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<b>Title - Sujet</b> Soil Remediation	
<b>Solicitation No. - N° de l'invitation</b> EW702-193283/A	<b>Date</b> 2019-04-04
<b>Client Reference No. - N° de référence du client</b> EW702-193283	<b>GETS Ref. No. - N° de réf. de SEAG</b> PW-\$GMP-015-6901
<b>File No. - N° de dossier</b> GMP-8-41137 (015)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2019-04-26</b>	
<b>Time Zone</b> <b>Fuseau horaire</b> Mountain Daylight Saving Time MDT	
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Bilous, Isabelle	<b>Buyer Id - Id de l'acheteur</b> gmp015
<b>Telephone No. - N° de téléphone</b> (780) 782-8714 ( )	<b>FAX No. - N° de FAX</b> (780) 497-3510
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> DEPARTMENT OF PUBLIC WORKS AND GOVERNMENT SERVICES CANADA ATB PLACE NORTH, 5TH FLOOR 10025 JASPER AVE EDMONTON Alberta T5J1S6 Canada	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Delivery Required - Livraison exigée</b> See Herein	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

**SOIL REMEDIATION  
HEAVILY ARSENIC IMPACTED SURFICIAL SOILS  
REQUEST FOR INFORMATION (RFI)**

**This procurement is subject to the Tlicho Land Claims and Self-Government Agreement.**

**1. Background**

Giant mine is a former gold mine located approximately 5 km north of Yellowknife, Northwest Territories (the Site). The mine produced gold from 1948 until 1999 and ore for off-site processing from 2000 until July 2004, when mining operations ceased permanently. In 1999, the Owner of the mine went into receivership. Care, custody, and control of the mine was transferred to Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) and the Government of the Northwest Territories (GNWT). The Giant Mine Remediation Project (GMRP) is currently in the regulatory, remedial design and planning stages of the remediation process. The GMRP design team is led by CIRNAC and supported by GNWT. CIRNAC funds this project and is the project Owner.

CIRNAC has engaged Public Services and Procurement Canada (PSPC) to provide project management and contract oversight services. PSPC has retained AECOM Canada (AECOM) and Golder Associates Ltd. (Golder) to provide remedial engineering design support. PSPC has recently also selected Parsons Inc. as the GMRP main construction manager (MCM).

**Introduction**

This RFI is the first stage of a multi-staged process focused on identifying a suitable approach to the remediation of heavily impacted granular shallow soil. Ex-situ remediation in combination with volume reduction are strongly preferred by Canada.

This document provides the necessary information and submission requirements for the selection of Stage I pre-qualified contractors. Stage II will involve the completion of a Site visit and bench-scale testing (as described below). Failure to participate in this process will not preclude any contractor from any future procurement processes associated with the potential remediation work described herein.

Interested Proponents must submit all necessary information for pre-qualification. Only those Proponents considered by PSPC to meet the Stage I pre-qualification requirements as defined in this document will be eligible for Stage II.

PSPC may select up to four contractors to complete Stage II work. Pre-qualified Stage II Proponents may subsequently be provided with additional technical information, and an opportunity to attend a Site visit and complete preliminary bench scale testing. The Pre-qualified Proponents will be requested to report findings.

**PSPC may elect to terminate this process following review of the Stage I responses to this RFI. As part of Stage I, should PSPC receive sufficient technical information to either confirm or refute the suitability of a specific remedial approach, PSPC may elect to suspend Stage II work. There is no guarantee that Stage II work will proceed.**

**Existing Site Conditions**

The Site covers some 1115 hectares (ha), with about 20% of the Site developed with historical mine operations including Tailings Containment Areas (TCAs), developed areas including buildings and roads, and open pits. The

remaining 80% of the Site consists of bedrock/forest/wetland terrain, which includes several natural water bodies. The remediation plan for the GMRP is multistage and involves a wide range of remedial activities including but not limited to: backfilling open pits, covering TCAs, and stabilizing underground workings.

The remediation plan has been subject to both regulatory review and consultation. The current remedial strategy was developed following completion of an extensive Surface Design Engagement program in 2015. The GMRP is currently proceeding through a regulatory period and the remedial works will not proceed prior to 2021.

