

# Rindean Quarries Pty Ltd

## Air Quality and Meteorological Monitoring Monthly Summary

**OCTOBER 2024**

| SITE INFORMATION              |                                                                                                             |
|-------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>EPL Number:</b>            | 20548                                                                                                       |
| <b>EPA Website Link:</b>      | <a href="https://www.epa.nsw.gov.au/ViewPOEOLicence.aspx(nsw.gov.au)">ViewPOEOLicence.aspx (nsw.gov.au)</a> |
| <b>Licensee:</b>              | Rindean Quarries Pty Ltd                                                                                    |
| <b>Premises:</b>              | 620 Wisemans Ferry Road, SOMERSBY NSW 2250                                                                  |
| <b>EPL Monitoring Points:</b> | Points 8, 9 and 10                                                                                          |
| <b>Sampling Period:</b>       | October 2024                                                                                                |
| <b>Obtained Date:</b>         | 11/11/2024                                                                                                  |
| <b>Publication Date:</b>      | 11/11/2024                                                                                                  |

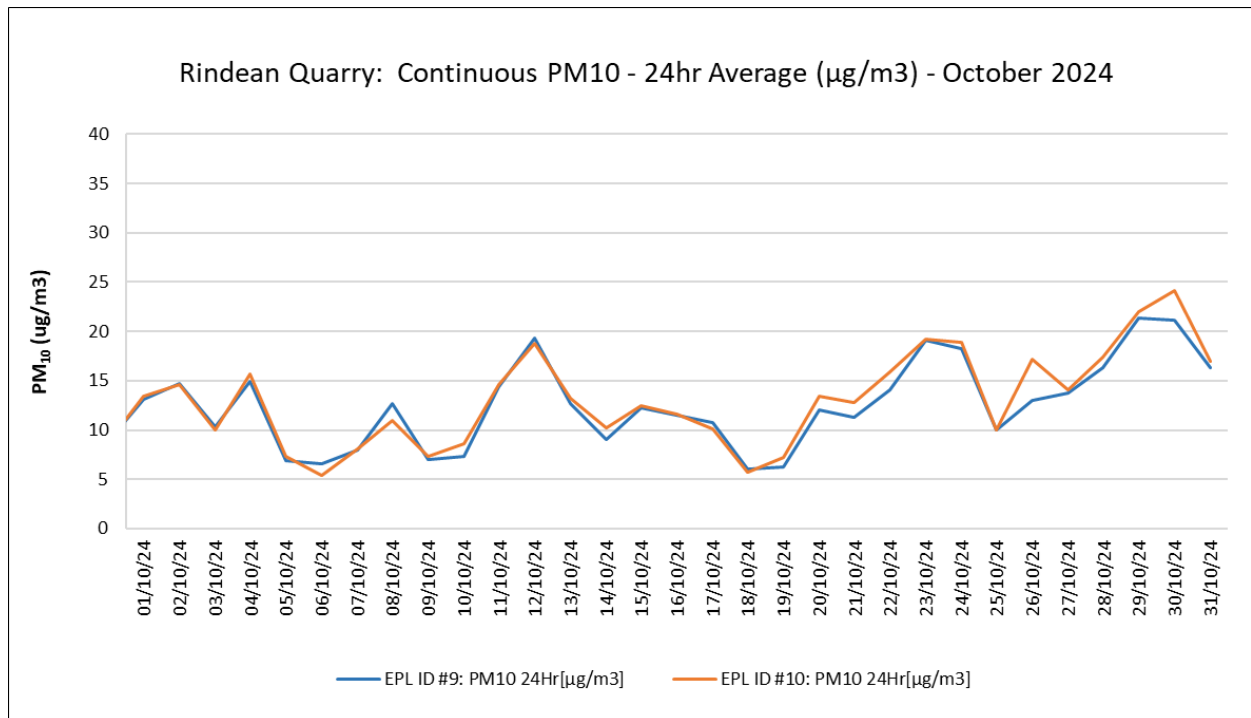
## 1. Continuous PM<sub>10</sub> (EPL ID #9 and #10)

