RAIN CARBON INC.

REPORT

August 2025 Ambient Air Monitoring Report

Rain Carbon Canada Inc.

Submitted by:

Rain Carbon Canada Inc.

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Distribution List

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APPENDICES

1.0 INTRODUCTION

Rain Carbon Canada Inc. (Rain Carbon) is required to prepare monthly written summary reports of benzo(a)pyrene [B(a)P] and benzene ambient monitoring measurements for the coal tar and petroleum material processing plant located at 725 Strathearne Avenue N., Hamilton, Ontario (the Facility). This is the eighty second monthly report submitted as part of the Rain Carbon ambient monitoring program and summarizes the measurements taken in August 2025.

The ambient air monitoring measurements for August 2025 follow the December 12, 2019, Monitoring Plan for B(a)P and Benzene (the Plan) approved by the Ontario Ministry of the Environment, Conservation and Parks (MECP) on December 20, 2019. A copy of the Plan has been provided in Appendix A.

Rain Carbon operates the fence line monitors for benzene and B(a)P at the East, North, South, New West, and Old West environmental monitoring stations. Rain Carbon conducted monitoring for benzene and B(a)P monitoring off site at the HAMN station 29164 from August 2022 through December 2022 and resumed monitoring on August 7, 2023.

This report includes the following information for measurements taken in August 2025:

- Identification of each location at which a measurement was taken.
- For each location, the concentration of each measurement taken.
- The date and time each measurement was taken.

2.0 AMBIENT MONITORING STATIONS

The monitoring program consists of setting up two types of sampling systems at five locations at the Facility. The two sampling systems included the polyurethane foam (PUF) polyaromatic hydrocarbon (PAH) sampling system for B(a)P and the SUMMA volatile organic carbon (VOC) canister sampling system for benzene. Samples were collected over a 24-hour period. The monitoring stations are listed below, and their locations are shown in Figure 1.

Table 1: Rain Carbon Ambient Air Quality Monitoring Stations

Station Location	Height Above Grade (m)
North - Tank 91	4.1
East - South of Tank-36	3.4
South - Berm	3.2
New West – West Fence line at Railcar Track 2 Spot 10.	4.0
Old West - Tank-77 Platform	13.0
Hamilton Area Monitoring Network (HAMN) Station 29164	4.0

The South berm monitor is placed just over two metres above grade by the berm located on the south side of the Facility as shown in Figure 2. The Old West monitor at Tank 77 is placed on the upper platform located on the west side of the Facility as shown in Figure 3. The platform is approximately 13 metres above grade. As shown in Figure 4, the North monitor is located at the north fence line, north of Tank 91, and placed 4.1 metres above grade and at least 2 metres away from any structure. The East monitor is at the east fence line, south of Tank 36, with an inlet height of 3.4 metres above grade. The New West monitor is located at the west fence line on a new dedicated stand-alone platform at approximately 4 metres above grade.

Air quality data acquisition and instrument performance were conducted by Rain Carbon Canada Inc. personnel and the laboratory analysis was conducted by Bureau Veritas Laboratories, which is ISO1702 compliant and accredited. The following supporting documents are provided:

- Laboratory Analysis in Appendix B;
- Chain of custody forms in Appendix C;
- Laboratory Certificates of Analysis in Appendix D; and
- Field notes in Appendix E.

