March 28, 2024

25 Pickering Holdings Inc.
10 Argyle Avenue, Suite 200
Ottawa, ON K2P 1B6

Re: **Phase One Environmental Site Assessment Update**
25 Pickering Place and 1330 Avenue K, Ottawa, Ontario
Pinchin File: 267991.010

Pinchin Ltd. (Pinchin) is pleased to provide the findings of our Phase One Environmental Site Assessment (ESA) Update to 25 Pickering Holdings Inc. (Client) for the property described as 25 Pickering Place and 1330 Avenue K, Ottawa, Ontario (Phase One Property or Site).

1.0 BACKGROUND

This Phase One ESA Update has been prepared by Pinchin for Client as an update to a Phase One ESA dated April 6, 2021 completed for the Phase One Property. The Phase One Property and Phase One Study Area are shown on Figure 2 (all figures are provided in Appendix I).

Pinchin previously prepared the following relevant reports for Client:

- "*Phase One Environmental Site Assessment, 25 Pickering Place and 1330 Avenue K, Ottawa, Ontario*" and dated April 6, 2021 (2021 Pinchin Phase One ESA Report); and
- "*Phase Two Environmental Site Assessment, 25 Pickering Place and 1330 Avenue K, Ottawa, Ontario*" and dated July 1, 2021 (2021 Pinchin Phase Two ESA Report).

At the time of the above-noted assessments, the Phase One Property was developed with six industrial buildings (Site Buildings A to F), which are used for the manufacturing, production, storage, and distribution of cleaning products.

Based on information obtained during the 2021 Pinchin Phase One ESA, 11 potentially contaminating activities (PCAs) were identified at the Phase One Property (i.e., on-Site) and nine PCAs were identified within the Phase One Study Area outside of the Phase One Property (i.e., off-Site). Of the off-Site PCAs, seven were not considered to result in areas of potential environmental concern (APECs) at the Phase One Property given their distance from the Phase One Property, their downgradient or transgradient location with respect to the inferred groundwater flow direction at the Phase One Property and/or the nature of operations and potential contaminants related to these operations. The remaining two off-Site PCAs and the 11 on-Site PCAs resulted in a total of 13 APECs at the Phase One Property. It was Pinchin's opinion that these 13 PCAs may have caused contamination of soil and groundwater at the Phase One Property and, as such, the identified APECs at the Phase One Property warranted further

investigation prior to the submission of an RSC. Pinchin recommended that a Phase Two ESA be conducted at the Phase One Property.

The 2021 Pinchin Phase One ESA Report was completed for Client in order to support the filing of a Record of Site Condition (RSC) at the Site in accordance with Part VII and Schedule D of the Province of Ontario's *Environmental Protection Act R.S.O. 1990, c. E.19* and *Ontario Regulation 153/04: Records of Site Condition – Part XV.1 of the Act*, as amended (O. Reg. 153/04). The filing of an RSC with the Ontario Ministry of the Environment, Conservation and Parks (MECP) is required when there is a change to a more sensitive land use. It is Pinchin's understanding that the Phase One Property will be redeveloped from its current industrial land use to mixed residential/commercial land use. Given that this constitutes a change to a more sensitive land use, the filing of a Record of Site Condition (RSC) for the Phase One Property with the MECP is a mandatory requirement of O. Reg. 153/04.

The purposes of this Phase One ESA Update were to:

- Assess whether any new APECs or PCAs exist at the Phase One Property or Phase One Study Area;
- Provide a revised table and figures summarizing PCAs identified in the Phase One Study Area; and
- Provide a revised Phase One Conceptual Site Model (Phase One CSM) following further consideration of potential exposure pathways and ecological receptors.

The Phase One ESA Update constitute the Phase One ESA reporting requirements necessary to support the filing of an RSC for the Site in accordance with O. Reg. 153/04. An update must be prepared if a Phase One ESA report is more than 18 months old prior to filing an RSC.

2.0 SCOPE OF WORK

The scope of work for this Update Phase One ESA was consistent with O. Reg. 153/04 in support of filing an RSC and was comprised of a Site reconnaissance. The Site reconnaissance comprised of a visual assessment of the Phase One Property and the surrounding properties within the Phase One Study Area (from publicly-accessible areas) including any associated buildings and/or facilities for the purpose of identifying the presence of potentially contaminating activities (PCAs).

Furthermore, Pinchin conducted an interview with the current Site owner to determine if any current or historical operations have caused a concern with respect to the environmental condition of the Phase One Property and the surrounding properties within the Phase One Study Area.

2.1 Written Description of Investigation

2.2.1 Summary of Site Reconnaissance

Pinchin formerly completed a Site inspection and a review of surrounding properties within the Phase One Study Area from publicly accessible locations on July 2, 2020 as part of the original Phase One ESA. The initial Site reconnaissance was completed by Pinchin personnel, under the supervision of Pinchin's Qualified Person (QP) overseeing this project. The Phase One Study Area is outlined on Figure 3.

