RAIN CARBON INC.

REPORT

December 2025 B(a)P Sampling Results Above Measured Level Report

Rain Carbon Canada Inc.

Submitted by:

Rain Carbon Canada Inc.

725 Strathearne Avenue North
Hamilton, Ontario
L8H 5L3

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Rain Carbon Canada Inc. | 725 Strathearne Avenue North | Hamilton, ON L8H 5L3 | Tel: +1 905.544.2891 | Fax: +1 905.544.4942

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Table of Contents

1.0 INTRODUCTION 1

2.0 B(A)P MONITORING 2

2.1 Facility Conditions During Monitoring 4

3.0 MONITORING RESULTS AND ANALYSIS 5

4.0 CONCLUSIONS 10

1. TABLES

Table 1: Summary of December 2025 B(a)P Measurements 3

Table 2: Summary of Facility Activities on December 3 and 15, 2025, Sampling Dates 4

Table 3: Summary of Wind Conditions, Facility Operations and Measured B(a)P Concentrations during December 3, 2025, ... 6

Table 4: Summary of Wind Conditions, Facility Operations and Measured B(a)P Concentrations during December 15, 2025, ... 7

Table 5: Conclusions 10

FIGURES

Figure 1: Monitor and Source Locations 2

1.0 INTRODUCTION

The ambient air monitoring measurements for December 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.**

As required by the Plan, Rain completed three monitoring events in the month of December 2025 (December 3, 15, and 27) and submitted a monthly summary report to the MECP entitled “December 2025 Ambient Air Monitoring Report” (the AAMR).

As presented in the December 2025 AAMR, there were two B(a)P concentrations recorded above the 0.0043 µg/m³ Measured Level threshold which triggered the preparation of this report, as set out in the **ECA #7313-8KEN49 Notice No.1 issued November 17, 2022.**

This report includes information on the causes and prevention of future concentrations above the Measured Level threshold. Where possible, this report will include the following items as per the **ECA #7313-8KEN49 Notice No.1 issued November 17, 2022.**

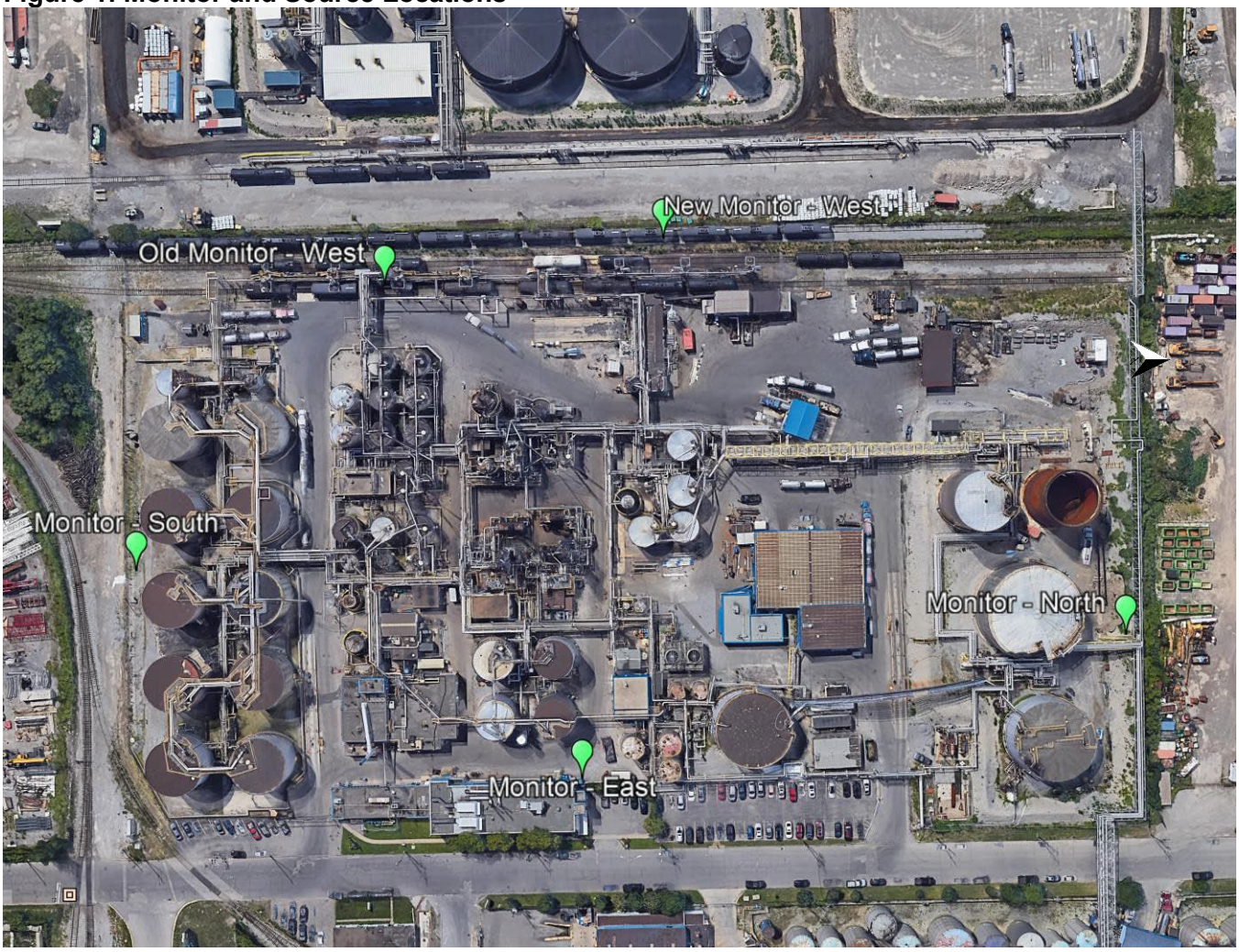
An analysis of what may have caused the B(a)P concentration to be above the Measured Level Threshold.

