

Client: Scope Property Group
Project Reference: P25080016.001
Report Date: 16/12/2025
Version: v1.0 DRAFT REPORT

Air Quality Measurement and Assessment – Henderson Business Hub

Location: 81 Quill Way, Henderson



Prepared by:

Charles Bucknell
BSc (Applied Chem), MRACI
Senior Consultant

Reviewed by:

Andrew Bellamy
BSc
WELL AP, LAA, ISIAQ, ATTMA L1, WELL PTA
Principal Consultant

Dr Vyt Garnys
PhD, BSc (Hons) AIMM, ARACI, ISIAQ,
ACA, AIRAH, FMA
Principal Consultant & Managing Director

EXECUTIVE SUMMARY

The scope of this project was to conduct measurements of the environmental air on the site and to identify potential air quality issues that may impact the amenity of persons using the facility. Identification of potential pollutants is also required to identify necessary controls that may be required to comply with the Cockburn Council requirement to provide a suitable quality of indoor air in the facility such as specified in the National Construction Code⁴ (NCC) or other reputable guidelines (see **Table 2**).

CETEC has installed instrumentation on the site to record air quality parameters over an extended period (one month) to determine both concentration levels, time of day and the direction from which the contaminants are approaching the site. The wind directions during the month were from all compass points and the temperature range of 11°C to 38.7°C (average 20.6°C) was typical of local weather conditions, hence the results should be representative of levels under typical Perth Weather conditions.

Preliminary results from the desk-top evaluation indicated that there are a number of contaminants that needed to be assessed, and therefore CETEC had recommended that on-site measurements are taken to confirm if these were contaminants at concentrations that may exceed the indoor air quality guidelines if not addressed in the design phase.

The level of compliance against guidelines has been assessed in this document with a targeted on-site monitoring program for particulates, organic compounds, and oxides of nitrogen, sulphur hydrogen sulphide, airborne metal and other compounds. The results against the corresponding guidelines are shown in **Table 3**. The instrument measurements over one month form the basis of the discussion section of this report; however, airborne contaminants [metals and volatile organic compounds (VOC)] were also measured by sample collection on two work days and analysed by a NATA certified laboratory.

Based on the instrument measurement data, CETEC's analysis indicates that it possible for air quality improvements to be made by incorporating appropriate measures in the design, however without these the potential for extended exposure for Hotel occupants may introduce a heightened risk for some and may impact the comfort of those using the facility. The results for metals were below detectable levels and the VOC characterisation indicated that the levels of compounds of concern (in the VOC, identified by USEPA method TO17) were not detected.

CETEC recommends that the mechanical consultant and builder:

- Consider specifying filters with a higher particulate efficiency than Business As Usual (BAU) under NCC, i.e. that are capable of controlling particulate concentrations in the building's air.
- Use filter media that are capable of removing particulates and compounds of concern. (see **Table 3**).
- Also minimising other pathways for contaminants to enter the building by ensuring that all buildings exceed the air tightness requirements of the National Construction Code (for example set an objective for air leakage of $<5 \text{ m}^3/\text{h}/\text{m}^2$).

If a condition of development approval requires verification, CETEC can provide indoor air quality assessment of the completed building and building leakage assessment against ATTMA¹¹ guidelines.

Table of Contents

EXECUTIVE SUMMARY	2
<u>1</u> INTRODUCTION	<u>4</u>
<u>2</u> BACKGROUND AND METHODOLOGY	<u>4</u>
<u>3</u> DEVELOPMENT PROPOSAL	<u>5</u>
<u>4</u> AIR QUALITY TARGETS	<u>7</u>
<u>5</u> AIR QUALITY ESTIMATES FOR THE HENDERSON DEVELOPMENT SITE	<u>8</u>
5.1 METHODOLOGY	8
5.2 POTENTIAL IMPACT OF LOCAL SOURCES ON AIR QUALITY PARAMETERS	8
<u>6</u> OBSERVATIONS AND INTERPRETATION	<u>9</u>
<u>7</u> DISCUSSION	<u>10</u>
APPENDIX A: GRAPHICAL DATA 11TH NOVEMBER TO 9TH DECEMBER	13
APPENDIX B: VOLATILE ORGANIC COMPOUNDS AND METALS ANALYSES	21
DISCLAIMER	36
COPYRIGHT	36

1 INTRODUCTION

CETEC was engaged by Scope Property Group to provide an air quality report to be included as part of a Development Application for a new Business Hub to be located at 81 Quill Way, Henderson.

The scope of works and deliverables for the on-site air quality assessment are as follows:

- Measure via instrumentation the compounds that can potentially contribute to poor air quality in the buildings that would be built on the site.
- Measure airborne metals and volatile organic compounds (VOC) during periods of southerly to south westerly and north to north-easterly winds.
- Provide any appropriate preliminary recommendations for consideration in the design of the building to mitigate potential indoor air quality concerns.

This document is a review of the collected data. This report will cover all data collected in November and early December 2025.

2 BACKGROUND AND METHODOLOGY

CETEC was engaged to evaluate air quality at the proposed site for a combined Office, Hotel and Retail Hub at 81 Quill Way, Henderson against available air quality data as part of the Development Application process and achieving suitable indoor quality of the proposed constructions on the site.

The methodology CETEC has applied was to install an air quality monitoring station at a secure location on the site. This unit has been operating since 11th November 2025 and has run continuously for one month. The data generated has been analysed for trends in air quality. This has included measurements over time, correlated against time of day and also correlated against wind direction data.

The data has been presented in **Table 3**. The results are referenced against recommended acceptable environmental levels published by reputable sources (see **Table 2**). The discussion also provides CETEC's recommendations based on the analysis of data collected. The possible sources are listed in **Table 1**.

Table 1: The principal air quality measures for a location such as the Henderson site

Possible Sources	Contaminants	Data Sources
• Woodman Point Water Resource Recovery Facility • Cockburn Cement Ltd • Henderson Waste Recovery Park • Henderson Shipyard (BAE Systems) • CIVMEC Construction & Engineering • LMS Energy Henderson	Carbon Monoxide (CO)	On Site measurements referencing Wind direction
	Nitrogen Dioxide (NO ₂)	
	Sulphur Dioxide (SO ₂)	
	VOCs	

Possible Sources	Contaminants	Data Sources
- Other Industrial Activity - Road Transport + Vehicular Traffic	Hydrogen Sulphide	
Formed through chemical reactions with VOCs and NO _x from: - Industrial processes - Vehicle emissions	Ozone (O ₃)	To be evaluated against time of day: estimate the impact of solar radiation
Important anthropogenic sources are: - Fossil fuel use and production - Solvents used in coatings & paints	VOCs	On-site measurements referencing wind direction
Particulates from dust, industrial activities, road grime, quarry activities, landscaping and natural sources etc.	PM _{2.5}	On-site measurements referencing wind direction
	PM ₁₀	

Note: other parameters such specific contaminants (e.g. metals (i.e. lead etc in dust) have been sampled and analysis conducted, however the levels found in the samples were below detection limits and therefore not expected to contribute to the air quality.

3 DEVELOPMENT PROPOSAL

As part of the development application, this report will aid in the design of the facility and provide measures of air quality parameters and recommend possible mitigation strategies to address these. **Figure 1** shows an aerial location of the proposed site whilst **Figure 2** shows the locations of facilities for which some limited emission data can be obtained.

The following features are in close proximity to the proposed site:

- Approximately 1,900 metres Rockingham Road.
- Approximately 2,000 metres to Russel Road
- Approximately 700 metres to Cockburn Road
- Approximately 8200 metres to Kwinana Freeway
- Woodman Point Wastewater Treatment Plant located about 1,100 metres north
- Henderson Waste Recovery Park located 2600 metres east southeast
- BAE Systems Henderson Operations across Quill road 170 metres
- AMC Marine Complex located 500 metres to the southeast
- Air Liquide's site located to the north (650 m)
- CIVMEC's premises are 825 metres south
- Other industrial sites not included are Matrix Composites (600 metres to south southeast), and a number of fabrication facilities around this development site.

Figure 1: Aerial view of proposed development site marked



Figure 2: Proximity to potential air contaminant sources



4 AIR QUALITY TARGETS

The data from measuring air quality parameters (**Table 1**) was compared against recommended concentrations levels to the accepted, published guidelines from the Department of Water and Environmental Regulation (DWER) as listed within **Table 2**. The Guidelines recommended are the NCC are for Class 3 buildings⁴ and other guidelines as appropriate (referred to collectively in this document as Guidelines).

Recommended levels published by the National Environment Protection Measures (NEPM) (Commonwealth) and the World Health Organisation (WHO), are shown in **Table 2** for comparison, but these are not used in this assessment except where relevant.

Table 2: References for Recommended Maximum Environmental Concentrations for Contaminants

Pollutant	Concentration Guidelines			
	NCC ⁴	DWER (WA) ¹	NEPM ²	WHO ³
Carbon Monoxide (CO)	9.0 ppm (8 hr) 10.3 µg/m ³ (8hr)	9 ppm (8hr)	9 ppm (8hr)	10 mg/m ³ (8hr) {8.5 ppm (8hr)}
Nitrogen Dioxide (NO₂)	0.015 ppm (year) 0.028 µg/m ³ (year)	0.12 ppm (1hr) {120 ppb (1hr)}	0.08 ppm (1hr) {80 ppb (1hr)} 0.015 ppm (year)	200 µg/m ³ (1hr) {103 ppb (1hr)}
Sulphur Dioxide (SO₂)	0.020 ppm (day) 0.052 µg/m ³ (day)	0.08 ppm (day)* {80 ppb (day)}	0.075 ppm (hour) 0.020 ppm (day) {20 ppb (day)}	40 µg/m ³ (day) {15 ppb (day)}
Ozone (O₃)	0.065 ppm (8hr) 0.128 µg/m ³ (8hr)	0.1 ppm (1hr) {100 ppb (1hr)}	0.065 ppm (8hr) {65 ppb (8hr)}	100 µg/m ³ (8hr) {50 ppb(8hr)}
PM₁₀	25 µg/m ³ (year)	50 µg/m ³ (day) 20 µg/m ³ (year) ⁴	50 µg/m ³ (day) 25 µg/m ³ (year)	45 µg/m ³ (day)
PM_{2.5}	8 µg/m ³ (year)	25 µg/m ³ (day) 10 µg/m ³ (year) ⁴	25 µg/m ³ (day) 8 µg/m ³ (year)	15 µg/m ³ (day)
Lead⁵	0.50 µg/m ³ (year)		0.50 µg/m ³ (year)	
Total VOC	500 µg/m ⁶ (1 Hr Average ⁴), {0.22 ppm}			
Hydrogen Sulphide	Minimal Risk Level (ATSDR ⁷) 70 ppb (≤ 14days) 20 ppb (annual average), Odour threshold 0.5 to 300 ppb			

Notes for Table 2: (Guideline Units are expressed as referenced) conversion of ppb to µg/m³ :- (Concentration (ppb) = 24.45 x concentration (µg/m³) ÷ molecular weight. Also shown are the peak and average values for the instrument measured values for the air quality parameters. Concentration values in ppm (parts per million) can be converted to ppb (parts per billion) by multiplying by 1,000. Converted measurements and guideline values are shown in brackets {}. Averaging periods are shown in brackets.

ppm = parts per million by volume (that is, parts of pollutant per million parts of air)
ppb = parts per billion by volume (that is, parts of pollutant per billion parts of air)
PM₁₀ = particles less than 10 micrometres in diameter

¹ <https://www.der.wa.gov.au/images/documents/our-work/consultation/air%20emissions/Guideline%20-%20Air%20emissions.pdf>

² Schedule 2 Standards and goal, National Environment Protection (Ambient Air Quality) Measure, <https://www.legislation.gov.au/Details/F2021C00475>

³ WHO global air quality guidelines: particulate matter (PM_{2.5} and PM₁₀), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide, <https://apps.who.int/iris/bitstream/handle/10665/345329/9789240034228-eng.pdf?sequence=1&isAllowed=y>

⁴ <https://ncc.abcb.gov.au/sites/default/files/resources/2023/Handbook-Indoor-Air-Quality-Verification-Methods-NCC-2022.pdf>

⁵ <https://www.wa.gov.au/system/files/2023-03/2021-WA-air-monitoring-report.pdf>

⁶ <https://www.nabers.gov.au/sites/default/files/2022-11/Ruling%20-Indoor%20Environment%20-Formaldehyde%20and%20TVOC%20formulas.pdf>

⁷ <https://www.atsdr.cdc.gov/toxguides/toxguide-114.pdf>

PM_{2.5} = particles less than 2.5 micrometres in diameter
µg/m³ = micrograms per cubic metre
NEPM = Schedule 2 Standards and goal, Table 1 National Environment Protection (Ambient Air Quality) Measure
*Current guideline (forecast to change to 0.075ppm (1hr) in 2025).

