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March 8, 2016

Project 132814

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ATTENTION: John Driedger, P.Eng.
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REFERENCE: **Performance Verification Plan,
438 Birch Avenue, Near the Former Shell Service Station,
465 South Highway 97, 100 Mile House, BC, Location Code: C44020,
Site ID: 11307**

SNC-Lavalin Inc. (SNC-Lavalin) has prepared this Performance Verification Plan (PVP) in support of an application for a Certificate of Compliance (CofC) for the 438 Birch Avenue Management Area associated with the Former Shell Service Station located at 465 South Highway 97, 100 Mile House, BC, BC Ministry of Environment (MoE) Site ID: 11307 (herein referred to as the "MA"). The MA is owned by Mr. and Mrs. Messner. The PVP presents the principal risk controls that apply at the MA to ensure the CofC for the MA remains valid (i.e., the key risk controls of Schedule B). The PVP was prepared in accordance with MoE Procedure 12: Procedures for preparing and issuing contaminated sites legal instruments (2015a) and Administrative Guidance 14: Performance Verification Plans, Contingency Plans and Operations and Maintenance Plans (2015b).

PRINCIPAL RISK CONTROLS

A Human Health and Ecological Risk Assessment (HHERA) was conducted for the MA, and the results are presented in the SNC-Lavalin report, *Human Health and Ecological Risk Assessment, Former Shell Service Station and Management Area, 465 South Highway 97, 100 Mile House, BC, Location Code: C44020*, prepared by SNC-Lavalin, (SNC-Lavalin, 2016a). The HHERA was prepared based on the findings and conclusions presented in the SNC-Lavalin report, *Stage 1 & 2 Preliminary Site Investigation, Detailed Site Investigation, Decommissioning, and Confirmation of Remediation, Former Shell Service Station and Management Area, 465 South Highway 97, 100 Mile House, BC* (SNC-Lavalin, 2016b).



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The principal risk control for the MA on which the SNC-Lavalin (2016a) risk assessment was based, as presented in Schedule B of the CofC, is as follows:

- a) *Groundwater must not be used as a drinking water source.*

Other assumptions have been made throughout the HHERA (SNC-Lavalin, 2016a), but are not considered risk controls. These assumptions include that future buildings at the MA would be slab-on-grade and that the overall grade at the Site will remain consistent with current grade. Given that these assumptions were used to determine the presence of Contamination at the Site (i.e., they are assumptions used in the Site investigation), they are not considered to be risk controls and are not further discussed in the PVP.

DETERMINATION OF PROCEDURE 12 REMEDIATION TYPE

Based on the principal risk control for the MA (i.e., the use of institutional controls to mitigate/eliminate risks at the MA and lack of imminent risks in the event that controls were either not implemented or were rendered ineffective), the Remediation Type applicable at the MA is considered to be Type 2.

Under a Remediation Type 2 scenario, MoE (2015a; 2015b) indicates that a PVP is required, while an operations and maintenance plan may be required.

PERFORMANCE VERIFICATION PLAN

A PVP is required to ensure that the principal risk control upon which the HHERA is based is being met at the MA.

This includes the maintenance of up-to-date records of performance verification actions and results for the MA being maintained by the responsible person (or their agents). If requested by the Director, the responsible person (or their agents) will provide these records to the MoE. As well, if requested by the Director, responsible person(s) will provide a signed statement on whether conditions set out in this Schedule B are being met.

Performance verification actions for the MA include the following:

- a) Communication with the owner/operator that Contaminated groundwater at the MA must not be used for drinking water purposes. The current and future uses of the MA are commercial outdoor, with the potential for a future building on the portion of the MA that is not occupied by the Spectra right-of-way. Groundwater at the MA is not used for drinking water purposes (including bathing/showering, cooking, gardening, drinking, etc.) and is not anticipated to be used for these purposes in the future, with drinking water supplied by a municipal water distribution system. It is considered unlikely that groundwater will be used for drinking water purposes in the future.



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Based on the above, an advisory that groundwater at the MA must not be used for drinking water purposes is considered appropriate to meet this risk control. The listing of this risk control in Schedule B of the CofC meets this requirement.

In summary, it is our opinion that the advisory in Schedule B of the CofC is sufficient for addressing the principal risk control at the MA.

REFERENCES

MoE. 2015a. Procedure 12. Procedures for preparing and issuing contaminated sites legal instruments. BC Ministry of Environment, Victoria, BC, December, 2015.

MoE. 2015b. Administrative Guidance 14: Performance Verification Plans, Contingency Plans and Operations and Maintenance Plans. BC Ministry of Environment, Victoria, BC, December, 2015.

SNC-Lavalin. 2016a. *Human Health and Ecological Risk Assessment, Former Shell Service Station and Management Area, 465 South Highway 97, 100 Mile House, BC, Location Code: C44020*, prepared by SNC-Lavalin Inc., Environment & Water, dated January 7, 2016.

SNC-Lavalin. 2016b. *Stage 1 PSI Update, Stage 2 Preliminary Site Investigation, Detailed Site Investigation, and Remedial Excavation, Former Shell Service Station and Management Area, 465 South Highway 97, 100 Mile House, BC. Location Code #C44020*, prepared by SNC-Lavalin Inc., Environment & Water, dated January 4, 2016.

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The findings, conclusions and recommendations in this report (i) have been developed in a manner consistent with the level of skill normally exercised by professionals currently practicing under similar conditions in the area, and (ii) reflect SNC-Lavalin's best judgment based on information available at the time of preparation of this report. No other warranties, either expressed or implied, are made with respect to the professional services provided to Shell or



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