- Production rate(s) at the time measuring B(a)P concentrations to be above the Measured Level Threshold.
- An assessment of additional equipment, technically feasible methods and operational measures that are available to further minimize the likelihood of measurements above the Measured Level Threshold; and
- A proposed schedule to implement any actions that would minimize the likelihood of measurements above the Measured Level Threshold.

2.0 B(A)P MONITORING

The monitoring program for B(a)P consists of setting up a polyurethane foam (PUF) polyaromatic hydrocarbon (PAH) sampling system at five locations at the Facility, as presented in Figure 1 and also at the HAMN Station 29164. Samples were collected over a 24-hour period. Air quality data acquisition and instrument performance were evaluated by Rain Carbon Canada Inc. personnel. The laboratory analysis was conducted by Bureau Veritas Laboratories, which is ISO17025 compliant and accredited.

Figure 1: Monitor and Source Locations



The B(a)P measurements ranged from < 0.00029 µg/m³ to **0.0182 µg/m³**.

The MECP included a Measured Level threshold as a trigger to evaluate progress on B(a)P emission reduction. This level set by the MECP is not directly related to the ESDM Report results. Two of the B(a)P concentrations measured on **December 3 and 15, 2025**, **were above the 0.00430 µg/m³ Measured Level threshold** which triggered the preparation of this report, as set out in the ECA #7313-8KEN49 Notice No.1 issued November 17, 2022, and both measurements were also **above the 0.00500 µg/m³ B(a)P Upper Risk Threshold (URT)**.

Table 1: Summary of December 2025 B(a)P Measurements.

Monitoring Event Date		Measured Concentration [µg/m³]				
	East	North	Old West	South	New West	HAMN STN 29164
December 3	0.00058	0.00130	**0.00674***	< 0.00032	0.00085	<0.00029
December 15	**0.0182***	0.00072	<0.00029	<0.00031	<0.00030	<0.00029
December 27	<0.00029	<0.00030	<0.00029	<0.00031	<0.00030	0.00125

***B(a)P measurement above the 0.00430 µg/m³ B(a)P Measured Level threshold.**

2.1 Facility Conditions During Monitoring

The Facility was undergoing normal operations during December 3 and 15, 2025, monitoring events. Table 2 summarizes the daily vehicle loading activities at the Facility during December 3 and 15, 2025, monitoring events at the sources previously identified as the main contributors to B(a)P emissions.

