied experience in passive EM surveys and must be able to provide proof, on demand by the Contracting Authority.; and a minimum of 3 years experience in airborne geophysical survey projects that were comparable in scope, instrumentation and survey parameters to that required for the contract.</p> <p><b>b)Aircraft Mechanic (or contractor) (Office or Field):</b>          Must hold a valid Category M license and be able to provide proof on demand by the Contracting Authority. This position may be subcontracted.</p> <p><b>c)Pilots (Field):</b>          Must hold a valid commercial pilot license, applicable to the type of aircraft to be flown, issued by Transport Canada and must be able to provide proof on demand by the Contracting Authority.          In addition, pilots proposed must have <b>at least 300 hours</b> of flying on low level airborne geophysical surveys of this type and must be able to provide proof on demand by the Contracting Authority.</p> <p><b>d)Instrument Operator:</b>          Must have at least one (1) year of operational experience on this type of geophysical survey and must be able to provide proof, on demand by the Contracting Authority.          The Bidder should provide an organization chart for this project (with names and functions), showing the actual reporting responsibilities of personnel.          Personnel list and <b><u>resume for each of the proposed personnel</u></b> Resumes <b>should</b> contain full name, education and professional qualifications – degrees or licences, years and granting institution, employment record including employers, years and places of employment with type of work performed and the extent of experience in the function delegated on this project. Resumes are not required for individual mechanics who may be provided under a sub-contract.</p>	Yes No	
M3	<p><b><u>Systems</u></b>          Evaluation of Systems will be in accordance with the requirements stated in Appendix “A”, Statement of Work, Section 1: Survey Particulars and Section 4: Detailed Technical Specifications.</p>	Yes No	





	<p><b>a)Aircraft</b> The aircraft must be a helicopter must be capable of following the drape surface of the digital elevation model at a sustained rate of climb/descent of 25%. Provide the following information: Type, registration, number of engine hours remaining after mobilization, before overhaul, range, cruising speed in knots, climb/descent gradient performance, aviation fuel used, hourly consumption for aviation fuel and oil.</p> <p><b>b)Field Data Plotting and Verification System</b> Provide the following information: Manufacturer and model number of all components including hardware and software</p> <p><b>c)Magnetometer</b> The magnetometer must be mounted in a bird towed under the aircraft or in a stinger rigidly attached to the aircraft or in the EM system with a resolution of 0.02 nT or better. Provide the following information: Manufacturer, type and model number, number of units, range (nT), sensitivity (nT), sampling rate, GPS, magnetic compensation system, acquisition system timing interface mechanism.</p> <p><b>d)GPS:</b> Complete GPS coverage must be obtained with an accuracy of 1.5 m. A GPS ground base station is required. Raw dual-frequency positional GPS data must be supplied. Post flight differential correction of the raw GPS data is mandatory using ground GPS base station data for all flights. Provide the following information: Manufacturer, type and model number, number of units, sampling rate, acquisition system timing interface mechanism.</p> <p><b>e)Radar Altimeter:</b> The radar altimeter must have minimal range: 0-800 m and accuracy of 7% or better  Provide the following information: Manufacturer, type and model number, number of units, sampling rate, minimal range, accuracy, GPS</p> <p><b>f)Video Camera:</b> The video image overlay must show, at the minimum, GPS time to a precision of tenths of seconds and image centre cross-hair. GPS positional information is optional. Provide the following information: Manufacturer, type and model number, number of units, sampling rate, GPS</p> <p><b>g)Ground Magnetometer Stations:</b> At least one (1) base station is required in proximity to the survey area. The base station must record data at a rate of 1</p>		
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	<p>sample per second and record GPS time with each magnetic base station reading. Provide the following information: Manufacturer, type and model number, number of units, sampling rate, resolution, GPS</p> <p><b>h)EM System</b> The survey will use a helicopter-borne natural field EM system to record the vertical EM field that is remotely referenced to the horizontal field recorded by a horizontal coils base station. The horizontal magnetic field sensors must be level and their orientation known, both to better than ±1 degree. Unless there are compelling logistical reasons to the contrary, the horizontal sensors must be in geographic coordinates north south and east west. The horizontal coils used will be at right angles to each other and must be buried in trenches of at least 0.5 m in depth.</p>		
M4	<p><b><u>Reconnaissance of Project</u></b> The Bidder must provide a provide a document describing operational details specific to the project, including:</p> <p>i. Regional Facts:</p> <ul style="list-style-type: none"> <li>• Weather, terrain, protected areas, mileages, specific operating licences, etc.</li> </ul> <p>ii. Base of Operations:</p> <ul style="list-style-type: none"> <li>• Airport plus alternatives, fuel availability, flight planning, base station locations,</li> </ul> <p>iii. Timing:</p> <ul style="list-style-type: none"> <li>• Time required by the Bidder between data of notification of contract award and date of commencement of survey operations in weeks or calendar days.</li> <li>• Bar chart showing detailed scheduling which demonstrates how all activities will be coordinated to ensure achievement of required delivery data.</li> </ul> <p>iv. Bidders are required to calculate and provide the total number of line kilometers separately and also provide a combined total for the surveying area from the coordinates and the index map Figure A-1 provided in Appendix “A”, attached to the “Resulting Contract” enclosed herewith, with separate traverse and control line totals, including the overfly. A flight line and control line map for the entire survey area should be submitted as part of the bid:</p> <p>Mount Cayley, British Columbia</p> <p>Total Line Kilometres =     170   lkm</p>	Yes No	
M5	<p><b><u>Quality Control</u></b></p>	Yes No	



