



# KIMBERLEY NORTHERN CAPE - GREENMINED DUST FALL-OUT MONITORING PROGRAMME

## DUSTWATCH REPORT 1

**1 OCTOBER TO 31 OCTOBER 2025**


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### 1 INTRODUCTION

This report covers a 30-day period.

The unit design and methodology are based on the ASTM D1739 standard. Additional information is available in the DustWatch manual.

The area used for the buckets collecting the dust is 0,022966m<sup>2</sup>.

Unit Name	GPS Position
<p>Unit 1</p> 	<p>28°49'12"S 24°42'37"E</p>

**the goal isn't to live forever, it is to protect a planet that will**

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Doc Number: 1125241231 Date: 24-Nov-25 Page: 1 of 24

Unit Name	GPS Position
<p>Unit 2</p> 	<p>28°49'27"S 24°42'31"E</p>
<p>Unit 3</p> 	<p>28°49'38"S 24°42'58"E</p>
<p>Unit 4</p> 	<p>28°49'06"S 24°42'56"E</p>

Unit Name	GPS Position
<p>Unit 5</p> 	<p>28°49'21"S 24°43'02"E</p>
<p>Unit 6</p> 	<p>28°49'20"S 24°42'34"E</p>



Unit Name	GPS Position
<p>Unit 7</p> 	<p>28°49'34"S 24°42'29"E</p>
<p>Unit 8</p> 	<p>28°49'38"S 24°42'27"E</p>

Table 1: GPS locations



Photograph 2 Map showing the position of the units. The Google KMZ file is available for download.

## 2 COMMENTS ON THE RESULTS

The fall-out dust standards from National Dust Control Regulations, 2013.

<b>Restriction Areas</b>	<b>Dustfall rate (D) (mg/m<sup>2</sup>/day) – averaged over 30 days.</b>	<b>Permitted frequency of exceeding dust fall rate</b>
Residential area	D < 600	Two within a year, not sequential months.
Non-residential area	D < 1200	Two within a year, not sequential months.

Table 3: Acceptable Dust Fall Rates – National Dust Control Regulations, 2013.

The non-residential allocation has been used for all the units. The action level may be exceeded two times within a year but not for two consecutive months.

The single bucket units that yielded results are described below.

- The Unit 1 unit yielded 118 mg/m<sup>2</sup>/day in this period.
- The SB2 unit yielded 157 mg/m<sup>2</sup>/day in this period.
- The SB3 unit yielded 167 mg/m<sup>2</sup>/day in this period.
- The SB4 unit yielded 135 mg/m<sup>2</sup>/day in this period.
- The SB5 unit yielded 139 mg/m<sup>2</sup>/day in this period.
- The SB6 unit yielded 373 mg/m<sup>2</sup>/day in this period.
- The SB7 unit yielded 176 mg/m<sup>2</sup>/day in this period.
- The SB8 unit yielded 266 mg/m<sup>2</sup>/day in this period.

All units are compliant for the period.



The compliance table for **2025** is shown below.

Unit name	Residential or Non-residential Area	Applicable Compliance - Dustfall rate (D) (mg/m <sup>2</sup> /day) – averaged over 30 days.	Non-compliant or compliant. Two within a year, not sequential months.
Unit 1	(Non-residential)	D < 1200	<b>Compliant</b> in this period. Compliant for the year. No exceedance.
Unit 2	(Non-residential)	D < 1200	<b>Compliant</b> in this period. Compliant for the year. No exceedance.
Unit 3	(Non-residential)	D < 1200	<b>Compliant</b> in this period. Compliant for the year. No exceedance.
Unit 3	(Non-residential)	D < 1200	<b>Compliant</b> in this period. Compliant for the year. No exceedance.
Unit 5	(Non-residential)	D < 1200	<b>Compliant</b> in this period. Compliant for the year. No exceedance.
Unit 6	(Non-residential)	D < 1200	<b>Compliant</b> in this period. Compliant for the year. No exceedance.
Unit 7	(Non-residential)	D < 1200	<b>Compliant</b> in this period. Compliant for the year. No exceedance.
Unit 8	(Non-residential)	D < 1200	<b>Compliant</b> in this period. Compliant for the year. No exceedance.

Table 4: Compliance Table **2025**.

\* The compliance level is based on the ASTM D1739 (1970) standard and the new dust control regulations. Additional information should also be considered. The legislation does not make any allowance for the allocation of the source of the dust collected. This works well, in an area with just one industrial activity and one predominant dust source, but additional information is needed in areas with multiple dust sources and multiple industrial activities. DustWatch is available to come to site to assist with dust control investigations.



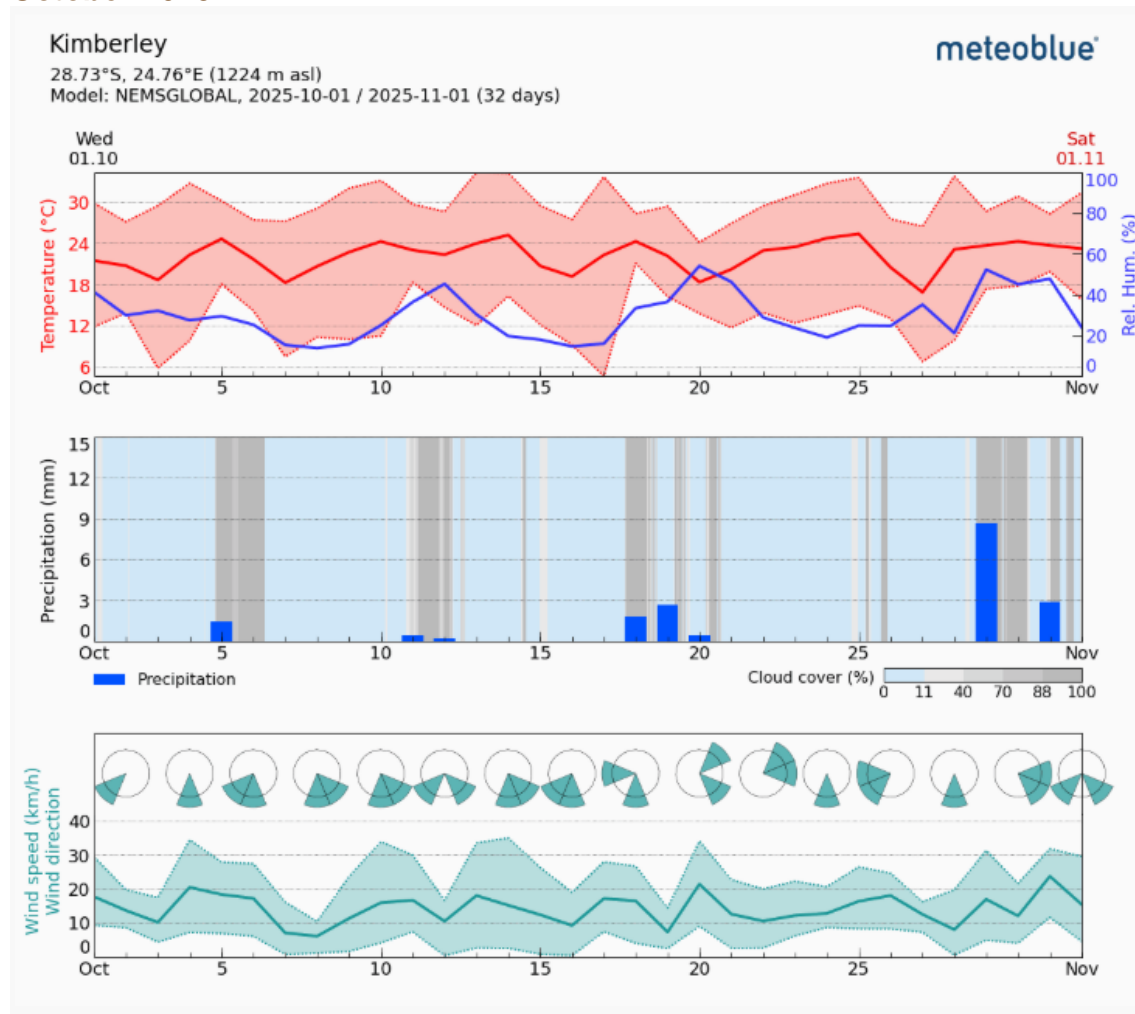
Gerry F. Kuhn (FMVS, MSAIOH, Grad SE)