Table 2: Summary of Facility Activities on December 3 and 15, 2025,

Monitoring Event	Area	Modelling Source ID	Daily Vehicle Loading [US gal]				
			Pitch	Creosote	Naphthalene Oil	LPSB	RT-12
December 3, 2025	Railcar Loading	LS3	35,459	37,963	0	0	0
	Truck Loading	LS2	0	0	0	0	0
	Truck Loading	LS4	52,737	0	0	0	0
December 15, 2025	Railcar Loading	LS3	0	0	0	0	0
	Truck Loading	LS2	0	0	19,654	0	0
	Truck Loading	LS4	55,246	0	0	0	0

The daily vehicle loading data is based on information derived from the Systems, Application and Products (SAP) Enterprise Resource Planning software system which tracks the amount of material loaded into trailers and rail cars in kilograms. This data was converted to US gallons, representing the amount of material loaded during the monitoring event (i.e., daily amount loaded). This daily loading data allows for a better representation of Facility conditions during the 24-hour monitoring events.

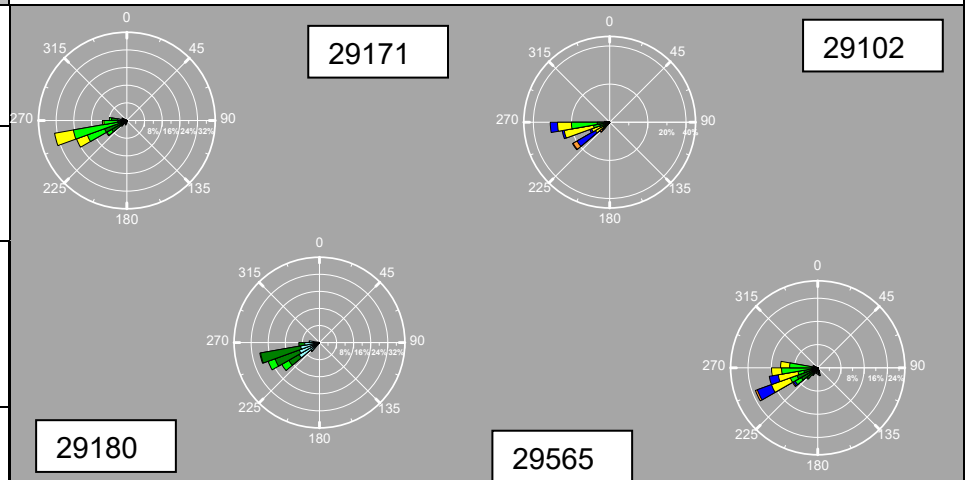
The monitoring and control of loading volumes is part of Standard Operation Procedures (SOPS) for material loading.

3.0 MONITORING RESULTS AND ANALYSIS

At this time, a general correlation between Facility operations and measured concentrations cannot be identified. Although the monitors are located within the Facility's property, their measurements are likely impacted by emissions from other industrial facilities and transportation sources in the vicinity.

Tables 3 and 4 summarize December 3 and 15, 2025, monitoring results and wind conditions and facility loading operations. The analysis of the results is presented below Table 4.

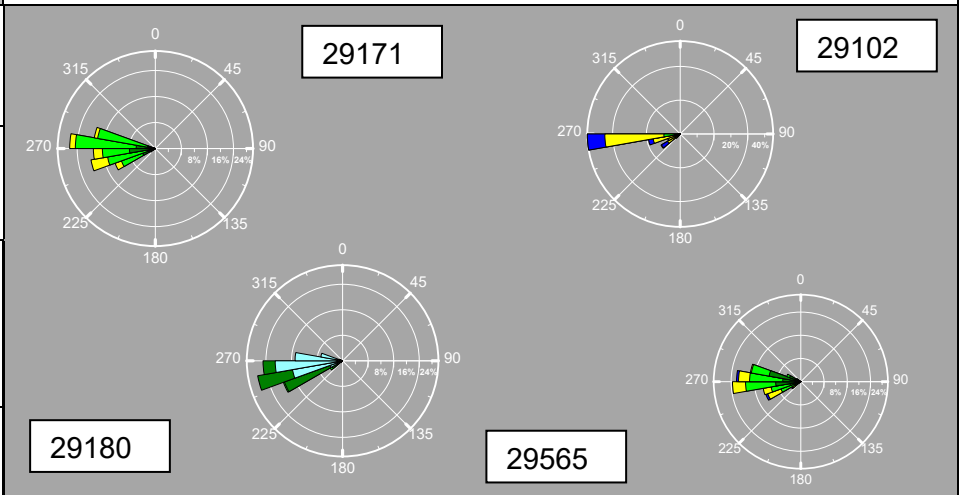
Table 3: Summary of Wind Conditions, Facility Operations and Measured B(a)P Concentrations during December 3, 2025