As part of this Update Phase One ESA, Mr. Alex Kelly of Pinchin completed an additional Site reconnaissance on March 21, 2024 under supervision of Pinchin's QP for this project. The Site reconnaissance was documented with notes and photographs. Photographs of some of the features noted during the Site reconnaissance are attached in Appendix II.

The results of the subsequent Site reconnaissance indicated that the Site Buildings are currently being demolished, with the exception of Site Building C which was still standing. No other substantial changes have been observed to have occurred on the Phase One Property or on the surrounding properties located within the Phase One Study Area from the time of the initial Site reconnaissance that would result in potential subsurface impacts at the Phase One Property. As such, no additional PCAs or APECs, beyond those identified in the initial Phase One ESA, have been identified.

3.0 REVIEW AND EVALUATION OF INFORMATION

3.1 Current and Past Uses

The following table is a summary of the current and past land uses of the Phase One Property:

Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photographs, Fire Insurance Plans, etc
Pre-1803	Crown	Unknown	Agricultural or other use	None.
1803-1829	John McKindley	Unknown	Agricultural or other use	None.
1829-1851	John Gray	Unknown	Agricultural or other use	None.
1851-1876	William Collin Tremblay	Unknown	Agricultural or other use	None.
1876-1913	Nicholas Tremblay	Unknown	Agricultural or other use	None.

Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photographs, Fire Insurance Plans, etc
1913-1914	John Brennan, and Dustbane Manufacturing Co. Ltd.	Industrial (i.e., manufacturing of cleaning products)	Industrial use	Based on information in previous environmental reports, the Phase One Property was occupied by Dustbane Manufacturing Co. Ltd. for industrial operations (i.e. the manufacturing of cleaning products).
1914-1950	Ernest Boxall, and Dustbane Manufacturing Co. Ltd.	Industrial (i.e., manufacturing of cleaning products)	Industrial use	Based on information in previous environmental reports, the Phase One Property was occupied by Dustbane Manufacturing Co. Ltd. for industrial operations (i.e. the manufacturing of cleaning products).
1950-1957	Cecil Boxall, and Dustbane Manufacturing Co. Ltd.	Industrial (i.e., manufacturing of cleaning products)	Industrial use	Based on information in previous environmental reports, the Phase One Property was occupied by Dustbane Manufacturing Co. Ltd. for industrial operations (i.e. the manufacturing of cleaning products).
1957-2020	Dustbane Manufacturing Co. Ltd.	Industrial (i.e., manufacturing of cleaning products)	Industrial use	According to the Site Representative, the present-day Site Buildings were constructed on-Site between the 1940s and 1960s. In addition, four present-day Site Buildings (A, D, E and F) were evident on-Site in the 1958 aerial photograph and all present-day Site Buildings were evident on the 1976 aerial photograph.
2020-Present	25 Pickering Holdings Inc.	Industrial (i.e., manufacturing of cleaning products)	Industrial use	It was observed during Pinchin's Site reconnaissance that the Phase One Property remained occupied by Dustbane Manufacturing Co. Ltd.

3.2 Potentially Contaminating Activities

3.2.1 On-Site PCAs

Pinchin's investigation of the Phase One Property during the previous Phase One ESA identified the following on-Site PCAs that were considered to represent APECs at the Phase One Property:

- PCA-1: Item 8 - Chemical Manufacturing, Processing and Bulk Storage (manufacturing of various cleaning products within Site Building A);
- PCA-2: Other - Wastewater Generation (drainage trench and two associated pits are present in Site Building A that collect wastewater);
- PCA-3: Item 55 - Transformer Manufacturing, Processing and Use (A pad-mounted oil-cooled transformer is located on the central portion of the Phase One Property);
- PCA-4: Item 28 - Gasoline and Associated Products Storage in Fixed Tanks (one former 2,000-gallon fuel oil tank (associated with an 'oil house') located on the south-central portion of the Phase One Property);
- PCA-5: Item 28 - Gasoline and Associated Products Storage in Fixed Tanks (one former 10,000-gallon "nuso" oil tank (associated with an 'oil house') located on the south-central portion of the Phase One Property);
- PCA-6: Item 28 - Gasoline and Associated Products Storage in Fixed Tanks (One former 3,790-L varsol UST located adjacent to the east elevation of Site Building D);
- PCA-7: Item 28 - Gasoline and Associated Products Storage in Fixed Tanks (One former varsol UST (size unknown) located adjacent to the north elevation of Site Building D);
- PCA-8: Item 28 - Gasoline and Associated Products Storage in Fixed Tanks (various ASTs (contents unknown) located adjacent to the north and west elevations of Site Building A);
- PCA-9: Item 28 – Gasoline and Associated Products Storage in Fixed Tanks (one former varsol UST (size unknown) located near the south boundary of the Phase One Property, between Site Buildings A and E);
- PCA-10: Item 28 – Gasoline and Associated Products Storage in Fixed Tanks (various gasoline and diesel USTs, associated with a former private fuel outlet, located on the east-central portion of the Phase One Property (near the boundary);
- PCA-11: Item 30 - Importation of Fill Material of Unknown Quality (fill material identified throughout the Phase One Property by previous subsurface investigations);