References used in Table 2 were as follows:

- NEPM² (National Environment Protection Measures) were established under The Commonwealth National Environment Protection Council Act 1994, and complementary State and Territory legislation allow the National Environment Protection Council to make National Environment Protection Measures (NEPMs). More information can be found on the National Environment Protection Council website.
- (WHO) World Health Organisation³ is the United Nations agency that connects nations, partners and people to promote health has issued “The WHO Global air quality guidelines” which offer global guidance on thresholds and limits for key air pollutants that pose health risks.
- National Environment Protection Council² (see National Pollutant Inventory).
- Commonwealth of Australia; Federal Register of Legislation. (<https://www.legislation.gov.au/>)
- National Construction Code for Class 3 Buildings
- Agency for Toxic Substances and Disease Registry (ATSDR)⁷

Note that Nitrogen Dioxide is a surrogate for Oxides of Nitrogen in this document.

5 AIR QUALITY ESTIMATES FOR THE HENDERSON DEVELOPMENT SITE

5.1 Methodology

CETEC has produced the estimate of the average air quality at the Quill Way site based on the multiple parameter measurements made in November and early December 2025. The data was measured against time and included wind directions as the data was collected. This has enabled direction of the potential sources to be indicated based on wind direction and an analysis against time of day. This data set is representative of an extended period and is a likely indicator of air quality throughout a year. However, these assessments cannot account for occasional fugitive emissions or contaminant concentrations that are related to new local activities.

On site sample collection for analytical testing was also conducted for VOC and airborne metals.

5.2 Potential Impact Of Local Sources On Air Quality Parameters

Table 4 below shows relevant air emission data that is available for various industrial activities in vicinity of Quill Way in Henderson. Data were collected and sorted from the Australian Government’s Department of Climate Change, Energy, the Environment and Water (DCCEEW). They show air emission per annum in kilograms and in milligrams per minute. The data from the wind direction and instrument measurements may indicate the sources from this DCCEEW data.

6 OBSERVATIONS AND INTERPRETATION

The data acquired from the instrumentation for the period 11th November to 9th December has been recorded with the timeline of the readings, and against the direction of wind at the instrument location.

This report assesses the concentration of the pollutants (grouped as air-toxics) and compares the level calculated for the data with the relevant guidelines (in **Table 2**). While the current ambient levels may be within the guidelines for workplace exposure (for an 8 hour exposure time), some do not meet the guidelines for a Class 3⁴ building (being for longer term exposure) on the Quill Way development site. This comment is relevant if the ambient outside air enters the building untreated.

Details for toxicological profiles for some of the common air pollutants such as carbon monoxide (CO),⁸ sulphur dioxide (SO₂),⁹ or ozone (O₃),¹⁰ can be found on different government websites or reputable organisation guidelines and underline the importance of monitoring these pollutants. Other data, such as airborne concentrations of metals from airborne sampling and laboratory analysis did not detect the presence of these materials or VOC as listed in US EPA method TO17.

Table 3: Data Summary (note: ppm levels are 1000 times ppb levels)

Pollutant	#	Measured (16 day) Average Level (ppm)	Measured Maximum (1 min) Level (ppm)	Guidelines (ppm)
Carbon Monoxide (CO)	E	0.039	1.723	9.0 (8hr) ⁴
Nitrogen Dioxide (NO ₂)	-	0.033		0.015 (yr) ⁴
			0.211	0.12 (1hr) ¹
Sulphur Dioxide (SO ₂)	SW	0.0026		0.020 (day) ⁴
			0.141	0.075 (1hr) ⁴
Ozone (O ₃)	-	0.019		0.065 (8hr) ⁴
			0.069	0.10 (1hr) ¹
PM ₁₀	NE	5.7 µg/m ³		20 µg/m ³ (Year) ¹
			35 µg/m ³ (hr)	50 µg/m ³ (day) ¹
PM _{2.5}	NE	3.5 µg/m ³		8 µg/m ³ (Year) ⁴
			32 µg/m ³ (hr)	25 µg/m ³ (day) ¹
Total VOC	E	0.4		0.22 (hr) ⁴
			793	0.22 (hr) ⁴
Hydrogen Sulphide (H ₂ S)	SW	0.019		0.020 (year) ⁷
			1.26	0.070 (14day) ⁷

Red Numbers are in Exceedance of the guideline values. # Indicates direction of highest concentration

⁸ <https://www.atsdr.cdc.gov/toxprofiles/tp201.pdf>

⁹ <https://www.atsdr.cdc.gov/toxprofiles/tp116.pdf>

¹⁰ <https://www.ncbi.nlm.nih.gov/books/NBK430751/>

7 DISCUSSION

CETEC has gathered and reviewed available data relevant to the air quality parameters for the site of a proposed Business Hub at 81 Quill Way, Henderson and has provided estimates of air quality currently at the site.

The site is located in an area that sees various industrial activities that are dominated by Henderson's role as a major defence and marine hub. Key activities include fabrication, assembly, shipbuilding and maintenance, all supported by specialized facilities and infrastructure. It is understood that the City of Cockburn has concerns for potential adverse effects on people staying at the proposed Hotel for extended periods of time, i.e. for a number of days/nights or longer.

Local sources of these compounds that potentially affect air quality on the Development site include; to the North of the proposed development site, Water Corporation's Woodman Point Water Resource Recovery Facility while a few kilometres to the west of Quill Way, are the Henderson Waste Recovery Park and Cockburn Cement Ltd.'s Munster operations. The principal emission sources are shown in **Table 4** and **Table 5** shows a summary of the primary direction from which the compounds were detected and the time of day when these were most prevalent.

CETEC recommends that appropriate systems incorporating suitable air handling and filtering be installed in order for the indoor air quality to meet the National Construction Code for a Class 3 building⁴. As noted above the measured levels of contaminants do not meet the current guidelines. The contaminants of concern are nitrogen oxides (as NO₂), Particulates (PM_{2.5}) long term average, total VOC and hydrogen sulphide. The use of activated carbon filters combined with filters for the removal of fine (PM_{2.5}) particulates should be considered in the design for the air handling units. The peak concentrations identified by the instrumentation and reported in this document should be a guide to estimate the capacity and frequency of changing the filter media. While this strategy will reduce most of the compounds of concern, a separate strategy may be required for addressing the sulphur dioxide peak levels. While some short duration sulphur dioxide peak levels in the ambient unfiltered air (outside) were not compliant; if the building is designed and built to a high level of air tightness, short duration peaks would be diluted in the filtered air, that had previously entered the building with very low levels, thus the diluted levels in the building would be at a level compliant to the guidelines.

CETEC recommends that all buildings on the site are designed and constructed in compliance with Greenstar guidelines and to achieve higher levels of Air Tightness than those recommended in the National Construction Code. The benefits of reduced air leakage includes, while reducing energy, a reduced impact of uncontrolled ingress of contaminant materials from the outdoor environment. This strategy allows the dilution of short term peaks in compounds of concern to compliant levels. CETEC suggests 5 m³/h/m² at 50Pa as an objective.

If a condition of development approval requires verification, CETEC can provide indoor air quality assessment of the completed building and building leakage assessment against ATTMA¹¹ guidelines.

¹¹ <https://www.bcta.group/attma/>

Table 4: Available Air Emission Data for local sources

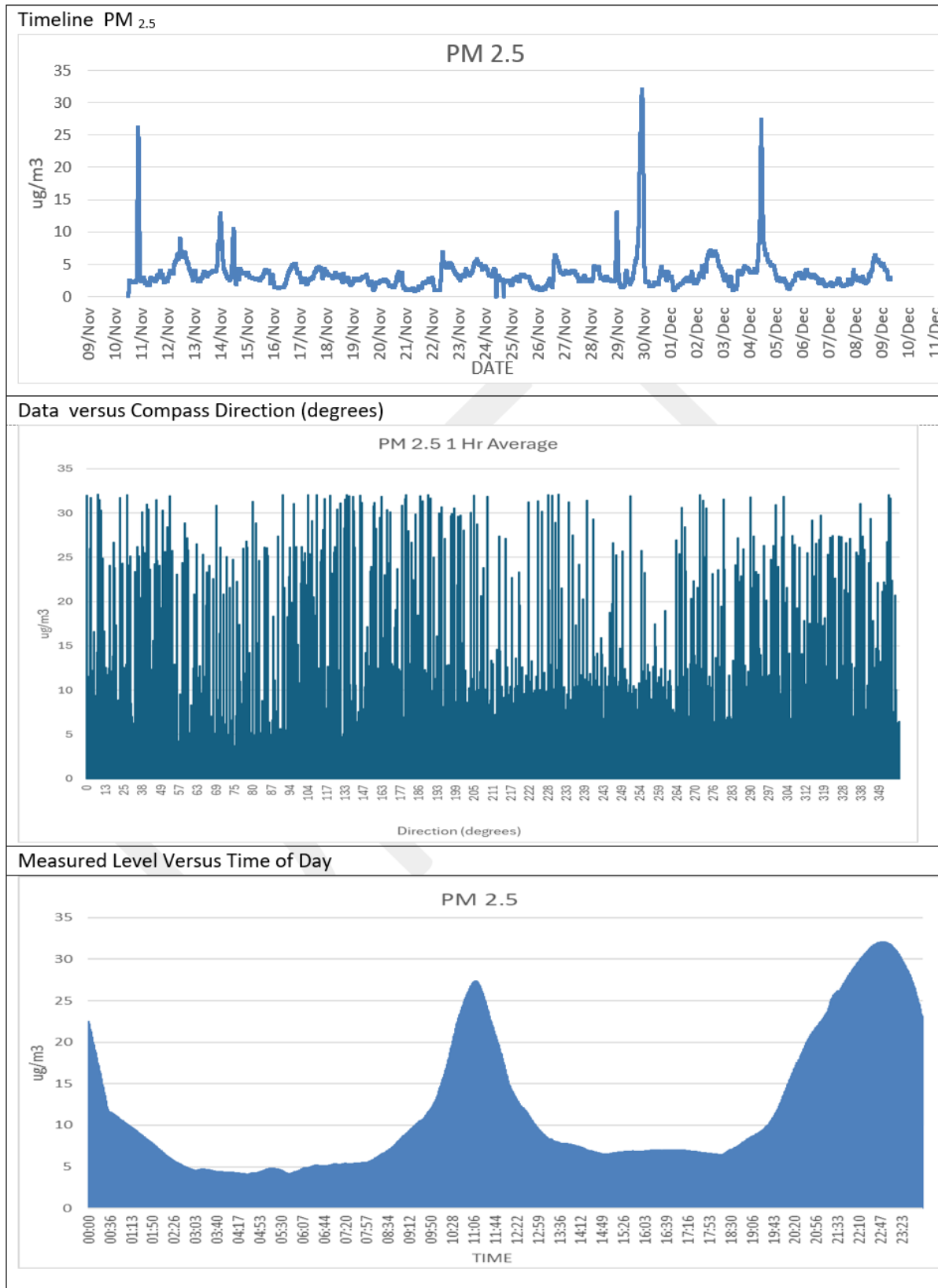
Report ID	Facility / Registered Business Name	Substance Name	Air Total Emission	
			(kg/yr)	mg/min
556616	Cockburn Cement Ltd	Carbon monoxide	761647	1449100.1
556616	Cockburn Cement Ltd	Oxides of Nitrogen	379380	721803.7
557902	Woodman Point WWTP	Ammonia (total)	126082	239882.0
555984	Henderson Renewable Energy Facility	Carbon monoxide	103751	197395.4
556616	Cockburn Cement Ltd	Particulate Matter $\leq 10.0 \mu\text{m}$ (PM ₁₀)	84491	160751.5
557150	Civmec Construction & Engineering	Total Volatile Organic Compounds	57190	108809.0
555984	LMS Energy Pty Ltd / Henderson Renewable Energy Facility	Oxides of Nitrogen	47993	91310.9
554394	BAE Systems / Henderson Shipyard	Total Volatile Organic Compounds	25925	49324.6
555984	LMS Energy Pty Ltd / Henderson Renewable Energy Facility	Sulphur dioxide	20036	38120.2
557150	Civmec Construction & Engineering	Toluene (methylbenzene)	19798	37667.4
556616	Cockburn Cement Ltd	Total Volatile Organic Compounds	15170	28862.3
554394	Henderson Shipyard	Xylenes (individual or mixed isomers)	9966	18961.2
557902	Woodman Point WWTP	Oxides of Nitrogen	9629	18320.0
557150	Civmec Construction & Engineering	Xylenes (individual or mixed isomers)	9015	17151.8
556616	Cockburn Cement Ltd	Sulphur dioxide	8049	15313.9
557902	Woodman Point WWTP	Carbon monoxide	7235	13765.2
556536	Henderson Waste Recovery Park	Carbon monoxide	4118	7834.9
556536	Henderson Waste Recovery Park	Total Volatile Organic Compounds	3876	7374.4
557902	Woodman Point WWTP	Sulphur dioxide	3723	7083.3
556616	Cockburn Cement Ltd	Particulate Matter $\leq 2.5 \mu\text{m}$ (PM _{2.5})	3204	6095.9
557902	Woodman Point WWTP	Particulate Matter $\leq 2.5 \mu\text{m}$ (PM _{2.5})	2858	5437.6
557902	Woodman Point WWTP	Particulate Matter $\leq 10.0 \mu\text{m}$ (PM ₁₀)	2858	5437.6
556616	Cockburn Cement Ltd	Fluoride compounds	2390	4547.2
558220	Air Liquide Henderson	Acetone	1805	3434.2
556616	Cockburn Cement Ltd	Hydrochloric acid	1496	2846.3
557902	Woodman Point WWTP	Total Volatile Organic Compounds	460	875.2
556536	Henderson Waste Recovery Park	Toluene (methylbenzene)	158	300.6
556536	Henderson Waste Recovery Park	Hydrogen sulphide	63	119.9