	HAMN Station	Wind Direction & Strength	Overall
	29171	WSW, (Calm, Moderate, Strong)	
	29102	W, WSW, SW (Moderate, Strong)	
	29180	WSW, SW (Calm, Moderate)	
	29565	W, WSW, (Moderate, Strong)	

	Facility Area	Modelling Source ID	Daily Total Amount Loaded [US gal]				
			Pitch	Creosote	Naphthalene Oil	LPSB	RT-12
Facility Operations	Railcar Loading	LS3 (close to Old West and New West Monitors)	35,459	37,963	0	0	0
	Truck Loading	LS2 (close to Old West Monitor)	0	0	0	0	0
	Truck Loading	LS4 (close to New West Monitor)	52,737	0	0	0	0

Measured Concentrations [µg/m³]	East Monitor	North Monitor	Old West Monitor / New West Monitor	South Monitor/STN29164
	0.00058	0.00130	**0.00674** / 0.00085	< 0.00032 / < 0.00029

Table 4: Summary of Wind Conditions, Facility Operations and Measured B(a)P Concentrations during December 15, 2025

	HAMN Station	Wind Direction & Strength	Overall
	29171	W, WNW, WSW (Calm, Moderate)	
	29102	W, WSW (Moderate, Strong)	
	29180	W, WSW (Calm, Moderate)	
	29565	W, WSW (Calm, Moderate)	

	Facility Area	Modelling Source ID	Daily Total Amount Loaded [US gal]				
			Pitch	Creosote	Naphthalene Oil	LPSB	RT-12
Facility Operations	Railcar Loading	LS3 (close to Old West and New West Monitors)	0	0	0	0	0
	Truck Loading	LS2 (close to Old West Monitor)	0	0	19,654	0	0
	Truck Loading	LS4 (close to New West Monitor)	55,246	0	0	0	0

Measured Concentrations [µg/m³]	**East Monitor**	**North Monitor**	**Old West Monitor / New West Monitor**	**South Monitor/STN29164**
	0.0182	0.00072	< 0.00029 / < 0.00030	< 0.00031 / 0.00125

Wednesday December 3, 2025, monitoring event:

The **Wednesday, December 3, 2025,** Hamilton site wind direction was from general **westerly, west southwesterly and south westerly** directions over the course of the day. This information is summarized in the table below.

Monitoring Event	December 3, 2025
Wind Strength	Calm | Moderate | Strong
Main Wind Direction	W, WSW, SW

The loading activities during December 3, 2025, monitoring event are summarized in the table below.

Monitoring Event	December 3, 2025
Total Volume Loaded from Rail Car Loading LS3 [US gal]	73,422
Total Volume Loaded from Truck Loading LS2 Spot 1 [US gal]	0
Total Volume Loaded from Truck Loading LS4 Spot 7 [US gal]	52,737

During December 3, 2025, the monitoring event the railcar loading activity was for 35,459 US gal of coal tar pitch and 37,963 US gal of creosote.

The truck loading LS4 (Spot 7) activity was for 52,737 US gal of coal tar pitch only There was no truck loading at LS2 (Spot 1).

Old West Monitor Measurement on December 3, 2025

The **0.00674 µg/m³ B(a)P measurement at the old west monitor on the December 3, 2025, monitoring event** was above the 0.00430 µg/m³ Measured Level threshold and above the 24-hour upper risk threshold (URT) of 0.005 µg/m³ B(a)P. This was determined, statistically, to be a special cause variation event with one specific likely assignable cause.

A “green” creosote railcar loading audit at LS3 and a “green” coal tar pitch truck/trailer loading audit at LS4 were conducted on the Wednesday December 3, 2025, monitoring event. In addition, the coal tar pitch tank PVRV checks conducted on Wednesday December 3, 2025, monitoring event did not reveal any visible fugitive B(a)P emissions.

The wind direction was from a general south westerly direction and in the absence of any on site sources, an offsite source located to the south west of the old west monitor may have been the likely source of the **0.00674 µg/m³** B(a)P measurement at the old west monitor on the December 3, 2025, MECP monitoring event.

Monday December 15, 2025, monitoring event:

The **Monday, December 15, 2025,** Hamilton site wind direction was from general **westerly** directions over the course of the day. This information is summarized on the table below.