Chris Loans  
(BSc Chemical Engineer)

Cape Town, Doc Number: 1125241231 Date: 24-Nov-25

## APPENDIX: METEOBLUE.COM WEATHER INFORMATION – [Weather](#) - October 2025





<b>CLIENT:</b> Kimberley Northern Cape - Greenmined				<b>SAMPLING PERIOD</b> - 1-Oct-2025 - 31-Oct-2025			
UNIT No.	LOCATION	FROM	TO	DUST MASS COLLECTED (mg)	FILTER	DUST mg/m2/day	COMMENTS & NOTES
						Result	
SB1	Unit 1	1-Oct-2025	31-Oct-2025	81.5	V257	118	

Table 5: DustWatch Results

<b>CLIENT:</b> Kimberley Northern Cape - Greenmined				<b>SAMPLING PERIOD</b> - 1-Oct-2025 - 31-Oct-2025			
UNIT No.	LOCATION	FROM	TO	DUST MASS COLLECTED (mg)	FILTER	DUST mg/m2/day	COMMENTS & NOTES
						Result	
SB2	Unit 2	1-Oct-2025	31-Oct-2025	108.2	V258	157	

Table 6: DustWatch Results

<b>CLIENT:</b> Kimberley Northern Cape - Greenmined				<b>SAMPLING PERIOD</b> - 1-Oct-2025 - 31-Oct-2025			
UNIT No.	LOCATION	FROM	TO	DUST MASS COLLECTED (mg)	FILTER	DUST mg/m2/day	COMMENTS & NOTES
						Result	
SB3	Unit 3	1-Oct-2025	31-Oct-2025	114.8	V259	167	

Table 7: DustWatch Results

<b>CLIENT:</b> Kimberley Northern Cape - Greenmined				<b>SAMPLING PERIOD</b> - 1-Oct-2025 - 31-Oct-2025			
UNIT No.	LOCATION	FROM	TO	DUST MASS COLLECTED (mg)	FILTER	DUST mg/m2/day	COMMENTS & NOTES
						Result	
SB4	Unit 4	1-Oct-2025	31-Oct-2025	93.3	V260	135	

Table 8: DustWatch Results

<b>CLIENT:</b> Kimberley Northern Cape - Greenmined				<b>SAMPLING PERIOD</b> - 1-Oct-2025 - 31-Oct-2025			
UNIT No.	LOCATION	FROM	TO	DUST MASS COLLECTED (mg)	FILTER	DUST mg/m2/day	COMMENTS & NOTES
						Result	
SB5	Unit 5	1-Oct-2025	31-Oct-2025	95.6	V261	139	

Table 9: DustWatch Results

<b>CLIENT:</b> Kimberley Northern Cape - Greenmined				<b>SAMPLING PERIOD</b> - 1-Oct-2025 - 31-Oct-2025			
UNIT No.	LOCATION	FROM	TO	DUST MASS COLLECTED (mg)	FILTER	DUST mg/m2/day	COMMENTS & NOTES
						Result	
SB6	Unit 6	1-Oct-2025	31-Oct-2025	257.2	V262	373	

