



REPORT

AIR QUALITY MONITORING – QUARTERLY REPORT

Pacific Coast Terminals Ltd

Prepared for:

Pacific Coast Terminals Ltd.

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Envirochem Project No.: 17089

Reporting Period: 2023 – Q4

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QUARTERLY REPORTING - PM_{2.5} AND PM₁₀ MONITORING

1.0 OVERVIEW

PCT is conducting continuous PM_{2.5} and PM₁₀ monitoring off-site at one location in the residential neighbourhood south of Barnet Highway at 1362 Union St using two Met One E-BAM Plus particulate monitors.

Ambient Air Monitoring data for PM_{2.5} and PM₁₀ are currently being hosted on Envirochem's servers. These data are verified by Envirochem. QA/QC is performed on the raw data and any invalid data are flagged.

All measurements are compared to Metro Vancouver Ambient Air Quality Objectives (AAQOs) and guidelines. Those that are currently in force and relevant to this report are summarized in **Table 1**.

Table 1: Ambient Air Quality Guidelines

Contaminant	Averaging Period	Metro Vancouver Ambient Air Quality Objectives ^(a)
		$\mu\text{g}/\text{m}^3$
Fine Particulate Matter (PM _{2.5})	24-hour Rolling Average	25
	Annual Average	8 (6) ^(b)
Inhalable Particulate Matter (PM ₁₀)	24-hour Rolling Average	50
	Annual Average	20

a) Metro Vancouver Air Quality Objectives (Updated January 2020): <http://www.metrovancouver.org/services/air-quality/AirQualityPublications/CurrentAmbientAirQualityObjectives.pdf>

b) Metro Vancouver's Annual PM_{2.5} Planning Goal of 6 $\mu\text{g}/\text{m}^3$ is a longer-term aspirational target to support continuous improvement.

2.0 INSTRUMENT MAINTENANCE

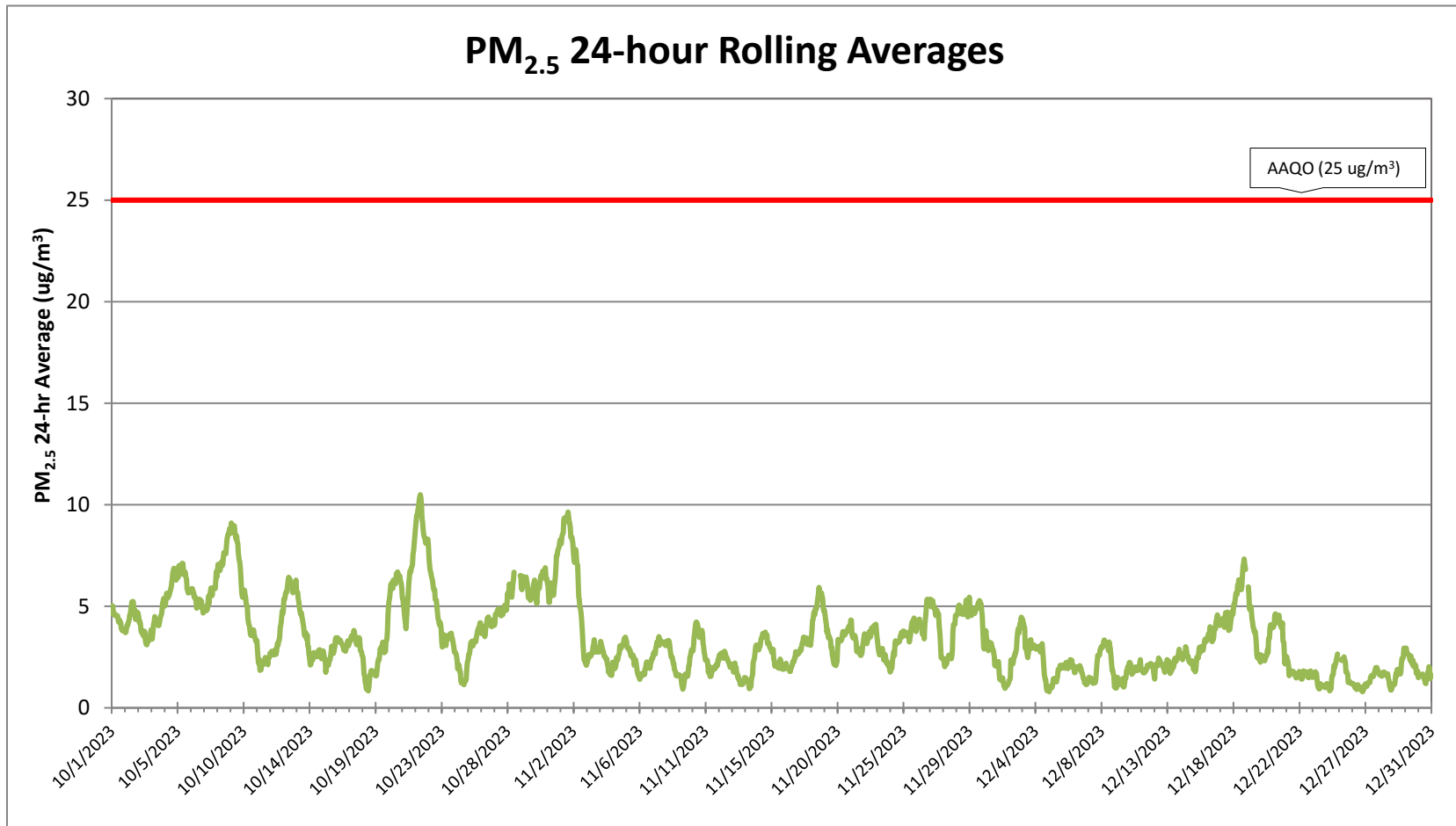
Envirochem conducted regular maintenance of the monitoring equipment during Q4 as part of PCT's AQMP QA/QC process. Site visits by trained personnel included: filter tape changes, inlet and cyclone cleaning, leak checks, flow calibrations, and other instrument checks.

