



NOVACRAFF
CONSULTING SCIENTISTS

**DUST FALLOUT MONITORING-
SEPTEMBER 2025**

for
RAUMIX (PTY) LTD



KIMBERLEY QUARRY

By
NOVACRAFF CONSULTING SCIENTISTS

PROJECT TEAM
D.C. Moolman



NOVACRAFF

CONSULTING SCIENTISTS

Report Date: 15 October 2025

To:

RAUMIX (PTY) LTD

50 Tegel Avenue

Highveld

Centurion

Gauteng Province, South Africa

FOR ATTENTION: MR Kamohelo Mofokeng

Dear Sir,

It is our pleasure to enclose one electronic report of: "KIMBERLEY QUARRY –DUST FALLOUT MONITORING."

Yours sincerely,

Dirk Moolman (Pri.Sci.Nat)

Professional Natural Scientist

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1 INTRODUCTION

Raumix Aggregates (Pty) Ltd has appointed Novacraff Consulting Scientists to implement and monitor dust fallout monitoring at Kimberley Quarry. The primary aim of the monitoring program is to ensure adherence to Compliance Monitoring standards, which involves measuring on-site dust fall rates to assess compliance with the Air Quality Act, 2004 (Act No. 39 of 2004).

On-site Monitoring involves quantifying on-site dust fall rates to guide the management of fugitive dust emissions. This includes identifying periods during the year when fallout is elevated, allowing for proactive implementation of additional management actions before elevated fallout rates occur. It also involves determining if dust management actions implemented are effective, and if process/production changes result in changes to fallout rates, identifying if changes to/additional management actions are required.

Table 1. Prescribed dustfall rates and permissible frequency of exceedances.

Restriction Areas	Dustfall rate (D) (mg/m ² /day, 30- dustfall rate day period)	Permitted frequency of exceeding
Residential area	$D \leq 600$	Twice within a year, not occurring in sequential months.
Non-residential area	$D \leq 1200$	Twice within a year, not occurring in sequential months.

1.1 MONITORING NETWORK BASIC INFORMATION

Table 2. Locations of the designated buckets.

Sample Name:	Sample Descriptions	Coordinates	
KDB 1	Raumix main office	-28. 820074°	24. 710367°
KDB 2	Within brick factory premises	-28. 824197°	24. 708671°
KDB 3	Old Explosives area	-28.827379°	24.716156°
KDB 4	North East of the quarry	-28.818533°	24.715691°
KDB 5	East of old mining pit	-28. 822557°	24. 717432°
KDB 6	Nex to house at main entrance	-28.822224°	24.709633°
KDB 7	West of Mine	-28.826206°	24.708246°
KDB 8	West of Mine	-28.827479°	24.707663°
The site is located approximately 10 km South of Kimberley. The Quarry is located on the N12 towards Hopetown.			