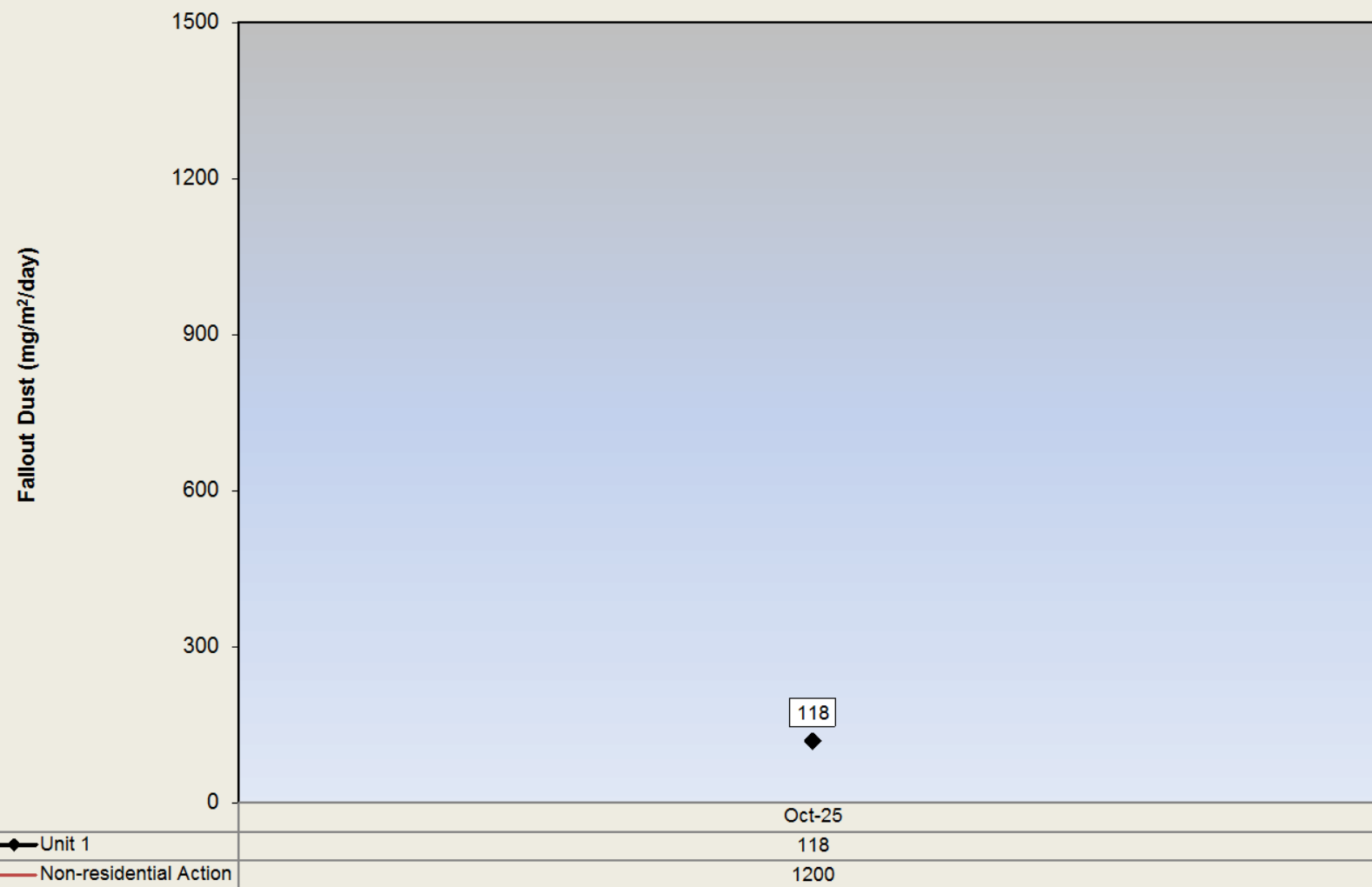
Table 10: DustWatch Results

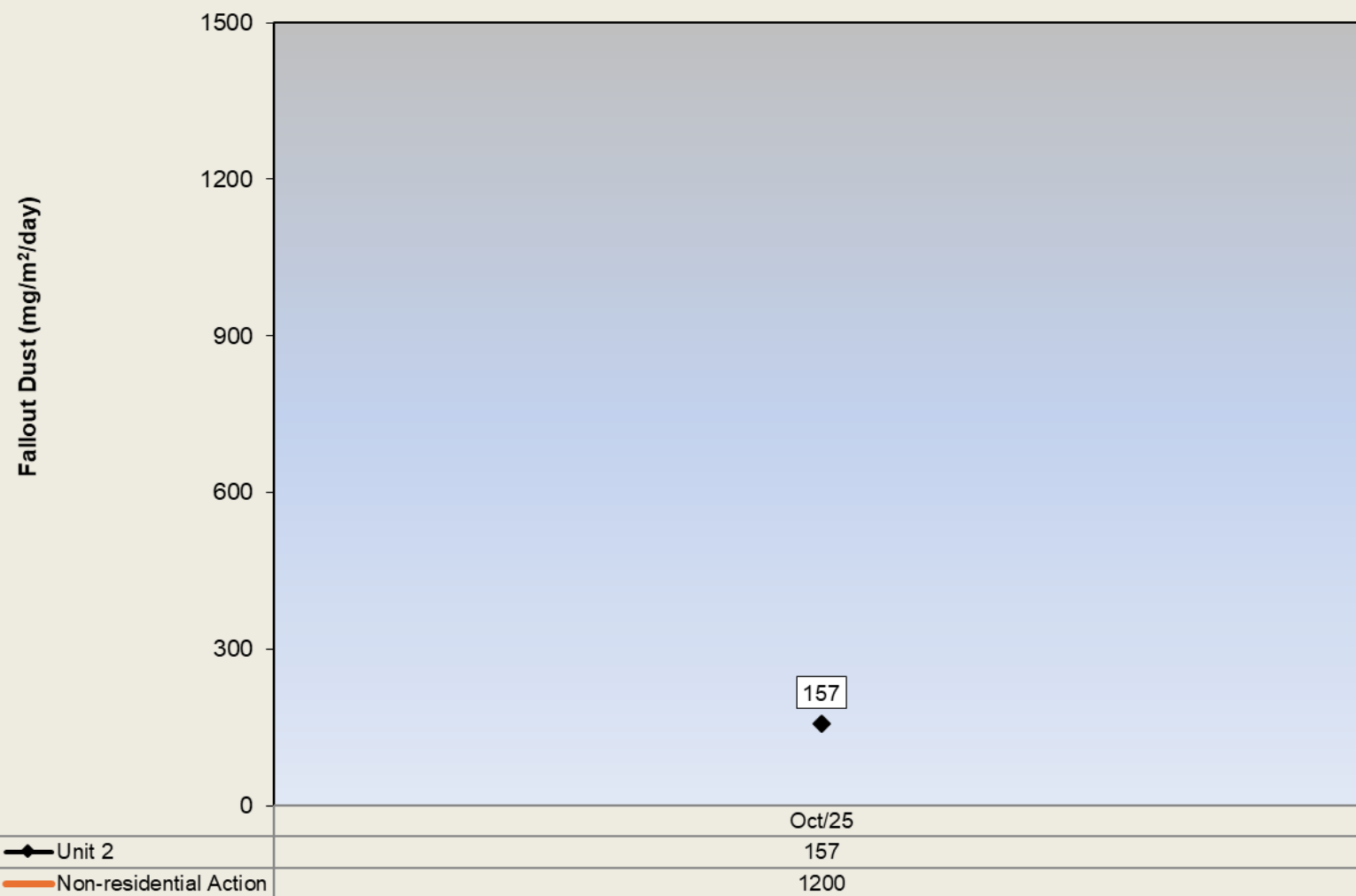
<b>CLIENT:</b> Kimberley Northern Cape - Greenmined		<b>SAMPLING PERIOD</b> - 1-Oct-2025 - 31-Oct-2025					
UNIT No.	LOCATION	FROM	TO	DUST MASS COLLECTED (mg)	FILTER	DUST mg/m2/day	COMMENTS & NOTES
						Result	
SB7	Unit 7	1-Oct-2025	31-Oct-2025	121	V263	176	

