

Rindean Quarries Pty Ltd

Air Quality and Meteorological Monitoring Monthly Summary

DECEMBER 2022

SITE INFORMATION	
EPL Number:	20548
EPA Website Link:	ViewPOEOLicence.aspx (nsw.gov.au)
Licensee:	Rindean Quarries Pty Ltd
Premises:	620 Wisemans Ferry Road, SOMERSBY NSW 2250
EPL Monitoring Points:	Points 8, 9 and 10
Sampling Period:	DECEMBER 2022
Obtained Date:	12/01/2023
Publication Date:	12/01/2023

1. Continuous PM₁₀ (EPL ID #9 and #10)

Table 1: Continuous PM₁₀ Monitoring Results (24hr Averages) – December 2022

DATE	PM ₁₀ 24hr Average (µg/m ³)	
	EPA ID# 9 (Zone 1)	EPA ID# 10 (Zone 2)
1/12/2022	19.0	16.5
2/12/2022	10.1	11.0
3/12/2022	7.7	7.0
4/12/2022	7.8	8.3
5/12/2022	14.3	13.9
6/12/2022	16.6	17.5
7/12/2022	9.6	12.7
8/12/2022	10.1	11.8
9/12/2022	13.2	24.7
10/12/2022	18.0	15.4
11/12/2022	14.9	14.9
12/12/2022	13.9	17.5
13/12/2022	11.3	12.6
14/12/2022	9.7	11.7
15/12/2022	10.2	12.4
16/12/2022	11.5	11.6
17/12/2022	9.3	9.3
18/12/2022	5.0	4.7
19/12/2022	18.6	18.8
20/12/2022	12.3	22.1
21/12/2022	6.7	10.4
22/12/2022	7.4	7.2
23/12/2022	11.2	12.0
24/12/2022	9.9	9.6
25/12/2022	18.2	19.2
26/12/2022	7.2	8.0
27/12/2022	6.3	7.4
28/12/2022	12.3	12.1
29/12/2022	16.2	16.8
30/12/2022	15.9	10.0
31/12/2022	10.0	10.6

Note: Validated data. Blank cells in table indicate insufficient valid data to provide a 24hr average PM₁₀ result.