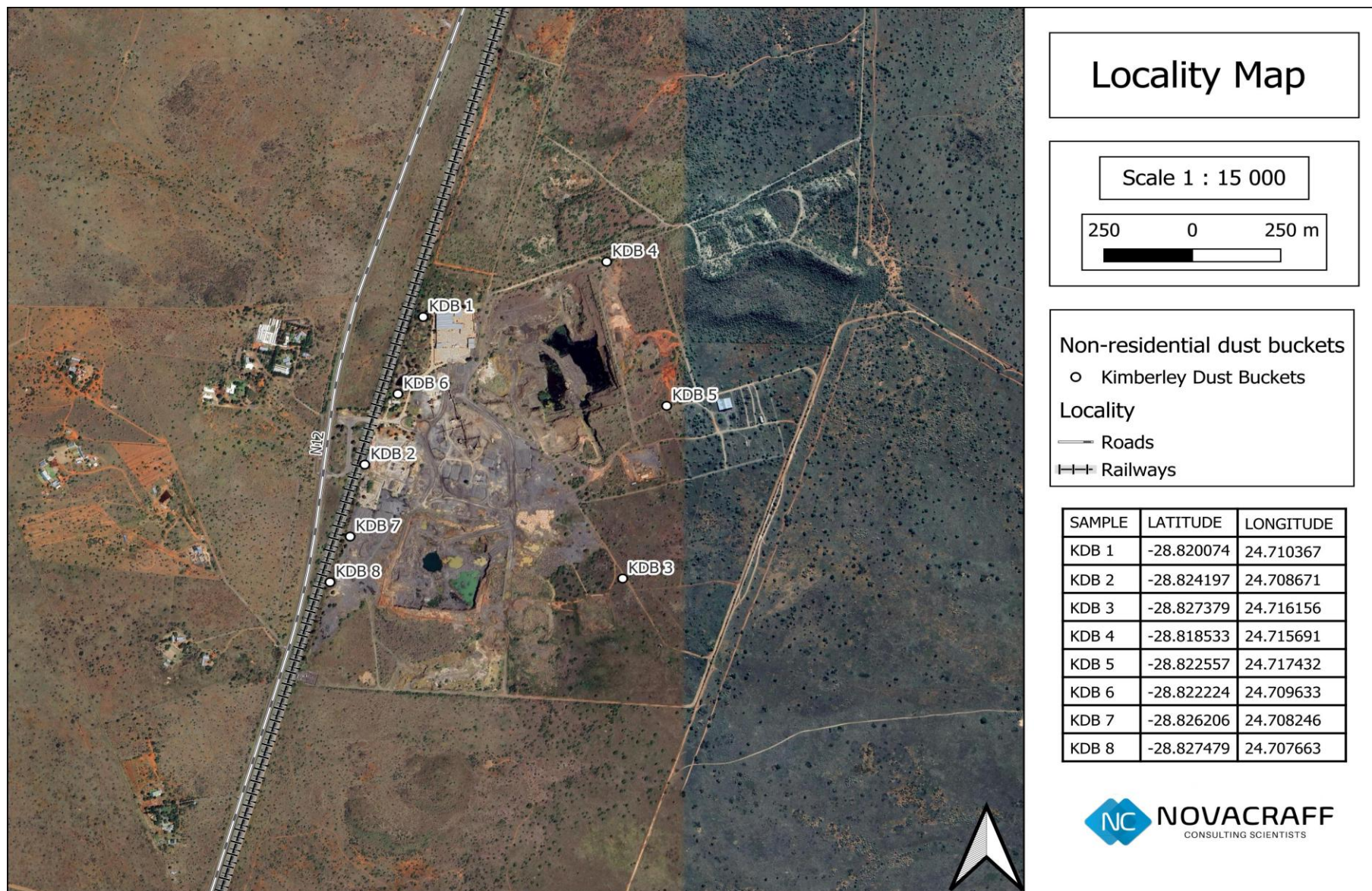


Figure 1. Locality map of dust buckets.

2 DUST MONITORING LEVELS

2.1 SITE ASSESSMENT AND SAMPLING

The buckets were deployed on the 2nd of September 2025 and collected on the 2nd of October 2025 at the designated locations showcased in Figure 1 and Table 2.

Dust fallout samplers are deployed, and samples are collected on monthly basis. Distilled water was added to minimize sample loss, especially during high wind speed episodes. The samples are analysed at a SANS 17025 accredited facility. The total insoluble dust fallout was determined in accordance with ASTM D 1739: 1970, or an equivalent method, as required by the SA National Standards (SANS 1929:2005—Edition 1.1).

2.2 DUST MONITORING RESULTS

The results for September 2025 are presented as shown in Figure 2. Dustfall rates for all buckets are within the standards compared to the Air Quality Act, 2004 (Act No. 39 of 2004). This can be attributed to the effective dust suppression methods (sprinkler system and truck) implemented on site.