**Table 1:** Continuous PM<sub>10</sub> Monitoring Results (24hr Averages) – October 2024

| DATE       | PM <sub>10</sub> 24hr Average<br>(µg/m <sup>3</sup> ) |                        |
|------------|-------------------------------------------------------|------------------------|
|            | EPA ID# 9<br>(Zone 1)                                 | EPA ID# 10<br>(Zone 2) |
| 1/10/2024  | 13.1                                                  | 13.4                   |
| 2/10/2024  | 14.8                                                  | 14.6                   |
| 3/10/2024  | 10.3                                                  | 10.0                   |
| 4/10/2024  | 14.9                                                  | 15.6                   |
| 5/10/2024  | 6.9                                                   | 7.3                    |
| 6/10/2024  | 6.5                                                   | 5.4                    |
| 7/10/2024  | 8.0                                                   | 8.1                    |
| 8/10/2024  | 12.7                                                  | 11.0                   |
| 9/10/2024  | 7.0                                                   | 7.3                    |
| 10/10/2024 | 7.3                                                   | 8.6                    |
| 11/10/2024 | 14.3                                                  | 14.6                   |
| 12/10/2024 | 19.3                                                  | 18.8                   |
| 13/10/2024 | 12.7                                                  | 13.2                   |
| 14/10/2024 | 9.1                                                   | 10.2                   |
| 15/10/2024 | 12.2                                                  | 12.5                   |
| 16/10/2024 | 11.5                                                  | 11.6                   |
| 17/10/2024 | 10.8                                                  | 10.1                   |
| 18/10/2024 | 6.1                                                   | 5.7                    |
| 19/10/2024 | 6.2                                                   | 7.2                    |
| 20/10/2024 | 12.0                                                  | 13.5                   |
| 21/10/2024 | 11.3                                                  | 12.7                   |
| 22/10/2024 | 14.1                                                  | 15.9                   |
| 23/10/2024 | 19.1                                                  | 19.2                   |
| 24/10/2024 | 18.2                                                  | 18.9                   |
| 25/10/2024 | 10.0                                                  | 10.0                   |
| 26/10/2024 | 13.0                                                  | 17.1                   |
| 27/10/2024 | 13.8                                                  | 14.0                   |
| 28/10/2024 | 16.3                                                  | 17.4                   |
| 29/10/2024 | 21.3                                                  | 22.0                   |
| 30/10/2024 | 21.1                                                  | 24.2                   |
| 31/10/2024 | 16.3                                                  | 17.0                   |

Note: Validated data. Blank cells in table indicate insufficient valid data to provide a 24hr average PM<sub>10</sub> result.

**Figure 1: Continuous 24hr Averages – October 2024**



**Table 2: PM<sub>10</sub> 24hr Average Monthly Summary Results – October 2024**

| EPL 20548 Sampling Point | Location ID | Pollutant        | Unit              | Monitoring Frequency Required by Licence | No. of times measured during month | Min Value (µg/m <sup>3</sup> ) | Mean Value (µg/m <sup>3</sup> ) | Max Value (µg/m <sup>3</sup> ) |
|--------------------------|-------------|------------------|-------------------|------------------------------------------|------------------------------------|--------------------------------|---------------------------------|--------------------------------|
| 9                        | Zone 1      | PM <sub>10</sub> | µg/m <sup>3</sup> | Continuous                               | Continuous                         | 6.1                            | 12.6                            | 21.3                           |
| 10                       | Zone 2      | PM <sub>10</sub> | µg/m <sup>3</sup> | Continuous                               | Continuous                         | 5.4                            | 13.1                            | 24.2                           |