Figure 1: Continuous 24hr Averages – December 2022

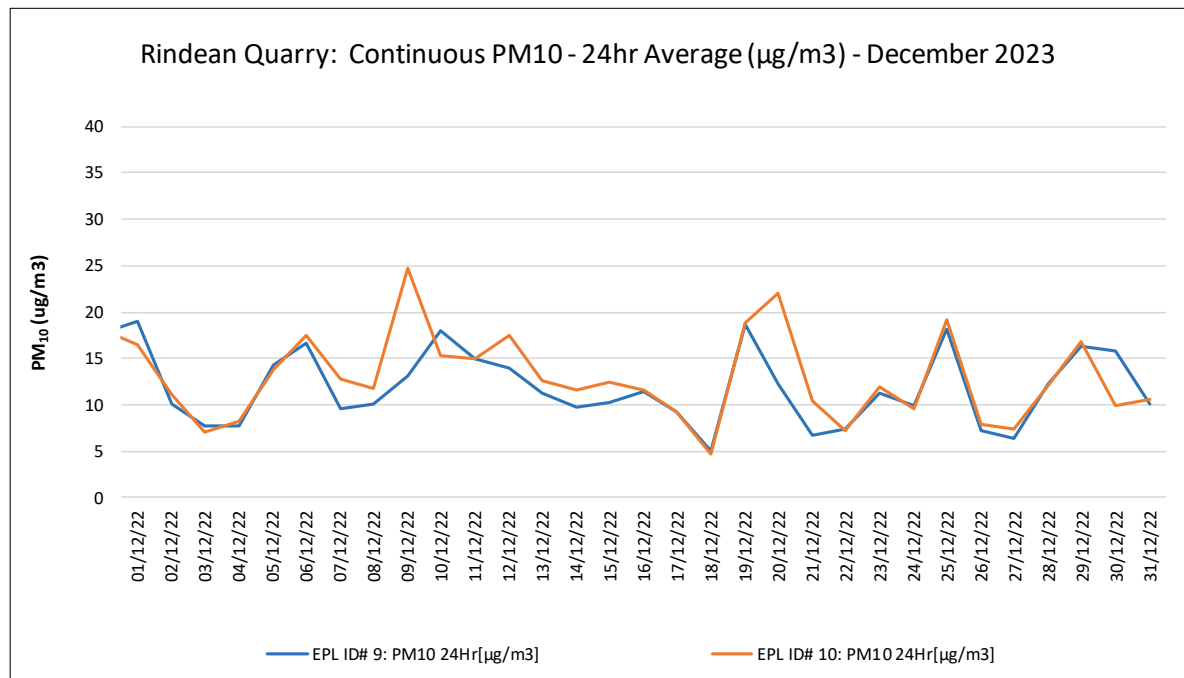


Table 2: PM₁₀ 24hr Average Monthly Summary Results – December 2022

EPL 20548 Sampling Point	Location ID	Pollutant	Unit	Monitoring Frequency Required by Licence	No. of times measured during month	Min Value (µg/m ³)	Mean Value (µg/m ³)	Max Value (µg/m ³)
9	Zone 1	PM ₁₀	µg/m ³	Continuous	Continuous	5.0	11.8	19.0
10	Zone 2	PM ₁₀	µg/m ³	Continuous	Continuous	4.7	12.8	24.7

