



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, 8850 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 a portion of the property adjacent to the south of the property located at the 8890 School Street, Chilliwack, BC. The property is owned by Petro-Canada Inc. (a division of Suncor Energy Products Partnership), and will herein be referred to as the "Off-Site Suncor property."

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 Off-Site Suncor property to ensure that the Off-Site Suncor property 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 Off-Site Suncor property, the Remediation Type applicable at the Off-Site Suncor property is considered to be Type 2 (Case 2). Remediation Type 2 sites may require the use of engineering and institutional controls to mitigate/eliminate risks at the Off-Site Suncor property, 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 Off-Site Suncor property include the following items:

- Soil contamination exceeding standards relevant to human and ecological soil contact must remain at depths greater than 1 mbg (refer to attached Management Area Figure and Metes and Bounds)
- Groundwater must not be used as drinking water.

REQUIRED ACTIONS TO IMPLEMENT THE REQUIRED RISK CONTROLS

The following actions are required to implement the risk controls:

- Mandatory notification provided to the owner/operator of the Off-Site Suncor property that soil contamination with concentrations exceeding standards relevant to human and ecological soil contact must remain at depths greater than 1 mbg.
- Mandatory notification provided to the owner/operator of the Off-Site Suncor property that no drinking water wells are to be installed.

Records of these actions should be maintained by the owner of the Off-Site Suncor property 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 Off-Site Suncor property 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 and 5 residential land use (RL) and/or commercial land use (CL) soil standards relevant to human and ecological soil contact are present at depths below 3 mbg. The risk assessment assumed that human and terrestrial ecological contact with such soils will not occur due to its depth. Ensuring soil contamination is maintained at depths greater than 1 mbg is needed to prevent 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 Off-Site Suncor property is needed to prevent human consumption and risk.

CONCLUSION

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

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 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\PVP\Suncor\12169 161117 HHERA PVP Suncor.docx

ATTACHMENTS:

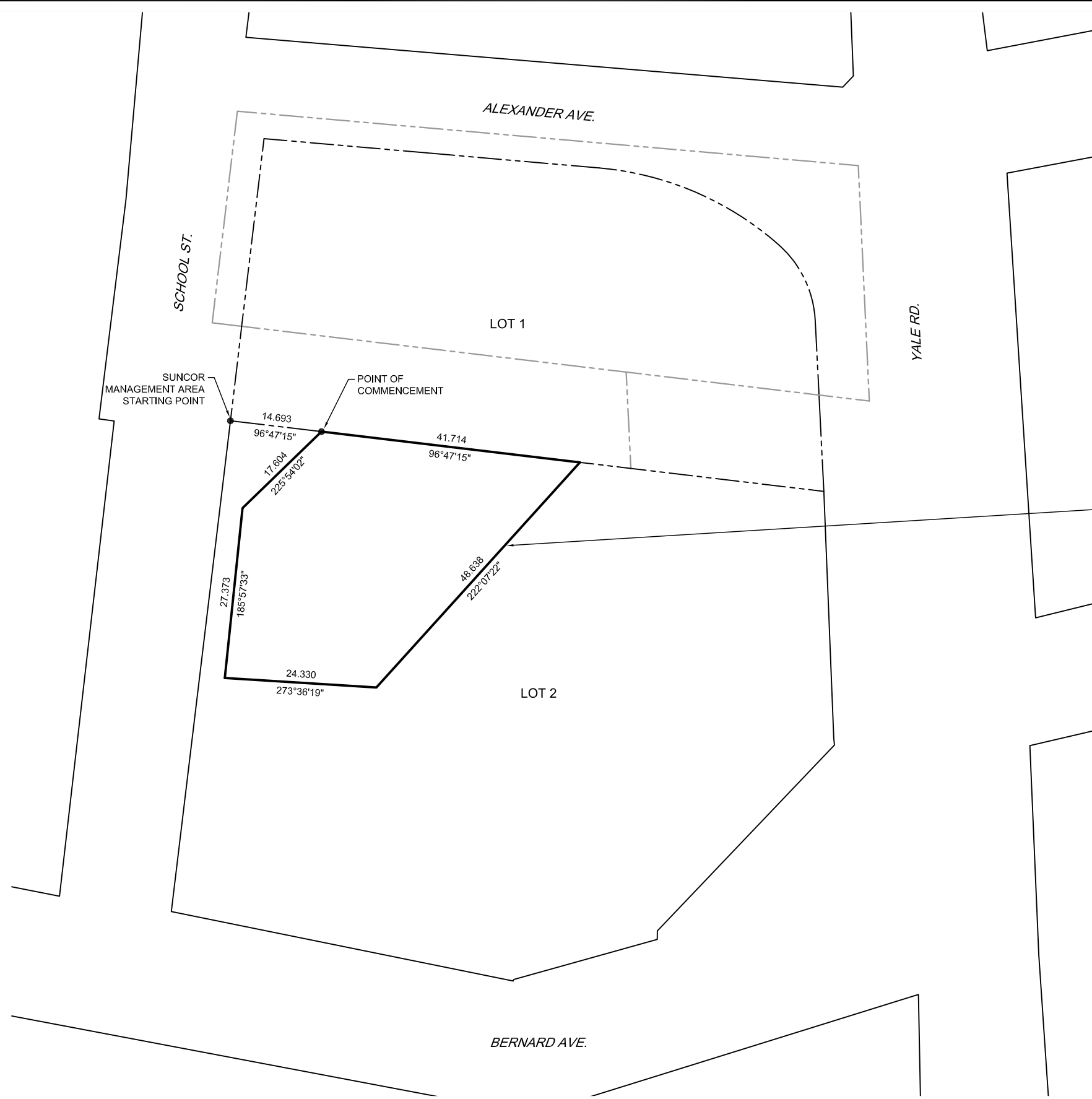
- References
- Management Area Figures
- Metes and Bounds

