

**RETURN BIDS TO:**  
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Bid Receiving Public Works and Government  
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800 Burrard Street, Room 219  
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Vancouver  
British Columbia  
V6Z 0B9  
Bid Fax: (604) 775-9381

**SOLICITATION AMENDMENT**  
**MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise  
indicated, all other terms and conditions of the Solicitation  
remain the same.

Ce document est par la présente révisé; sauf indication contraire,  
les modalités de l'invitation demeurent les mêmes.

**Comments - Commentaires**

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

**Issuing Office - Bureau de distribution**  
Public Works and Government Services Canada -  
Pacific Region  
800 Burrard Street, Room 219  
800, rue Burrard, pièce 219  
Vancouver  
British C  
V6Z 0B9

<b>Title - Sujet</b> Plugging of Flowing Wells	
<b>Solicitation No. - N° de l'invitation</b> EZ113-150539/A	<b>Amendment No. - N° modif.</b> 003
<b>Client Reference No. - N° de référence du client</b>	<b>Date</b> 2014-09-04
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$PWY-019-7291	
<b>File No. - N° de dossier</b> PWY-4-37080 (019)	<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 2014-09-11</b>	<b>Time Zone</b> Fuseau horaire Pacific Daylight Saving Time PDT
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Ngan, Ken (PWY)	<b>Buyer Id - Id de l'acheteur</b> pwy019
<b>Telephone No. - N° de téléphone</b> (604) 658-2755 ( )	<b>FAX No. - N° de FAX</b> (604) 775-6633
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> NRCan - Coldsteam Ranch Well - Coldstream, BC	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Delivery Required - Livraison exigée</b>	<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>

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This Solicitation Amendment 003 is raised to provide responses to questions received.

All other terms and conditions remain unchanged.

Q1.) Figure 3 identifies 30" casing and 16" casing. Please provide casing material specifications, wall thickness and installed lengths for the 30" casing and 16" casings.

A1.) There is no information available regarding casing material specification and wall thicknesses. Information regarding casing lengths is as follows:

- o 30 inch casing
  - Fifteen (15) 10 ft lengths of nominal 30 inch casing were driven to approximately 146 ft.
  - The nominal 30 inch casing lengths were joined by welding inner and outer rings to the bottom end of a length of casing to form a joint.
  - A garden hose was used as a gasket within the joint and the length of nominal 30 inch casing was lowered onto the previous casing string and welded to the outer ring.
  - Summary provided in Golder, 2010: Figure 4; p. 21 and 22.
- o 16 inch casing
  - Nominal 16 inch well casing installed inside nominal 30 inch casing to depth of 173 ft.
  - Summary provided in Golder, 2010: Figure 4; p. 21 and 22.

Q2.) Figure 3 identifies a 16" telescopic screen as per 01 11 00 Summary of Work 2.1.2. Does PWGSC have any specific details of the screen fabrications and specifications, including any riser pipe and K packer dimensions? If so can PWGSC provide these details?

A2.) Information about the screen fabrications and specifications is limited to the following:

- The entire screen assembly is 12 ft 9¼ inches, and consists of a K-packer and a 5 ft 6¼ inch blank section followed by the 7 ft 3 inch well screen with a solid bottom.
- 14 inch blank riser from 160 ft-2 ¾ in to 165 ft-9 in; 14 inch diameter screen from 165 ft 9 in to 173 ft (Golder, 2010; p. 21).

Q3.) Figure 3 identifies RW1. 01 11 00 Summary of Work 2.2.14 references a 4.5" liner and 2.2.15 references casing. Please provide liner and casing material specifications, wall thickness and installed lengths.

A3.) There is no information available regarding liner and casing material specification and wall thicknesses. Information regarding casing lengths is as follows:

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- Original construction: RW1 was drilled to 216.5 ft and completed in the Lower Aquifer using 30 ft of 13 3/8 inch flush joint surface casing cemented in place; 126 ft of 8 5/8 inch threaded and coupled casing cemented in place; 115 ft of 4 1/2 inch casing with 11.5 ft of 20 slot screen from 205 ft to 216.5 ft; Well yield approximately 96 USgpm. (Golder 2010 p.21). Seal between the 4 1/2 inch casing and the 8 5/8 inch casing was made by a casing wiper-plug (GSC 1968).
  - Condition based on a video camera inspection is described in the following- all depths are measured from the top of the tee fitting at an elevation of approximately 471.019, which is approximately 0.3 m above ground surface (Golder 2011, p.3-4):
    - o Numerous casing joints and threads were visible within the nominal 8 5/8 inch casing at depths below ground of 16.7 ft (5.1m), 25.2 ft (7.7m), 33.4 ft (10.2m), 49.1 ft (15.0m), 62.5 ft (19.1m), 75.4 ft (23.0m), and 90 ft (27.4). The condition of the casing joints cannot be commented on due to the camera resolution and particulate suspension.
    - o A nominal 4 1/2 inch liner was observed at a depth of approximately 91.6 ft (27.9 m). Joints and threads within the liner were observed at 112.4 ft (34.3), 133.1 ft (40.6m), 153.9 ft (46.9m), 174.5 ft (53.2m) and 190.6 ft (58.1m).
    - o The top of the well screen was noted at approximately 194.6 ft (59.3m) and the bottom of the well was noted at 201.7 ft (61.5m). The screen appeared to be in relatively good condition, with no pitting, staining or encrustation noted.
    - o Some sand/gravel was observed to be present in the bottom portion of the screen.
    - o Based on a review of the video camera inspection and the original well completion details, summarized in Golder (2010) the depth to the nominal 4 1/2 inch liner was reported to be approximately 90 ft below grade (bg) (27.4 m bg) in both the video and original information. However, the depth to the well screen was noted to be different. The original well screen length was reported to be 11.5 ft (3.5m), and installed from a depth of 205 to 216.5 ft bg (62.5 to 66.0 m bg). According to the video inspection, the screen was observed at a depth of approximately 194.6 ft and extended to a depth of 201.7 ft bg (a length of 7.1 ft [2.2 m]). Although sediment was observed at the base of the well, the thickness of the sediment is unknown.

Q4.) Do any geotechnical borehole logs exist for the work site adjacent to the CRW? If so can PWGSC provide copies?

A4.) It is unclear what "adjacent work site" the question is referencing. There are no additional borehole logs for properties adjacent to the Site, with the exception of the RDNO Well #1 log. A copy of the well log for RDNO Well #1 is provided in Appendix A in the following reference. Golder Associates Ltd. March 27, 2014. Coldstream Ranch Well Remediation Project. Pumping Test of North Okanagan Coldstream Ranch Well No. 1.

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Q5.) Please confirm the following:

- a. Is the Bid Security per BA07 submitted with Envelope 1 or Envelope 2?
- b. Is Appendix 2 – Board of Directors List submitted with Envelope 1 or Envelope 2?
- c. Would Appendix 4 – Voluntary Certification to Support the use of Apprentices be submitted with Envelope 1 or Envelope 2?
- d. Is Certificate of Insurance per Annex A submitted with Envelope 1 or Envelope 2?

- A5.)
- a. Envelope 2.
  - b. Envelope 2.
  - c. Envelope 2.
  - d. Envelope 2.

Q6.) Subject to response to question 4 above, are 01 11 00 Summary of Work 2.6 Contractor Qualifications, items 2.6.1 through 2.6.10, associated sub items and Appendix 3 Mandatory Requirement of the Invitation to Tender the extent of items to be included in Envelope 1?

A6.) Yes.

Q7.) With the successful plugging of the lower aquitard with LMG is the expectation that the middle aquifer will provide artesian flow to surface? If so, what would an estimated flow rate be? What would an estimated shut in pressure be?

A7.) It is possible that the Middle Aquifer will provide artesian flow after successful plugging of the Lower Aquifer. The measured PSI at MW11-01 was 6 psi (4.2 m above ground surface). Golder's report on the RDNO Well #1 pumping test suggested that the water level could be as high as 5 m above ground surface in the Middle Aquifer. The flow rate at MW11-01 was measured to be approximately 0.75 L/s (11.9 USgpm) during a previous test.

Q8.) Specification 01 42 00 References identifies 2.1 Mandatory references. Can PWGSC please provide copies of the following reports?

- Golder Associates Ltd. December 6, 2010. PAC 3612-Ci22N42 Coldstream Ranch Flowing Well, Coldstream BC, Remedial Options Assessment for Flowing Well Control.
- Golder Associates Ltd. December 30, 2013. Coldstream Ranch Well Remediation Project; Drilling, Construction and Testing of RW3, Coldstream, BC.
- Golder Associates Ltd. March 24, 2014. Drilling, Construction and Testing of Shallow Monitoring Wells, Coldstream Ranch Well Remediation Project.
- Golder Associates Ltd. March 27, 2014. Coldstream Ranch Well Remediation Project. Pumping Test of North Okanagan Coldstream Ranch Well No. 1.

A8.) See Attachment Files <References>

Q9.) Specification 33 21 14 identifies 1.17.3 Optional Item MW11-01 abandonment. Can PWGSC please provide a drawing or information descriptions identifying well installation details, specifically a) well screen details, b) 4" casing material specifications, wall thickness, ID, OD, installed lengths, type of joints, c) the 6" casing material specifications, wall thickness, installed lengths, type of joints? It is noted that the annular space between the casings was cemented. Was the 4" casing centralized in the 6" casing.

A9.) Please refer to MW11-01 Report under Attachment Files <References>.

The casing joints are all welded and the 4 inch casing was centralized in the 6 inch casing.

End of Solicitation Amendment 003.