NR = no result

2. Meteorological (EPL ID #8)

Table 3: Monthly Meteorological Data Summary – December 2022

Date	Temp 2m Min	Temp 2m Ave	Temp 2m Max	10m Temp Min	10m Temp Ave	10m Temp Max	Humidity Min	Humidity Ave	Humidity Max	Wind Speed Min	Wind Speed Ave	Wind Speed Max	Rain (mm)	Solar Rad Min	Solar Rad Ave	Solar Rad Max	Delta Temp Min	Delta Temp Ave	Delta Temp Max	Sigma Theta Min	Sigma Theta Ave	Sigma Theta Max
1/12/2022	13.1	16.1	19.1	14.0	16.1	18.5	72.3	87.0	99.7	0.1	1.3	4.7	0.0	0.0	112.7	460.0	-1.1	0.0	1.0	2.9	26.2	92.1
2/12/2022	13.0	16.7	20.9	14.1	16.6	19.8	67.0	85.7	100.0	0.1	1.6	6.1	0.0	0.0	144.9	1074.0	-1.2	0.1	1.5	7.7	32.6	72.9
3/12/2022	11.9	16.8	22.0	12.7	16.8	21.4	48.6	81.9	100.0	0.1	1.5	3.9	0.0	0.0	167.9	1085.7	-1.4	0.0	1.5	5.4	31.3	96.4
4/12/2022	13.3	17.9	23.1	14.4	17.8	21.6	59.8	84.6	100.0	0.0	1.7	7.1	0.0	0.0	181.8	1148.0	-2.1	0.1	1.9	4.4	35.5	79.7
5/12/2022	13.7	21.5	31.1	14.3	21.3	30.1	31.6	78.5	100.0	0.1	1.7	6.4	3.6	0.0	263.1	1122.4	-1.0	0.3	2.0	11.8	38.9	88.2
6/12/2022	13.8	18.1	21.6	14.5	17.8	20.9	66.4	90.0	100.0	0.1	1.6	5.4	0.2	0.0	235.5	1204.1	-0.7	0.3	1.6	6.0	39.3	82.7
7/12/2022	13.6	19.6	26.4	14.4	19.6	25.5	32.5	65.4	99.9	0.1	1.2	5.0	0.0	0.0	148.1	907.1	-1.4	-0.1	1.9	6.0	52.9	81.6
8/12/2022	11.4	17.3	22.9	12.6	17.2	22.2	23.1	57.5	79.1	0.1	1.5	4.9	0.0	0.0	267.9	1129.9	-1.8	0.1	2.4	5.5	46.5	97.7
9/12/2022	10.9	14.6	18.6	11.9	14.5	17.7	56.3	72.2	100.0	0.1	1.5	4.8	0.2	0.0	183.1	1159.4	-1.6	0.1	2.0	4.5	33.0	78.8
10/12/2022	12.4	15.6	19.6	12.4	15.5	18.3	68.5	83.0	100.0	0.0	1.3	3.9	0.2	0.0	104.8	596.3	-0.6	0.1	1.4	9.7	39.2	88.9
11/12/2022	13.1	20.4	27.5	14.3	20.3	26.5	41.5	77.1	100.0	0.1	2.0	5.9	0.0	0.0	261.1	1117.4	-1.4	0.2	1.9	15.9	38.3	93.8
12/12/2022	15.5	23.1	28.4	16.0	23.2	28.1	27.2	47.5	99.9	0.1	2.1	6.9	5.6	0.0	125.5	1064.0	-1.1	-0.1	4.3	36.3	60.5	93.3
13/12/2022	10.4	17.8	26.2	11.6	17.7	25.5	21.2	45.0	80.5	0.2	1.5	4.1	0.0	0.0	271.8	1160.9	-1.7	0.1	2.6	5.2	43.5	94.5
14/12/2022	11.6	17.4	23.3	12.7	17.6	22.5	17.9	42.1	83.2	0.2	1.4	4.3	0.0	0.0	251.5	1180.1	-2.6	-0.2	1.9	5.0	46.0	84.6
15/12/2022	9.2	15.6	21.6	10.1	15.6	20.7	32.1	51.8	72.8	0.2	1.7	6.4	0.0	0.0	228.3	1175.2	-1.8	0.1	2.0	10.0	38.4	88.7
16/12/2022	9.6	13.8	18.4	9.7	13.7	17.8	51.2	76.7	100.0	0.1	1.6	5.8	5.4	0.0	129.4	1029.8	-0.8	0.2	1.9	18.9	43.8	98.6
17/12/2022	11.3	14.4	18.3	11.9	14.2	17.6	67.2	85.7	100.0	0.1	1.5	5.4	0.0	0.0	100.6	776.6	-0.7	0.1	1.5	21.4	48.5	86.3
18/12/2022	11.9	13.6	16.5	12.1	13.5	16.6	82.6	97.3	100.0	0.1	1.4	5.5	13.6	0.0	103.5	653.7	-0.5	0.1	1.3	26.2	48.5	93.6
19/12/2022	11.9	14.5	18.1	12.1	14.4	17.6	58.3	83.3	99.9	0.1	1.4	4.4	5.0	0.0	106.1	581.3	-0.7	0.1	1.7	21.9	46.1	85.6
20/12/2022	11.0	14.6	19.2	11.4	14.6	18.3	60.8	80.9	97.5	0.1	1.3	5.4	0.2	0.0	123.2	696.8	-1.4	0.1	1.5	9.0	36.2	86.0
21/12/2022	11.2	15.6	21.2	11.6	15.5	19.9	52.8	79.8	100.0	0.2	1.4	3.6	0.0	0.0	201.8	1194.1	-1.7	0.1	1.8	6.6	30.7	98.0
22/12/2022	11.5	16.6	23.3	12.6	16.6	22.1	43.7	85.2	100.0	0.1	1.6	4.9	2.0	0.0	198.3	1142.4	-2.1	-0.1	1.5	3.6	29.9	64.1
23/12/2022	14.9	20.3	26.9	15.2	20.2	26.0	60.0	85.6	100.0	0.1	1.3	4.8	2.8	0.0	166.9	1042.8	-1.0	0.1	1.8	6.1	30.9	98.3
24/12/2022	17.3	23.5	30.5	17.7	23.4	29.3	33.3	72.5	99.9	0.1	1.6	4.5	0.0	0.0	219.3	1148.0	-1.5	0.1	1.7	9.0	36.9	93.9
25/12/2022	18.6	21.8	27.5	18.6	21.7	27.1	75.2	93.0	100.0	0.2	1.5	4.5	0.0	0.0	198.8	1123.9	-1.3	0.2	1.8	9.9	34.3	80.7
26/12/2022	16.7	22.1	29.1	17.4	22.0	28.2	42.9	84.1	99.9	0.0	1.7	5.0	0.0	0.0	256.7	1157.6	-1.8	0.1	1.5	3.2	25.2	52.6
27/12/2022	17.4	21.4	26.3	17.6	21.1	25.2	49.1	89.0	100.0	0.1	2.1	7.4	0.0	0.0	259.3	1138.2	-1.2	0.3	1.5	19.7	33.2	79.9
28/12/2022	17.6	21.9	27.5	17.8	21.6	26.3	47.2	84.7	100.0	0.1	2.1	7.2	0.0	0.0	261.4	1147.8	-0.4	0.3	1.9	19.4	33.0	76.8
29/12/2022	17.4	18.9	20.5	17.8	18.8	20.7	97.2	99.8	100.0	0.2	1.3	5.0	0.0	0.0	51.1	234.9	-1.0	0.0	0.7	20.0	39.4	87.3
30/12/2022	17.3	19.8	23.9	17.4	19.6	23.5	75.9	94.2	100.0	0.1	1.6	5.7	4.6	0.0	184.6	1143.0	-0.5	0.2	1.3	15.0	34.0	100.5
31/12/2022	16.8	20.1	24.6	17.4	20.0	23.6	77.3	94.6	100.0	0.0	1.4	6.9	0.0	0.0	182.4	1147.4	-0.8	0.1	1.6	13.4	37.3	99.1
Monthly	9.2	18.1	31.1	9.7	18.0	30.1	18	78.6	100	0.0	1.6	7.4	43.4	0.0	183.6	1204.1	-2.6	0.1	4.3	2.90	38.4	100.50