## 2. Meteorological (EPL ID #8)

**Table 3:** Monthly Meteorological Data Summary – October 2024

| 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 |
|------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|----------------|----------------|-----------|---------------|---------------|---------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|
| 1/10/2024  | 9.0         | 14.5        | 20.8        | 10.0         | 14.5         | 19.9         | 47.4         | 80.3         | 100.0        | 0.1            | 1.4            | 5.4            | 0.0       | 0.0           | 193.8         | 930.7         | -1.3           | 0.0            | 1.7            | 5.3             | 24.6            | 82.2            |
| 2/10/2024  | 11.8        | 14.3        | 17.8        | 12.2         | 14.3         | 17.3         | 60.7         | 87.3         | 100.0        | 0.0            | 1.1            | 3.4            | 4.8       | 0.0           | 59.1          | 513.1         | -0.7           | 0.0            | 1.2            | 5.5             | 29.7            | 99.5            |
| 3/10/2024  | 10.2        | 14.0        | 18.4        | 11.4         | 14.3         | 17.5         | 54.1         | 71.8         | 100.0        | 0.1            | 1.3            | 4.8            | 0.0       | 0.0           | 165.0         | 746.7         | -3.3           | -0.3           | 1.5            | 2.8             | 26.3            | 79.9            |
| 4/10/2024  | 8.9         | 16.0        | 23.2        | 9.8          | 16.0         | 22.1         | 39.7         | 68.3         | 94.6         | 0.2            | 1.5            | 4.0            | 0.0       | 0.0           | 200.4         | 933.0         | -1.6           | 0.0            | 1.6            | 4.3             | 34.2            | 85.3            |
| 5/10/2024  | 14.7        | 19.8        | 25.7        | 16.1         | 20.1         | 25.0         | 26.8         | 47.2         | 74.9         | 0.1            | 1.1            | 6.4            | 0.0       | 0.0           | 166.1         | 945.5         | -1.9           | -0.3           | 1.1            | 7.8             | 58.2            | 99.2            |
| 6/10/2024  | 14.0        | 20.1        | 28.0        | 15.3         | 20.6         | 27.3         | 22.6         | 38.0         | 51.9         | 0.1            | 1.1            | 4.5            | 0.0       | 0.0           | 221.5         | 831.8         | -2.2           | -0.4           | 1.2            | 7.8             | 57.1            | 97.6            |
| 7/10/2024  | 13.2        | 20.5        | 28.4        | 14.5         | 21.0         | 28.2         | 23.2         | 39.9         | 58.1         | 0.1            | 1.1            | 3.8            | 0.0       | 0.0           | 230.9         | 892.6         | -2.5           | -0.6           | 1.4            | 3.9             | 38.2            | 89.7            |
| 8/10/2024  | 10.9        | 13.4        | 17.8        | 10.9         | 13.4         | 19.9         | 35.5         | 88.9         | 100.0        | 0.2            | 1.7            | 4.8            | 3.6       | 0.0           | 36.4          | 191.2         | -2.3           | 0.0            | 0.6            | 3.8             | 40.9            | 73.7            |
| 9/10/2024  | 10.7        | 12.3        | 14.5        | 11.0         | 12.3         | 13.9         | 57.7         | 84.4         | 100.0        | 0.0            | 1.1            | 4.2            | 3.6       | 0.0           | 57.6          | 407.3         | -1.4           | 0.0            | 0.9            | 6.2             | 37.3            | 86.8            |
| 10/10/2024 | 10.3        | 15.5        | 21.3        | 10.3         | 15.2         | 20.2         | 52.6         | 82.0         | 99.9         | 0.1            | 1.5            | 4.5            | 0.2       | 0.0           | 196.1         | 904.5         | -0.8           | 0.3            | 1.7            | 6.8             | 32.2            | 94.1            |