Report ID	Facility / Registered Business Name	Substance Name	Air Total Emission	
			(kg/pa)	mg/min
556536	Henderson Waste Recovery Park	Xylenes (individual or mixed isomers)	58	110.4
556536	Henderson Waste Recovery Park	Formaldehyde (methyl aldehyde)	41	78.0
556536	Henderson Waste Recovery Park	Dichloromethane	30	57.1
556536	Henderson Waste Recovery Park	Ethylbenzene	30	57.1
556536	Henderson Waste Recovery Park	Methyl ethyl ketone	30	57.1
556536	Henderson Waste Recovery Park	Acetone	22	41.9
556616	Cockburn Cement Ltd	Copper & compounds	21	40.0
556536	Henderson Waste Recovery Park	Tetrachloroethylene	19	36.1
556536	Henderson Waste Recovery Park	Acrylonitrile (2-propenenitrile)	19	36.1
556616	Cockburn Cement Ltd	Zinc and compounds	16	30.4
556536	Henderson Waste Recovery Park	n-Hexane	15	28.5
556616	Cockburn Cement Ltd	Nickel & compounds	15	28.5
556536	Henderson Waste Recovery Park	Chloroethane	15	28.5
556536	Henderson Waste Recovery Park	Benzene	14	26.6
556536	Henderson Waste Recovery Park	Methyl isobutyl ketone	11	20.9
556536	Henderson Waste Recovery Park	Ethyl acetate	10	19.0

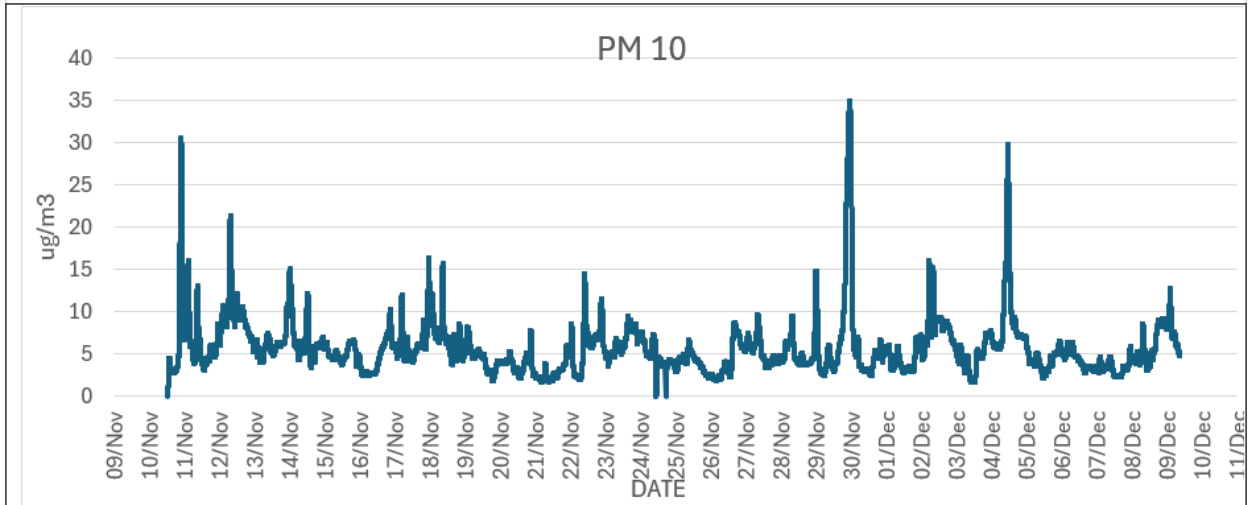
Table 5: Direction of Source and Time Of Day Analysis (approximate)

Compound	Source direction	Highest Time of Emission
Particulate (PM _{2.5})	E to ESE and NW to NE	9am to 1pm and 8pm to MN
Particulate (PM ₁₀)	Constant, non-directional	6am to noon and 8pm to MN
Volatile Organic Compounds	N to ESE	Peak 10am and low 1pm to 5pm
Carbon Monoxide	N to SE	Peaks 7am, 9am, and 2pm, and 8pm to 11pm
Hydrogen Sulphide	SW to NNE	Noon to 9pm and 11pm to 1am
Nitrogen Oxides (as NO ₂)	Constant, non-directional	6pm to 10am
Ozone	Constant, non-directional	7am to 10pm
Sulphur Dioxide	West (S to NNE)	1pm to 2am

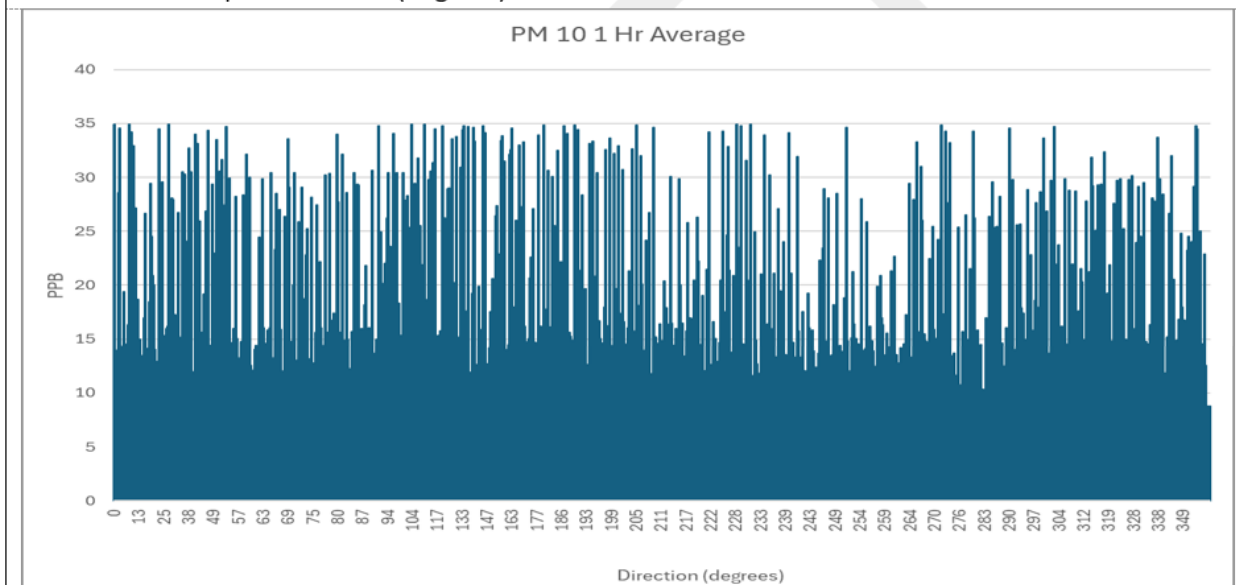
APPENDIX A: GRAPHICAL DATA 11TH NOVEMBER TO 9TH DECEMBER



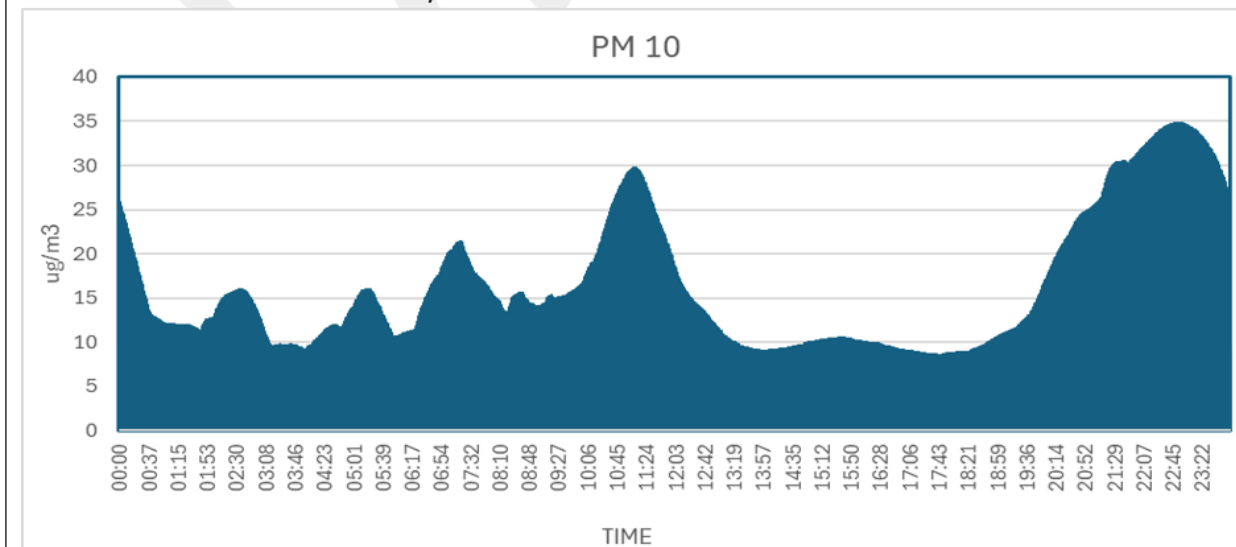
Timeline PM₁₀



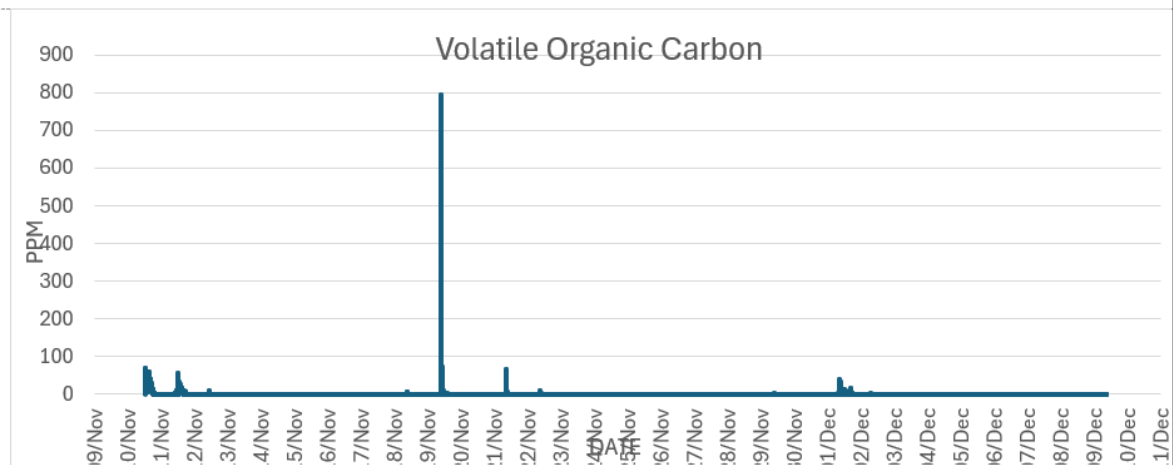
Data versus Compass Direction (degrees)