- PCA-12: Item 28 – Gasoline and Associated Products Storage in Fixed Tanks (One diesel AST formerly located in the north-central portion of Site Building E); and
- PCA-13: Other – Road Salting Activities (Application of road salt in parking areas and walkways at the Phase One Property).

No substantive changes were observed to have been made to the Phase One Property from the time of the initial Site reconnaissance that would result in potential subsurface impacts and, as such, no additional on-Site PCAs have been identified as part of this Update Phase One ESA.

The locations of the on-Site PCAs are shown on Figure 4.

3.2.2 Off-Site PCAs

Nine PCAs were identified within the Phase One Study Area outside of the Phase One Property (i.e., off-Site). Of the off-Site PCAs, seven were not considered to result in APECs at the Phase One Property given their distance from the Phase One Property, their downgradient or transgradient location with respect to the inferred groundwater flow direction at the Phase One Property and/or the nature of operations and potential contaminants related to these operations. The remaining two off-Site PCAs were considered to have resulted in APECs at the Phase One Property:

- PCA-14: Item 27 - Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles (Automotive repair/servicing operation located at 1333 Avenue L, approximately 20 metres (m) east of the Phase One Property); and
- PCA-15: Item 28 – Gasoline and Associated Products Storage in Fixed Tanks (a retail fuel outlet with associated USTs is located at 1333 Avenue L, approximately 20 m east of the Phase One Property).

No substantive changes were observed to have been made to the Phase One Study Area from the time of the initial Site reconnaissance that would result in potential subsurface impacts and, as such, no additional on-Site PCAs have been identified as part of this Update Phase One ESA.

The locations of the off-Site PCAs are shown on Figure 4.

3.3 Areas of Potential Environmental Concern

All APECs identified during the Phase One ESA, as well as their respective PCAs, contaminants of potential concern (COPCs) and the media which could potentially be impacted, are summarized below.

Area of Potential Environmental Concern[1]	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity[2]	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern[3]	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC-1 (Manufacturing of various cleaning products within Site Building A)	Throughout the Site Buildings (except Building F) and former on-Site buildings	Item 8 - Chemical Manufacturing, Processing and Bulk Storage	On-Site	PHCs BTEX PAHs VOCs ABNs CPs	Soil and Groundwater
APEC-2 (Drainage trench and two associated pits present in Site Building A that collect wastewater)	North portion of Site Building A	Other - Wastewater Generation	On-Site	PHCs BTEX PAHs VOCs ABNs CPs	Soil and Groundwater
APEC-3 (A pad-mounted oil-cooled transformer)	Central portion of the Phase One Property	Item 55 - Transformer Manufacturing, Processing and Use	On-Site	PHCs BTEX PCBs	Soil
APEC-4 (2,000-gallon fuel oil tank (associated with an ‘oil house’))	South-central portion of the Phase One Property	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs BTEX PAHs	Soil and Groundwater

Area of Potential Environmental Concern[1]	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity[2]	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern[3]	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC-5 (10,000-gallon “nuso” oil tank (associated with an ‘oil house’))	South-central portion of the Phase One Property	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs BTEX PAHs	Soil and Groundwater
APEC-6 (Former 3,790-L varsol underground storage tank (UST))	Adjacent to the east elevation of Site Building D	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs BTEX PAHs VOCs	Soil and Groundwater
APEC-7 (Former varsol UST (size unknown))	Adjacent to the north elevation of Site Building D	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs BTEX PAHs VOCs	Soil and Groundwater

Area of Potential Environmental Concern[1]	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity[2]	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern[3]	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC-8 (Various former ASTs (contents unknown))	Adjacent to the north and west elevations of Site Building A	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs BTEX PAHs VOCs	Soil and Groundwater
APEC-9 (Former varsol UST (size unknown))	Near the south boundary of the Phase One Property, between Site Buildings A and E	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs BTEX PAHs VOCs	Soil and Groundwater
APEC-10 (Various gasoline and diesel USTs, associated with a former private fuel outlet)	East-central portion of the Phase One Property (near the boundary)	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs BTEX PAHs VOCs Metals	Soil and Groundwater

