



September 29, 2016

Mr. Michael Roberts
UCANCO General Partners Inc.
303 – 1650 Des Peres Road
St. Louis, MO 63131
USA

Dear Mr. Roberts:

**Re: Performance Verification Plan for Certificate of Compliance
8890 School Street, Chilliwack, BC
Project No. 12169**

Keystone Environmental Ltd. (Keystone Environmental) has prepared this Performance Verification Plan (PVP) in support of an application for a risk-based Certificate of Compliance (CofC) for the property located at the 8890 School Street, Chilliwack, BC (herein referred to as the "Site").

The PVP presents the principal risk management measures (i.e., the Schedule B key risk management controls) that apply and must remain in place at the Site to ensure that the Site CofC remains valid. The PVP was prepared in accordance with BC Ministry of Environment (MOE) Administrative Guidance 14: Performance Verification Plans, Contingency Plans, and Operations and Maintenance Plans (MOE, 2015). The PVP was based on the findings of the Keystone Environmental (2016b) report titled *Report of Findings – Human Health and Ecological Risk Assessment, 8890 School Street, Chilliwack, BC*.

DETERMINATION OF REMEDIATION TYPE

Based on the risk management measures for the Site, the Remediation Type applicable at the Site is considered to be Type 2 (Case 2). Remediation of Type 2 Sites may require the use of engineering and institutional controls to mitigate/eliminate risks at the Site, but in the event that controls were either not implemented or were implemented but were rendered ineffective, there is a lack of imminent risks.

Under a Remediation Type 2 (Case 2) scenario, MOE (2015) indicates that a PVP is required and that an operations and maintenance plan may be required. A contingency plan is not required.

REQUIRED RISK CONTROLS

The principal risk controls which must be maintained at the Site include the following items:

- Soil contamination exceeding standards relevant to human and ecological soil contact must remain at depths greater than 1 mbg (assumed to apply to soils Site-wide).
- Groundwater at the Site must not to be used as drinking water.
- Deep rooting trees (i.e., those that root deeper than 1.5 mbg) are not to be planted.

REQUIRED ACTIONS TO IMPLEMENT THE REQUIRED RISK CONTROLS

The following actions are required to implement the risk controls:

- Mandatory notification provided to the Site owner/operator that soil contamination with concentrations exceeding standards relevant to human and ecological soil contact is to remain at depths greater than 1 mbg.
- Mandatory notification provided to the owner/operator of the Site that no drinking water wells are to be installed on Site.
- Mandatory notification provided to the Site owner/operator that deep rooting trees are not to be planted on Site..

Records of these actions should be maintained by the Site owner/operator and submitted to the MOE if requested. Other reporting requirements for all performance verification records include the following:

- The Director must be notified promptly by the person(s) responsible for the Site if performance verification actions indicate that any of the required risk controls are not being met. The following information must be submitted to the Director with the notification, or as soon as practicable thereafter:
 - The time period over which risk controls were not in place or implemented
 - The nature of the excursion(s)
 - The temporary or permanent corrective measures implemented or to be implemented
 - An implementation schedule
 - Supporting documentation
- If requested by the Director, a report signed by an Approved Professional must be submitted for review to the Director and must include the following (as applicable):
 - An evaluation of the performance of the institutional controls
 - Supporting documentation

SUMMARY RATIONALE

Soil contamination exceeding the CSR Schedule 4 or 5 commercial land use (CL) soil standards relevant to human and ecological soil contact are present at depths below 1 mbg across a substantial portion of the Site. The risk assessment assumed that human and terrestrial ecological contact with such soils will not occur due to its depth. Ensuring such soil contamination is maintained at depths greater than 1 mbg is needed to prevent potential risk to humans via contact, inhalation, and ingestion and to terrestrial ecological receptors via direct contact.

Groundwater contamination exceeding the CSR Schedule 6 drinking water (DW) standards are present. A drinking water use preclusion on groundwater at the Site is needed to prevent human consumption and risk.

The risk assessment indicated a potential for risk to deep rooting trees that come in contact with VPH or LEPH contamination in Site soil and groundwater, present at depths of at least 1.5 mbg. A preclusion of deep rooting trees is needed to prevent risk to deep rooting trees via direct contact.

CONCLUSION

It is our opinion that the actions identified above are sufficient to ensure performance verification of the risk controls required for this Site.

GENERAL LIMITATIONS AND CONFIDENTIALITY

The findings presented in this report are based upon the field work conducted by Keystone Environmental for EAG Canada ULC. Keystone Environmental has prepared this document in good faith and has relied upon information provided by others. Keystone Environmental has assumed that the information provided by third parties is both complete and accurate.

This report was completed in a manner consistent with that level of care and skill normally exercised by other environmental professionals, practicing under similar circumstances in the same locale at the time of the performance of the work.

This report has been prepared for the sole use of EAG Canada ULC and the review by the BC Ministry of Environment, pursuant to the agreement between Keystone Environmental and EAG Canada ULC. This report must be read as a whole and sections thereof cannot be read out of such context. By using this report, EAG Canada ULC and the BC Ministry of Environment agree(s) to review this report in its entirety. Keystone Environmental accepts no responsibility, and denies any liability whatsoever, to parties other than EAG Canada ULC and the BC Ministry of Environment, who may obtain access to this report for any injury, loss or damage suffered by such parties arising out of, reliance upon, or decisions or actions based on this report, except to the extent those parties have obtained a prior written consent of Keystone Environmental to use and rely upon this report and the information contained herein. Any use, reliance or decisions made based on this report by other parties without prior written approval by

Keystone Environmental are the responsibility of such parties and Keystone Environmental accepts no responsibility for damages, if any, suffered by other parties as a result of decisions made or actions based on this report. The findings presented herein should be considered within the context of the scope of work and project terms of reference. The findings are time sensitive and are considered valid at the time this report was produced. The conclusions and recommendations contained in this report are based upon applicable guidelines, regulations, and legislation existing at the time this report was produced; consequently, any changes in the regulatory regime may alter the conclusions and/or recommendations.

If you should have any questions, please do not hesitate to contact the signatory below.

Sincerely,

Keystone Environmental Ltd.

Original signed by

Kevin Hall, B.Sc., R.P.Bio.
Risk Assessor

\\key-fs2012\Common\12100-12199\12169\Phase 00105 - HHERA\Report\VPV\Site\12169 161117 HHERA PVP Site.docx

ATTACHMENT:

- References

REFERENCES

REFERENCES

- British Columbia Ministry of Environment. Environmental Protection Division. 2015. *Administrative Guidance 14 on Contaminated Sites: Performance Verification Plans, Contingency Plans, and Operations and Maintenance Plans*. (Version 3.0). Retrieved from <http://www2.gov.bc.ca/assets/gov/environment/air-land-water/site-remediation/docs/administrative-guidance/ag14.pdf>
- Keystone Environmental Ltd. (2016a, September 27). *Report of Findings – Stage 1 Preliminary Site Investigation Update, Detailed Site Investigation and Confirmation of Remediation, 8890 School Street, Chilliwack, BC*. Burnaby, BC: Keystone Environmental Ltd.
- Keystone Environmental Ltd. (2016b, September 27). *Report of Findings – Human Health and Ecological Risk Assessment, 8890 School Street, Chilliwack, BC*. Burnaby, BC: Keystone Environmental Ltd.