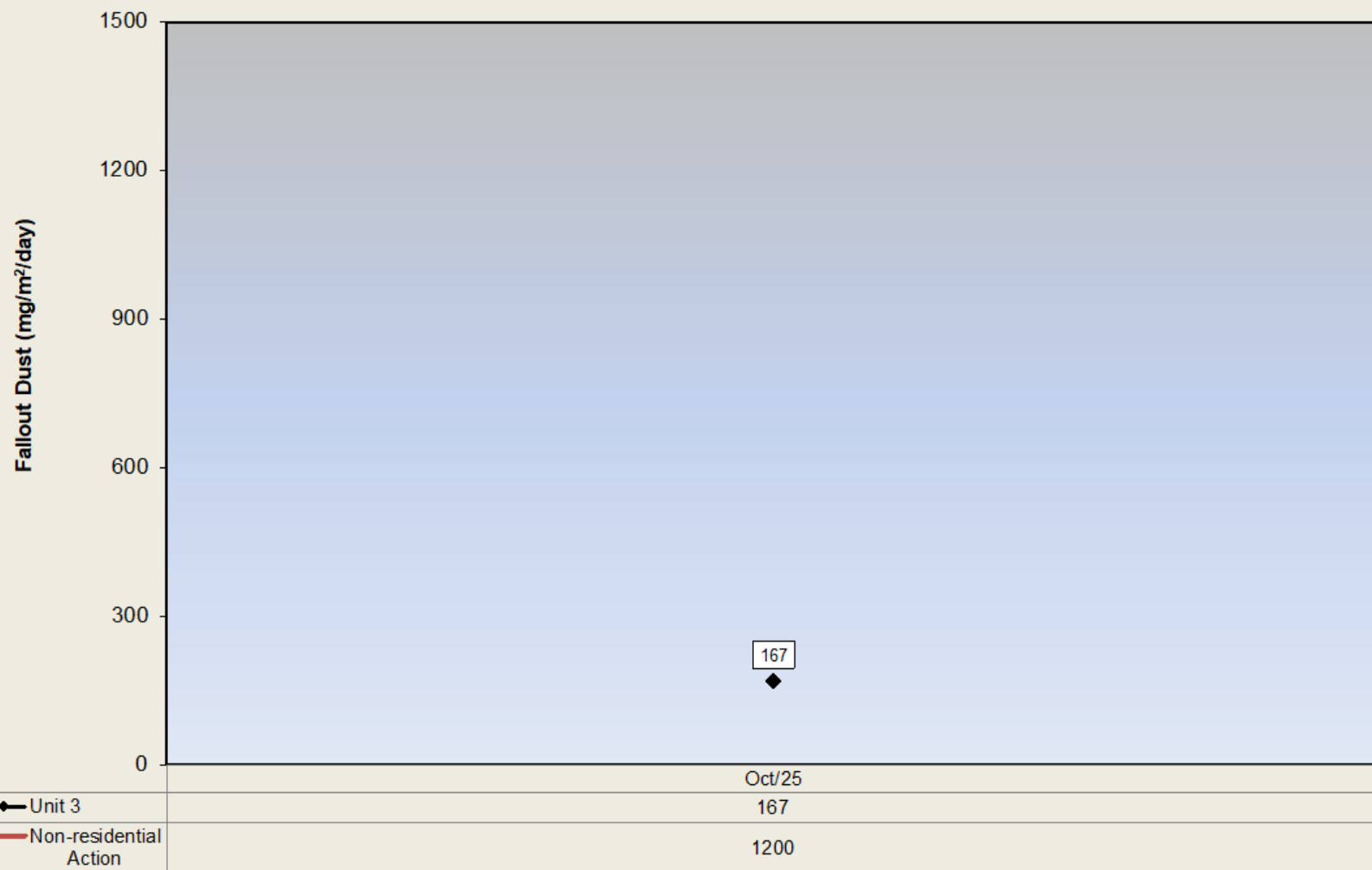
Table 11: DustWatch Results

<b>CLIENT:</b> Kimberley Northern Cape - Greenmined		<b>SAMPLING PERIOD</b> - 1-Oct-2025 - 31-Oct-2025					
UNIT No.	LOCATION	FROM	TO	DUST MASS COLLECTED (mg)	FILTER	DUST mg/m2/day	COMMENTS & NOTES
						Result	
SB8	Unit 8	1-Oct-2025	31-Oct-2025	183.5	V264	266	