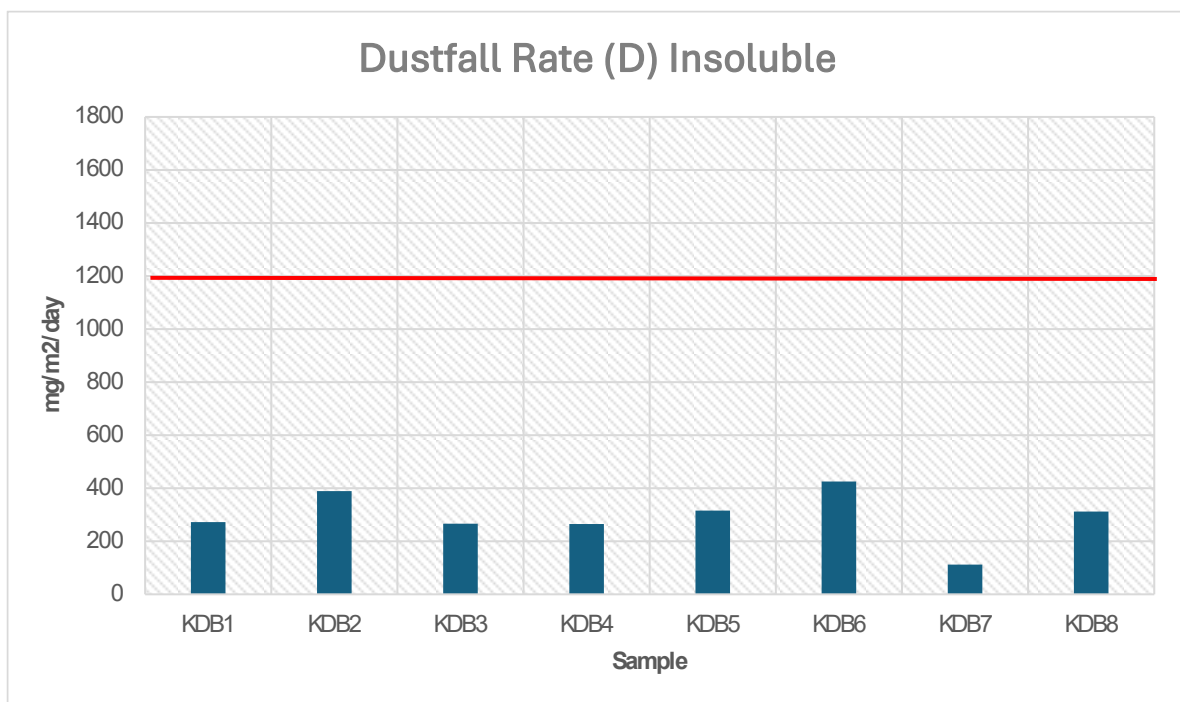


Figure 2. Dustfall rates (D) and 1200 mg/m²/day (non-residential) threshold.