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.

MANAGEMENT AREA FIGURES



METES & BOUNDS OF OFF-SITE CONTAMINATION, SUNCOR MANAGEMENT AREA:


- STARTING AT THE SUNCOR MANAGEMENT AREA STARTING POINT, OF SUBDIVISION PLAN OF LOT 392, D.L. 28, GP. 2, N.W.D., PLAN 55106, LOTS 1, 2 AND 3, D.L. 27 AND 28, GP. 2, N.W.D., PLAN 12356, LOT 7 EXCEPT PCL. A (BYLAW PLAN 76636), D.L. 27 AND D.L. 28, GP. 2, N.W.D., PLAN 12356 AND LOT 1, D.L. 27 AND 28, GP. 2, N.W.D., PLAN 59356, DISTRICT OF CHILLIWACK
- THENCE 96°47'15" FOR 14.693 METRES; TO THE POINT OF COMMENCEMENT.
- THENCE 96° 47' 15" FOR 41.714 METRES;
- THENCE 222° 07' 22" FOR 48.638 METRES;
- THENCE 273° 36' 19" FOR 24.330 METRES;
- THENCE 185° 57' 33" FOR 27.373 METRES;
- THENCE 225° 54' 02" FOR 17.604 METRES;

RETURNING TO THE POINT OF COMMENCEMENT.

LEGEND

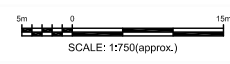
- SITE
- - - FORMER PROPERTY LINE
- METES & BOUNDS OF OFF-SITE CONTAMINATION SUNCOR MANAGEMENT AREA

NOTES:
 1. THIS DRAWING IS FOR GENERAL INFORMATION ONLY.
 LOT BOUNDARIES AND FEATURES ARE APPROXIMATE.



