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June 30, 2016
File: 1412-003.01

Edgar Development Corp
1500-1021 West Hastings Street
Vancouver, BC V6E 0C3

Attn: Jasmean Toor

Dear Ms. Toor,

Re: Performance Verification Plan for Certificate of Compliance at 1090 Lougheed Highway, Coquitlam, BC

Hemmera Envirochem Inc. (Hemmera) has prepared this Performance Verification Plan (PVP) in support of an application for a Certificate of Compliance (CoC) for the property located at 1090 Lougheed Highway, Coquitlam, BC (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 the Professional Services Agreement (PSA) between Hemmera and Edgar Development Corp (EDC), dated March 6, 2015 ("Contract"). This Report has been prepared by Hemmera, based on fieldwork conducted by Hemmera, for sole benefit and use by EDC and the Ministry of Environment (MoE). 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 intrinsic and institutional controls to mitigate/eliminate risks at the Site), **Type 1B** and **Type 2** risk controls are applicable for the Site. Under a **Type 1B** and **Type 2** scenario, the BC MOE (2016a; 2015b) 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 April 2016 and the associated Addendum completed by Hemmera dated June 20, 2016, the Stage 2 Preliminary Site Investigation and Detailed Site Investigation report completed by Hemmera in April 2016 and the associated Addendum completed by Hemmera dated June 20, 2016.

2.1 REQUIRED RISK CONTROLS

1. Site groundwater must not be used as potable water.
2. Subsurface soil contamination must remain at depths greater than 1 m below ground surface and not be redistributed as surface soil.
3. Future deep rooting vegetation must not be planted within the following metes and bounds described area (see **Figure 1**):

COMMENCING at the south west corner of the Property Boundary at N: 509881.019 metres, E: 5453458.946 metres, being the **POINT OF COMMENCEMENT**;

THENCE at a bearing of 90 degrees 54 minutes 16.801 seconds a distance of 52.898 metres to a point, being the **START OF NO DEEP ROOTING VEGETATION AREA**;

THENCE at a bearing of 11 degrees 52 minutes 30.203 seconds a distance of 31.697 metres;

THENCE at a bearing of 71 degrees 41 minutes 1.392 seconds a distance of 22.139 metres;

THENCE at a bearing of 127 degrees 55 minutes 25.074 seconds a distance of 59.902 metres;

THENCE at a bearing of 199 degrees 13 minutes 50.832 seconds a distance of 19.803 metres;

THENCE at a bearing of 284 degrees 24 minutes 27.980 seconds a distance of 70.486 metres to the **START OF NO DEEP ROOTING VEGETATION AREA**.

2.2 REQUIRED ACTIONS TO IMPLEMENT THE RISK CONTROLS

These risk controls must be communicated to present and future site owners/operators. The listing of these risk controls in Schedule B of the CoC is considered adequate to ensure that groundwater at the Site will not be used for drinking water, that subsurface soil contamination will remain at depths greater than 1 m below ground surface and not be redistributed as surface soil, and that deep rooting vegetation will not be planted within the metes and bounds area shown in **Figure 1**.

2.3 SUMMARY OF RATIONALE FOR SELECTING REQUIRED PVP ELEMENTS

Methyl tert-butyl ether (MTBE), benzene, ethylbenzene, and benzo(a)pyrene 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.

Naphthalene remains in soil at a depth below 1 m at concentrations greater than CSR Schedule 4 commercial land use (CL) standards. While the DHHERA concluded that with the current land use there is an incomplete direct exposure pathway between this soil contamination and human receptors and terrestrial ecological receptors it is necessary to ensure that those potential exposure pathways remain incomplete, and that subsurface soil contamination is not re-distributed at shallower depths within depth ranges MoE recognizes may offer direct exposure to humans and terrestrial biota.