Area of Potential Environmental Concern[1]	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity[2]	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern[3]	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC-11 (Fill material identified on-Site by previous subsurface investigations)	Throughout the Phase One Property	Item 30 - Importation of Fill Material of Unknown Quality	On-Site	PAHs PHCs Metals As, Sb, Se B-HWS Cr (VI) Hg CN^- EC SAR	Soil
APEC-12 (Former diesel AST)	North-central portion of Site Building E.	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs BTEX PAHs	Soil
APEC-13 (Application of road salt)	Parking areas and walkways at the Phase One Property.	Other – Road Salting Activities	On-Site	EC SAR	Soil

Area of Potential Environmental Concern[1]	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity[2]	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern[3]	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC-14 (Automotive repair/servicing operation located at 1333 Avenue L)	East portion of the Phase One Property	Item 27 - Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	Off-Site	PHCs BTEX PAHs VOCs Metals	Groundwater
APEC-15 (Retail fuel outlet with associated USTs located at 1333 Avenue L)	East portion of the Phase One Property	Item 28 - Gasoline and Associated Products Storage in Fixed Tanks	Off-Site	PHCs BTEX PAHs VOCs Metals	Groundwater

Notes:

1 - Areas of potential environmental concern means the area on, in or under a phase one property where one or more contaminants are potentially present, as determined through the phase one environmental site assessment, including through,

(a) identification of past or present uses on, in or under the phase one property, and

(b) identification of potentially contaminating activity.

2 - Potentially contaminating activity means a use or activity set out in Column A of Table 2 of Schedule D that is occurring or has occurred in a Phase One Study Area

3 - When completing this column, identify all contaminants of potential concern using the Method Groups as identified in the Protocol for in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004, amended as of July 1, 2011, as specified below:

List of Method Groups:

Acids, Bases and Neutrals (ABNs)	Polychlorinated Biphenyls (PCBs)	Metals	Electrical Conductivity (EC)
Chlorophenols (CPs)	Polycyclic Aromatic Hydrocarbons (PAHs)	As, Sb, Se	Cr (VI)
1,4-Dioxane	THMs	Na	Hg
Dioxins/Furans, PCDDs/PCDFs	Volatile Organic Compounds (VOCs)	B-HWS	Methyl Mercury
OCs	Benzene, toluene, ethylbenzene and xylenes (BTEX)	Cl-	Low or high pH
PHCs	Ca, Mg	CN-	Sodium adsorption ratio (SAR)

4 - When submitting a record of site condition for filing, a copy of this table must be attached

The potential for environmental impact to the Phase One Property was based on a combined probability for a source to contaminate, and the contaminant's ability for migration on, or to the Phase One Property. This evaluation included factors such as distance of a PCA from the Phase One Property, groundwater flow direction, mobility of COPCs and potential for natural attenuation and lithology.

The COPCs associated with each APEC were determined based on several sources of information including, but not limited to, Pinchin's experience with environmental contamination and hazardous substances, common industry standards for analysis of such contaminants and point sources, literature reviews of COPCs and associated hazardous substances, and evaluations of contaminant mobility and susceptibility for migration in the subsurface.

A plan showing the location of the PCAs and Phase One Study Area is attached as Figure 3. The locations of the APECs on the Phase One Property are shown on Figure 5.

3.4 Phase Two ESA Summary

The Phase Two ESA was completed by Pinchin between May 14, 2021 to May 27, 2021 and included the advancement of 16 boreholes at the Phase Two Property, seven of which were completed as groundwater monitoring wells to facilitate the sampling of groundwater and the assessment of groundwater flow. The boreholes were advanced to depths ranging from approximately 1.52 to 3.66

metres below ground surface (mbgs). Select soil samples collected from each of the borehole locations were submitted for laboratory analysis of volatile organic compounds (VOCs), petroleum hydrocarbons (PHCs) fractions 1 through 4 (F1-F4), polycyclic aromatic hydrocarbons (PAHs), acids, bases, and neutrals (ABNs), polychlorinated biphenyls (PCBs), chlorophenols, metals and/or inorganic parameters. In addition, groundwater samples were collected from each of the newly-installed monitoring wells, as well as four previously-installed monitoring wells, and submitted for laboratory analysis of VOCs, PHCs, PAHs, ABNs, chlorophenols, metals and/or inorganic parameters.

Based on Site-specific information, the applicable regulatory standards for the Phase Two Property were determined to be the *"Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition",* provided in the MECP document entitled, "*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*" dated April 15, 2011 *(Table 3 Standards)* for medium and fine-textured soils and residential/parkland/institutional property use.

