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May 30, 2016  
File: 285-068.09

**BC Ministry of Transportation and Infrastructure**  
4C-940 Blanshard Street  
Victoria, BC V8W 9T5

**Attn: Paul Savinkoff**

Dear Mr. Savinkoff,

**Re: Performance Verification Plan for Certificate of Compliance at 8100 Nordel Way and Adjacent Metes and Bounds Areas, Delta, BC**

Hemmera Envirochem Inc. (Hemmera) has prepared this Performance Verification Plan (PVP) in support of an application for a Certificate of Compliance (CofC) for the property located at 8100 Nordel Way and two adjacent surveyed 'Metes and Bounds' portions of Ministry of Transportation and Infrastructure (MOTI) right-of-way (together comprising the "Site"). The PVP presents the principle risk management measures that apply at the Site, so that risk-based standards are and continue to be met. It also lays out the actions that must be taken so that these risk controls are implemented and maintained. This PVP was prepared in accordance with BC Ministry of Environment (MOE) *Procedure 12: Procedures for Preparing and Issuing Contaminated Site Legal Instruments*, effective February 1, 2016 (P12) and BC MOE Administrative Guidance on Contaminated Sites #14: *Performance Verification Plans, Contingency Plans, and Operations and Maintenance Plans, Version 3.0*, dated December 2015 (TG14).

This Work was performed in accordance with Contract 045 CS 4899 between Hemmera Envirochem Inc. ("Hemmera") and MOTI ("Client"), dated August 21, 2015 ("Contract"). This Report has been prepared by Hemmera, based on fieldwork conducted by Hemmera, for sole benefit and use by the following parties: the Client; the BC Transportation and Financing Authority (BC TFA); and, for review by the BC Ministry of the Environment (MoE) and BC Contaminated Sites Approved Professionals (CSAP) Society. In performing this Work, Hemmera has relied in good faith on information provided by others, and has assumed that the information provided by those individuals is both complete and accurate. This Work was performed to current industry standard practice for similar environmental work, within the relevant jurisdiction and same locale. The findings presented herein should be considered within the context of the scope of work and project terms of reference; further, the findings are time sensitive and are considered valid only at the time the Report was produced. The conclusions and recommendations contained in this Report are based upon the applicable guidelines, regulations, and legislation existing at the time the Report was produced; any changes in the regulatory regime may alter the conclusions and/or recommendations.

## 1.0 RISK CONTROL TYPE

Based on the risk management measures for the Site (i.e., the use of institutional controls to mitigate/eliminate risks at the Site and lack of imminent risks in the event that controls were either not implemented or were implemented but were rendered ineffective), a **Type 2** risk control is applicable for the Site. Under a **Type 2** scenario, TG14 indicates that a PVP is required.

## 2.0 PERFORMANCE VERIFICATION PLAN

This PVP was developed based on the Detailed Human Health and Ecological Risk Assessment (DHHERA) completed for the Site by Hemmera in May 2016 and the Stage 1 and Stage 2 Preliminary Site Investigation, Detailed Site Investigation (DSI) and Confirmation of Remediation (CoR) report completed by Hemmera in May 2016.

### 2.1 REQUIRED RISK CONTROLS

Groundwater at the Site must not be used for domestic purposes (i.e., drinking water).

### 2.2 REQUIRED ACTIONS TO IMPLEMENT THE RISK CONTROLS

The listing of this risk control in Schedule B of the CofC is considered adequate to ensure that groundwater at the Site will not be used for drinking water.

### 2.3 SUMMARY OF RATIONALE FOR SELECTING REQUIRED PVP ELEMENTS

Arsenic, Chloride and Sodium remain in groundwater at concentrations greater than the *BC Contaminated Sites Regulation (CSR) Schedule 6* drinking water (DW) standards. While the DHHERA concluded that drinking water wells are unlikely to be installed given that the on-site building is connected to the municipal water system, it is necessary to ensure that this requirement is met. Communication of this condition to future users/owners via the CofC is considered to be a suitable risk measure.

## 3.0 CLOSURE

We trust that this report is satisfactory to your requirements. Please feel free to contact the undersigned regarding any questions or further information that you may require.

Report prepared by:  
**Hemmera Envirochem Inc.**

Report peer reviewed by:  
**Hemmera Envirochem Inc.**

**ORIGINAL SIGNED  
AND STAMPED**

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AND STAMPED**

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## **4.0 REFERENCES**

BC Ministry of Environment (BC MOE) Procedure 12: Procedures for Preparing and Issuing Contaminated Site Legal Instruments dated December 15, 2015. Effective February 1, 2016.

BC MOE Administrative Guidance on Contaminated Sites: Performance Verification Plans, Contingency Plans, and Operations and Maintenance Plans, Version 3.0 dated December 2015.

Detailed Human Health and Ecological Risk Assessment, 8100 Nordel Way, Delta, BC, completed by Hemmera, dated May 2016.

Stage 1 and Stage 2 Preliminary Site Investigation, Detailed Site Investigation and Confirmation of Remediation, 8100 Nordel Way, Delta, BC, May 2016.