The DHHERA Addendum concluded that exposure of potential future deep rooting vegetation is unlikely in the reasonable future given the Site has recently undergone renovation and there are no known plans for change to configuration and land use. Also, exposure of deep rooting vegetation to Site contamination would require demolition of the building and re-development of the space as green space with trees or other forms of vegetation capable of rooting deeper than a meter given the shallowest soil contamination was identified at 1.5 m bgs, and the groundwater table was identified between 1.8 and 2.5 m bgs. However, as a precautionary measure a conservative risk control indicating deep rooting vegetation should not be planted in the area of soil and groundwater contamination has been recommended.

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.

ORIGINAL SIGNED 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, 1090 Lougheed Highway, Coquitlam, BC, completed by Hemmera, dated April 2016.

Stage 2 Preliminary Site Investigation and Detailed Site Investigation, 1090 Lougheed Highway, Coquitlam, BC, completed by Hemmera, dated April 2016.

Addendum to Detailed Human Health and Ecological Risk Assessment, 1090 Lougheed Highway, Coquitlam, BC, prepared by Hemmera, dated June 20, 2016.

Addendum to Stage 1 Findings of Performance Assessment PA16-008 for 1090 Lougheed Highway, Coquitlam, BC, prepared by Hemmera, dated June 20, 2016.

Detailed Human Health and Ecological Risk Assessment
1090 Lougheed Highway, Coquitlam, BC

No Deep Rooting Vegetation Metes and Bounds

Lougheed Highway

Nelson Creek

King Edward Street

Building A

Building B

Former Building Outline

Former AST

Former UST

Do not plant deep rooting vegetation

Point of Commencement
N: 509881.019 m
E: 5453458.946 m

Start of No Deep Rooting Vegetation Area

22.139 m
71°41'1.392"

31.697 m
11°52'30.203"

59.902 m
127°55'25.074"

52.898 m
90°54'16.801"

19.803 m
199°13'50.832"

70.486 m
284°24'27.980"

BH6/MW3
MW15-1
BH7/MW4
BH5/MW2
MW15-2
BH4
BH8/MW5
BH11/MW8
BH9/MW6
BH3/MW1
MW15-7
MW15-4A/B
SV15-4
MW15-206
MW15-205
MW15-3
BH10/MW7
MW15-6
MW15-301
MW15-5
MW15-201
MW15-204
MW15-202
MW15-203
MW15-302A/B
MW15-303A/B
BH1
MW15-401A/B
BH2
MW16-502
MW16-501A/B

ST
EP
GAS
SAN
W

No Deep Rooting Vegetation Area Metes and Bounds description

COMMENCING at the south west corner of the Property Boundary at N: 509881.019 metres, E: 5453458.946 metres, being the **POINT OF COMMENCEMENT**;
THENCE at a bearing of 90 degrees 54 minutes 16.801 seconds a distance of 52.898 metres to a point, being the **START OF NO DEEP ROOTING VEGETATION AREA** ;
THENCE at a bearing of 11 degrees 52 minutes 30.203 seconds a distance of 31.697 metres;
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Legend

- Monitoring Well, Hemmera
- Soil Vapour Probe, Hemmera
- Borehole, Levelton
- Monitoring Well, Levelton
- Destroyed Monitoring Well, Levelton
- Drainage Ditch
- ST Drainage Utility
- GAS Gas
- EP Hydro
- SAN Sanitary
- W Water
- Creek
- No Deep Rooting Vegetation Area
- Site Boundary
- Remedial Excavation Extent, Levelton
- Former Site Feature

Notes

1. Locations BH6/MW3, BH10/MW1 (Levelton) and MW15-1 to MW 5-7 series were surveyed by R.F. Binnie on August 28, 2015. All other locations should be considered approximate.
2. This map is not intended to be a "stand-alone" document, but a visual aid of the information contained within the referenced Report. It is intended to be used in conjunction with the scope of services and limitations described therein.

Sources

- Aerial Image: ESRI World Imagery

N

1:750

0 10 20 30 40
Metres

NAD 1983 UTM Zone 10N

Page Size: 11" x 17"

1412-003.05	Production Date: 16-Jun-2016	Figure 1

HEMMERA

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Path: G:\1400\1412\003\Phase05\mxd\HHERA\Fig5_1412_003_05_HHERA_MetesBounds_NoDeepRootVeg_160616.mxd