The shallow soil (0.5 to 1.0 m depth) in the vicinity of the historical Roaster Complex has been affected by particle fallout from historical Roaster operations. Approximately 52,000 m<sup>3</sup> of impacted granular fill materials are centred around the former Roaster Complex. Concentrations of total arsenic in these granular fill materials frequently exceed 4,500 mg/kg. It was recognised that the impacted granular fill in the vicinity of the historical Roaster Complex would require specific remedial measures due to the extremely high arsenic concentrations.

Due to concerns associated with the overall safety of the Roaster Complex, the facility was deconstructed in 2012. The soil surrounding the former Roaster Complex was covered with imported fill, as a short-term measure to minimize potential dust generation and future dermal exposure. The area immediately surrounding the former Roaster Complex is currently fenced to restrict access.

Numerous historical test pit investigations have been completed in the area for the purpose of confirming soil quality. The materials below the recently imported fill typically consist of a granular stratum of fill approximately 1 to 2 m in thickness. This heterogeneous material is typically comprised of variable proportions of sand (0.425 to 2 mm); gravel (4.75 to 19 mm); angular cobbles (75 to 300 mm) and boulders (>300 mm). Based on the gradations completed on the fill materials, typically less than 10% of the soil is classified as silt and clay. The frequency of cobbles and boulders is variable.

The proposed strategy for the remediation of these heavily impacted materials involves excavation and placement in a specific area of a nearby open pit (B1 Pit). Following placement in the open pit, these materials will be frozen below ground to minimize risk of contaminant migration. However, the estimated costs associated with implementing this strategy are significant and would reduce the pit's capacity to store other arsenic impacted materials from site.

Canada is therefore considering remedial alternatives to reduce the volume of impacted granular fill requiring freezing in the B1 Pit. An ex-situ remediation technology resulting in significant volume reduction is strongly preferred by Canada.

Power, water and sewer services are currently provided to the C-Dry Building and several other large facilities on Site but these services will likely not be available to service the future remedial operations. Subject to regulatory approval, a limited supply of non-potable water may be available for process use. However, the Proponent must specify anticipated water demand. All process waste must be contained and disposed on Site. Canada would prefer that this waste is in a solid, slurry or paste form for disposal on Site.

The potential for the remedial technology to produce environmentally suitable re-usable borrow would be a significant benefit to the Project. Additional information can be found at:  
<https://www.aadnc-aandc.gc.ca/eng/1100100027364/1100100027365>

## **Tlicho Land Claims and Self-Government Agreement**

The proposed requirement is subject to the Tlicho Land Claims Agreement and Self-Government Agreement. The requirements of the Tlicho Land Claim and Self Government Agreement will apply to this procurement. The provisions that apply are contained in: Chapter 26 – Economic Measures, of the Tlicho Land Claim and Self Government Agreement, clauses 26.3, 26.3.1 (a). [http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/texte-text/ccl\\_fagr\\_nwts\\_tliagr\\_tliagr\\_1302089608774\\_eng.pdf](http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/texte-text/ccl_fagr_nwts_tliagr_tliagr_1302089608774_eng.pdf)

### **26.3 GOVERNMENT EMPLOYMENT AND CONTRACTS**

26.3.1 Where government carries out public activities wholly or partly in Mòwhì Gogha Dè Nîitâàèè (NWT) which give rise to employment or other economic opportunities and government elects to enter into contracts with respect to those activities, (a) the Government of Canada shall follow its contracting procedures and approaches intended to maximize local, regional and Aboriginal employment and business opportunities, including the provision of opportunities for potential contractors to become familiar with bidding systems

For purposes of interpretation:

“deliveries to” means “goods delivered to, and services performed in”.

## **2.0 Scope of Work**

### **Project Objectives**

The primary goal of this project is to reduce the volume of heavily impacted materials that require disposal and freezing in the B1 Pit. To achieve this goal, PSPC is planning to identify qualified firms to provide cost effective solutions to remediate granular material. Following remediation, a reduced volume of soil will require disposal and freezing in the B1 Pit. It is possible that a reduced volume of processed waste material (in the form of a solid, slurry or paste) may be transported and placed in alternative underground chambers on Site as a part of the underground freeze program. A secondary goal of the project is to generate reusable borrow materials for general construction on the Site.