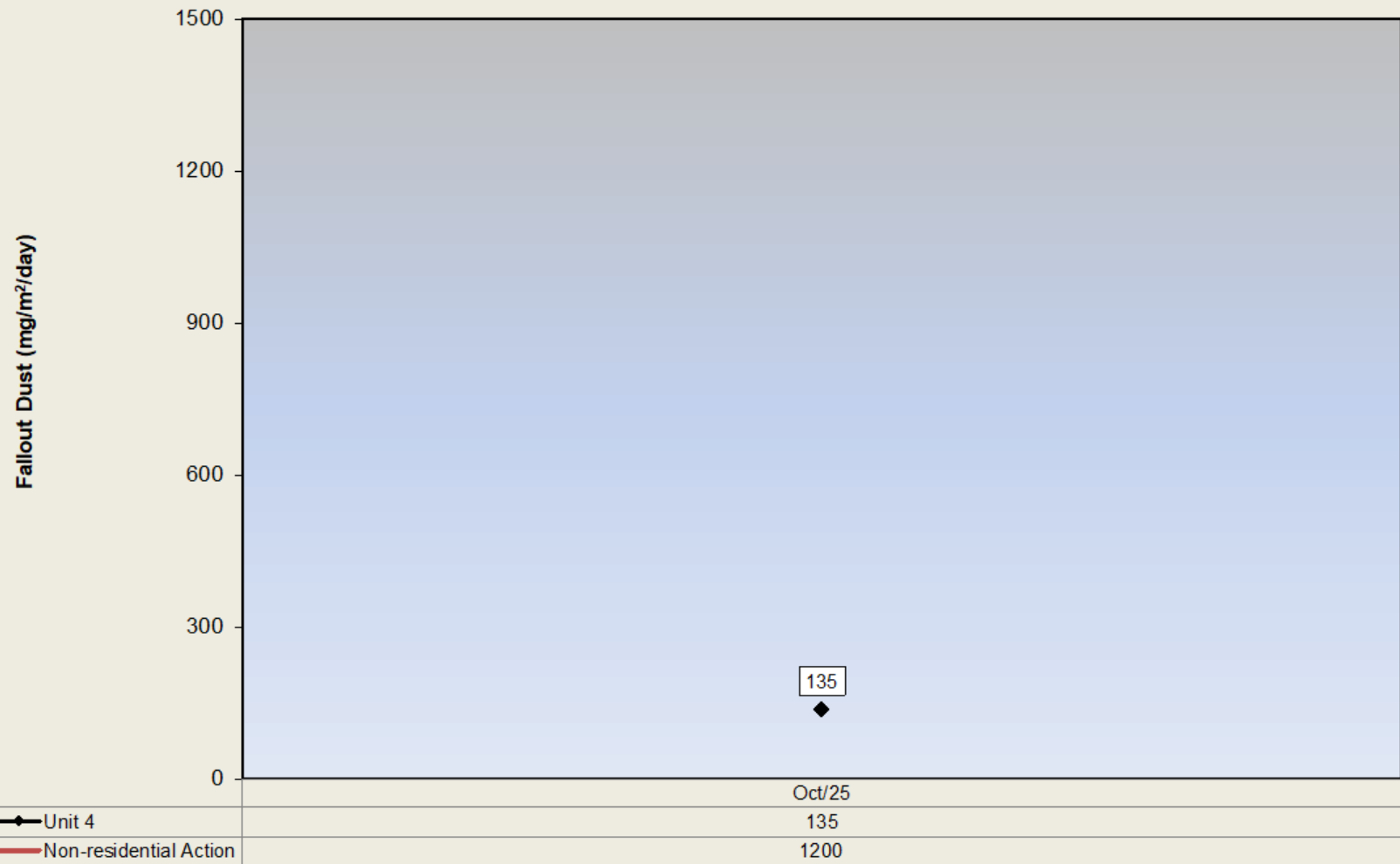
Table 12: DustWatch Results

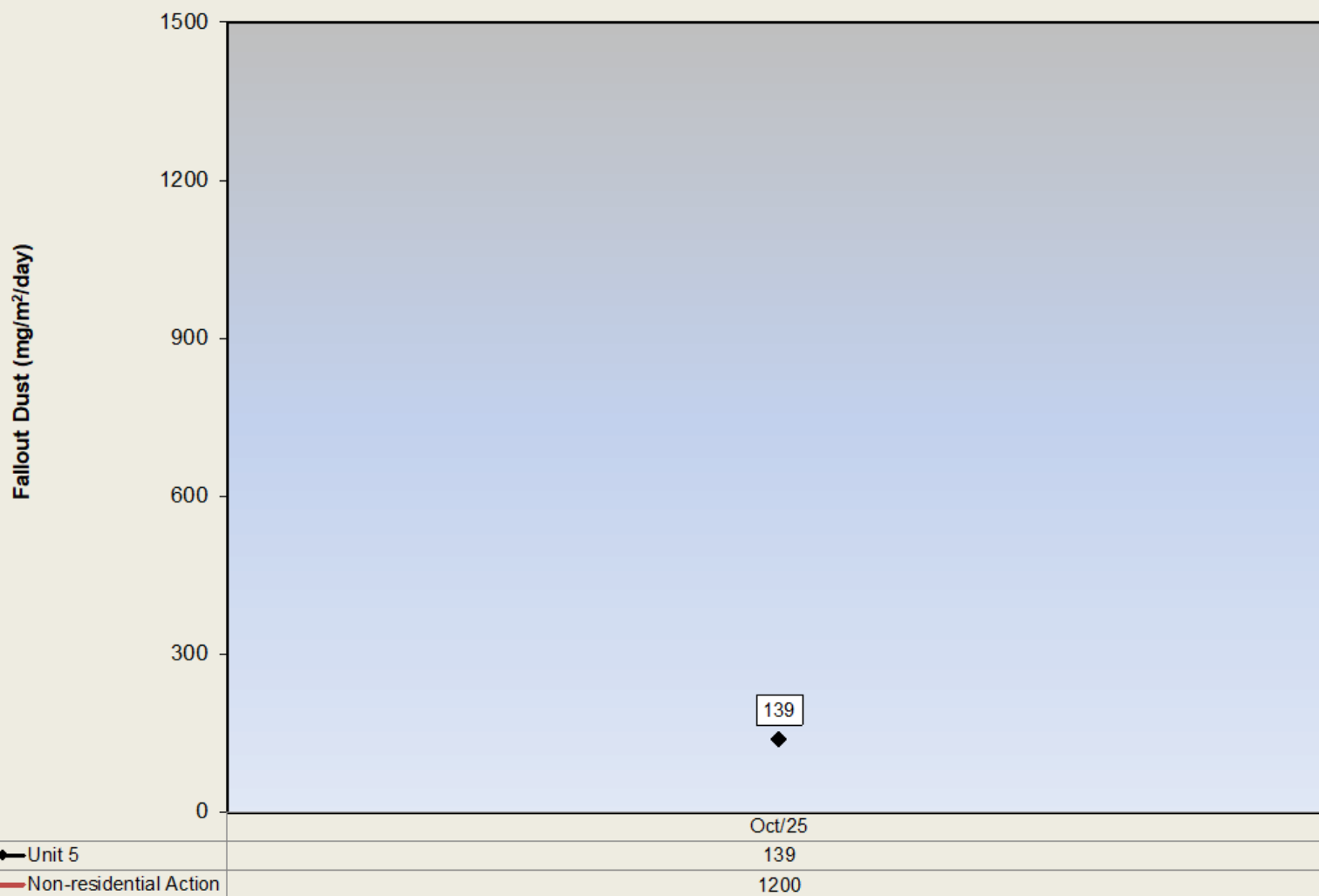


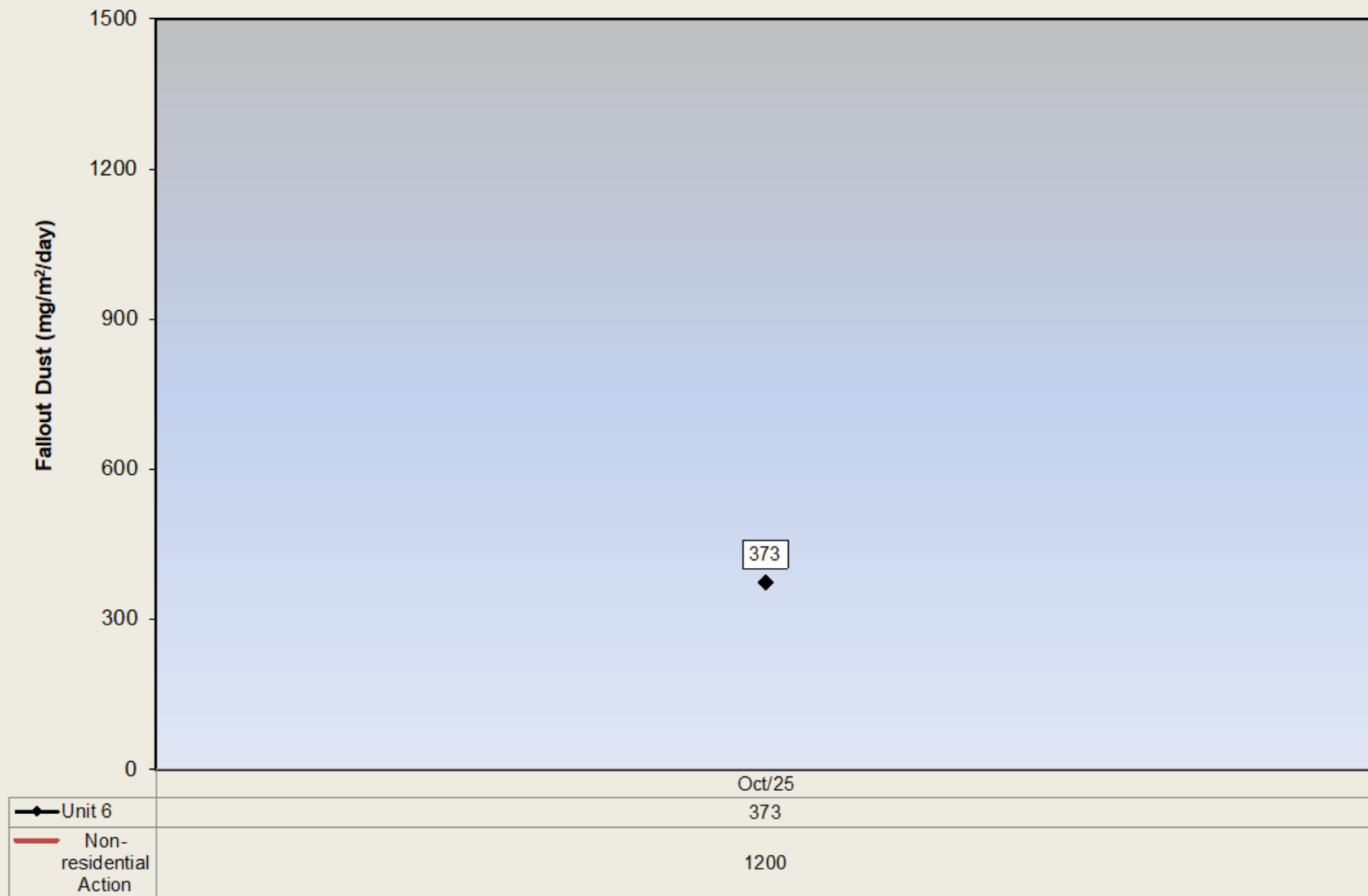


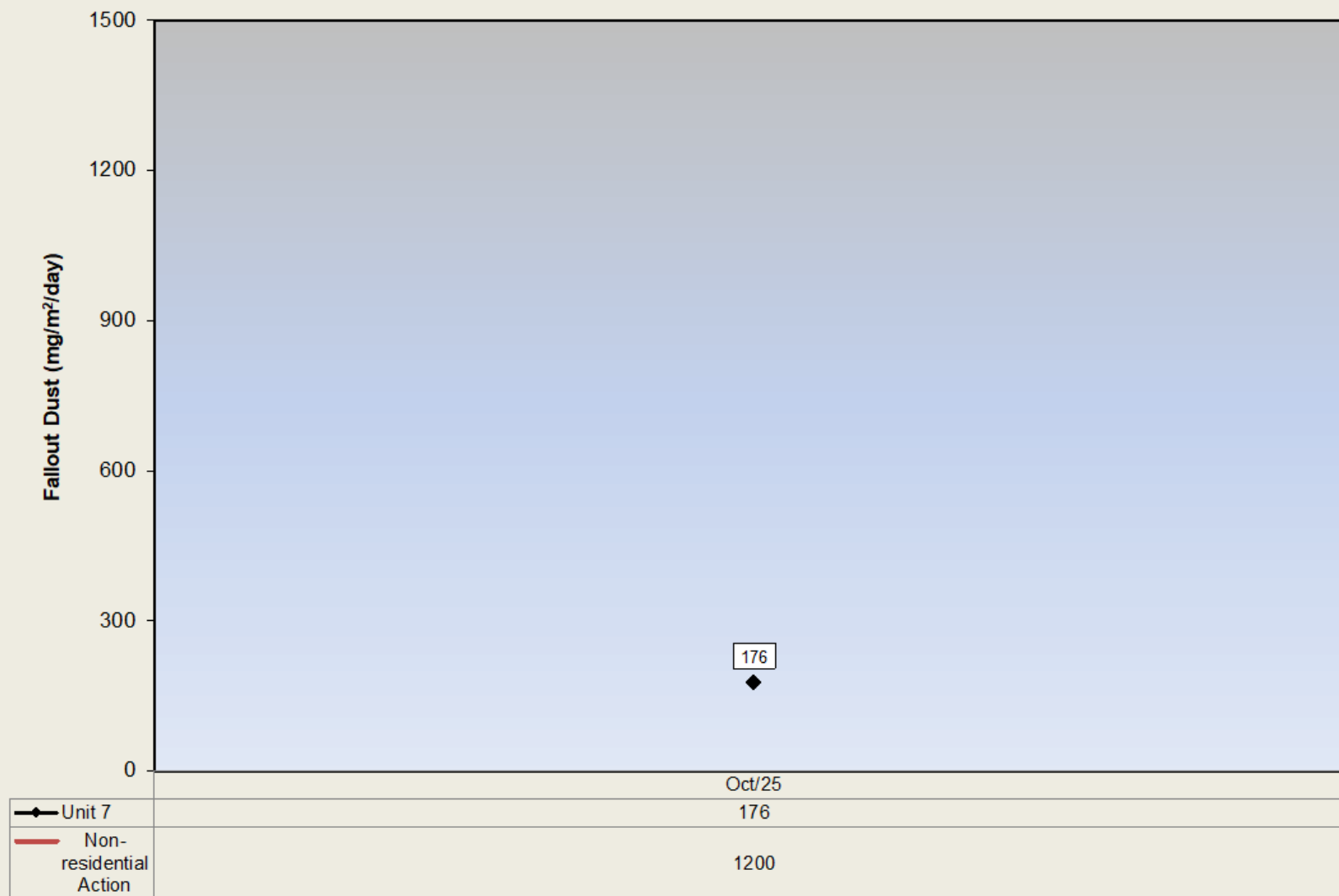


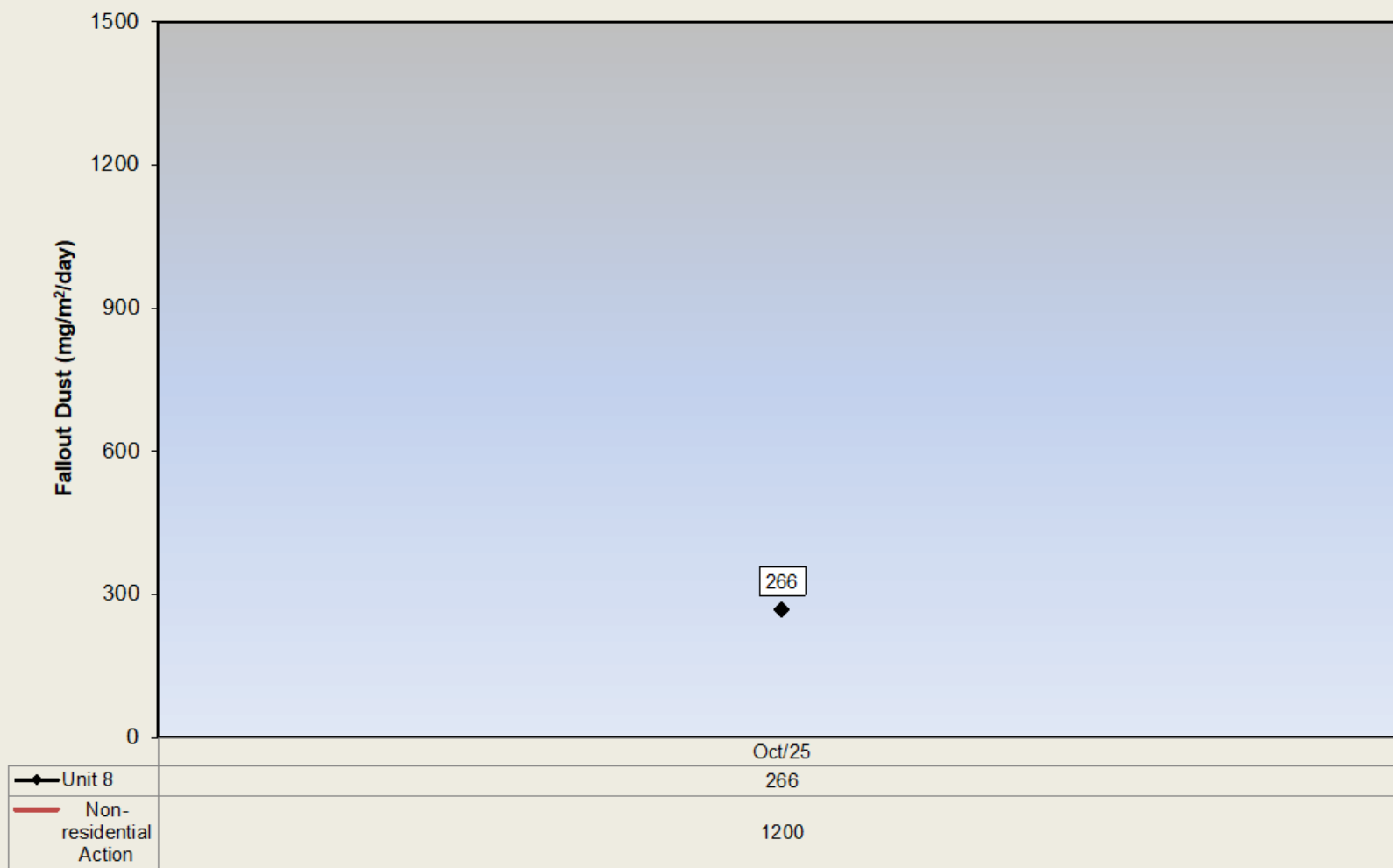












## Calibration and SANAS Information

The calibration is shown to four decimal places of a gram and is accurate to 0.1 mg.



1 Otto Road Beaconsvale Parow, PO Box 1556 Parow 7809

Tel: 021 933 5403

Fax: 021 933 5409

### UWE Scales Mass Laboratory Calibration Certificate



Certificate No. SR17344

Issue No. 1

#### Customer Details:

Company Name: Dustwatch  
Address: 59 Churchhill Street  
Plumstead  
C/o The Scale Doctor

Contact: Manager  
Date Of Calibration: 20/01/2025  
Issue Date: 27/01/2025  
Recalibration Date: Yearly

#### Calibration Details:

Make and Model: Adam PW184  
Serial Number: AE 437852  
Unit of Measure: g  
Capacity: 180  
Resolution: 0,0001  
Description: Electronic Scale  
Unit Condition: Good  
Location: Office  
Type of Calibration: Full