| 11/10/2024 | 13.0        | 17.6        | 24.4        | 13.7         | 17.5         | 23.2         | 52.8         | 82.0         | 99.9         | 0.1            | 1.5            | 5.6            | 0.0       | 0.0           | 191.3         | 938.4         | -2.0           | 0.2            | 2.2            | 6.9             | 34.6            | 89.2            |
| 12/10/2024 | 12.7        | 14.4        | 16.7        | 12.6         | 14.2         | 16.5         | 56.2         | 77.6         | 100.0        | 0.1            | 1.8            | 6.5            | 0.4       | 0.0           | 71.7          | 473.2         | -0.6           | 0.1            | 1.3            | 23.2            | 45.1            | 90.1            |
| 13/10/2024 | 9.9         | 14.1        | 18.6        | 10.0         | 13.8         | 17.7         | 52.7         | 73.6         | 100.0        | 0.3            | 1.9            | 5.0            | 0.0       | 0.0           | 146.4         | 852.1         | -0.3           | 0.3            | 1.5            | 7.2             | 30.0            | 74.6            |
| 14/10/2024 | 10.8        | 16.5        | 23.8        | 11.1         | 16.2         | 23.7         | 51.8         | 74.9         | 99.9         | 0.1            | 1.4            | 5.7            | 15.2      | 0.0           | 161.6         | 728.7         | -1.0           | 0.2            | 3.4            | 6.8             | 39.0            | 98.5            |
| 15/10/2024 | 11.3        | 13.8        | 16.4        | 11.6         | 13.8         | 16.0         | 63.1         | 87.0         | 99.9         | 0.1            | 1.2            | 3.7            | 1.2       | 0.0           | 67.7          | 587.0         | -1.2           | 0.0            | 0.8            | 6.3             | 37.1            | 80.0            |
| 16/10/2024 | 10.9        | 13.6        | 16.4        | 11.3         | 13.5         | 15.8         | 55.7         | 75.2         | 100.0        | 0.1            | 1.1            | 2.7            | 0.2       | 0.0           | 76.2          | 387.3         | -1.5           | 0.1            | 0.9            | 5.5             | 26.8            | 77.6            |
| 17/10/2024 | 9.4         | 15.9        | 22.3        | 10.5         | 15.9         | 21.2         | 57.3         | 78.8         | 100.0        | 0.2            | 1.7            | 4.0            | 0.0       | 0.0           | 235.8         | 999.9         | -2.1           | 0.1            | 1.9            | 3.3             | 27.7            | 78.6            |
| 18/10/2024 | 15.8        | 18.9        | 22.3        | 15.9         | 18.9         | 22.0         | 68.3         | 84.2         | 99.9         | 0.0            | 1.3            | 3.8            | 1.2       | 0.0           | 48.3          | 262.0         | -1.2           | -0.1           | 0.8            | 18.9            | 46.8            | 89.1            |
| 19/10/2024 | 15.6        | 18.8        | 24.7        | 15.9         | 18.8         | 23.7         | 45.0         | 78.2         | 99.9         | 0.1            | 1.2            | 4.2            | 0.6       | 0.0           | 139.9         | 909.6         | -1.3           | 0.1            | 1.5            | 8.5             | 48.1            | 98.9            |
| 20/10/2024 | 14.7        | 16.6        | 20.4        | 15.0         | 16.4         | 19.2         | 58.7         | 79.9         | 99.9         | 0.1            | 1.7            | 6.7            | 0.2       | 0.0           | 165.5         | 931.4         | -0.6           | 0.2            | 2.1            | 4.3             | 35.0            | 67.2            |
| 21/10/2024 | 12.8        | 15.4        | 18.9        | 13.1         | 15.2         | 18.6         | 52.6         | 68.4         | 79.9         | 0.1            | 1.5            | 5.8            | 0.0       | 0.0           | 102.5         | 672.7         | -0.5           | 0.2            | 1.5            | 31.7            | 53.4            | 82.1            |