3.0 PM_{2.5} AND PM₁₀ MONITORING RESULTS – 24 HR ROLLING AVERAGES

Using Envirochem's data management system, Envirochem:

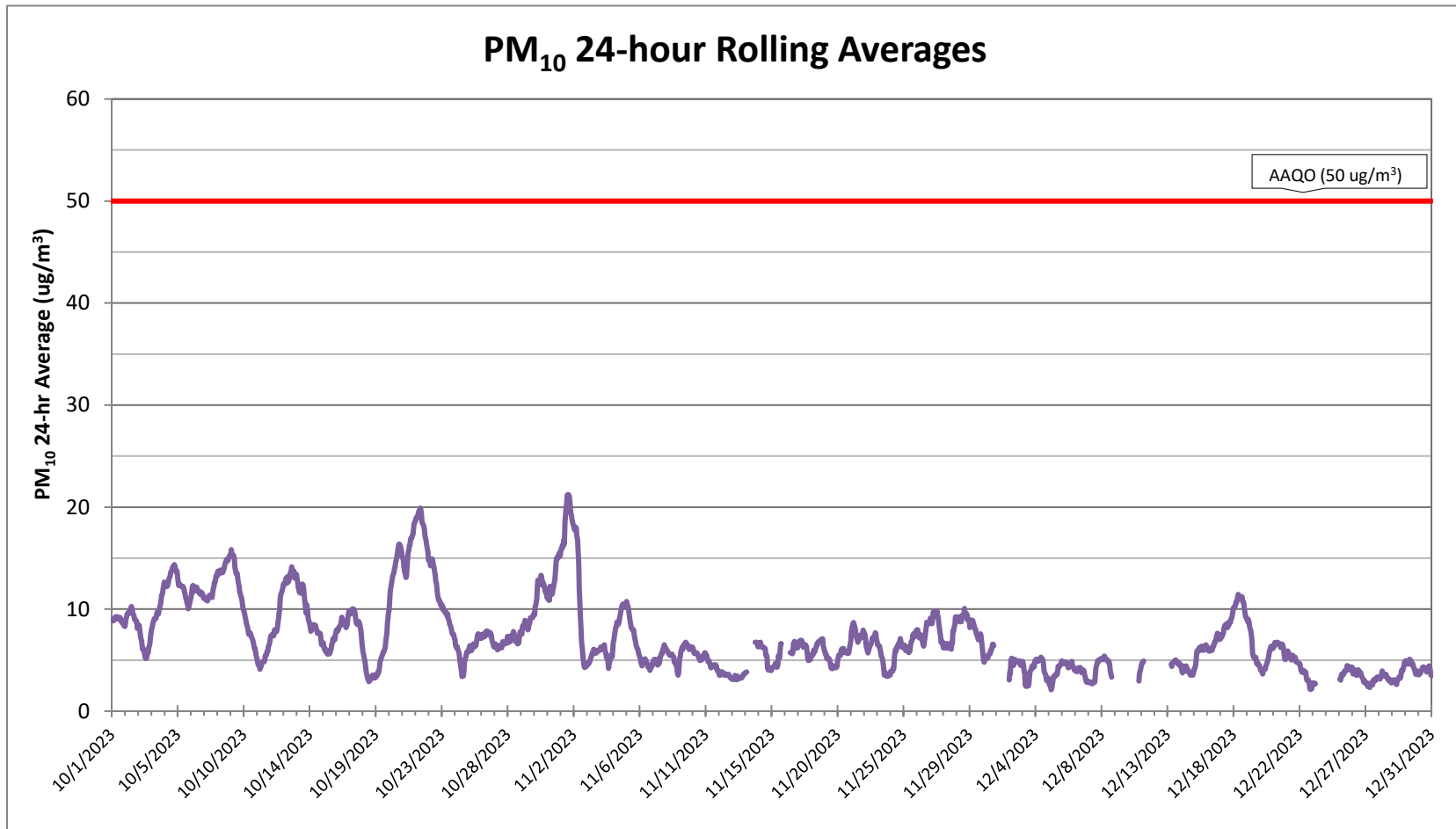
- Converts and tabulates the vetted PM_{2.5} and PM₁₀ data to 24-hour rolling averages and performs QA/QC;
- On a quarterly basis, creates figures visualizing monitored ambient concentrations of PM_{2.5} (**Figure 1**) and PM₁₀ (**Figure 2**).

There were no PM_{2.5} and PM₁₀ AAQO exceedances observed in Q4 of 2023.



**Figure 1: 24-hour Rolling Averages of PM_{2.5} Data at 1362 Union St for the fourth Calendar Quarter 2023
(October 1st to December 31st, 2023)**

Note: Blank space indicates that no data is available due to power failure or instrument maintenance.



**Figure 2: 24-hour Rolling Averages of PM₁₀ Data at 1362 Union St for the fourth Calendar Quarter 2023
(October 1st to December 31st, 2023)**

Note: Blank space indicates that no data is available due to power failure or instrument maintenance.