	<p>The Bidder must provide a provide a document describing quality control procedures specific to the project, including:</p> <ul style="list-style-type: none"><li>• Field procedures to ensure data integrity.</li><li>• Removal/mitigation of sferic events</li><li>• Removal/mitigation of power line noise</li><li>• Removal/mitigation of system noise</li><li>• Identification of equipment malfunction</li><li>• Identification of signal to noise ratio</li><li>• Description of digital compilation procedure including flight path recovery, editing with speed checks, levelling, gridding, contouring, detailed procedure to produce final digital archives and maps, and checking of final products.</li></ul>		
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## APPENDIX "2" - FINANCIAL BID PRESENTATION SHEET

### 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.

##### 2.1.1 Taxes, as Related to Bids Received

For Canadian-based Bidders, prices/rates, as applicable, **MUST** 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, **MUST** 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.

##### 2.1.2 Fuel, Oil and Lubricants

The Contractor will be responsible for supplying and paying for all fuel, oil and lubricants. These costs are to be included in the Firm All-Inclusive Rate per Line Kilometre.

##### 2.1.3 Ground Transportation - Base of Operations:

The Contractor will be responsible for making provision for and paying for all ground transportation costs pertaining to the survey operation. These costs are to be included in the Firm All-Inclusive Rate per Line Kilometre.

##### 2.1.4 Accommodation and Living Expenses:

The Contractor will be responsible for arranging and paying for all accommodation, living and miscellaneous crew expenses. Costs are to be included in the Firm All-Inclusive Rate per Line Kilometre.

The Bidder must bear in mind that no payments other than the Total All Inclusive Survey Costs stated herein shall be made to the Contractor. **It is therefore essential that this Total All Inclusive Survey Costs include all elements of cost and profit related to the execution of this project.** Goods and Services Tax (GST) or Harmonized Sales Tax (HST) is extra, if applicable.



**2.2 Firm Price AND Limitation of Expenditure**

**2..2.1 Firm Price**

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

Description	Firm Price (Applicable Taxes Excluded)
Firm All-Inclusive Rate per Line Kilometre (lkm) for a total of ____ Line Kilometres (lkm)	\$ _____
<b>A - Total Firm Price (Taxes Extra):</b>	\$ _____

**2.2.2 Limitation of Expenditure – Supplementary costs (on demand)**

The unit cost in this table are used to determine the services cost in case there is change in the firm price’s statement of work. Please note that the effort in the table below only consists as an estimated for evaluation.

The unit cost offered by the bidder for the additional work should be all-inclusive (in Canadian funds) prices. Applicable taxes are excluded. Any Travel and Living Expenses and other miscellaneous expenses must be included in the firm price.

**2.2.3 COST BREAKDOWN**

It is mandatory to present a cost breakdown to support the Financial Proposal (Appendix “2” - Financial Proposal Form).

DESCRIPTION	FIRM UNIT COST	QUANTITY	COST \$
Estimated Mobilization De-Mobilization (crew/equipment)			\$ _____
Estimated Mobilization De-Mobilization (helicopter)			\$ _____
Base Station Positioning			\$ _____
Survey/Reporting			\$ _____
Fuel and fuel positioning			\$ _____
Standby Charges			\$ _____
Miscellaneous (ie. Administration fees)			\$ _____
<b>Total</b>			\$ _____



## 2.2.4 MILESTONE PAYMENTS

MILESTONE	DELIVERABLE	MILESTONE PAYMENT
1. Kick-off meeting pre-mobilization	Kick-off meeting (online) between TA and Contractor	20%
2. Completion of data acquisition and release of preliminary data	Preliminary PDF maps of the following: <ul style="list-style-type: none"><li>• Low Frequency Total Phase-Rotated In-Phase (TPR IP) or In-Phase Total Divergence (DT) Map</li><li>• Middle Frequency Total Phase-Rotated In-Phase (TPR IP) or In-Phase Total Divergence (DT) Map</li><li>• High Frequency Total Phase-Rotated In-Phase (TPR IP) or In-Phase Total Divergence (DT) Map</li><li>• Middle Frequency In-Phase Total Divergence (IP DT) or In-Phase TPR Map</li><li>• Total Magnetic Field Map</li><li>• Digital Elevation Model Map</li><li>• Power Line Monitor Map</li></ul>	75%
3. Final data and Report due on or before March 31, 2023	Submission of final report and map, data and inversion products as detailed in Section 5	5%