Figure 2: Windrose – December 2022

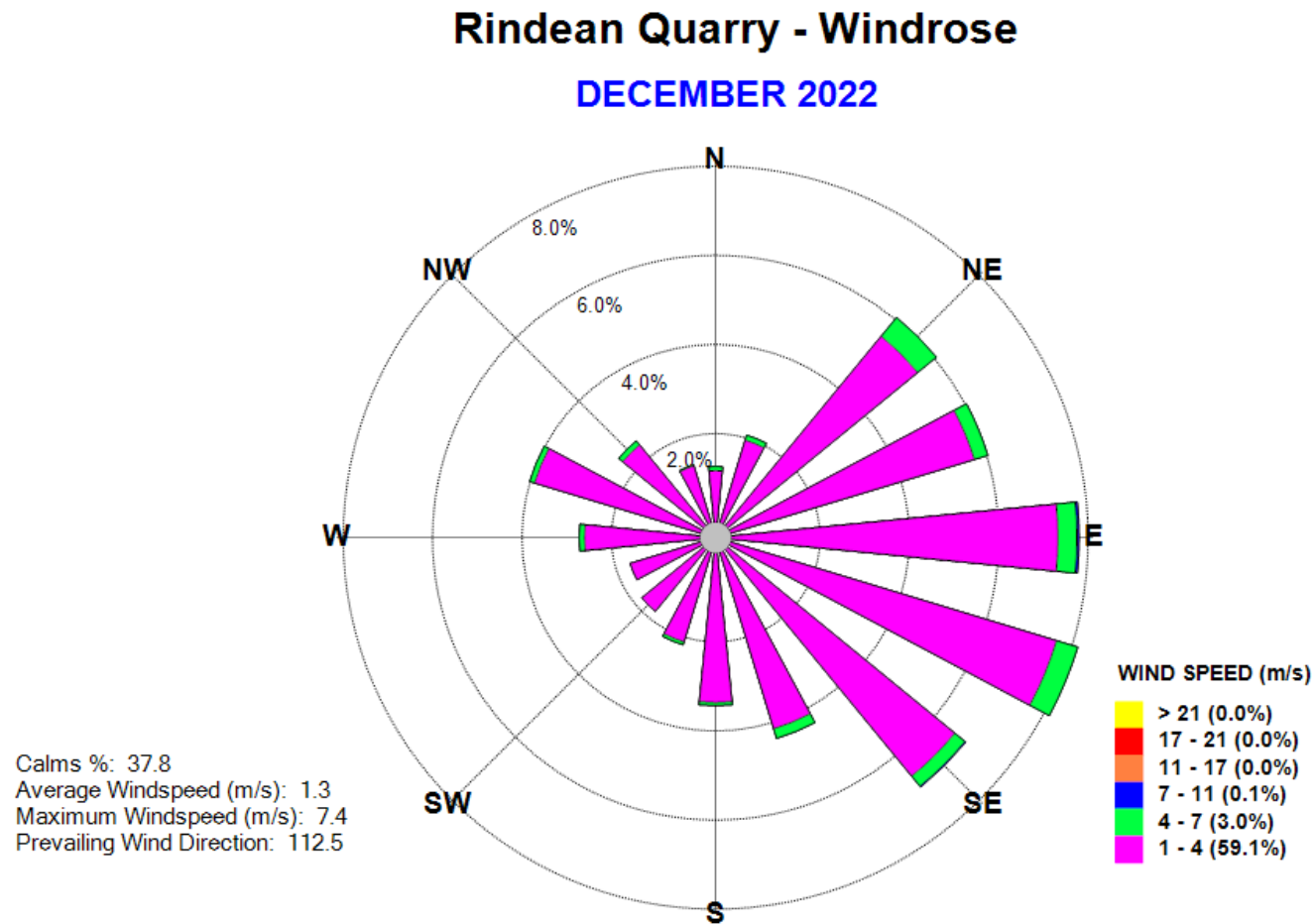


Figure 3-5: Daily (minimum, average, maximum) 2m & 10m Temperature and Delta Temperature