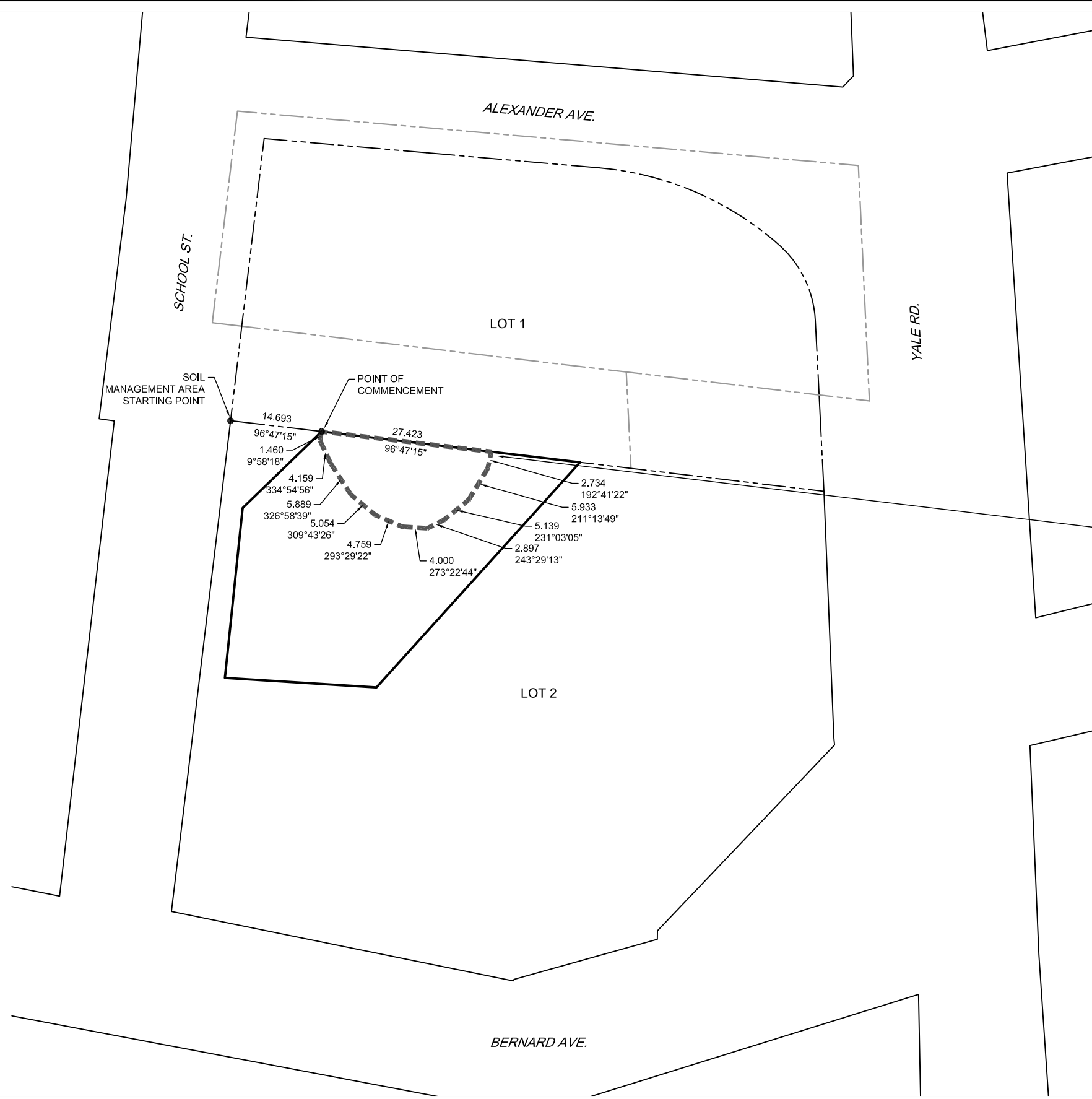
Keystone Environmental Ltd.
 Ste. 320 4400 Dominion Street
 Burnaby, British Columbia

8890 School Street
 Chilliwack, B C

DESIGN	APPROVED
DRAWN AB	CHECKED
SCALE	
	

CLIENT	EAG Canada ULC
DATE	9/20/16
SHEET No.	1 of 2
PROJECT No.	12169-04
REVISION No.	00
DRAWING No.	16-12169-02A

**Metes & Bounds of
Off-Site Contamination
Suncor Management Area**



METES & BOUNDS OF OFF-SITE CONTAMINATION, SOIL MANAGEMENT AREA:

- STARTING AT THE SUNCOR MANAGEMENT AREA STARTING POINT, OF SUBDIVISION PLAN OF LOT 392, D.L. 28, GP. 2, N.W.D., PLAN 55106, LOTS 1, 2 AND 3, D.L. 27 AND 28, GP. 2, N.W.D., PLAN 12356, LOT 7 EXCEPT PCL. A (BYLAW PLAN 76636), D.L. 27 AND D.L. 28, GP. 2, N.W.D., PLAN 12356 AND LOT 1, D.L. 27 AND 28, GP. 2, N.W.D., PLAN 59356, DISTRICT OF CHILLIWACK
- THENCE 96°47'15" FOR 14.693 METRES; TO THE POINT OF COMMENCEMENT.
- THENCE 96° 47' 15" FOR 27.423 METRES;
- THENCE 192° 41' 22" FOR 2.734 METRES;
- THENCE 211° 13' 49" FOR 5.933 METRES;
- THENCE 231° 03' 05" FOR 5.139 METRES;
- THENCE 243° 29' 13" FOR 2.897 METRES;
- THENCE 273° 22' 44" FOR 4.000 METRES;
- THENCE 293° 29' 22" FOR 4.759 METRES;
- THENCE 309° 43' 26" FOR 5.054 METRES;
- THENCE 326° 58' 39" FOR 5.889 METRES;
- THENCE 334° 54' 56" FOR 4.159 METRES;
- THENCE 9° 58' 18" FOR 1.460 METRES;

RETURNING TO THE POINT OF COMMENCEMENT.