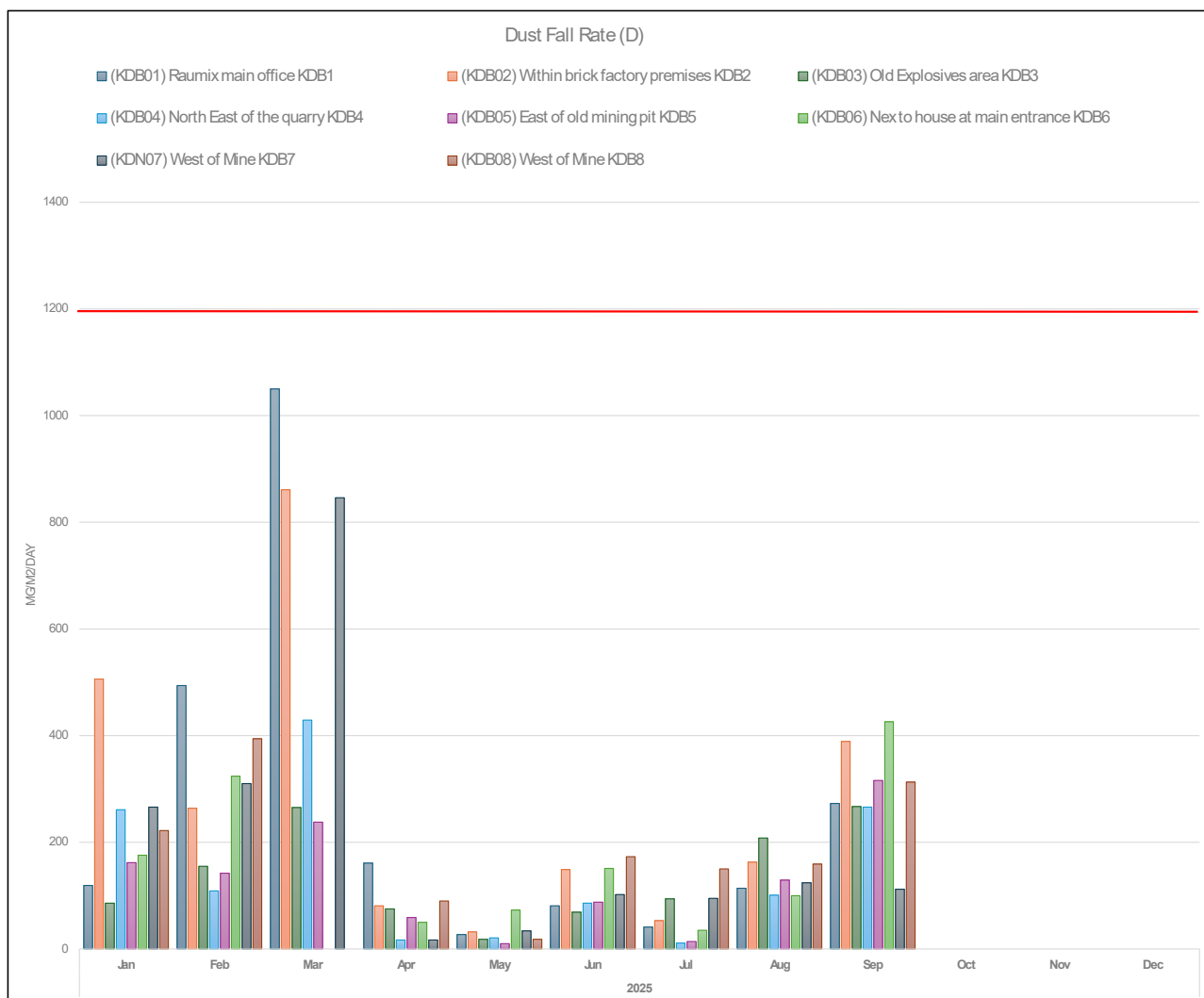


Figure 3. Dust fall data for 2025 and 1200 mg/m²/day (non-residential) threshold presented in graph format

Table 3. 2025 Dust fall rate data.

Dust Fall Rate (D) mg/m ² /day													
Sample Location	Sample	2025											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(KDB01) Raumix main office	KDB1	119	494	1050	161	27	81	41	114	273			
(KDB02) Within brick factory premises	KDB2	506	264	861	81	32	149	53	163	389			
(KDB03) Old Explosives area	KDB3	86	155	265	75	18	69	94	208	267			
(KDB04) North East of the quarry	KDB4	261	109	429	17	21	86	11	101	266			
(KDB05) East of old mining pit	KDB5	162	142	238	59	10	88	14	129	316			
(KDB06) Next to house at main entrance	KDB6	176	324	NATD	50	73	151	35	100	426			
(KDN07) West of Mine	KDB7	266	310	846	17	34	102	95	124	112			
(KDB08) West of Mine	KDB8	222	394	NATD	90	18	173	150	159	313			

2.3 METEOROLOGICAL DATA

For this month Kimberley experienced predominantly moderate to cold weather. The average temperatures fluctuated between 8°C and 16°C. Rainfall events are evident on the 17th, 20th, 21st and the 28th of September.

The wind primarily came from the south, southwest and southeast as indicated by the dominant direction of the shaded segments in the windrose plots. Average wind speeds generally range between 8 km/h and 29 km/h, with variation throughout the month.