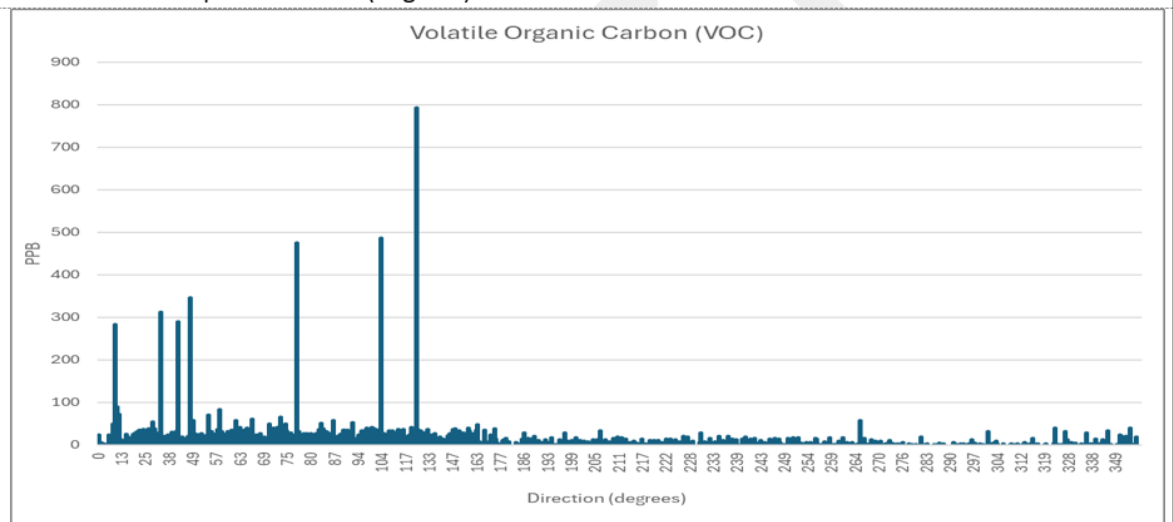
Measured Level Versus Time of Day



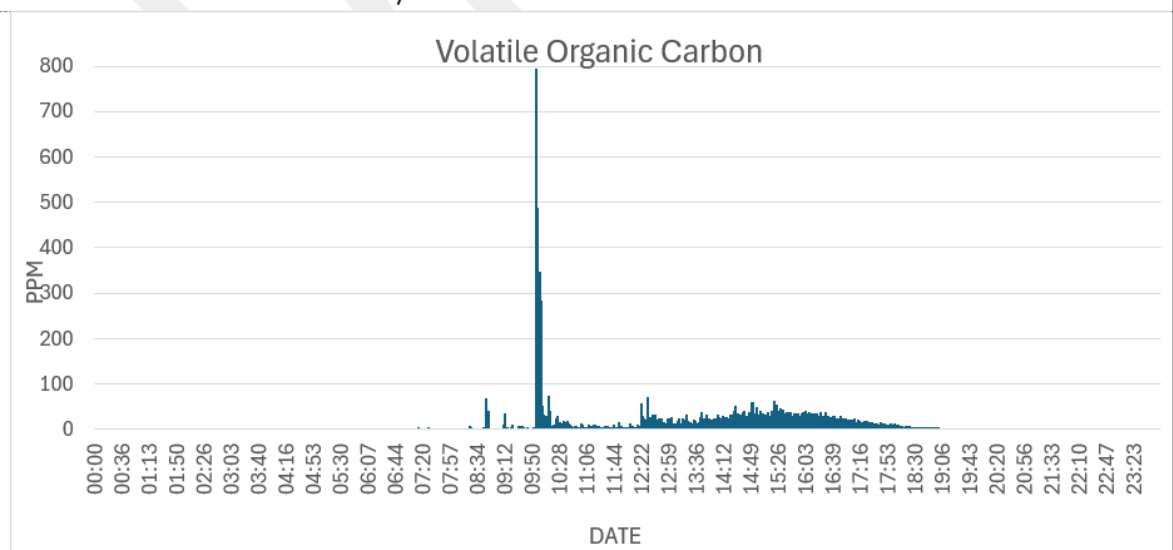
Timeline VOC Emissions



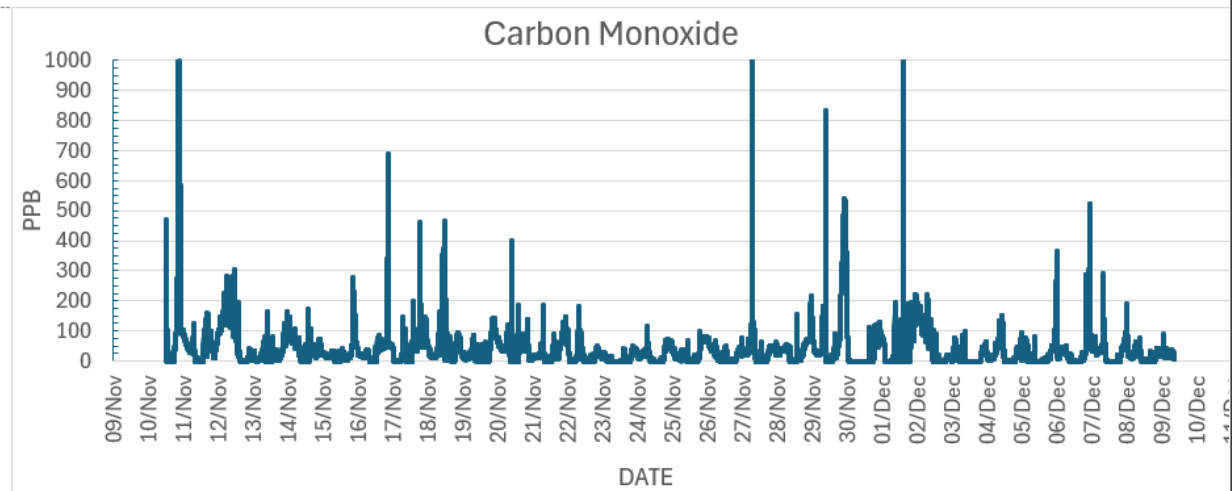
Data versus Compass Direction (degrees)



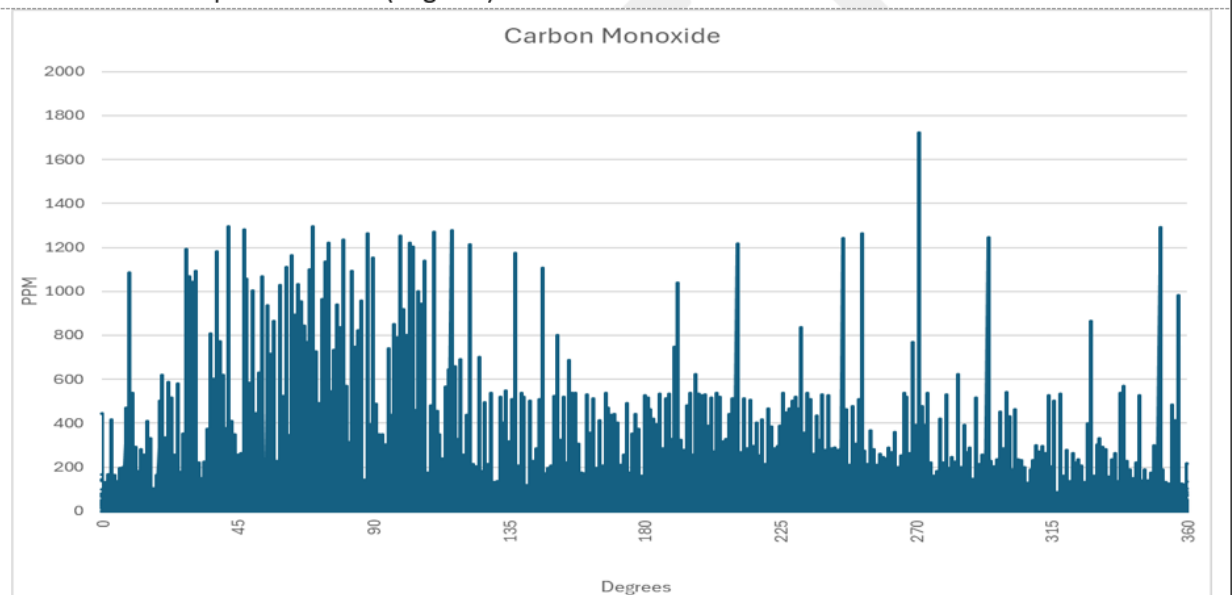
Measured Level Versus Time of Day



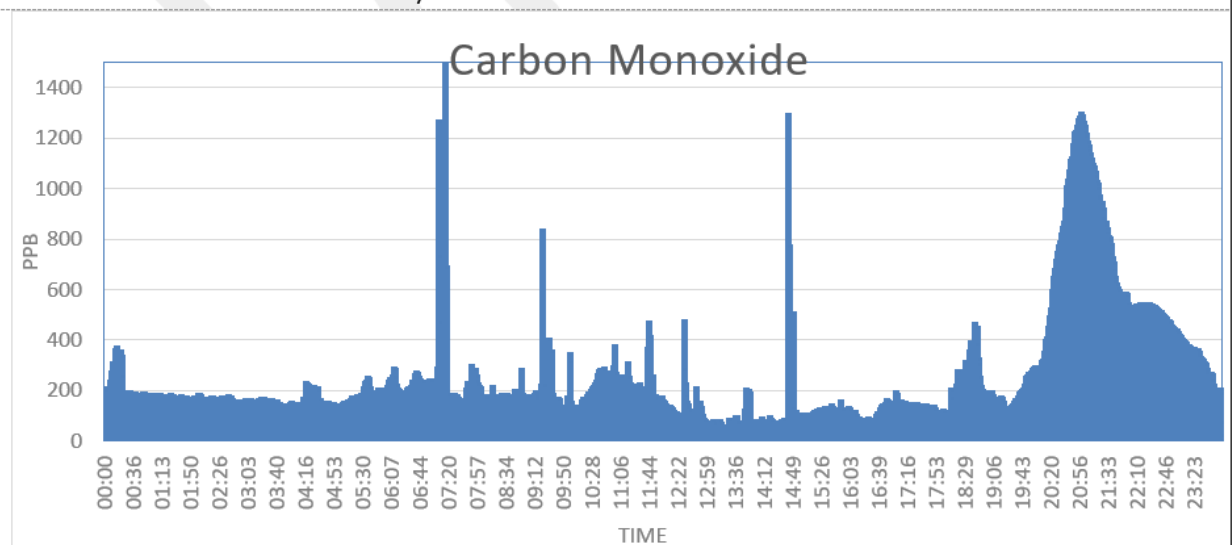
Timeline Carbon Monoxide Emissions



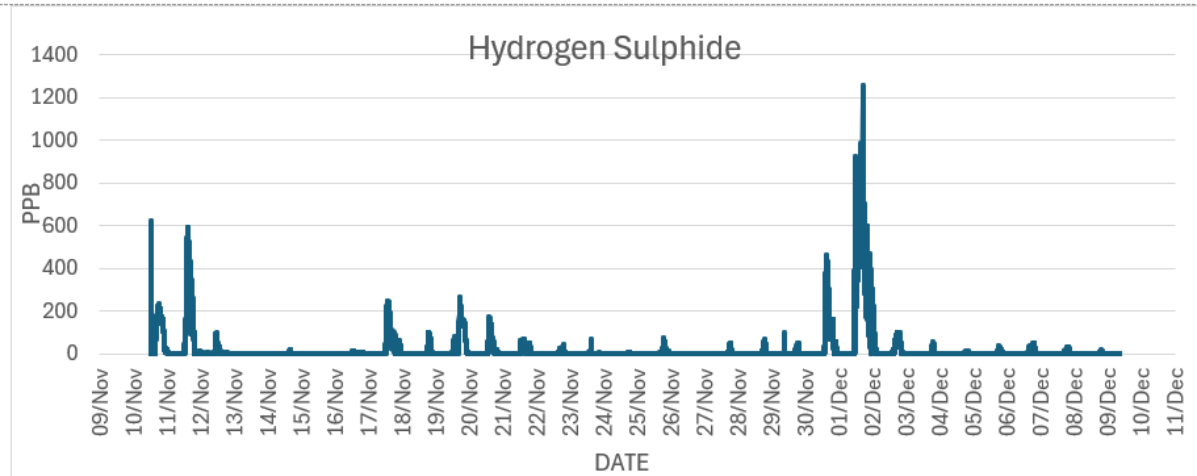
Data versus Compass Direction (degrees)