Figure 6-8: Daily (minimum, average, maximum) Wind Speed & Humidity and Rainfall

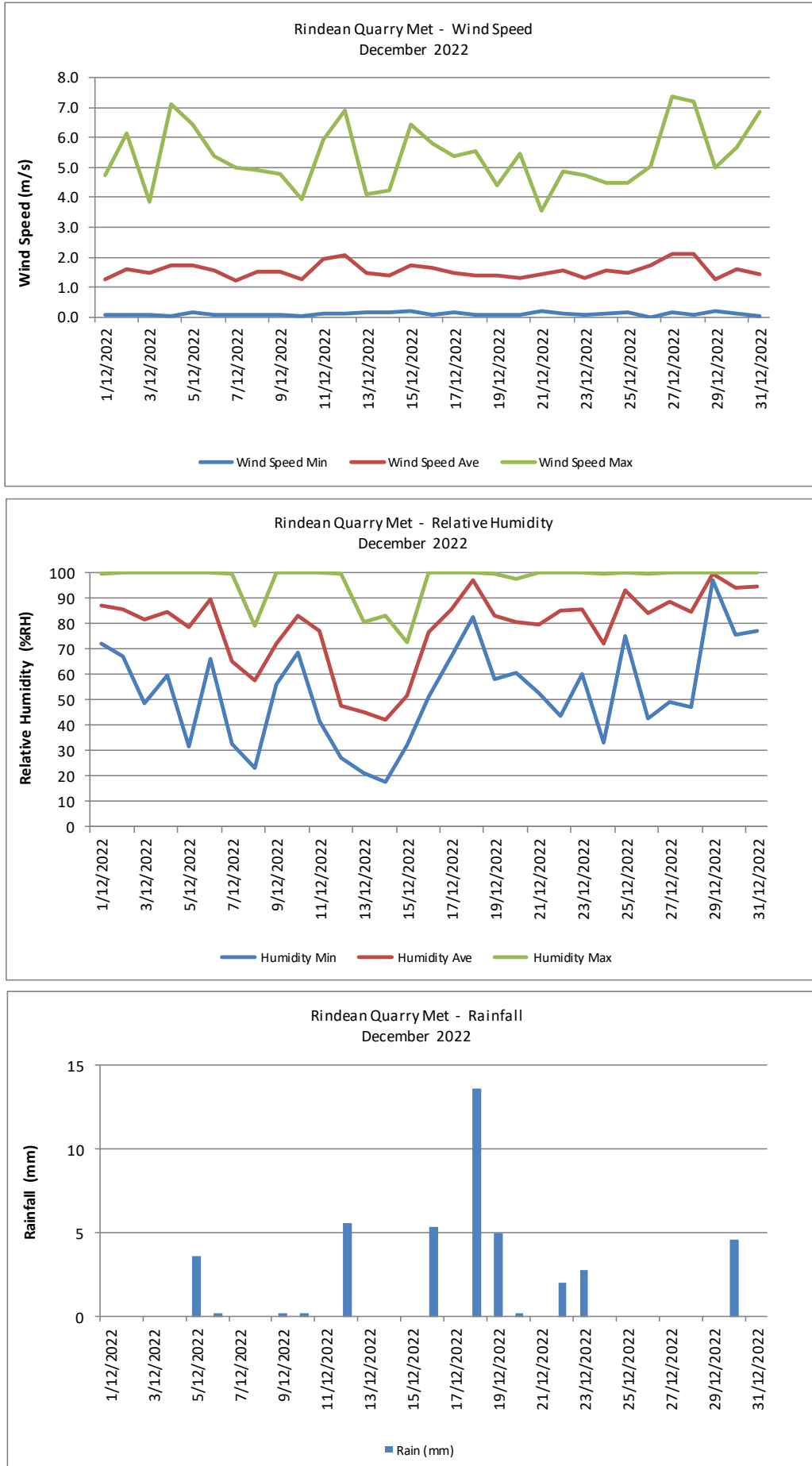


Figure 9-10: Daily (minimum, average, maximum) Solar Radiation and Sigma Theta