| 22/10/2024 | 10.6        | 16.3        | 24.4        | 11.1         | 16.0         | 22.6         | 26.6         | 67.6         | 88.8         | 0.2            | 1.2            | 3.5            | 0.0       | 0.0           | 243.0         | 1026.9        | -0.7           | 0.3            | 2.4            | 18.5            | 44.4            | 89.1            |
| 23/10/2024 | 13.3        | 20.9        | 29.5        | 14.4         | 20.7         | 28.6         | 25.5         | 60.3         | 97.9         | 0.1            | 1.1            | 3.4            | 0.0       | 0.0           | 189.5         | 843.4         | -2.0           | 0.1            | 1.6            | 10.7            | 42.8            | 91.8            |
| 24/10/2024 | 12.8        | 17.4        | 21.2        | 12.8         | 17.4         | 20.5         | 45.4         | 73.7         | 100.0        | 0.1            | 1.7            | 6.9            | 13.6      | 0.0           | 159.6         | 976.1         | -2.8           | 0.0            | 1.8            | 3.0             | 31.0            | 83.9            |
| 25/10/2024 | 10.5        | 14.8        | 21.2        | 10.7         | 14.4         | 20.2         | 24.0         | 68.1         | 99.9         | 0.2            | 1.4            | 5.6            | 1.0       | 0.0           | 249.0         | 983.9         | -0.4           | 0.3            | 1.8            | 10.2            | 43.1            | 90.5            |
| 26/10/2024 | 10.5        | 14.0        | 19.0        | 11.1         | 13.7         | 17.3         | 31.1         | 50.1         | 69.2         | 0.0            | 1.4            | 4.2            | 0.0       | 0.0           | 248.5         | 1061.0        | -1.4           | 0.3            | 2.1            | 3.8             | 43.2            | 87.0            |
| 27/10/2024 | 9.6         | 17.2        | 25.6        | 10.4         | 17.3         | 24.3         | 21.9         | 55.5         | 81.8         | 0.0            | 1.5            | 4.2            | 0.0       | 0.0           | 254.8         | 1008.8        | -2.6           | -0.1           | 1.6            | 4.9             | 33.2            | 89.0            |
| 28/10/2024 | 14.1        | 18.9        | 29.3        | 14.4         | 18.7         | 28.5         | 19.6         | 59.9         | 85.7         | 0.2            | 1.7            | 6.6            | 0.0       | 0.0           | 219.3         | 1016.9        | -1.8           | 0.1            | 3.5            | 9.8             | 31.8            | 83.4            |
| 29/10/2024 | 12.3        | 16.6        | 22.3        | 12.9         | 16.3         | 20.4         | 50.2         | 70.8         | 88.7         | 0.0            | 1.3            | 5.1            | 0.0       | 0.0           | 157.3         | 1090.5        | -0.8           | 0.3            | 2.2            | 4.7             | 34.4            | 84.5            |
| 30/10/2024 | 15.0        | 19.3        | 26.3        | 14.8         | 18.9         | 24.7         | 42.8         | 73.5         | 99.2         | 0.1            | 1.6            | 4.6            | 0.0       | 0.0           | 246.8         | 977.8         | -1.6           | 0.4            | 1.8            | 7.4             | 33.8            | 90.7            |
| 31/10/2024 | 15.1        | 20.3        | 29.4        | 16.2         | 20.4         | 28.3         | 20.1         | 61.1         | 99.9         | 0.2            | 1.4            | 3.6            | 3.2       | 0.0           | 243.3         | 1026.0        | -2.6           | -0.1           | 1.9            | 5.9             | 32.7            | 82.3            |
| Monthly    | 8.9         | 16.5        | 29.5        | 9.8          | 16.5         | 28.6         | 20           | 70.6         | 100          | 0.0            | 1.4            | 6.9            | 49.0      | 0.0           | 166.0         | 1090.5        | -3.3           | 0.1            | 3.5            | 2.80            | 37.8            | 99.50           |