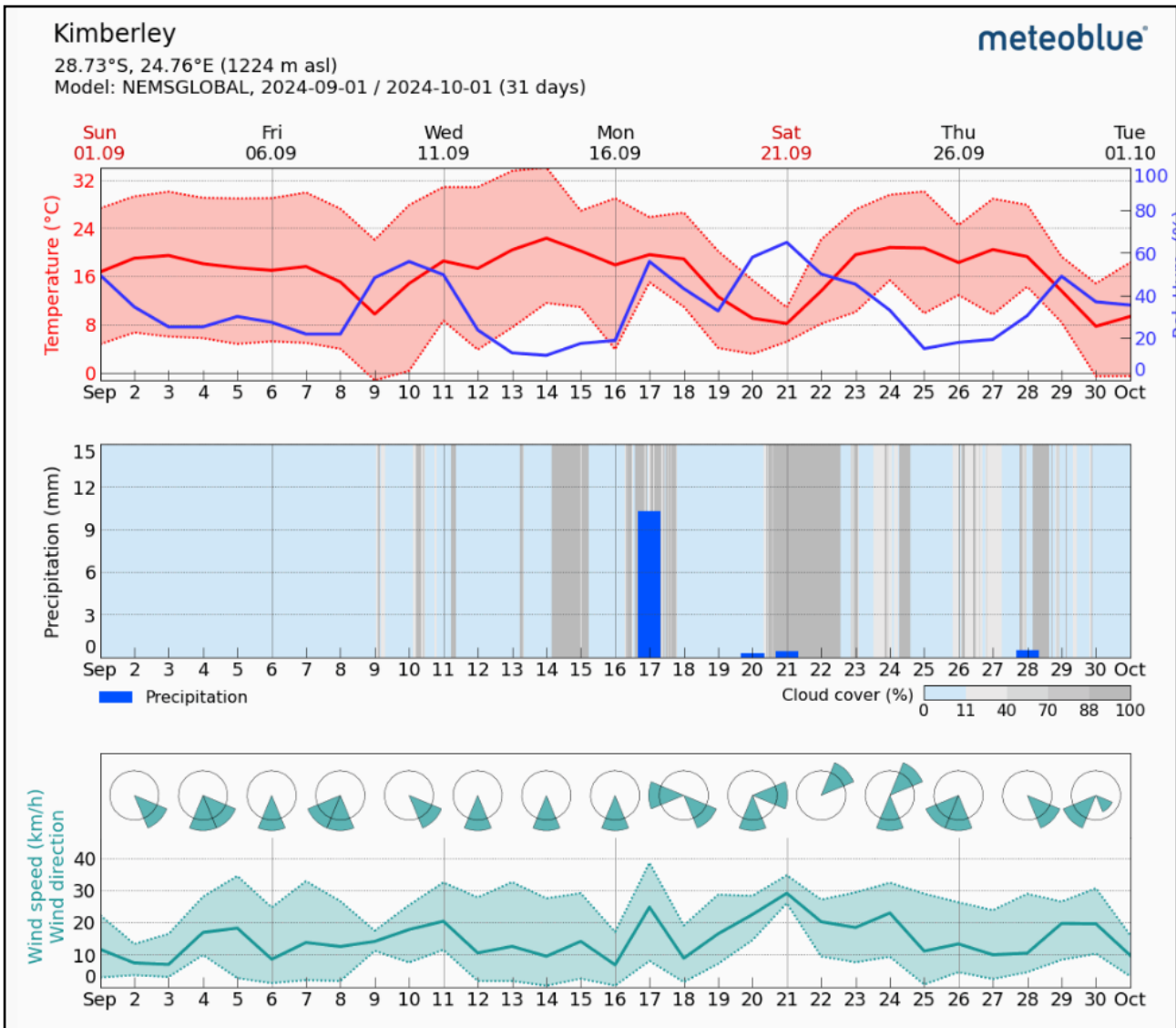


Figure 4. The meteorological data for Kimberley includes graphs representing temperature, wind, and precipitation. (Meteoblue, 2025).

3 CONCLUSIONS

The dust fallout monitoring results indicate that dustfall levels on site remained within the prescribed dustfall rates. This suggests that current operational and mitigation measures are effective in controlling dust emissions in the area.

4 APPENDIX A – LABORATORY RESULTS FOR REPORTED MONTH



Test Report

Page 1 of 2

Client: Novacraff
Address: 20 Leopold Greenberg street, Heuwelsig Bloemfontein, 9301
Report no: 237459
Project: KBY Quarry

Date of report: 14 October 2025
Date accepted: 07 October 2025
Date completed: 13 October 2025
Date received: 07 October 2025

Lab no:	359378	359379	359380	359381	359382	359383	359384
Date sampled:	02-Oct-25	02-Oct-25	02-Oct-25	02-Oct-25	02-Oct-25	02-Oct-25	02-Oct-25
Aquatico sampled:	No	No	No	No	No	No	No
Sample type:	Dust	Dust	Dust	Dust	Dust	Dust	Dust
Locality description:	KDB1	KDB2	KDB3	KDB4	KDB5	KDB6	KDB7
Analyses	Unit	Method					
AQL Diameter	cm	EXT	15.0	15.0	15.0	15.0	15.0
AQL Placement	Date	EXT	02-Sep-25	02-Sep-25	02-Sep-25	02-Sep-25	02-Sep-25
AQL Retrieval	Date	EXT	02-Oct-25	02-Oct-25	02-Oct-25	02-Oct-25	02-Oct-25
AQL Days	Days	EXT	30	30	30	30	30
A AQL Pre Weight - Insoluble	g	ALM 27	2.2586	2.1908	2.2217	2.1655	2.2074
A AQL Post Weight - Insoluble	g	ALM 27	2.4032	2.3971	2.3634	2.3067	2.3747
A AQL Dust Deposition - Insoluble	mg/m ² /day	ALM 27	273	389	267	266	316
						426	112

A = Accredited N = Not accredited Sub = Sub-contracted NR = Not requested RTF = Results to follow NATD = Not able to determine ATR = Alternative test report ; Results relate only to the items received and tested ; Results reported against the limit of detection; Results marked "Not SANAS Accredited" in this report are not covered by the Scope of Accreditation for this laboratory; Uncertainty of measurement available on request for all methods included in the SANAS Schedule of Accreditation; The report shall not be reproduced except in full without approval of the laboratory
 Results may be affected by deviation; EXT = external information provided can affect the validity of the results.