The laboratory results for the submitted soil samples indicated that all reported concentrations for the parameters analyzed met the corresponding *Table 3 Standards*, except for the following:

- The concentrations of chlorobenzene (6.3 micrograms per gram [µg/g] vs. the *Table 3 Standard* of 2.7 µg/g) and 1,4-Dichlorobenzene (81 µg/g vs. the *Table 3 Standard* of 0.097 µg/g) reported for soil sample SS-3, collected at borehole BH209 from a depth of 1.22 to 1.83 mbgs, exceeded the *Table 3 Standards*;
- The concentration of 1,4-Dichlorobenzene (0.15 µg/g vs. the *Table 3 Standard* of 0.097 µg/g) reported for soil sample SS-3, collected at borehole MW210 from a depth of 1.22 to 1.83 mbgs, exceeded the *Table 3 Standards*;
- The concentration of 1,4-Dichlorobenzene (0.13 µg/g vs. the *Table 3 Standard* of 0.097 µg/g) reported for soil sample DUP-1 (field duplicate of soil sample SS-3), collected at borehole MW210 from a depth of 1.22 to 1.83 mbgs, exceeded the *Table 3 Standards*;
- The concentrations of PHCs F2 (1,300 µg/g vs. the *Table 3 Standard* of 150 µg/g) and PHCs F3 (15,000 µg/g vs. the *Table 3 Standard* of 1,300 µg/g) reported for soil sample SS-1, collected at borehole BH206 from a depth of 0 to 0.51 mbgs, exceeded the *Table 3 Standards*;
- The concentration of PHCs F3 (1,800 µg/g vs. the *Table 3 Standard* of 1,300 µg/g) reported for soil sample SS-3, collected at borehole MW210 from a depth of 1.22 to 1.83 mbgs, exceeded the *Table 3 Standards*;

- The concentrations of PHCs F2 (230 µg/g vs. the *Table 3 Standard* of 150 µg/g) and PHCs F3 (1,700 µg/g vs. the *Table 3 Standard* of 1,300 µg/g) reported for soil sample DUP-1 (field duplicate of soil sample SS-3), collected at borehole MW210 from a depth of 1.22 to 1.83 mbgs, exceeded the *Table 3 Standards*;
- The concentrations of benzo(a)pyrene (0.51 µg/g vs. the *Table 3 Standard* of 0.3 µg/g), and fluoranthene (1.1 µg/g vs. the *Table 3 Standard* of 0.69 µg/g) reported for soil sample SS-1, collected at borehole BH201 from a depth of 0.15 to 0.75 mbgs, exceeded the *Table 3 Standards*;
- The concentrations of anthracene (1.2 µg/g vs. the *Table 3 Standard* of 0.74 µg/g), benzo(a)anthracene (2.5 µg/g vs. the *Table 3 Standard* of 0.63 µg/g), benzo(a)pyrene (2.2 µg/g vs. the *Table 3 Standard* of 0.3 µg/g), benzo(b)fluoranthene (2.9 µg/g vs. the *Table 3 Standard* of 0.78 µg/g), benzo(k)fluoranthene (1.1 µg/g vs. the *Table 3 Standard* of 0.78 µg/g), dibenzo(a,h)anthracene (0.36 µg/g vs. the *Table 3 Standard* of 0.1 µg/g), fluoranthene (6.6 µg/g vs. the *Table 3 Standard* of 0.69 µg/g),and indeno(1,2,3-c,d)pyrene (1.3 µg/g vs. the *Table 3 Standard* of 0.48 µg/g) reported for soil sample SS-1, collected at borehole BH202 from a depth of 0.15 to 0.75 mbgs, exceeded the *Table 3 Standards*;
- The concentrations of benzo(a)pyrene (0.42 µg/g vs. the *Table 3 Standard* of 0.3 µg/g), and fluoranthene (0.82 µg/g vs. the *Table 3 Standard* of 0.69 µg/g) reported for soil sample SS-1, collected at borehole BH203 from a depth of 0.15 to 0.75 mbgs, exceeded the *Table 3 Standards*;
- The concentrations of benzo(a)pyrene (0.32 µg/g vs. the *Table 3 Standard* of 0.3 µg/g), and fluoranthene (0.85 µg/g vs. the *Table 3 Standard* of 0.69 µg/g) reported for soil sample SS-1, collected at borehole BH205 from a depth of 0.15 to 0.75 mbgs, exceeded the *Table 3 Standards*;
- The concentrations of acenaphthene (60 µg/g vs. the *Table 3 Standard* of 58 µg/g), acenaphthylene (12 µg/g vs. the *Table 3 Standard* of 0.17 µg/g), anthracene (110 µg/g vs. the *Table 3 Standard* of 0.74 µg/g), benzo(a)anthracene (140 µg/g vs. the *Table 3 Standard* of 0.63 µg/g), benzo(a)pyrene (99 µg/g vs. the *Table 3 Standard* of 0.3 µg/g), benzo(b)fluoranthene (150 µg/g vs. the *Table 3 Standard* of 0.78 µg/g), benzo(ghi)perylene (47 µg/g vs. the *Table 3 Standard* of 7.8 µg/g), benzo(k)fluoranthene (44 µg/g vs. the *Table 3 Standard* of 0.78 µg/g), chrysene (110 µg/g vs. the *Table 3 Standard* of 7.8 µg/g), dibenzo(a,h)anthracene (13 µg/g vs. the *Table 3 Standard* of 0.1 µg/g), fluoranthene (410 µg/g vs. the *Table 3 Standard* of 0.69 µg/g), fluorene (93 µg/g vs. the *Table 3 Standard* of 69 µg/g), indeno(1,2,3-c,d)pyrene (53 µg/g vs. the *Table 3*