Figure 2: Windrose – October 2024

## Rindean Quarry - Windrose OCTOBER 2024

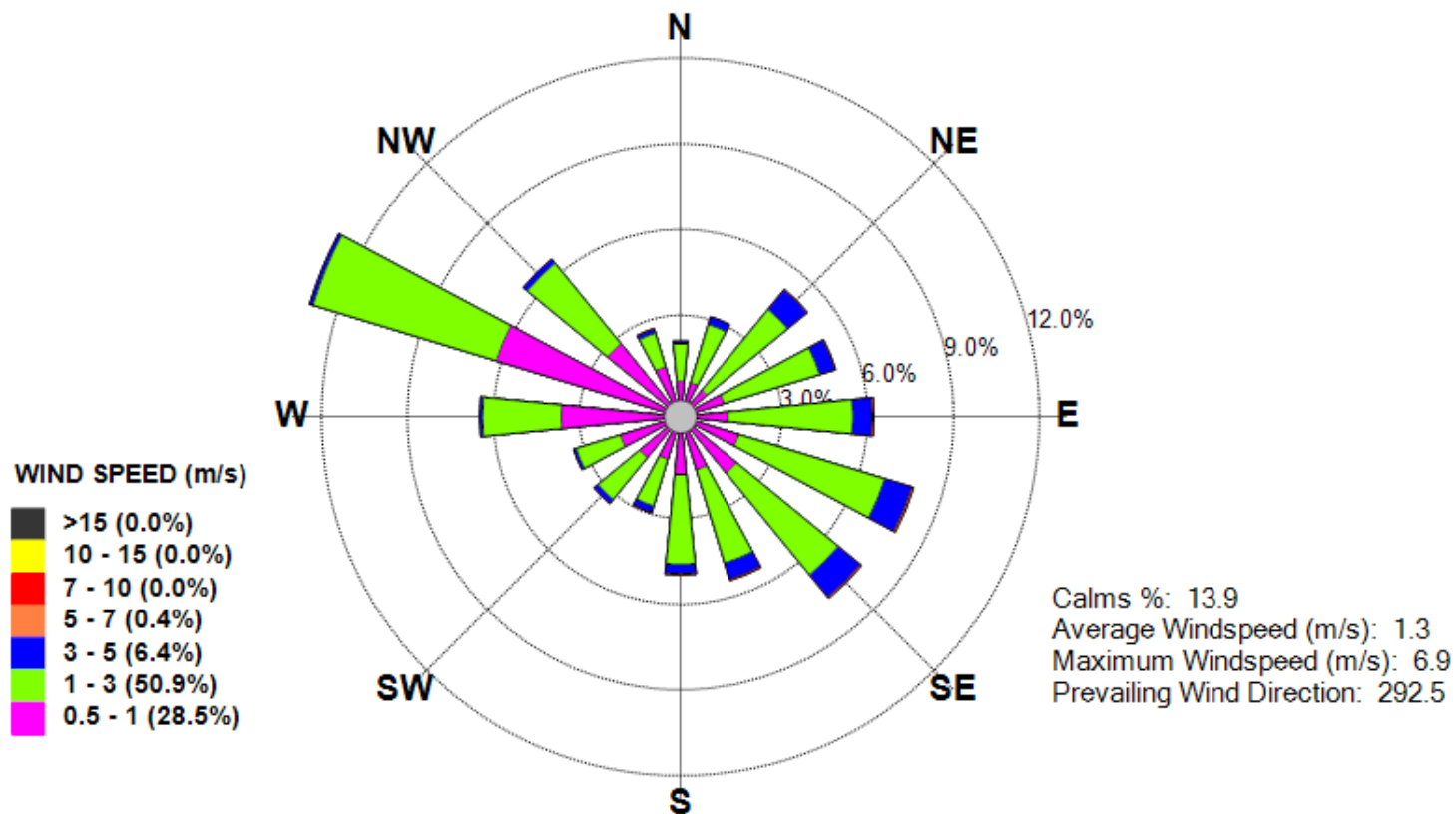