M. Swanepoel
 Technical Signatory

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Test Report

Page 2 of 2

Client: Novacraff
Address: 20 Leopold Greenberg street, Heuwelsig Bloemfontein, 9301
Report no: 237459
Project: KBY Quarry

Date of report: 14 October 2025
Date accepted: 07 October 2025
Date completed: 13 October 2025
Date received: 07 October 2025

Lab no:	359385			
Date sampled:	02-Oct-25			
Aquatico sampled:	No			
Sample type:	Dust			
Locality description:	KDB8			
Analyses	Unit	Method		
AQL Diameter	cm	EXT	15.0	
AQL Placement	Date	EXT	02-Sep-25	
AQL Retrieval	Date	EXT	02-Oct-25	
AQL Days	Days	EXT	30	
A AQL Pre Weight - Insoluble	g	ALM 27	2.2742	
A AQL Post Weight - Insoluble	g	ALM 27	2.4400	
A AQL Dust Deposition - Insoluble	mg/m ² /day	ALM 27	313	

A = Accredited N = Not accredited Sub = Sub-contracted NR = Not requested RTF = Results to follow NATD = Not able to determine ATR = Alternative test report ; Results relate only to the items received and tested ; Results reported against the limit of detection; Results marked "Not SANAS Accredited" in this report are not covered by the Scope of Accreditation for this laboratory; Uncertainty of measurement available on request for all methods included in the SANAS Schedule of Accreditation; The report shall not be reproduced except in full without approval of the laboratory
 Results may be affected by deviation; EXT = external information provided can affect the validity of the results.

Authenticated signature on first page

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5 APPENDIX B - HISTORIC DATA