Standard of 0.48 µg/g), 1- & 2-methylnaphthalene (47 µg/g vs. the *Table 3 Standard* of 0.99 µg/g), naphthalene (48 µg/g vs. the *Table 3 Standard* of 0.75 µg/g), phenanthrene (430 µg/g vs. the *Table 3 Standard* of 7.8 µg/g) and pyrene (300 µg/g vs. the *Table 3 Standard* of 78 µg/g) reported for soil sample SS-1, collected at borehole BH206 from a depth of 0.15 to 0.51 mbgs, exceeded the *Table 3 Standards*;

- The concentrations of anthracene (6 µg/g vs. the *Table 3 Standard* of 0.74 µg/g), benzo(a)anthracene (8.6 µg/g vs. the *Table 3 Standard* of 0.63 µg/g), benzo(a)pyrene (7.1 µg/g vs. the *Table 3 Standard* of 0.3 µg/g), benzo(b)fluoranthene (8.6 µg/g vs. the *Table 3 Standard* of 0.78 µg/g), benzo(k)fluoranthene (3 µg/g vs. the *Table 3 Standard* of 0.78 µg/g), dibenzo(a,h)anthracene (0.9 µg/g vs. the *Table 3 Standard* of 0.1 µg/g), fluoranthene (23 µg/g vs. the *Table 3 Standard* of 0.69 µg/g), indeno(1,2,3-c,d)pyrene (3.9 µg/g vs. the *Table 3 Standard* of 0.48 µg/g) and phenanthrene (430 µg/g vs. the *Table 3 Standard* of 7.8 µg/g) reported for soil sample SS-1, collected at borehole MW214 from a depth of 0.15 to 0.75 mbgs, exceeded the *Table 3 Standards*;
- The concentration of lead (120 µg/g vs. the *Table 3 Standard* of 120 µg/g) reported for soil sample SS-1 collected at borehole BH202 from a depth of 0.15 to 0.75 mbgs, exceeded the *Table 3 Standards*;
- The concentrations of electrical conductivity (1.8 milliSiemens per centimetre [mS/cm] vs. the *Table 3 Standard* of 0.7 mS/cm) and sodium adsorption ratio (12 vs. the *Table 3 Standard* of 5) reported for soil sample SS-1 collected at borehole BH203 from a depth of 0.15 to 0.75 mbgs, exceeded the *Table 3 Standards*;
- The concentrations of electrical conductivity 1.1 mS/cm vs. the *Table 3 Standard* of 0.7 mS/cm) and sodium adsorption ratio (5.6 vs. the *Table 3 Standard* of 5) reported for soil sample SS-1 collected at borehole BH204 from a depth of 0.15 to 0.75 mbgs, exceeded the *Table 3 Standards*;
- The concentrations of electrical conductivity (1.2 mS/cm vs. the *Table 3 Standard* of 0.7 mS/cm) and sodium adsorption ratio (6.4 vs. the *Table 3 Standard* of 5) reported for soil sample DUP-3 (field duplicated of soil sample SS-1) collected at borehole BH204 from a depth of 0.15 to 0.75 mbgs, exceeded the *Table 3 Standards*;
- The concentration of electrical conductivity (1.3 mS/cm vs. the *Table 3 Standard* of 0.7 mS/cm) reported for soil sample SS-1 collected at borehole BH205 from a depth of 0.15 to 0.75 mbgs, exceeded the *Table 3 Standards*;