#### Calibration Results

Test Load g	As Found g	Average of Results g	Uncertainties g	Weights Used # SP Set
1,0000	1,0001	1,0000	Repeatability	Repeatability 50-80%
5,0000	5,0001	5,0000	0,0001	100,0001
10,0001	10,0002	10,0002	Corner load error	Corner Load Applied
20,0001	20,0002	19,9998	0,0004	60,0000
49,9999	50,0007	50,0001		STD's Traceability
100,0001	100,0014	99,9999		SP24/001
150,0000	150,0025	150,0000	Total Uncertainty of Measurement @ 95.45% Confidence Level of $\pm$ 0,0007 g	
180,0002	180,0024	179,9995		

All Standards are traceable to International Measurement Standards, Calibration performed to Quality Procedure QP/UWE/02

#### Remarks:

#### Signatories:

Technical Signatory

S. Peters

Calibrated By

H. Valtyn

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor  $k = 2$  providing a level of confidence of approximately 95.45%, the uncertainty of measurement has been calculated in accordance with the principles defined in the GUM, Guide to Uncertainty of Measurement, ISO, Geneva, 2008. This certificate is issued in accordance with ISO IEC 17025, the conditions approved by SANAS and the policies of UWE Scales. It is a correct record of measurements made and relate only to the items calibrated. "Statements of conformity to specifications are not made or implied in this report. Review the results, expanded uncertainty, and specifications to ensure they meet your requirement. This certificate may not be reproduced other than in full, except with a prior written approval of the issuing laboratory. The values in this certificate are valid at the time of calibration. Subsequently the accuracy shall depend on such factors as the care exercised in handling, use of the instrument and frequency of use. Re- calibration should be performed after a period which has been chosen to ensure that the instrument's accuracy remains within the desired limits. The applicant hereby indemnifies, holds harmless and absolves UWE Scales and the Mass Laboratory, from any damage whatsoever and any legal liability in the event of a mistake in the services performed for the applicant.