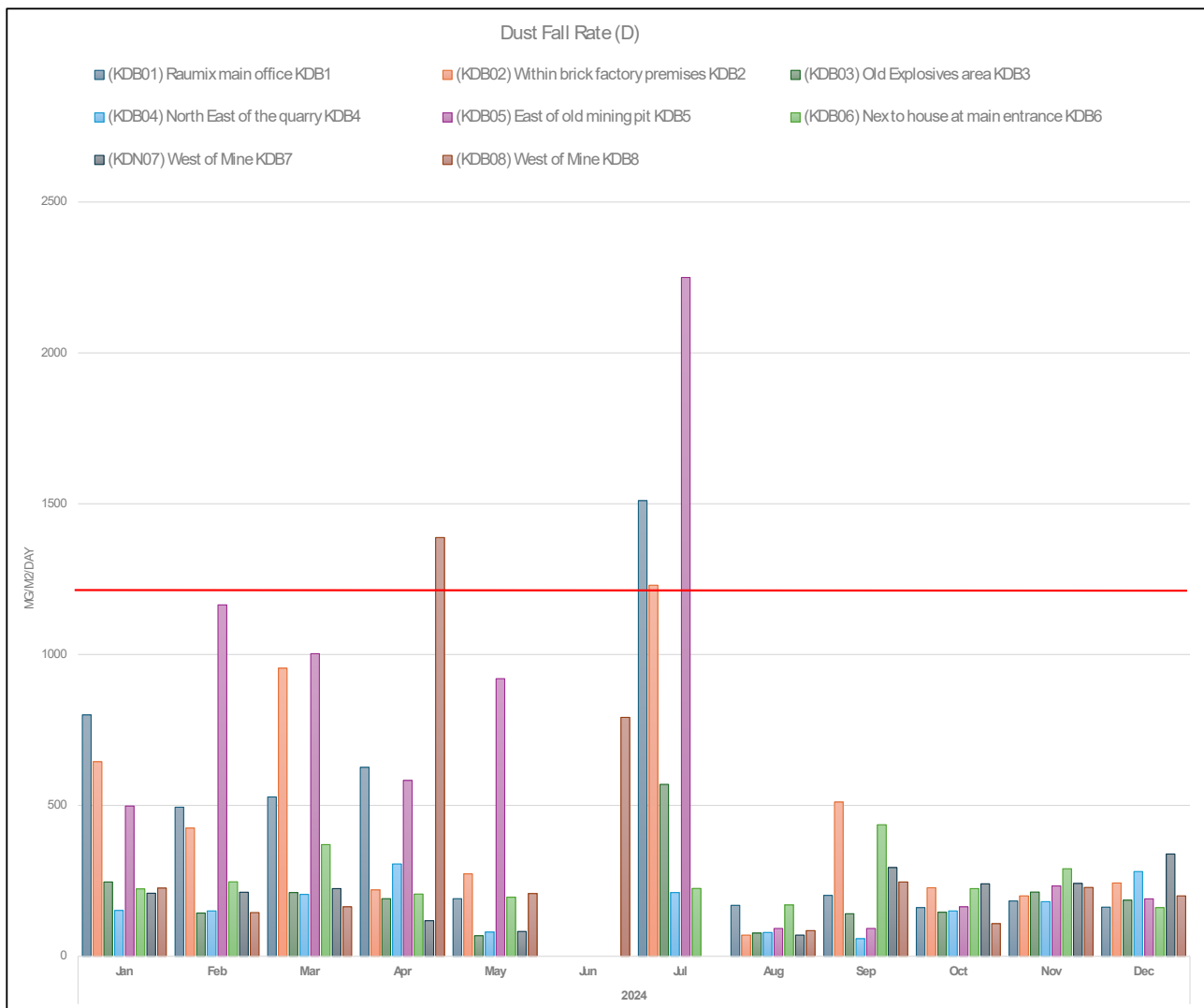


Figure 5. 2024 Dust fall rates

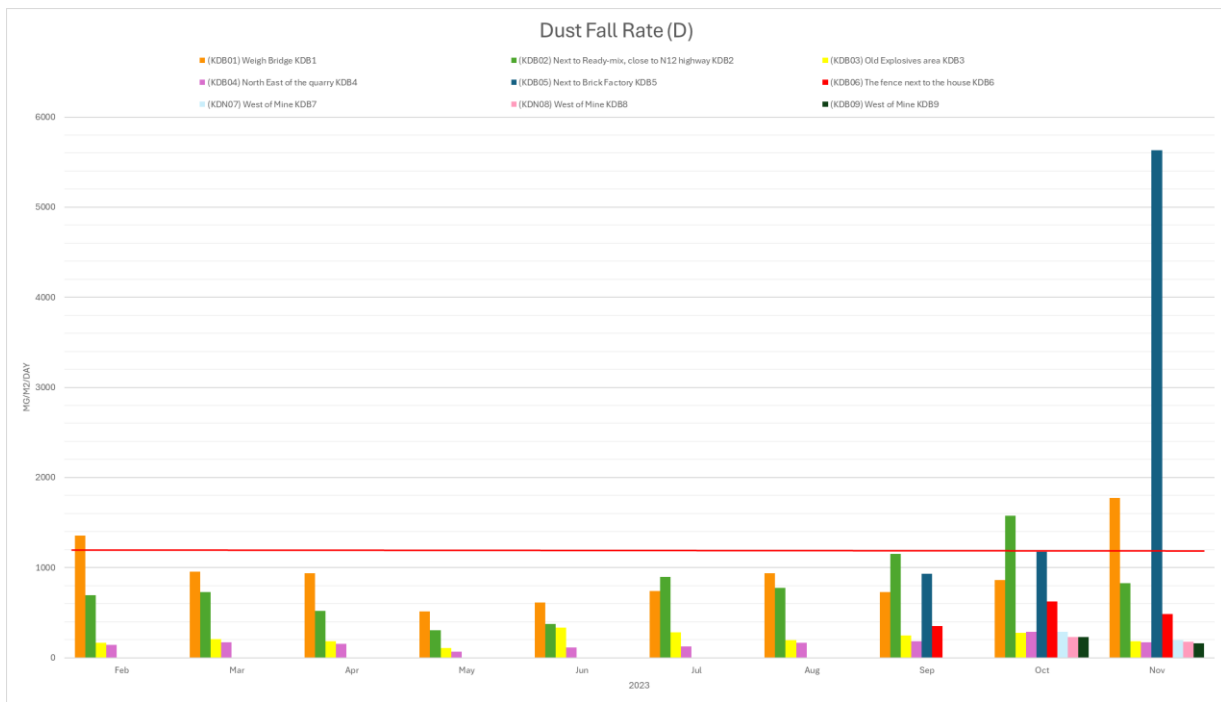


Figure 6. 2023 Dust fall rates