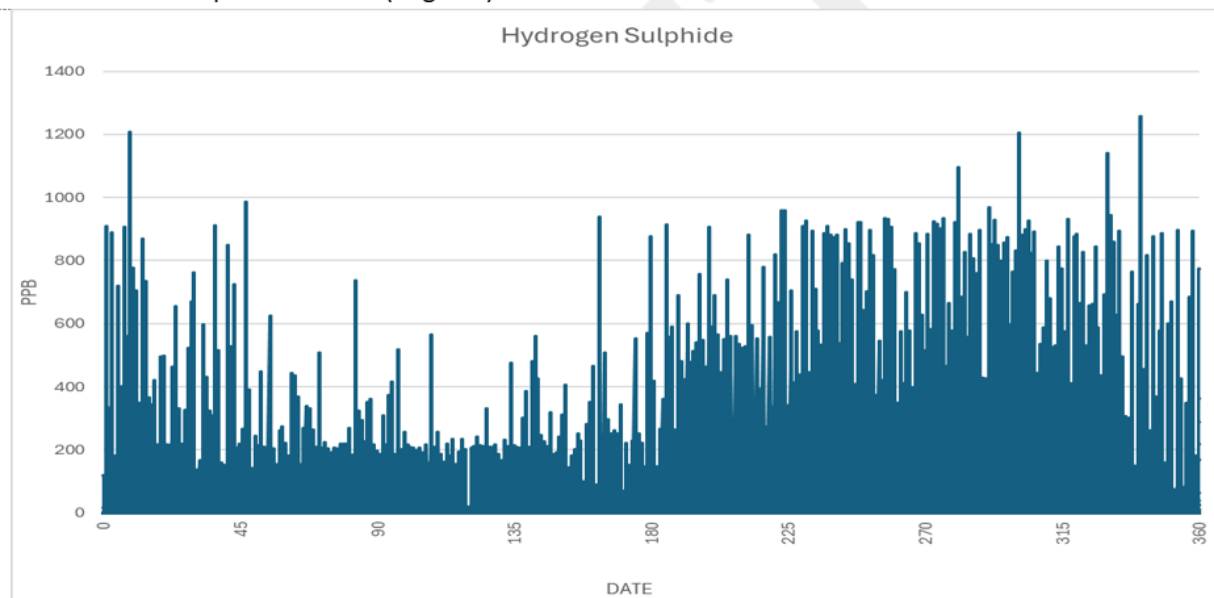
Measured Level Versus Time of Day



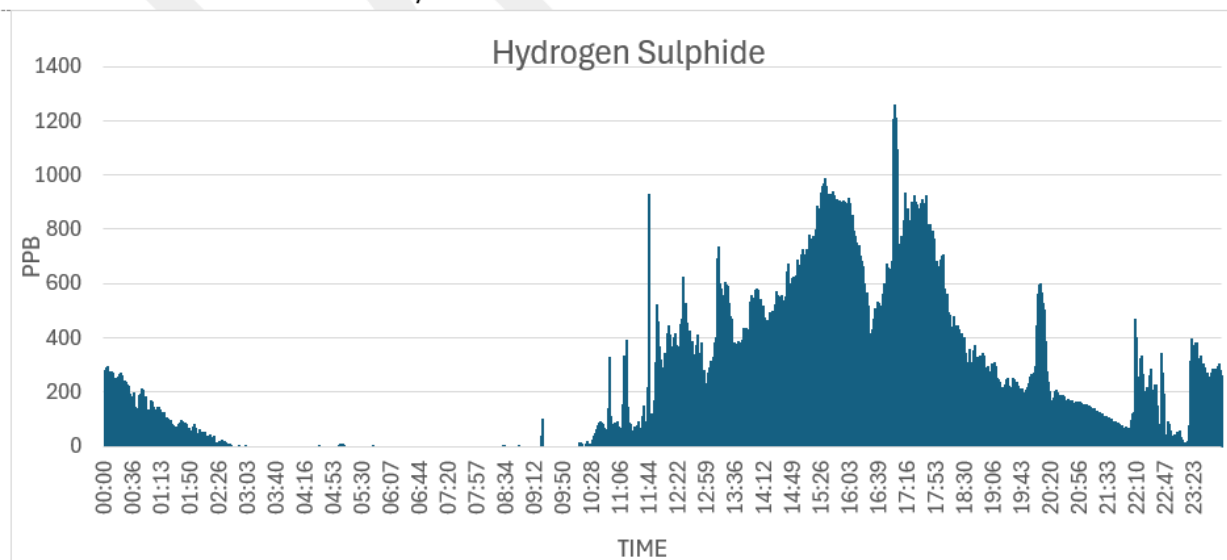
Timeline Hydrogen Sulphide Emissions



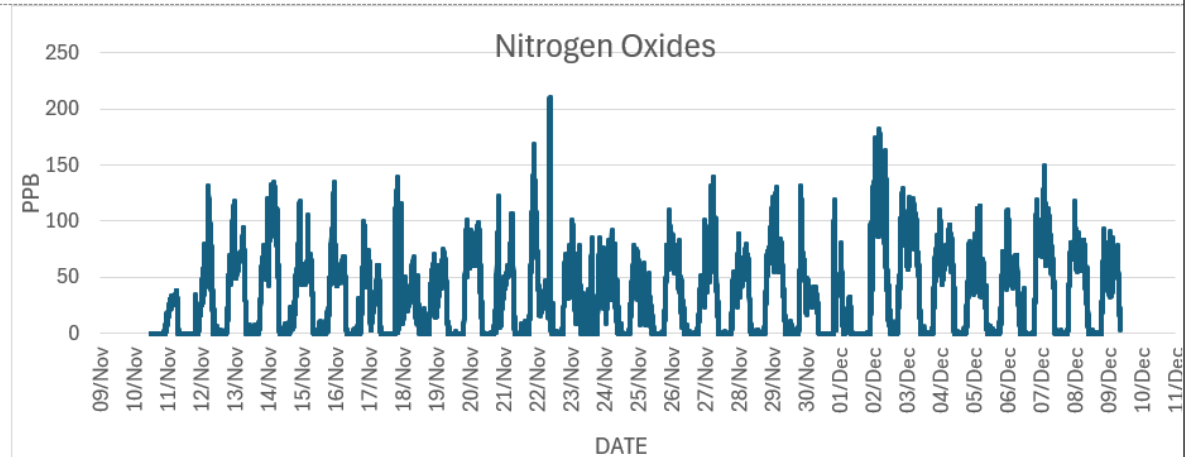
Data versus Compass Direction (degrees)



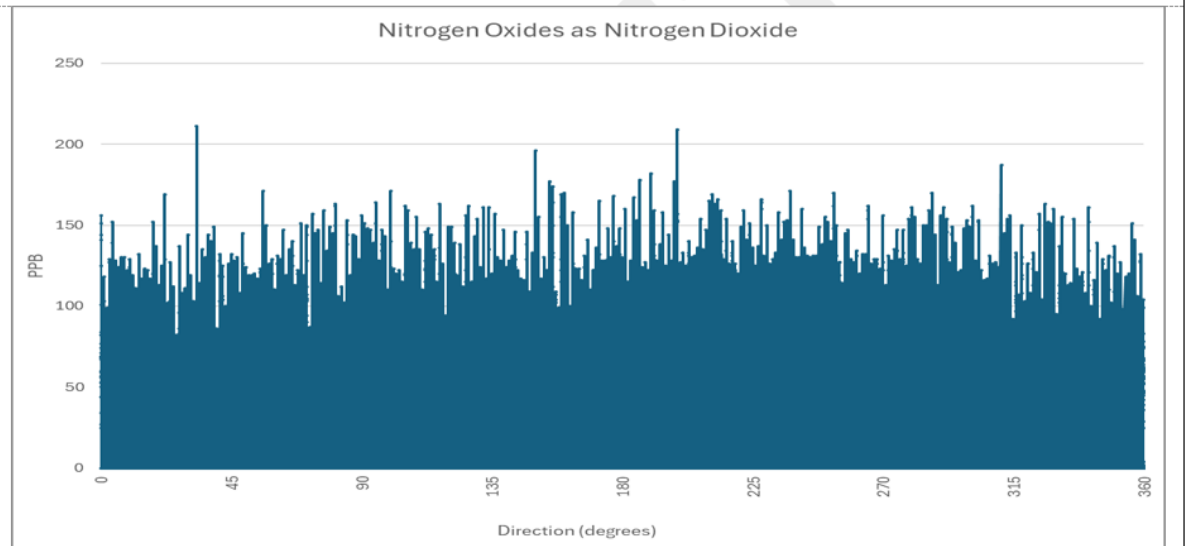
Measured Level Versus Time of Day



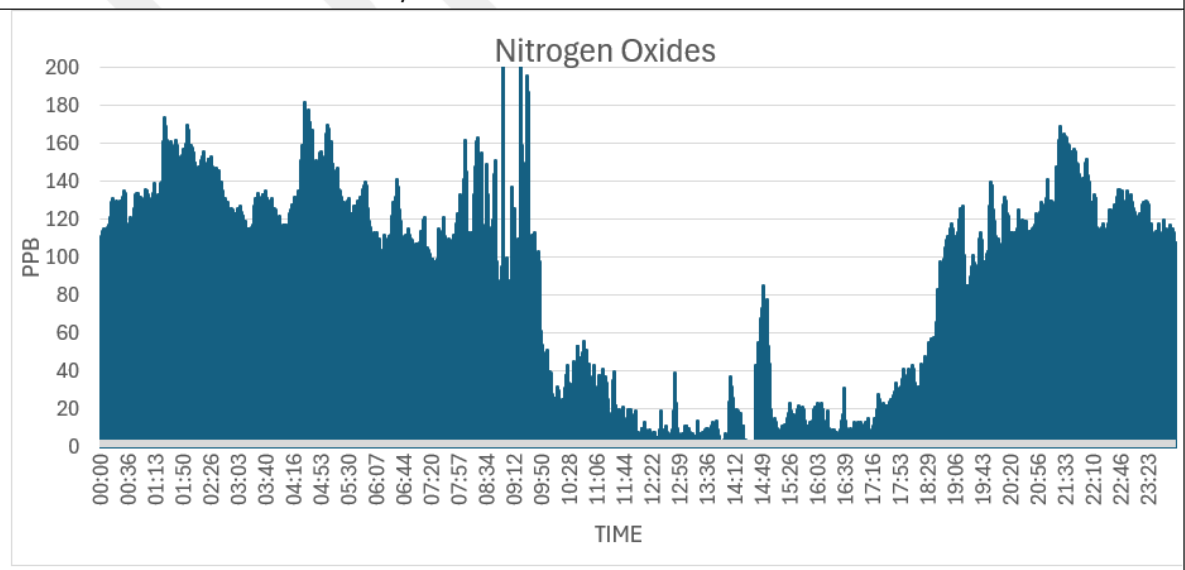
Timeline Nitrogen Oxides (as Nitrogen Dioxide) Emissions



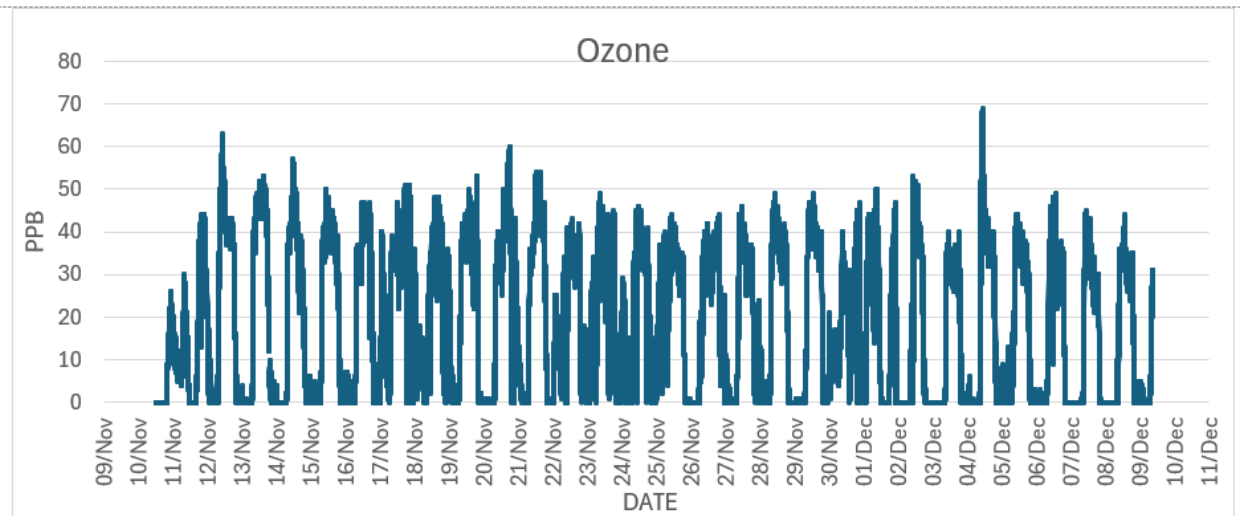
Data versus Compass Direction (degrees)