### **Invitation to Participate**

Proponents that can meet the project objectives are invited to provide a written submission as outlined below.

### **Stage I Scope of Work**

Proponents must make the following submissions:

Provide notification of interest to submit an information package by April 26, 2019. Proponents must provide information that would help demonstrate a proven track record. Proponents must limit their response to 20 pages of text (single line spacing; 10 font). Promotional or supporting information may be appended to the submission but will not be evaluated. The following points describe the submission requirements (refer to scoring table below).

1. Provide a brief synopsis of the corporate background and recent work in Canada. Describe the depth of personnel and equipment/resources related to soil remediation. Work on large-scale remediation projects and willingness to collaborate as part of a larger team are key requirements.

2. Demonstrate a depth of expertise and innovative approaches to problem solving. Demonstrate a basic understanding of the problem (given the limited information provided herein) and provide a summary of potentially suitable remedial strategies.
3. Provide three case study examples demonstrating their expertise with respect to soil remediation. Case studies which are directly relevant to the proposed work and conditions at Giant Mine will score higher.
4. Provide a copy of their health and safety policy and briefly outline expected measures to be taken during remediation to protect workers, the public, and the environment. The shallow soil surrounding the former Roaster Complex is considered to represent a risk to human health and safety. These shallow soils contain significant quantities of hazardous materials, the most notably being arsenic/arsenic trioxide (a bi-product of the ore roasting during the gold extraction process). The Project requires the design and execution for multiple disciplines, in stages or phases carefully coordinated to ensure protection of the workers, public and the environment.
5. All costs for preparation of a submission to the Phase I RFI is borne by the submitting firm(s).

Canada may identify a short list of up to four Proponents to complete the next phase of work (Stage II - as described below). The RFI submissions will be evaluated by an evaluation team composed of representatives of Canada, with the scoring completed based on the component and associated weighting shown in the table below. Respondents scoring below 70/100 will not be considered for Stage II. All those respondent scoring above 70/100 will be ranked and up to four (4) will be considered for Stage II.

Item	Criterion	Weight Factor	Rating	Weighted Rating
1	Corporate Background/Depth of Personnel	3	1-10	0-30
2	Depth of Expertise and Understanding	3	0-10	0-30
3	Case Study Examples	3	0-10	0-30
4	Health and Safety	1	0-10	0-10
	Total Points Available			0-100

## Generic Evaluation Table

Evaluation Board members will individually evaluate the strengths and weaknesses of the Proponent's response to the evaluation criteria and will rate each criterion with even numbers (0, 2, 4, 6, 8 or 10) using the generic evaluation table below. At the time of evaluating proposals, the PWGSC Evaluation Board may award an odd number for evaluation criterion once consensus has been reached.

Once a score out of 10 has been determined, the appropriate weight factor will be applied to calculate the bidders' final score. For example, if a criterion is listed with a total available points of 30, the bidders' score out of 10 will be multiplied by 3 to achieve the bidder's final score on that criterion.

Non Responsive	Inadequate	Weak	Adequate	Fully Satisfactory	Strong
0 Point	2 Points	4 Points	6 Points	8 Points	10 Points
Did not submit information which could be evaluated	Lacks complete or almost complete understanding of the requirements	Some understanding of the requirements but lacks adequate understanding in some areas of the requirements	Demonstrates a good understanding of the requirements	Demonstrates a very good understanding of the requirements	Demonstrates an excellent understanding of the requirements
	Weaknesses cannot be corrected	Generally doubtful that weaknesses can be corrected	Weaknesses can be corrected	No significant weaknesses	No apparent weaknesses
	Bidder does not possess qualifications and experience	Bidder lacks qualifications and experience	Bidder has an acceptable level of qualifications and experience	Bidder is qualified and experienced	Bidder is highly qualified and experienced
	Team proposed is not likely able to meet requirements	Team does not cover all components or overall experience is weak	Team covers most components and will likely meet requirements	Team covers all components some members have worked successfully together	Strong team - has worked successfully together on comparable projects
	Sample projects not related to this requirement	Sample projects generally not related to this requirement	Sample projects generally related to this requirement	Sample projects directly related to this requirement	Leads in sample projects directly related to this requirement
	Extremely poor, insufficient to meet performance requirements	Little capability to meet performance requirements	Acceptable capability, should Ensure adequate results	Satisfactory capability, should ensure effective results	Superior capability, should ensure very effective results