LEGEND

- SITE
- - - - FORMER PROPERTY LINE
- METES & BOUNDS OF OFF-SITE CONTAMINATION SUNCOR MANAGEMENT AREA
- METES & BOUNDS OF OFF-SITE CONTAMINATION SOIL MANAGEMENT AREA

NOTES:
 1. THIS DRAWING IS FOR GENERAL INFORMATION ONLY.
 LOT BOUNDARIES AND FEATURES ARE APPROXIMATE.

Keystone Environmental
 8890 School Street
 Chilliwack, B C

Keystone Environmental Ltd.
 Ste. 320 4400 Dominion Street
 Burnaby, British Columbia

DESIGN	APPROVED
DRAWN AB	CHECKED
SCALE SCALE: 1:750(approx.)	

CLIENT EAG Canada ULC	DATE 9/20/16
Metes & Bounds of Off-Site Contamination Soil Management Area	SHEET No. 2 of 2
	PROJECT No. 12169-04
	REVISION No. 00
DRAWING No. 16-12169-02B	

No.	DATE	DESCRIPTION	BY	APPROVED
REVISIONS				

METES AND BOUNDS

SUNCOR PROPERTY METES & BOUNDS OF OFF-SITE CONTAMINATION

METES & BOUNDS OF OFF-SITE CONTAMINATION, SUNCOR MANAGEMENT AREA:

STARTING AT THE SUNCOR MANAGEMENT AREA
STARTING POINT, OF SUBDIVISION PLAN OF LOT
392, D.L. 28, GP. 2, N.W.D., PLAN 55106, LOTS 1, 2
AND 3, D.L. 27 AND 28, GP. 2, N.W.D., PLAN 12356,
LOT 7 EXCEPT PCL. A (BYLAW PLAN 76636), D.L.
27 AND D.L. 28, GP. 2, N.W.D., PLAN 12356 AND LOT 1,
D.L. 27 AND 28, GP. 2, N.W.D., PLAN 59356,
DISTRICT OF CHILLIWACK

THENCE 96°47'15" FOR 14.693 METRES;
TO THE POINT OF COMMENCEMENT.

THENCE 96° 47' 15" FOR 41.714 METRES;
THENCE 222° 07' 22" FOR 48.638 METRES;
THENCE 273° 36' 19" FOR 24.330 METRES;
THENCE 185° 57' 33" FOR 27.373 METRES;
THENCE 225° 54' 02" FOR 17.604 METRES;

RETURNING TO THE POINT OF COMMENCEMENT.

METES & BOUNDS OF OFF-SITE CONTAMINATION, SOIL MANAGEMENT AREA:

STARTING AT THE SUNCOR MANAGEMENT AREA
STARTING POINT, OF SUBDIVISION PLAN OF LOT
392, D.L. 28, GP. 2, N.W.D., PLAN 55106, LOTS 1, 2
AND 3, D.L. 27 AND 28, GP. 2, N.W.D., PLAN 12356,
LOT 7 EXCEPT PCL. A (BYLAW PLAN 76636), D.L.
27 AND D.L. 28, GP. 2, N.W.D., PLAN 12356 AND LOT 1,
D.L. 27 AND 28, GP. 2, N.W.D., PLAN 59356,
DISTRICT OF CHILLIWACK

THENCE 96°47'15" FOR 14.693 METRES;
TO THE POINT OF COMMENCEMENT.

THENCE 96° 47' 15" FOR 27.423 METRES;
THENCE 192° 41' 22" FOR 2.734 METRES;
THENCE 211° 13' 49" FOR 5.933 METRES;
THENCE 231° 03' 05" FOR 5.139 METRES;
THENCE 243° 29' 13" FOR 2.897 METRES;
THENCE 273° 22' 44" FOR 4.000 METRES;
THENCE 293° 29' 22" FOR 4.759 METRES;

THENCE 309° 43' 26" FOR 5.054 METRES;
THENCE 326° 58' 39" FOR 5.889 METRES;
THENCE 334° 54' 56" FOR 4.159 METRES;
THENCE 9° 58' 18" FOR 1.460 METRES;

RETURNING TO THE POINT OF COMMENCEMENT.