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End of Certificate



## APPENDIX: SCALE CALIBRATION SANAS CERTIFICATE

### CERTIFICATE OF ACCREDITATION

*In terms of section 22(2) (b) of the Accreditation for Conformity Assessment, Calibration and Good Laboratory Practice Act, 2006 (Act 19 of 2006), read with sections 23(1), (2) and (3) of the said Act, I hereby certify that:-*

**ELCONDOR TRADING CC**

**Co. Reg. No.: 2006/119689/23**

**TRADING AS**

**UWE SCALES**

Accreditation Number: **1468**

is a South African National Accreditation System accredited Calibration Laboratory  
provided that all SANAS conditions and requirements are complied with

This certificate is valid as per the scope as stated in the accompanying scope of accreditation  
Annexure "A", bearing the above accreditation number for

### MASS METROLOGY

The facility is accredited in accordance with the recognised International Standard

**ISO/IEC 17025:2017**

The accreditation demonstrates technical competency for a defined scope and the operation of a  
laboratory quality management system

While this certificate remains valid, the Accredited Facility named above is authorised to use the  
relevant SANAS accreditation symbol to issue facility reports and/or certificates

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**Mr T Baleni**  
**Acting Chief Executive Officer**

**Effective Date: 26 May 2022**  
**Certificate Expires: 10 May 2027**

ANNEXURE A  
**SCOPE OF ACCREDITATION**  
**MASS METROLOGY**

Accreditation Number: 1468

<b>Permanent Address of Laboratory:</b> Elcondor Trading CC; T/a UWE Scales Mass Calibration Laboratory 1 Otto Road Beaconvale Parow 7500  <b>Postal Address:</b> P O Box 1556 Parow 7499  Tel: (021) 933 5403 Fax: (021) 933 5409 E-mail: <a href="mailto:calibrations@uwescales.co.za">calibrations@uwescales.co.za</a>		<b>Technical Signatories:</b> Mr S Gamildien Mr S Peters  <b>Nominated Representative:</b> Mr D de Vos  Issue No.: 09 Date of Issue: 26 May 2022 Expiry Date: 10 May 2027	
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ITEM	MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT	RANGE OF MEASURED QUANTITY	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	METHOD / PROCEDURE
1	<b>MASS</b>			
1.1	<b>Mass standard</b>			
1.1.1	Mass pieces / weights <100 kg	1 mg to 500 mg 0,5 g to 10 g 10 g to 50 g 50 g to 200 g 200 g to 1 kg 1 kg to 20 kg	0,07 mg 0,3 mg 0,4 mg 0,0015 % 0,003 % 0,002 %	Calibration using the single substitution method.
1.2	<b>Weighing Equipment</b>			
1.2.1	Digital Self Indicating (incl. Balances, Scales)	0 g to 360 g 360 g to 30 kg 30 kg to 2 000 kg	0,0002 % + 0,4 mg 0,008 % 0,06 %	Evaluation of linearity, eccentricity and repeatability using standard weights.
2	On-site calibration for item 1.2 above			

Original Date of Accreditation: 11 May 2012

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The CMC, expressed as an expanded uncertainty of measurement, is stated as the standard uncertainty of measurement multiplied by a coverage factor  $k = 2$ , corresponding to a confidence level of approximately 95%.

ISSUED BY THE SOUTH AFRICAN NATIONAL ACCREDITATION SYSTEM

**Accreditation Manager**

## Appendix – Ligno Sulphate Information – Chryso Eco Dust 200D

DustWatch can provide quotations for this product if required and provide advice on optimized application for different area requirements. **Gravel Roads, Haul Roads, Unpaved open areas, Stockpiles and Berms.** On site advice is available for site specific requirements and optimization.

The application spreadsheet is [available here](#) if required.

Revision number: 1  
 Date: 2017/06/07

### Technical data sheet

## CHRYSO<sup>®</sup> Eco Dust 200D (CPT)

### High range dust suppressant.

#### Description

CHRYSO<sup>®</sup> Eco Dust 200D is an emulsified dust lubrication system that aids in the coalescing, stabilisation and suppression of rising dust particles and spores, preventing them from becoming air-borne.

#### Advantages

- Easy application and safe to use
- Helps with compliance to safety, environmental, health and occupational regulations
- Safety - Increased road visibility, increased grip
- Creates a dust free environment, complete dust suppression
- Less fuel usage
- Reduced road and vehicle maintenance
- Reduced man hours
- UV resistance
- Cuts down water usage
- Eliminate grading and watering
- Savings compared to traditional paving and tar roads
- VOC free

#### Application guidelines

#### Use

- Unpaved roads (gravel, farm, quarry roads)
- Road stabilization (gravel airstrips)
- Mine and industrial dust suppression (stock pile, mine dumps)

#### Directions

- For surface suppression
  - Apply to the surface by a water/tank truck with a rear mounted distribution bar that spreads the liquid evenly over the surface.

#### Physical and chemical properties

- Physical state (@25°C): Liquid
- Colour: Brown
- Specific gravity (@25°C): 1.095 (±0.02)
- pH: 5.00 (±0.01)
- Cl Ion content: ≤0.01%
- Na<sub>2</sub>O equivalent: ≤1%

- CHRYSO<sup>®</sup> Eco Dust 200D: 10 – 15% mixture by volume of water
- Maintenance of 2.5% to 5% mixture, depending on surface condition
- Coverage
  - Coverage depends on the method of application

#### Maintenance

- Factors that will influence the intervals between maintenance applications and life time of the surface include:
  - Quality of the base material
  - Climate conditions
  - Volumes and type of traffic

#### Storage

- If in the original sealed packaging at room temperature, CHRYSO<sup>®</sup> Eco Dust 200D has a shelf life of up to 12 months from the date of manufacturing.
- Should the product freeze, it will recover its properties after thawing and agitating.
- Avoid storing CHRYSO<sup>®</sup> Eco Dust 200D in direct sunlight.
- Avoid all contact with water (especially rain water).

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