Figure 1: Monitor and Source Locations

Figure 2: Monitor Location on the South Side of the Facility

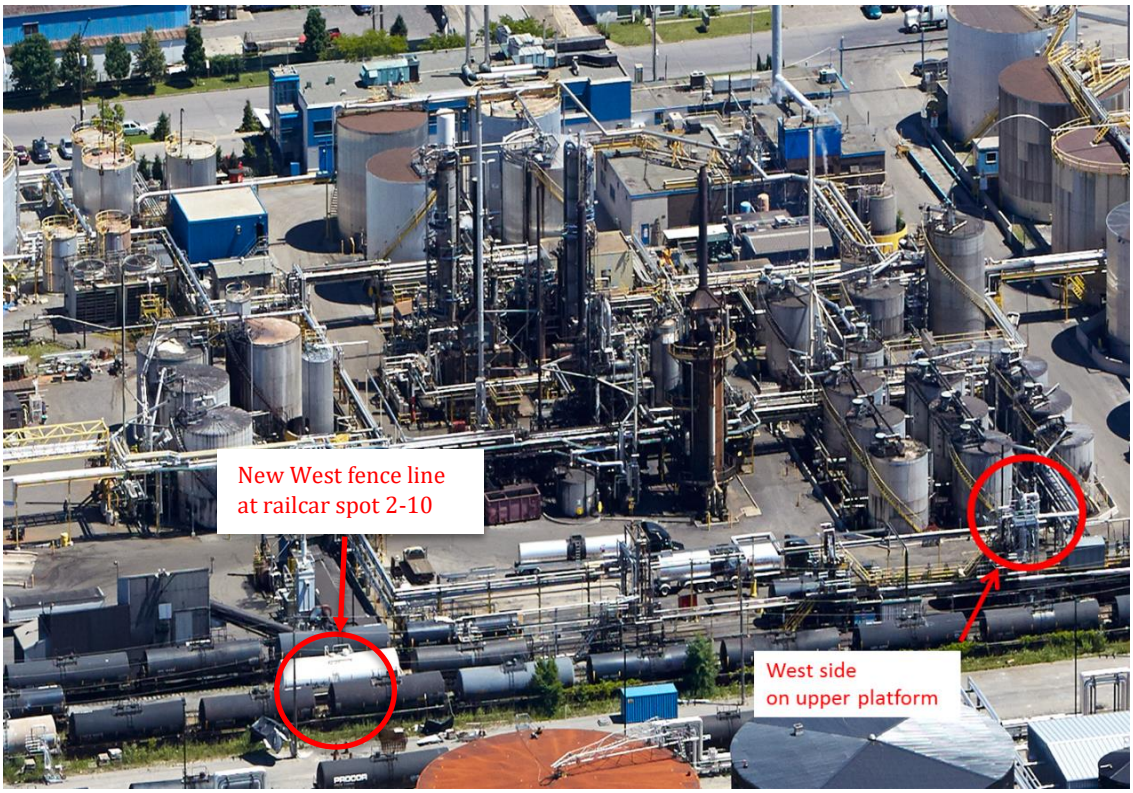

Figure 3: Monitor Locations on the West Side of the Facility

Figure 4: Monitor Locations on the North Side and East Side of the Facility

3.0 SUMMARY OF MONITORING EQUIPMENT CONDITIONS

The laboratory Certificate of Analysis for each monitoring event includes information on the volume of the sample collected for the PUF (B(a)P) monitoring system, and the residual vacuum pressures for the SUMMA canisters (benzene) monitoring equipment. For the PUF system, the MECP has flow requirements of 8 CFM +/- 10% which is equivalent to total volumes between 293.6 m^3 and 358.8 m^3 over 24 hours. The summa canister pressures on receipt and PUF filter total volumes are presented below in Tables 2 and 3.

For the August 2025 B(a)P monitoring results, all the recorded PUF volumes were inside the MECP specified range of between 293.6 m^3 and 358.8 m^3 over 24 hours

For the August 2025 benzene monitoring results, all the summa canister pressures on receipt were within the MECP acceptable pressure of receipt of between -1.6 to -13.4 inches Hg except for at the east and north VOC monitors on the **Sunday August 17, 2025, MECP monitoring event**.

The east VOC monitor recorded summa canister pressures on receipt of – 13.84 inches Hg likely due to the very high ambient air temperature on the **Sunday August 17, 2025, MECP monitoring event** impacting the east monitor VOC sampler timer air flows.

The north VOC monitor recorded summa canister pressures on receipt of – 30.00 inches Hg likely due to the VOC sampler timer internal valve failing to open on the **Sunday August 17, 2025, MECP monitoring event** so that no sample was obtained at the north VOC monitor.

The north VOC monitor was successfully operated again on the **Wednesday August 20, 2025, additional north VOC monitor monitoring event** and the east VOC monitor was successfully operated again on the **Tuesday August 26, 2025, additional east VOC monitor monitoring event.**

Prior to the **Friday August 29, 2025, MECP monitoring event**, Rotek Inc. conducted the Q3 2025 cleaning, service, repair and calibration of all B(a)P and VOC monitors on **Wednesday August 27, 2025.**

The B(a)P monitor motors were all replaced and the east and north VOC monitor MFC flowrates were increased slightly for the warm weather conditions in order to elevate slightly the final summa canister pressures on receipt at these two locations.

Table 2: Summa Canister Pressures on Receipt (inches Hg)

Monitoring Event Date	Benzene SUMMA Canister Pressure on Receipt (inches Hg)					
	East	North	Old West	South	New West	HAMN STN 29164
August 5	- 8.35	- 9.16	- 10.18*	-10.99*	- 8.75	-9.16
August 17	**-13.84****	**- 30.00****	-10.18*	-12.42*	- 8.14	-7.74
August 20, 2025, North VOC Monitor additional monitoring event	-	- 9.16	-	-	-	-
Tuesday August 26, 2025, East VOC Monitor additional monitoring event.	-7.74	-	-	-	-	-
August 29	- 8.96	- 5.50	- 5.90	- 5.09	- 7.33	-8.35

*Sample is acceptable as within the MECP acceptable pressure of receipt of between -1.6 to -13.4 inches Hg but outside the MECP recommended pressure on receipt range of - 5 to -10 inches Hg.

** Sample is invalid as the Summa canister pressure on receipt was outside the MECP acceptable range of -1.6 to -13.4 inches Hg.