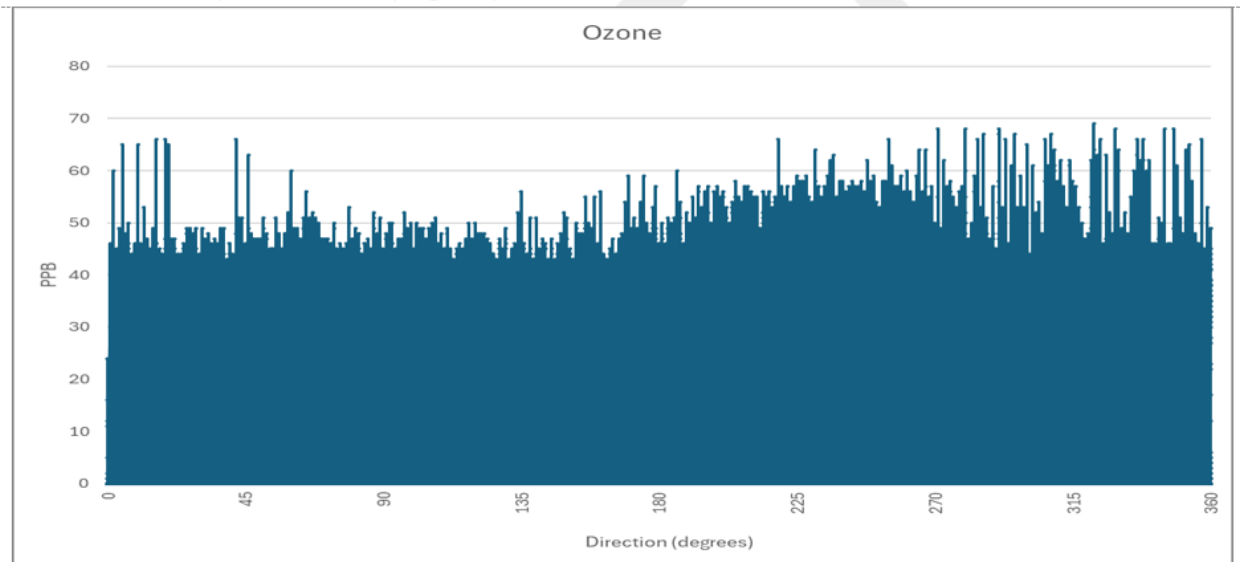
Measured Level Versus Time of Day



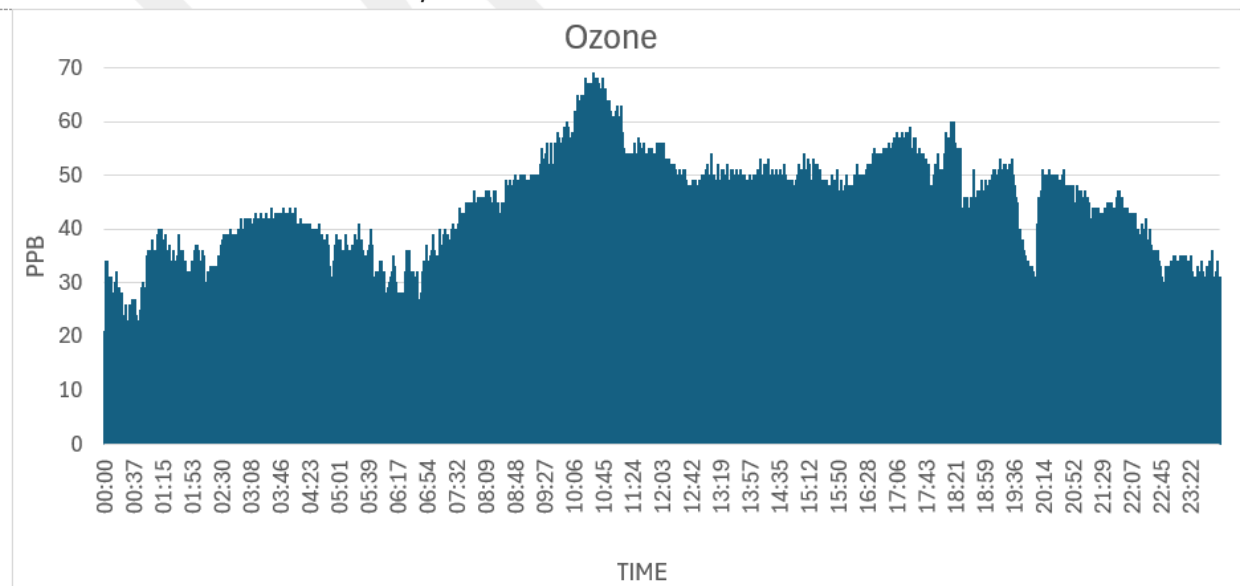
Timeline Ozone Emissions



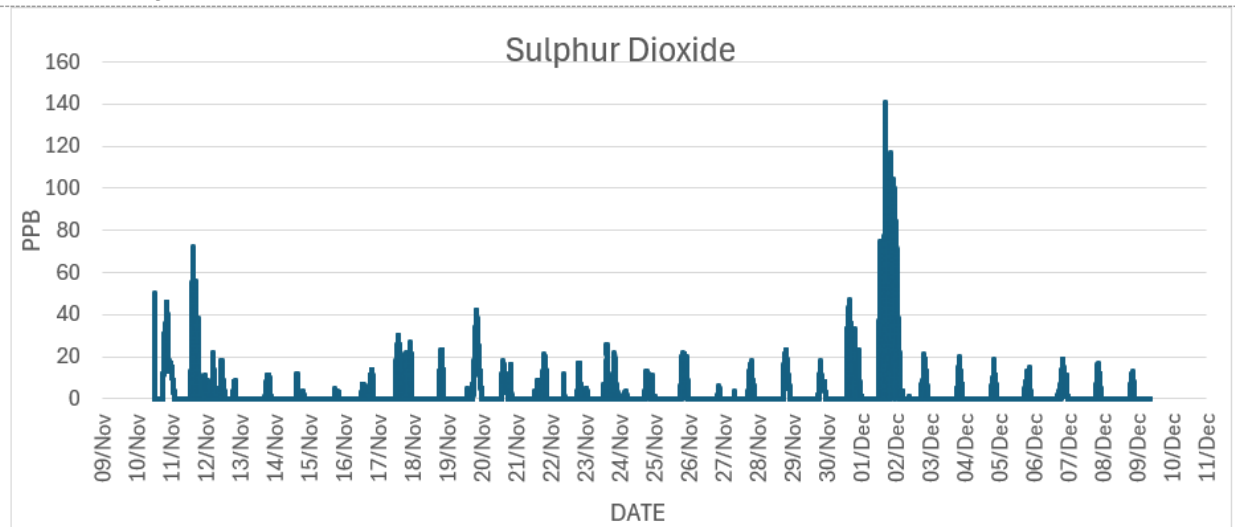
Data versus Compass Direction (degrees)



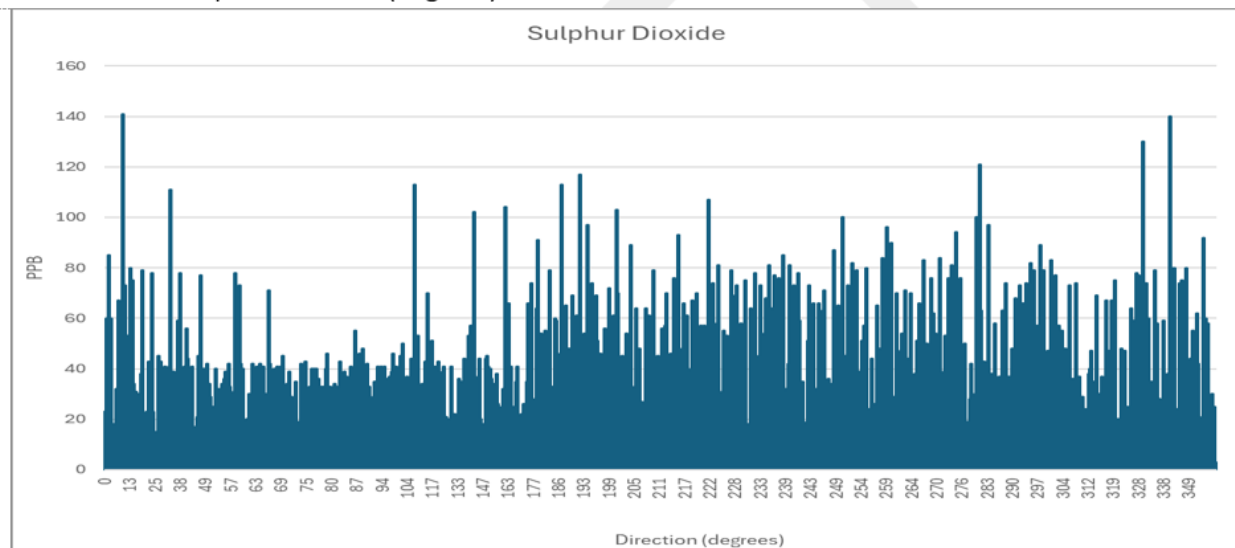
Measured Level Versus Time of Day



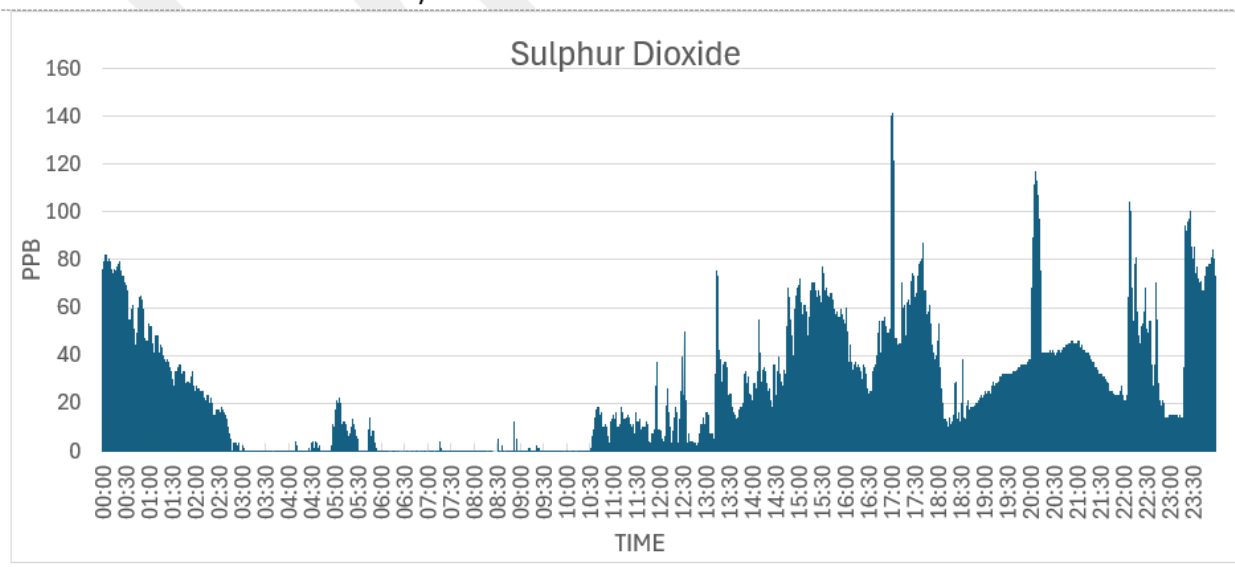
Timeline Sulphur Dioxide Emissions



Data versus Compass Direction (degrees)



Measured Level Versus Time of Day



APPENDIX B: VOLATILE ORGANIC COMPOUNDS AND METALS ANALYSES

Table 6: Summary of results:

Date	Test Conducted Sample ID	Wind Direction	Volume Sampled	Summary of Results
24 Nov 2025	Airborne Metals F183949M	NE-NW	1429 Litre	All below detection limit
24 Nov 2025	Airborne VOC F183949V	NE-NW	65 Litre	All below detection limit
1 Dec 2025	Airborne Metals F184207M	NNW- WSW	1429 Litre	All below detection limit
1 Dec 2025	Airborne VOC F184207V	NNW- WSW	43 Litre	All below detection limit
1 Dec 2025	Blank F184208	n/a	--	Nil Detected

All samples were taken during the day hours to capture normal working hours in the surrounding construction businesses.

LABORATORY RESULTS



Envirolab Services (WA) Pty Ltd trading as MPL Laboratories

ABN 53 140 099 207

7-11 Catalano Road Canning Vale WA 6155

ph +61 8 9317 2505

lab@mpl.com.au

www.mpl.com.au

Certificate of Analysis PGL0110

Client Details

Client	CETEC Pty Ltd (Perth)
Contact	Charles Bucknell
Address	Unit 7, 30 Kearns Crescent, APPLECROSS, WA, 6153

Sample Details

Your Reference	Metals and VOC analysis
Number of Samples	2 Filter, 3 SKC 226-01
Date Samples Received	02/12/2025
Date Instructions Received	02/12/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for soils and on an as received basis for other matrices.