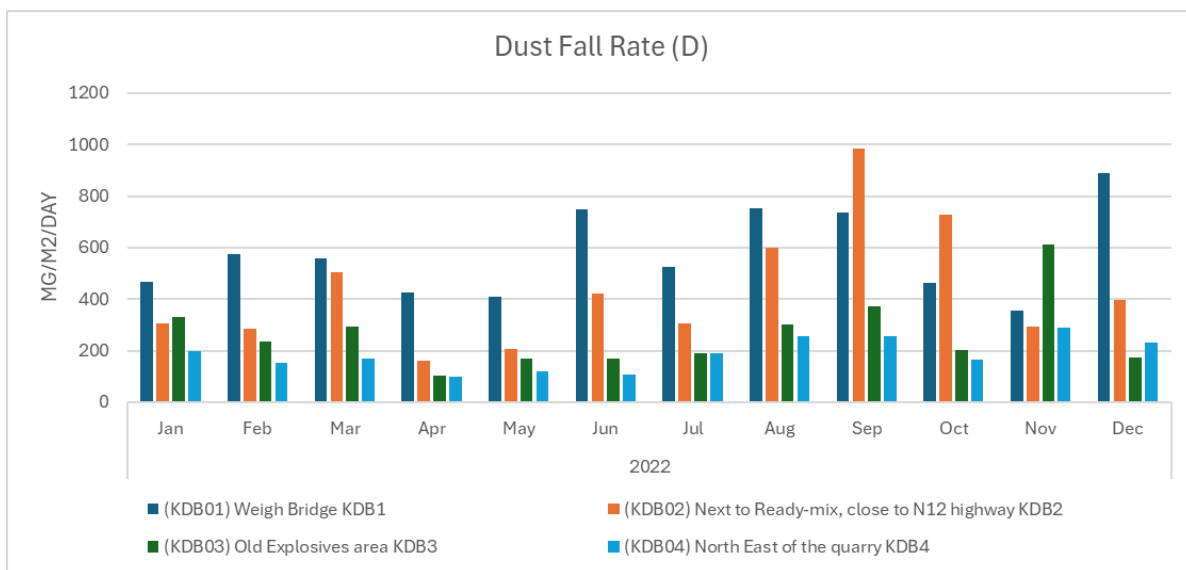


Figure 7. 2022 Dust fall rates

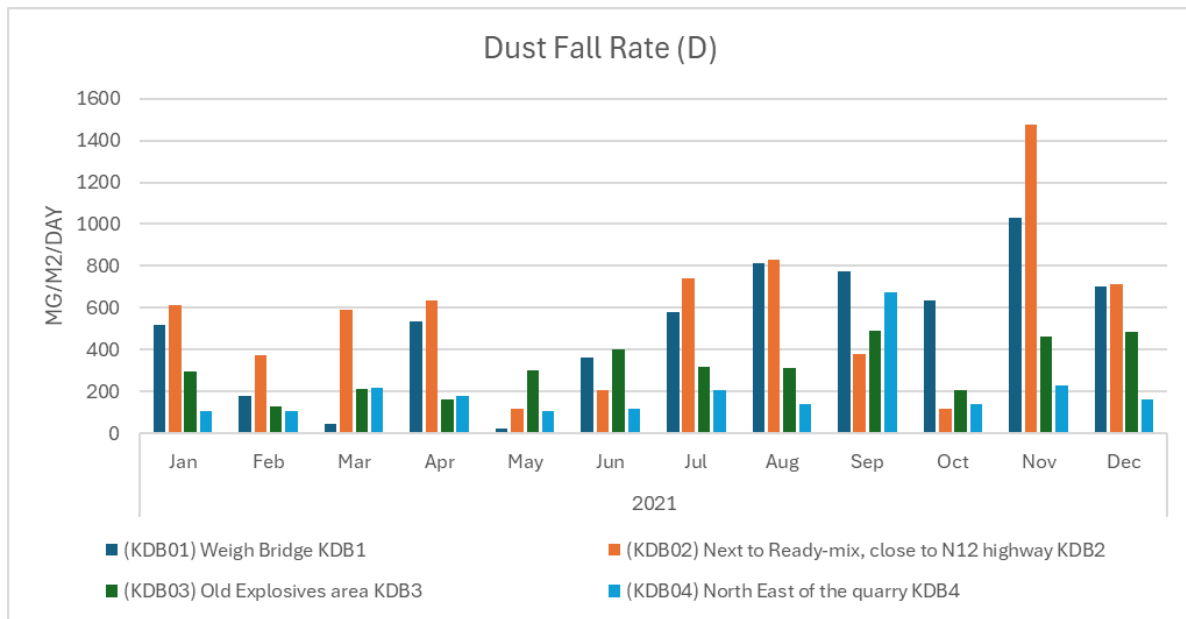


Figure 8. 2021 Dust fall rates