- The concentrations of cadmium (2.1 µg/g vs. the *Table 3 Standard* of 1.2 µg/g), lead (180 µg/g vs. the *Table 3 Standard* of 120 µg/g) and zinc (500 µg/g vs. the *Table 3 Standard* of 340 µg/g) reported for soil sample SS-1 collected at borehole BH206 from a depth of 0.15 to 0.51 mbgs, exceeded the *Table 3 Standards*;
- The concentration of electrical conductivity (1.2 mS/cm vs. the *Table 3 Standard* of 0.7 mS/cm) reported for soil sample SS-1 collected at borehole MW208 from a depth of 0.15 to 0.75 mbgs, exceeded the *Table 3 Standards*;
- The concentration of sodium adsorption ratio (13 vs. the *Table 3 Standard* of 5) reported for soil sample SS-1 collected at borehole MW214 from a depth of 0.15 to 0.75 mbgs, exceeded the *Table 3 Standards*; and
- The concentrations of cadmium (15 µg/g vs. the *Table 3 Standard* of 1.2 µg/g), copper (400 µg/g vs. the *Table 3 Standard* of 180 µg/g), lead (340 µg/g vs. the *Table 3 Standard* of 120 µg/g), zinc (400 µg/g vs. the *Table 3 Standard* of 340 µg/g), electrical conductivity value (2 mS/cm vs. the *Table 3 Standard* of 0.7 mS/cm) and sodium adsorption ratio (7.8 vs. the *Table 3 Standard* of 5) reported for soil sample SS-2 collected at borehole BH207 from a depth of 0.51 to 1.22 mbgs, exceeded the *Table 3 Standards*.

Several soil samples reported electrical conductivity (EC) and sodium adsorption ratio (SAR) levels exceeding the *Table 3 Standards* but the elevated EC and SAR levels have been attributed to the application of road salt on roadways adjacent to the Phase Two Property. The road salt contaminant exemption in O. Reg. 153/04 is considered applicable in this situation and EC and SAR are not considered contaminants at the Phase Two Property.

The laboratory results for the submitted groundwater samples indicated that all reported concentrations for the parameters analyzed met the corresponding *Table 3 Standards*.

With respect to the identified soil parameter exceedances summarized above, remediation to meet the *Table 3 Standards* and/or the completion of a Risk Assessment in accordance with O. Reg. 153/04 will be required to develop Property Specific Standards for the parameters exceeding the *Table 3 Standards* before an RSC can be filed by the QP for the Phase Two Property. It is Pinchin's understanding that all soil impacts will be removed during the proposed re-development of the Site.

3.5 Updated Phase One Conceptual Site Model

A conceptual site model (CSM) was created to provide a summary of the findings of the Update Phase One ESA. The Phase One CSM is summarized in Figures 1 through 6, which illustrate the following features within the Phase One Study Area, where present:

- Existing buildings and structures;

- Water bodies located in whole or in part within the Phase One Study Area;
- Areas of natural significance located in whole or in part within the Phase One Study Area;
- Drinking water wells located at the Phase One Property;
- Land use of adjacent properties;
- Roads within the Phase One Study Area;
- PCAs within the Phase One Study Area, including the locations of tanks; and
- APECs at the Phase One Property.

The following provides a narrative summary of the Updated Phase One CSM:

- The Phase One Property is an irregular-shaped parcel of land approximately 5.0 acres (2.0 hectares) in size, located approximately 30 m south of Tremblay Road, between Pickering Place and Avenue L, in the City of Ottawa. The Phase One Property is improved with six industrial buildings (Site Buildings A to F) and has been utilized for industrial purposes (i.e., cleaning product manufacturing) since its inferred initial development in approximately 1913. At the time of the most recent Site reconnaissance, the Site Buildings were being demolished, with the exception of Site Building C which was still standing;
- No water bodies were identified within the Phase One Study Area. The nearest water body is the Rideau River, which is located approximately 900 m west of the Phase One Property;
- No areas of natural significance were identified within the Phase One Study Area;
- No drinking water wells were located on the Phase One Property;
- The adjacent and surrounding properties consist of vacant, residential, commercial, and light industrial land uses. The adjacent properties located north of the Phase One Property consist of a parking lot and Tremblay Road; the adjacent properties located south of the Phase One Property consist of a parking lot, commercial/light industrial buildings and vacant undeveloped land; the adjacent properties located east of the Phase One Property consist of Avenue L and Belfast Road; and the adjacent property located west of the Phase One Property consists of Pickering Place;
- A total of 20 PCAs were identified within the Phase One Study Area, consisting of 11 PCAs at the Phase One Property and nine PCAs within the Phase One Study Area, outside of the Phase One Property. Given the distance from the PCAs to the Phase One Property, their downgradient or transgradient locations relative to the inferred groundwater flow direction in the Phase One Study Area and/or the nature of operations

and potential contaminants related to these operations, a total of seven off-Site PCAs are not considered to result in APECs at the Phase One Property. All other PCAs identified within the Phase One Study Area represent APECs at the Phase One Property. Figure 6 provides a detailed summary of the APECs and associated PCAs and COPCs;