Report Details

Date Final Results Expected	10/12/2025
Date of Issue	10/12/2025

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025. Tests not covered by NATA are denoted with *.

Authorisation Details

Results Approved By	Travis Carey, Organics Supervisor Varsha Ho Wing, Inorganics and Metals Supervisor
Laboratory Manager	Michael Kubiak

Certificate of Analysis PGL0110

Samples in this Report

Envirolab ID	Sample ID	Matrix	Date Sampled	Date Received
PGL0110-01	F183949M	Filter	02/12/2025	02/12/2025
PGL0110-02	F183949V	SKC 226-01	02/12/2025	02/12/2025
PGL0110-03	F184207M	Filter	02/12/2025	02/12/2025
PGL0110-04	F184207V	SKC 226-01	02/12/2025	02/12/2025
PGL0110-05	F184208	SKC 226-01	02/12/2025	02/12/2025

Sample Information

Sample ID	Filter ID	Flow Rate (L/min)	Time Sampled (min)	Air Volume (m3)
F183949M	RCT53	[NA]	[NA]	[NA]
F183949V	5782349	[NA]	[NA]	[NA]
F184207M	RCT54	[NA]	[NA]	[NA]
F184207V	343	[NA]	[NA]	[NA]
F184208	2720	[NA]	[NA]	[NA]

Certificate of Analysis PGL0110

Acid Extractable Metals (Filter)

EnviroLab ID Your Reference Date Sampled	Units	PQL	PGL0110-01 F183949M 02/12/2025	PGL0110-03 F184207M 02/12/2025
Aluminium	µg/sample	2.0	<2.0	<2.0
Antimony	µg/sample	10	<10	<10
Arsenic	µg/sample	0.50	<0.50	<0.50
Barium	µg/sample	0.50	<0.50	<0.50
Beryllium	µg/sample	0.010	<0.010	<0.010
Boron	µg/sample	5.0	<5.0	<5.0
Cadmium	µg/sample	0.10	<0.10	<0.10
Chromium	µg/sample	0.50	<0.50	<0.50
Cobalt	µg/sample	0.50	<0.50	<0.50
Copper	µg/sample	0.50	<0.50	<0.50
Iron	µg/sample	5.0	<5.0	<5.0
Lead	µg/sample	1.0	<1.0	<1.0
Lithium	µg/sample	0.50	<0.50	<0.50
Manganese	µg/sample	0.50	<0.50	<0.50
Mercury	µg/sample	0.20	<0.20	<0.20
Molybdenum	µg/sample	1.0	<1.0	<1.0
Nickel	µg/sample	1.0	<1.0	<1.0
Selenium	µg/sample	0.50	<0.50	<0.50
Silver	µg/sample	0.50	<0.50	<0.50
Strontium	µg/sample	0.50	<0.50	<0.50
Thallium	µg/sample	1.0	<1.0	<1.0
Tin	µg/sample	2.0	<2.0	<2.0
Titanium	µg/sample	2.0	<2.0	<2.0
Vanadium	µg/sample	0.50	<0.50	<0.50
Zinc	µg/sample	2.0	<2.0	<2.0

Your Reference:
Revision: R-00

Metals and VOC analysis
Certificate of Analysis Generated: 10/12/2025 13:06

Page 3 of 14

Certificate of Analysis PGL0110

Organic Vapours - VOC (SKC 226-01)

Envirolab ID Your Reference Date Sampled	Units	PQL	PGL0110-02 F183949V 02/12/2025	PGL0110-04 F184207V 02/12/2025	PGL0110-05 F184208 02/12/2025
Acetone	µg/sample	20	<20	<20	<20
1,1-Dichloroethene	µg/sample	5.0	<5.0	<5.0	<5.0
Acrylonitrile	µg/sample	5.0	<5.0	<5.0	<5.0
Methyl tert butyl ether (MTBE)	µg/sample	10	<10	<10	<10
trans-1,2-Dichloroethene	µg/sample	5.0	<5.0	<5.0	<5.0
3-Methylpentane	µg/sample	5.0	<5.0	<5.0	<5.0
Hexane	µg/sample	20	<20	<20	<20
1,1-Dichloroethane	µg/sample	5.0	<5.0	<5.0	<5.0
Methyl Ethyl Ketone (MEK)	µg/sample	10	<10	<10	<10
cis-1,2-Dichloroethene	µg/sample	5.0	<5.0	<5.0	<5.0
Ethyl acetate	µg/sample	10	<10	<10	<10
2,2-Dichloropropane	µg/sample	5.0	<5.0	<5.0	<5.0
Bromochloromethane	µg/sample	5.0	<5.0	<5.0	<5.0
Chloroform	µg/sample	5.0	<5.0	<5.0	<5.0
Methylcyclopentane	µg/sample	5.0	<5.0	<5.0	<5.0
1,1,1-Trichloroethane	µg/sample	5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	µg/sample	5.0	<5.0	<5.0	<5.0
1,1-Dichloropropene	µg/sample	5.0	<5.0	<5.0	<5.0
Benzene	µg/sample	2.0	<2.0	<2.0	<2.0
Carbon Tetrachloride	µg/sample	5.0	<5.0	<5.0	<5.0
Cyclohexane	µg/sample	5.0	<5.0	<5.0	<5.0
3-Methylhexane	µg/sample	5.0	<5.0	<5.0	<5.0
Ethyl acrylate	µg/sample	10	<10	<10	<10
Heptane	µg/sample	5.0	<5.0	<5.0	<5.0
Trichloroethene	µg/sample	5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	µg/sample	5.0	<5.0	<5.0	<5.0
1,4-Dioxane	µg/sample	5.0	<5.0	<5.0	<5.0
Bromodichloromethane	µg/sample	5.0	<5.0	<5.0	<5.0
Epichlorohydrin	µg/sample	5.0	<5.0	<5.0	<5.0
Methylcyclohexane	µg/sample	5.0	<5.0	<5.0	<5.0
Methyl isobutyl ketone (MIBK)	µg/sample	5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	µg/sample	5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	µg/sample	5.0	<5.0	<5.0	<5.0
Toluene	µg/sample	5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	µg/sample	5.0	<5.0	<5.0	<5.0
Methyl isopropyl ketone (MIPK)	µg/sample	5.0	<5.0	<5.0	<5.0
1,3-Dichloropropane	µg/sample	5.0	<5.0	<5.0	<5.0
Octane	µg/sample	5.0	<5.0	<5.0	<5.0
Dibromochloromethane	µg/sample	5.0	<5.0	<5.0	<5.0
n-Butyl acetate	µg/sample	10	<10	<10	<10
Tetrachloroethene	µg/sample	5.0	<5.0	<5.0	<5.0
1,2-Dibromoethane	µg/sample	5.0	<5.0	<5.0	<5.0
Chlorobenzene	µg/sample	5.0	<5.0	<5.0	<5.0
1,1,1,2-Tetrachloroethane	µg/sample	5.0	<5.0	<5.0	<5.0
Ethylbenzene	µg/sample	5.0	<5.0	<5.0	<5.0
meta+para Xylene	µg/sample	10	<10	<10	<10

Your Reference:
Revision: R-00

Metals and VOC analysis
Certificate of Analysis Generated: 10/12/2025 13:06

Page 4 of 14

Certificate of Analysis PGL0110

Organic Vapours - VOC (SKC 226-01)

EnviroLab ID Your Reference Date Sampled	Units	PQL	PGL0110-02 F183949V 02/12/2025	PGL0110-04 F184207V 02/12/2025	PGL0110-05 F184208 02/12/2025
Nonane	µg/sample	5.0	<5.0	<5.0	<5.0
Cyclohexanone	µg/sample	5.0	<5.0	<5.0	<5.0
Styrene	µg/sample	5.0	<5.0	<5.0	<5.0
ortho-Xylene	µg/sample	5.0	<5.0	<5.0	<5.0
Bromoform	µg/sample	5.0	<5.0	<5.0	<5.0
Total Xylene	µg/sample	15	<15	<15	<15
1,1,2,2-Tetrachloroethane	µg/sample	5.0	<5.0	<5.0	<5.0
Isopropylbenzene	µg/sample	5.0	<5.0	<5.0	<5.0
1,2,3-Trichloropropane	µg/sample	5.0	<5.0	<5.0	<5.0
Bromobenzene	µg/sample	5.0	<5.0	<5.0	<5.0
n-Propylbenzene	µg/sample	5.0	<5.0	<5.0	<5.0
2-Chlorotoluene	µg/sample	5.0	<5.0	<5.0	<5.0
Diisobutyl Ketone (DIBK)	µg/sample	5.0	<5.0	<5.0	<5.0
4-Chlorotoluene	µg/sample	5.0	<5.0	<5.0	<5.0
1,3,5-Trimethylbenzene	µg/sample	5.0	<5.0	<5.0	<5.0
alpha-Methylstyrene	µg/sample	5.0	<5.0	<5.0	<5.0
Decane	µg/sample	5.0	<5.0	<5.0	<5.0
tert-Butylbenzene	µg/sample	5.0	<5.0	<5.0	<5.0
1,2,4-Trimethylbenzene	µg/sample	5.0	<5.0	<5.0	<5.0
s-butylbenzene	µg/sample	5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene	µg/sample	5.0	<5.0	<5.0	<5.0
Benzyl chloride	µg/sample	5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene	µg/sample	5.0	<5.0	<5.0	<5.0
4-Isopropyltoluene	µg/sample	5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene	µg/sample	5.0	<5.0	<5.0	<5.0
n-Butyl benzene	µg/sample	5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane	µg/sample	5.0	<5.0	<5.0	<5.0
Dodecane	µg/sample	5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	µg/sample	5.0	<5.0	<5.0	<5.0
Naphthalene	µg/sample	10	<10	<10	<10
Hexachlorobutadiene	µg/sample	5.0	<5.0	<5.0	<5.0
1,2,3-Trichlorobenzene	µg/sample	5.0	<5.0	<5.0	<5.0
Surrogate Toluene-D8	%		105	96.6	103

Your Reference:
Revision: R-00

Metals and VOC analysis
Certificate of Analysis Generated: 10/12/2025 13:06

Page 5 of 14

Certificate of Analysis PGL0110

Method Summary

Method ID	Methodology Summary
METALS-020	Determination of various metals by ICP-OES. Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation.
METALS-020/022	Determination of various metals by ICP-OES or ICP-MS. Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation.
METALS-021	Determination of Mercury by Cold Vapour AAS.
METALS-022	Determination of various metals by ICP-MS. Please note for Bromine and Iodine, any forms of these elements that are present are included together in the one result reported for each of these two elements. Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation.
ORG-022_VOC_AIR	Determination of volatile organic compounds in charcoal tubes/badges/sorbents using CS ₂ extraction, determined by GC/GC-MS. Desorption efficiencies are not applied to results. Note where µg/m ³ or mg/m ³ results are supplied for SKC badges, the factors used are for 575-001, if 575-001 data is unavailable for an analyte then use 575-002 then 575-003 (exposure time must be supplied). Otherwise a sampling rate from a similar analyte is used. Analytes such as (where applicable) Iodomethane, Chloroprene, Nitrobenzene, Naphthalene and 1,2,3/1,2,4-Trichlorobenzenes are considered to be semi-quant analyses using CS ₂ desorption from charcoal tubes. The latter three compounds are better served by XAD-2 collection and analysis. Note - air volume measurements are not covered by EnviroLab's NATA accreditation.

Your Reference: Metals and VOC analysis
Revision: R-00 Certificate of Analysis Generated: 10/12/2025 13:06

Page 6 of 14

Certificate of Analysis PGL0110

Result Definitions

Identifier	Description
NR	Not reported
NEPM	National Environment Protection Measure
NS	Not specified
LCS	Laboratory Control Sample
RPD	Relative Percent Difference
>	Greater than
<	Less than
PQL	Practical Quantitation Limit
INS	Insufficient sample for this test
NA	Test not required
NT	Not tested
DOL	Samples rejected due to particulate overload (air filters only)
RFD	Samples rejected due to filter damage (air filters only)
RUD	Samples rejected due to uneven deposition (air filters only)
##	Indicates a laboratory acceptance criteria outlier, for further details, see Result Comments and/or QC Comments

Quality Control Definitions

Blank

This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, and is determined by processing solvents and reagents in exactly the same manner as for samples.