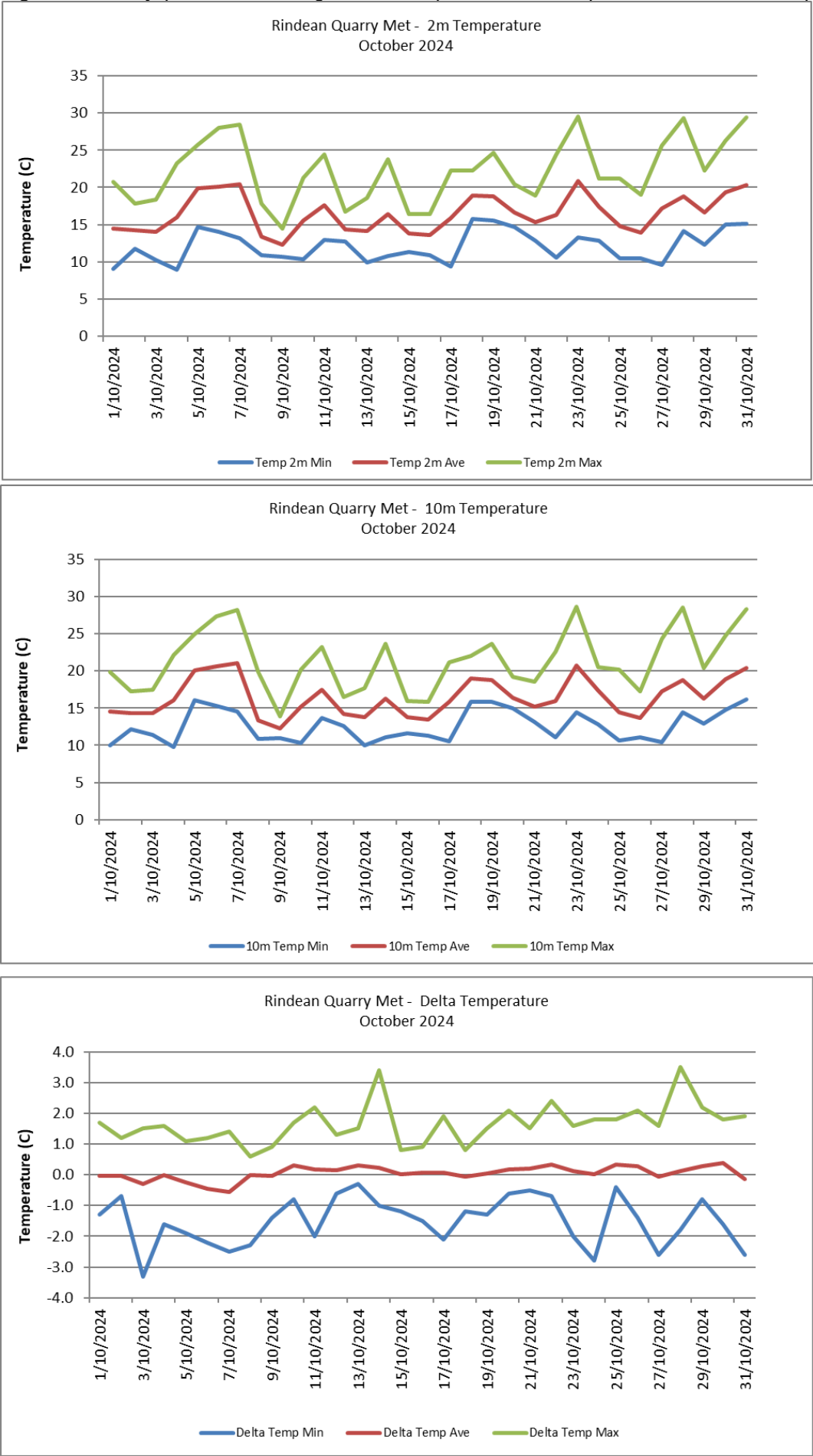
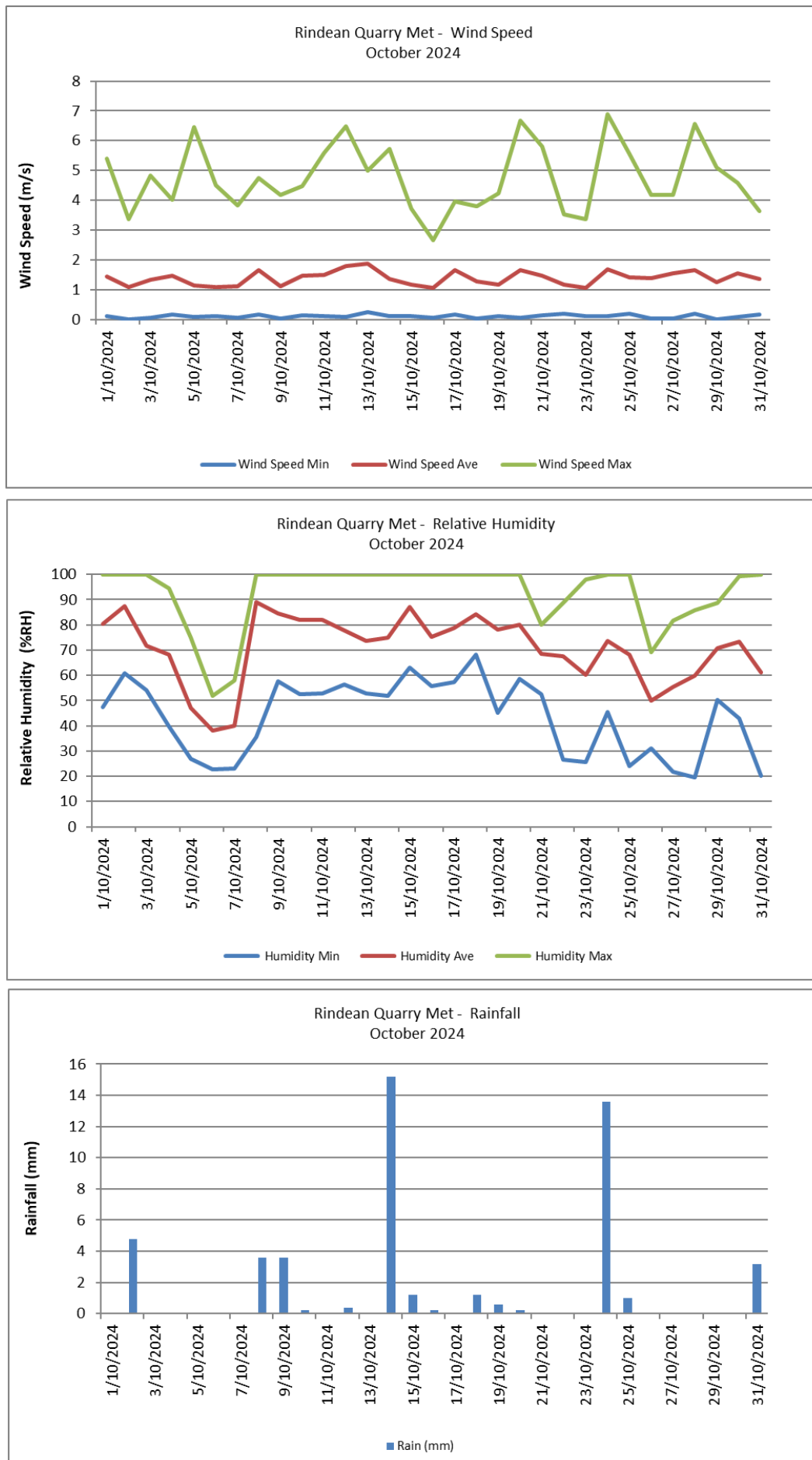


Figure 3-5: Daily (minimum, average, maximum) 2m & 10m Temperature and Delta Temperature



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



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