- Underground utilities at the Phase One Property provide potable water, natural gas, electrical, telephone, cable, and sewer services to the Site Building. These services enter the Site Buildings through subsurface conduits, with the exception of pressurized natural gas lines, which run overland and connect to meters located on the exteriors of the Site Buildings. Storm sewer catch basins located in the parking lots and exterior storage areas connect to the municipal storm sewer line. Plans were not available to confirm the depths of these utilities but they are estimated to be located approximately 2 to 3 mbgs. The known depth to groundwater at the Phase One Property is approximately 1.5 to 2.3 mbgs, which coincides with the approximate depth of the utilities. As such, it is possible that the utility corridors may act as preferential pathways for contaminant distribution and transport in the event that shallow subsurface contaminants exist at the Phase One Property;
- The Phase One Property and the surrounding properties located within the Phase One Study Area are located within alluvial deposits consisting of stratified gravel, sand, silt, and clay. Bedrock is expected to consist of sandstone, shale, dolostone, and siltstone. The topography is considered to be mainly flat to rolling low local relief with dry surface water drainage conditions. During previous on-Site environmental investigations, the soil stratigraphy was observed to consist of fill material comprised of sand and gravel to an approximate depth of 3.0 mbgs. Native subsurface material underlying the fill material was observed to generally consist of silt, clay and silty clay that extended to the maximum borehole completion depth of 7.0 mbgs. Moist to wet soil conditions were generally observed between approximately 1.5 and 2.3 mbgs; and
- The Phase One Property is relatively flat with little relief. The area surrounding the Phase One Property slopes gradually to the north. Local groundwater flow is inferred to be to the west, based on the location of the Rideau River. Regional groundwater flow is inferred to be to the northwest towards the Ottawa River.

There were no deviations from the Phase One ESA requirements specified in O. Reg. 153/04 or absence of information that have resulted in uncertainty that would affect the validity of the Phase One CSM.

4.0 CONCLUSIONS

Pinchin conducted this Phase One ESA Update in order to satisfy the requirements of O. Reg. 153/04. No additional PCAs or APECs beyond that which was previously identified in the 2021 Pinchin Phase One ESA.

The conclusions of this Phase One ESA Update represent the best judgment of the assessor and QP based on the conditions of the Phase One Property observed since completion of the 2021 Pinchin Phase One ESA Report. The combined 2021 Pinchin Phase One ESA Report and the Phase One ESA Update constitute the Phase One ESA reporting requirements necessary to support the filing of an RSC in accordance with O. Reg. 153/04.

The Update Phase One ESA of the property located at 25 Pickering Place and 1330 Avenue K, in Ottawa, Ontario has been conducted in accordance with O. Reg. 153/04, under the supervision of a QP.

5.0 TERMS AND LIMITATIONS

This Phase One ESA Update was performed in order to identify potential issues of environmental concern associated with the Phase One Property located at 25 Pickering Place and 1330 Avenue K, in Ottawa, Ontario (Phase One Property) since the time of the initial Site reconnaissance on July 2, 2020. This Phase One ESA Update was performed in general compliance with currently acceptable practices for environmental site investigations, and specific client requests, as applicable to this Phase One Property.

This report was prepared for the exclusive use of 25 Pickering Holdings Inc., subject to the terms, conditions and limitations contained within the duly authorized work plan for this project. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, is the sole responsibility of such third parties. Pinchin accepts no responsibility for damages suffered by any third party as a result of decisions made or actions conducted.

If additional parties require reliance on this report, written authorization from Pinchin will be required. Such reliance will only be provided by Pinchin following written authorization from the Client. Pinchin disclaims responsibility of consequential financial effects on transactions or property values, or requirements for follow-up actions and costs. No other warranties are implied or expressed. Furthermore, this report should not be construed as legal advice. Pinchin will not provide results or information to any party unless disclosure by Pinchin is required by law.

The information provided in this report is based upon analysis of available documents, records and drawings, and personal interviews. In evaluating the Site, Pinchin has relied in good faith on information provided by other individuals noted in this report. Pinchin has assumed that the information provided is factual and accurate. In addition, the findings in this report are based, to a large degree, upon information provided by the current owner/occupant. Pinchin accepts no responsibility for any deficiency,

misstatement or inaccuracy contained in this report as a result of omissions, misinterpretations or fraudulent acts of persons interviewed or contacted, or contained in reports that were reviewed.

Pinchin makes no other representations whatsoever, including those concerning the legal significance of its findings, or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to interpretation and these interpretations may change over time.

We trust that the information provided in this report meets your current requirements. If you have any questions or concerns, please do not hesitate to contact the undersigned.

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Encl: Appendix I – Figures
Appendix II – Photographs

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Template: Phase I ESA Stage 1 PSI Update Report Template, EDR, June 6, 2023

APPENDIX I
Figures

APPENDIX II

Photographs

Photo 1 – Building debris/rubble from former Site Buildings (currently being demolished).

Photo 2 – North adjacent property, looking northeast.

Photo 3 – Automotive repair facility located east of the Phase One Property at 1333 Avenue K (PCA-14).

Photo 4 – Site Building C, the only Site Building that currently remains on-Site.