Monitoring Event	December 15, 2025
Wind Strength	Calm | Moderate | Strong
Main Wind Direction	W, WNW, WSW

The loading activities during December 15, 2025, monitoring event are summarized in the table below.

Monitoring Event	December 15, 2025
Total Volume Loaded from Rail Car Loading LS3 [US gal]	0
Total Volume Loaded from Truck Loading LS2 Spot 1 [US gal]	19,654
Total Volume Loaded from Truck Loading LS4 Spot 7 [US gal]	55,246

During December 15, 2025, the monitoring event there were no railcars loaded.

The truck loading LS4 (Spot 7) activity was for 55,246 US gal of coal tar pitch and the truck loading at LS2 (Spot 1) was for 19,654 US gal of naphthalene.

East Monitor Measurement on December 15, 2025

The **0.0180 µg/m³ B(a)P measurement at the east monitor on the December 15, 2025, monitoring event** was above the 0.00430 µg/m³ Measured Level threshold and above the 24-hour upper risk threshold (URT) of 0.005 µg/m³ B(a)P. This was determined, statistically, to be a special cause variation event with one specific likely assignable cause.

No railcars were loaded at LS3 and no truck/trailer loading audit was conducted at LS4 on Monday December 15, 2025, monitoring event. In addition, the coal tar pitch tank PVRV checks conducted on Wednesday December 15, 2025, monitoring event did not reveal any visible fugitive B(a)P emissions.

Therefore, we could not determine a likely source of the **0.0182 µg/m³** B(a)P measurement at the east monitor on the December 15, 2025, MECP monitoring event.

4. CONCLUSION

This report was prepared to fulfill the requirements of the **ECA #7313-8KEN49 Notice No.1 issued November 17, 2022.**

Table 5: Conclusions

	Conclusions
Analysis of what may have caused the B(a)P concentration to be above the Measured Level Threshold.	The **0.00674 µg/m³ B(a)P measurement at the old west monitor on the December 3, 2025, monitoring event** was above the 0.00430 µg/m³ Measured Level threshold and above the 24-hour upper risk threshold (URT) of 0.005 µg/m³ B(a)P. This was determined, statistically, to be a special cause variation event with one specific likely assignable cause. A "green" creosote railcar loading audit at LS3 and a "green" coal tar pitch truck/trailer loading audit at LS4 were conducted on the Wednesday December 3, 2025, monitoring event. In addition, the coal tar pitch tank PVRV checks conducted on Wednesday December 3, 2025, monitoring event did not reveal any visible fugitive B(a)P emissions. The wind direction was from a general south westerly direction and in the absence of any on site sources, an offsite source located to the south west of the old west monitor may have been the likely source of the **0.00674 µg/m³** B(a)P measurement at the old west monitor on the December 3, 2025, MECP monitoring event. The **0.0180 µg/m³ B(a)P measurement at the east monitor on the December 15, 2025, monitoring event** was above the 0.00430 µg/m³ Measured Level threshold and above the 24-hour upper risk threshold (URT) of 0.005 µg/m³ B(a)P. This was determined, statistically, to be a special cause variation event with one specific likely assignable cause. No railcars were loaded at LS3 and no truck/trailer loading audit was conducted at LS4 on Monday December 15, 2025, monitoring event. In addition, the coal tar pitch tank PVRV checks conducted on Wednesday December 15, 2025, monitoring event did not reveal any visible fugitive B(a)P emissions. Therefore, we could not determine a likely source of the **0.0182 µg/m³** B(a)P measurement at the east monitor on the December 15, 2025, MECP monitoring event.
Loading volumes(s) in US gal at the time measuring B(a)P concentrations to be above the Measured Level threshold.	Details on loading volumes (US gal) are presented in Section 2.0 of this report.

Assessment of additional equipment, technically feasible methods and operational measures that are available to further minimize the likelihood of measurements above the Measured Level threshold and the proposed schedule to implement any actions that would minimize the likelihood of measurements above the Measured Level threshold.	Rain will continue conducting vehicle loading audits on each monitoring day to continue assessing the operations of loading equipment and operators' implementation of Standard Operating Procedures. Rain Carbon's Abatement Plan includes installation of fully enclosed automated railcar loading in Q1 2027.

Signature Page

Robin S. Hart P.Eng.

Environmental Engineer

Rain Carbon Canada Inc