Table 3: PUF Filter Total Volumes

Monitoring Event Date	+B(a)P PUF Total Volume [m^3]					
	East	North	Old West	South	New West	HAMN STN 29164
August 5	333.8	310.8	321.5	320.4	318.7	317.2
August 17	328.2	301.9	313.7	321.9	319.5	310.1
August 29	322.1	311.8	316.7	321.9	314.2	310.4

4.0 SUMMARY OF BENZENE MEASUREMENTS

Table 4: Summary of August 2025 Benzene Measurements

Monitoring Event Date		Measured Concentration [µg/m^3]				
	East	**North**	**Old West**	**South**	**New West**	**HAMN STN 29164**
August 5	5.16	1.40	8.99*	45.1*	3.25	0.783
August 17	**Invalid sample****	**No sample****	4.39	15.8	2.53	0.513
August 20, 2025, North VOC Monitor additional monitoring event.	**-**	0.428	-	-	-	-
August 26, 2025, East VOC Monitor additional monitoring event.	15.3	**-**	-	-	-	-
August 29	11.8	2.43	1.84	43.4	2.09	1.04

*Sample is acceptable as within the MECP acceptable pressure of receipt of between -1.6 to -13.4 inches Hg but outside the MECP recommended pressure on receipt range of - 5 to -10 inches Hg.

** Sample is invalid as the Summa canister pressure on receipt was outside the MECP acceptable range of -1.6 to -13.4 inches Hg.

Three sets of benzene measurements were taken in August 2025. In addition, the north VOC monitor was successfully operated again on the **Wednesday August 20, 2025, additional north VOC monitor monitoring event** and the east VOC monitor was successfully operated again on the **Tuesday August 26, 2025, additional east VOC monitor monitoring event.** The measurements range from 0.513 µg/m^3 to **45.1 µg/m^3 benzene**, with the highest value being detected at the **south monitor** during the **Tuesday August 5, 2025, MECP monitoring event**.

All the benzene concentrations measured during the August 2025 MECP monitoring events were below the 24-hour Upper Risk Threshold (URT) of 100 µg/m^3 benzene.

5.0 SUMMARY OF B(a)P MEASUREMENTS.

Table 5: Summary of August 2025 B(a)P Measurements.

Monitoring Event Date		Measured Concentration [µg/m³]				
	East	North	Old West	South	New West	HAMN STN 29164
August 5	< 0.00030	< 0.00032	0.00075	0.00069	0.00075	< 0.00032
August 17	0.00030	< 0.00033	0.00077	0.00068	0.00031	< 0.00032
August 29	0.00217	0.00301	0.00120	0.00130	0.00153	0.00110

Three sets of B(a)P measurements were taken in August 2025. The B(a)P measurements ranged from < 0.00030 µg/m^3 to **0.00301 µg/m^3 B(a)P,** with the highest value being detected at the **north monitor** during the **Friday August 29, 2025, monitoring event**. All the B(a)P measurements are summarized in Table 5 above, and copies of the laboratory analysis reports are provided in Appendix B.

All the B(a)P concentrations measured during the three August 2025 monitoring events were below the **0.0043 µg/m^3 Measured Level Threshold (MLT)** and below the **24-hr Upper Risk Threshold (URT) of 0.0050 µg/m^3 B(a)P.**

6.0 CONCLUSIONS

All of the B(a)P concentrations measured during the three August 2025 monitoring events were below the 0.0043 μg/m^3 Measured Level Threshold (MLT) and below the 24-hr Upper Risk Threshold (URT) of 0.0050 μg/m^3 B(a)P.

All the benzene concentrations measured during the three August 2025 MECP monitoring events were below the 24-hour Upper Risk Threshold (URT) of 100 μg/m^3 benzene.

All of the summa canister pressures on receipt were within the MECP acceptable pressure of receipt of between -1.6 to -13.4 inches Hg except for at the east and north VOC monitors on the **Sunday August 17, 2025, MECP monitoring event**.

The east VOC monitor recorded summa canister pressures on receipt of – 13.84 inches Hg likely due to the very high ambient air temperature on the **Sunday August 17, 2025, MECP monitoring event** impacting the east monitor VOC sampler timer air flows. The north VOC monitor recorded summa canister pressures on receipt of – 30.00 inches Hg likely due to the VOC sampler timer internal valve failing to open on the **Sunday August 17, 2025, MECP monitoring event** so that no sample was obtained at the north VOC monitor.

The north VOC monitor was successfully operated again on the **Wednesday August 20, 2025, additional north VOC monitor monitoring event** and the east VOC monitor was successfully operated again on the **Tuesday August 26, 2025, additional east VOC monitor monitoring event.**

Signature Page

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APPENDIX A

Monitoring Plan

APPENDIX B

Laboratory Analysis

APPENDIX C

Chain of Custody Forms

APPENDIX D

Certificates of Analysis

APPENDIX E

Field Notes