Surrogate Spike

Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

LCS (Laboratory Control Sample)

This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Matrix Spike

A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

Duplicate

This is the complete duplicate analysis of a sample from the process batch. The sample selected should be one where the analyte concentration is easily measurable.

Certificate of Analysis PGL0110

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria. Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction. Spikes for Physical and Aggregate Tests are not applicable. For VOCs in water samples, three vials are required for duplicate or spike analysis.

General Acceptance Criteria (GAC) - Analyte specific criteria applies for some analytes and is reflected in QC recovery tables.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% - see ELN-P05 QAQC tables for details (available on request); <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase. Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was typically insufficient in order to satisfy laboratory QA/QC protocols.

Miscellaneous Information

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached. We have taken the sampling date as being the date received at the laboratory.

Two significant figures are reported for the majority of tests and with a high degree of confidence, for results <10*PQL, the second significant figure may be in doubt i.e. has a relatively high degree of uncertainty and is provided for information only.

Measurement Uncertainty estimates can be downloaded from the [Envirolab Resources website](#) or obtained directly by contacting the laboratory.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS where sediment/solids are included by default.

Urine Analysis - The BEI values listed are taken from the 2022 edition of *TLVs and BEIs Threshold Limits by ACGIH*.

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volume(s) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

Data Quality Assessment Summary PGL0110

Client Details

Client	CETEC Pty Ltd (Perth)
Your Reference	Metals and VOC analysis
Date Issued	10/12/2025

Recommended Holding Time Compliance

No recommended holding time exceedances

Quality Control and QC Frequency

QC Type	Compliant	Details
Blank	Yes	No Outliers
LCS	Yes	No Outliers
Duplicates	Yes	No Outliers
Matrix Spike	Yes	No Outliers
Surrogates / Extracted Internal Standards	Yes	No Outliers
QC Frequency	Yes	No Outliers

Surrogates/Extracted Internal Standards, Duplicates and/or Matrix Spikes are not always relevant/applicable to certain analyses and matrices. Therefore, said QC measures are deemed compliant in these situations by default. See Laboratory Acceptance Criteria for more information

Data Quality Assessment Summary PGL0110

Recommended Holding Time Compliance

Analysis	Sample Number(s)	Date Sampled	Date Extracted	Date Analysed	Compliant
Metals OHS Filter	1, 3	02/12/2025	05/12/2025	08/12/2025	Yes
Metals OHS (LL) Filter	1, 3	02/12/2025	05/12/2025	10/12/2025	Yes
Metals OHS-Hg Filter	1, 3	02/12/2025	05/12/2025	08/12/2025	Yes
VOC Suite 3 SKC 226-01	2, 4-5	02/12/2025	04/12/2025	06/12/2025	Yes

Your Reference:
Revision: R-00

Metals and VOC analysis
Certificate of Analysis Generated: 10/12/2025 13:06

Page 10 of 14

Quality Control PGL0110

METALS-020/022 | Acid Extractable Metals (Filter) | Batch BGL1100

Analyte	Units	PQL	Blank	LCS %
Aluminium	µg/sample	2.0	<2.0	99.6
Antimony	µg/sample	10	<10	108
Barium	µg/sample	0.50	<0.50	99.7
Boron	µg/sample	5.0	<5.0	98.7
Cadmium	µg/sample	0.10	<0.10	102
Chromium	µg/sample	0.50	<0.50	101
Cobalt	µg/sample	0.50	<0.50	101
Copper	µg/sample	0.50	<0.50	101
Iron	µg/sample	5.0	<5.0	101
Lead	µg/sample	1.0	<1.0	97.5
Lithium	µg/sample	0.50	<0.50	107
Manganese	µg/sample	0.50	<0.50	99.8
Molybdenum	µg/sample	1.0	<1.0	100
Nickel	µg/sample	1.0	<1.0	99.2
Silver	µg/sample	0.50	<0.50	103
Strontium	µg/sample	0.50	<0.50	97.7
Tin	µg/sample	2.0	<2.0	97.8
Titanium	µg/sample	2.0	<2.0	97.4
Vanadium	µg/sample	0.50	<0.50	100
Zinc	µg/sample	2.0	<2.0	100

METALS-021 | Acid Extractable Metals (Filter) | Batch BGL1101

Analyte	Units	PQL	Blank	LCS %
Mercury	µg/sample	0.20	<0.20	101

METALS-022 | Acid Extractable Metals (Filter) | Batch BGL1102

Analyte	Units	PQL	Blank	LCS %
Arsenic	µg/sample	0.50	<0.50	97.3
Beryllium	µg/sample	0.010	<0.010	84.5
Selenium	µg/sample	0.50	<0.50	108
Thallium	µg/sample	1.0	<1.0	95.0

Quality Control PGL0110

ORG-022_VOC_AIR | Organic Vapours - VOC (SKC 226-01) | Batch BGL0841

Your Reference:
Revision: R-00

Metals and VOC analysis
Certificate of Analysis Generated: 10/12/2025 13:06

Page 12 of 14

Quality Control PGL0110

ORG-022_VOC_AIR | Organic Vapours - VOC (SKC 226-01) | Batch BGL0841

Analyte	Units	PQL	Blank	LCS %
Acetone	µg/sample	20	<20	[NA]
1,1-Dichloroethene	µg/sample	5.0	<5.0	[NA]
Acrylonitrile	µg/sample	5.0	<5.0	[NA]
Methyl tert butyl ether (MTBE)	µg/sample	10	<10	[NA]
trans-1,2-Dichloroethene	µg/sample	5.0	<5.0	[NA]
3-Methylpentane	µg/sample	5.0	<5.0	[NA]
Hexane	µg/sample	20	<20	[NA]
1,1-Dichloroethane	µg/sample	5.0	<5.0	99.3
Methyl Ethyl Ketone (MEK)	µg/sample	10	<10	[NA]
cis-1,2-Dichloroethene	µg/sample	5.0	<5.0	[NA]
Ethyl acetate	µg/sample	10	<10	[NA]
2,2-Dichloropropane	µg/sample	5.0	<5.0	[NA]
Bromochloromethane	µg/sample	5.0	<5.0	[NA]
Chloroform	µg/sample	5.0	<5.0	105
Methylcyclopentane	µg/sample	5.0	<5.0	[NA]
1,1,1-Trichloroethane	µg/sample	5.0	<5.0	[NA]
1,2-Dichloroethane	µg/sample	5.0	<5.0	[NA]
1,1-Dichloropropene	µg/sample	5.0	<5.0	[NA]
Benzene	µg/sample	2.0	<2.0	110
Carbon Tetrachloride	µg/sample	5.0	<5.0	114
Cyclohexane	µg/sample	5.0	<5.0	[NA]
3-Methylhexane	µg/sample	5.0	<5.0	[NA]
Ethyl acrylate	µg/sample	10	<10	[NA]
Heptane	µg/sample	5.0	<5.0	[NA]
Trichloroethene	µg/sample	5.0	<5.0	115
1,2-Dichloropropane	µg/sample	5.0	<5.0	[NA]
1,4-Dioxane	µg/sample	5.0	<5.0	[NA]
Bromodichloromethane	µg/sample	5.0	<5.0	[NA]
Epichlorohydrin	µg/sample	5.0	<5.0	[NA]
Methylcyclohexane	µg/sample	5.0	<5.0	[NA]
Methyl isobutyl ketone (MIBK)	µg/sample	5.0	<5.0	[NA]
cis-1,3-Dichloropropene	µg/sample	5.0	<5.0	[NA]
trans-1,3-Dichloropropene	µg/sample	5.0	<5.0	[NA]
Toluene	µg/sample	5.0	<5.0	99.3
1,1,2-Trichloroethane	µg/sample	5.0	<5.0	[NA]
Methyl isopropyl ketone (MIPK)	µg/sample	5.0	<5.0	[NA]
1,3-Dichloropropane	µg/sample	5.0	<5.0	[NA]
Octane	µg/sample	5.0	<5.0	[NA]
Dibromochloromethane	µg/sample	5.0	<5.0	[NA]
n-Butyl acetate	µg/sample	10	<10	[NA]
Tetrachloroethene	µg/sample	5.0	<5.0	102
1,2-Dibromoethane	µg/sample	5.0	<5.0	[NA]
Chlorobenzene	µg/sample	5.0	<5.0	[NA]
1,1,1,2-Tetrachloroethane	µg/sample	5.0	<5.0	[NA]
Ethylbenzene	µg/sample	5.0	<5.0	103
meta+para Xylene	µg/sample	10	<10	103
Nonane	µg/sample	5.0	<5.0	[NA]
Cyclohexanone	µg/sample	5.0	<5.0	[NA]
Styrene	µg/sample	5.0	<5.0	[NA]
ortho-Xylene	µg/sample	5.0	<5.0	102
Bromoform	µg/sample	5.0	<5.0	[NA]
Total Xylene	µg/sample	15	<15	[NA]
1,1,2,2-Tetrachloroethane	µg/sample	5.0	<5.0	[NA]
Isopropylbenzene	µg/sample	5.0	<5.0	[NA]
1,2,3-Trichloropropane	µg/sample	5.0	<5.0	[NA]
Bromobenzene	µg/sample	5.0	<5.0	[NA]
n-Propylbenzene	µg/sample	5.0	<5.0	[NA]

Your Reference:
Revision: R-00

Metals and VOC analysis
Certificate of Analysis Generated: 10/12/2025 13:06

Page 13 of 14

Quality Control PGL0110

ORG-022_VOC_AIR | Organic Vapours - VOC (SKC 226-01) | Batch BGL0841

Analyte	Units	PQL	Blank	LCS %
2-Chlorotoluene	µg/sample	5.0	<5.0	[NA]
Diisobutyl Ketone (DIBK)	µg/sample	5.0	<5.0	[NA]
4-Chlorotoluene	µg/sample	5.0	<5.0	[NA]
1,3,5-Trimethylbenzene	µg/sample	5.0	<5.0	[NA]
alpha-Methylstyrene	µg/sample	5.0	<5.0	[NA]
Decane	µg/sample	5.0	<5.0	[NA]
tert-Butylbenzene	µg/sample	5.0	<5.0	[NA]
1,2,4-Trimethylbenzene	µg/sample	5.0	<5.0	[NA]
s-butylbenzene	µg/sample	5.0	<5.0	[NA]
1,3-Dichlorobenzene	µg/sample	5.0	<5.0	[NA]
Benzyl chloride	µg/sample	5.0	<5.0	[NA]
1,4-Dichlorobenzene	µg/sample	5.0	<5.0	119
4-Isopropyltoluene	µg/sample	5.0	<5.0	[NA]
1,2-Dichlorobenzene	µg/sample	5.0	<5.0	[NA]
n-Butyl benzene	µg/sample	5.0	<5.0	[NA]
1,2-Dibromo-3-chloropropane	µg/sample	5.0	<5.0	[NA]
Dodecane	µg/sample	5.0	<5.0	[NA]
1,2,4-Trichlorobenzene	µg/sample	5.0	<5.0	116
Naphthalene	µg/sample	10	<10	[NA]
Hexachlorobutadiene	µg/sample	5.0	<5.0	[NA]
1,2,3-Trichlorobenzene	µg/sample	5.0	<5.0	[NA]
Surrogate Toluene-D8	%		95.8	98.1

Your Reference:
Revision: R-00

Metals and VOC analysis
Certificate of Analysis Generated: 10/12/2025 13:06

Page 14 of 14

DISCLAIMER

CETEC has taken all reasonable care to ensure that the information contained in this report is accurate. The report is based on data and information collected by CETEC personnel during location visits and information accepted in good faith from various personnel associated with this work. However, no warranty or representation can be given that the information and materials contained in it are complete or free from errors or inaccuracies.

CETEC accepts no responsibility for any deficiency, misstatements or inaccuracies contained in this report as a result of omissions, misinterpretation or fraudulent acts of the persons interviewed or contacted.

To the extent permitted by applicable laws, CETEC accepts no liability for any decision, action, loss, damages or expenses of any kind including without limitation, compensatory, direct, indirect or consequential damages, loss of data, income or profit, loss of or damage to property, or claims by third parties howsoever arising in connection with the use or reliance on the information in this report. This exclusion of liability shall also apply to damages arising from death or personal injury potentially caused by the negligence of CETEC or any of its employees or agents.

By viewing this report, you are acknowledging that you have read and agree to the above disclaimer.

COPYRIGHT

The material in this report is protected by copyright, which is owned by CETEC. Users may view, print and download the contents for personal use only and the contents must not be used for any commercial purposes, without the express permission of Scope Property Group and CETEC. Furthermore, the material in this report, or any part of it, is not to be incorporated or distributed in any work or in any publication in any form without the permission of Scope Property Group and CETEC.