## **Stage II Scope of Work**

Following an evaluation of the Stage I RFI submissions, PSPC may pre-qualify up to four (4) contractors and proceed with Stage II. The pre-qualified Proponents will be requested to attend a Site visit, collect a sample for bench scale testing and report results. The pre-qualified Proponents will be compensated for attending the field visit and reporting results with a fixed fee of \$5,000, exclusive of all taxes. It is proposed that a Site visit may be completed in the spring of 2019. Bench scale testing must be completed off Site. The pre-qualified Proponents will transport a small quantity (maximum 20 kilogram) of sample material (at their own cost) to their laboratory. By way of submitting a proposal, the pre-qualified contractors agree to accept responsibility for the appropriate transport, management and disposal of this sample material prior to departing the Site.

Following the Stage I selection of the pre-qualified Proponents, each will be provided with background information consisting of soil chemistry data, gradation information and Site layout information. The Stage II pre-qualified Proponents will initially be requested to develop a brief schedule for proposed work activities described below. The following points summarize the Stage II work proposed.

1. The Proponents will be required to travel to Yellowknife in late June 2019, and travel to the Giant Mine Site. The Site visit will start with a health and safety orientation (typically 2 hours). The pre-qualified Proponents will be provided with a guided tour of the area (4 hours). Several shallow test pits will be excavated in the Roaster Complex area (no cost to Proponents), and each Proponent will be given the opportunity to record/observe soil conditions (2 hours). The collection of Site photos will be permitted.
2. A soil sample (maximum 20 kilogram) will be provided for transport to Proponents lab if requested (at their own cost).
3. It is therefore expected that each Site visit will require a maximum of two days on Site. Additional time may be provided if requested. The Site visits will be completed sequentially (i.e. the pre-qualified Proponents will have an opportunity of visit the Site independently).
4. The Proponent report must include a general description of the process (excluding proprietary information); expected water consumption requirements; and expected waste generation. The proposed process should be described, including expected footprint; production rates and seasonal operating constraints. The estimated cost of remediation should also be provided.
5. The former Roaster Complex is situated in close proximity to the Baker Creek watershed and is therefore extremely sensitive to the potential release of contaminants. As part of Stage II, the Proponent must propose a remedial system/process with low risk of environmental release during operation. Pending review of the proposed remedial system to treat heavily impacted soils, the siting of the proposed facility in a lower risk area on the Site may be proposed.
6. It is recognised that pilot scale testing may be required to confirm these estimates. Canada prefers to complete pilot scale testing (if required) in 2020. The scope and cost to complete pilot testing may be included in the Stage II report. If deemed appropriate, the Stage II report may provide the rationale, approximate costs and schedule to complete pilot-scale testing.
7. Upon receipt of each report, PSPC will pay a fixed fee of \$5,000 (CDN). This fixed fee represents full compensation for travel, accommodation and report preparation.

## **3.0 Schedule**

Canada will complete review of the RFI submissions by May 17, 2019 and will confirm whether Stage II will be initiated. If Stage II is required, the pre-qualified Proponents report submission will be due on August 15, 2019.

## **4.0 Health and Safety Considerations**

The MCM is responsible for the management of all activities on Site. Prior to commencing any activity on Site, individuals are required to complete a safety orientation. The Proponent will be required to develop an activity-specific health and safety plan. This plan must be reviewed and approved by the MCM prior to commencing work.

## **5.0 Stage I RFI Submission Requirements and Questions**

All questions and provide the submissions noted above to:

Isabelle Bilous  
Procurement Specialist  
Public Services and Procurement Canada  
5<sup>th</sup> Floor, ATB Place  
10025 Jasper Avenue  
Edmonton, AB T5J 1S6

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