

**Iluka Resources Limited- Balranald Mineral Sands Mine
Monthly Particulate Monitoring (PM2.5 and PM10)**



The below air quality monitoring results have been obtained in accordance with the Balranald Mineral Sands Mine Air Quality Management Plan and assessed against the air quality criteria outlined in Table 4 of the NSW Development Consent SSD-5285.

Table 4- Short term impact assessment criterion for particulate matter		
Pollutant	Averaging period	Criterion
Particulate matter < 10µm (PM10)	24 Hour	50 µg/m ³
Particulate matter < 2.5µm (PM2.5)	24 Hour	25 µg/m ³

There are 5 days of exceedance in particulate levels recorded on the monitoring station during the month of March. However, no contribution from site activities was observed on either days where the criteria was exceeded.

Adverse weather conditions and frequent occasions of wind gust on few days were analysed to have contributed in the elevation of particulate matter concentration at the station.

Please see the comment section of the individual days for detailed information in the table below.

Continuous Particulate Monitor (CPM1) NSW Environment Protection Licence 20795 Point #13				
Date Time	PM2.5	PM10	Compliant (Yes/No)	Comments
	µg/m³	µg/m³		
24:00 01/03/2025	4.01	15.11	Yes	
24:00 02/03/2025	6.28	26.44	Yes	
24:00 03/03/2025	10.62	24.63	Yes	
24:00 04/03/2025	8.07	27.97	Yes	
24:00 05/03/2025	6.67	30.59	Yes	
24:00 06/03/2025	10.42	37.43	Yes	
24:00 07/03/2025	6.91	39.72	Yes	
24:00 08/03/2025	4.1	22.28	Yes	
24:00 09/03/2025	13.05	81.92	No	Period of exceedance - 11:00h to 18:00h 09/03/2025. Average wind speed – 21.02 km/hr (up to 29.95 km/h) Wind direction – predominantly from NE Ongoing site activities were assessed to have not contributed to the event. Wind speed is analysed to have picked up (wind gust) during the time of exceedance which might have impacted particulate matter levels at the monitor.
24:00 10/03/2025	4.03	11.57	Yes	
24:00 11/03/2025	3.97	13.59	Yes	
24:00 12/03/2025	6.18	43.05	Yes	

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Continuous Particulate Monitor (CPM1) NSW Environment Protection Licence 20795 Point #13				
Date Time	PM2.5	PM10	Compliant (Yes/No)	Comments
24:00 13/03/2025	8.69	61.52	No	<p>Period of exceedance - 10:00h to 15:00h 13/03/2025.</p> <p>Average wind speed – 9.72 km/hr (up to 15.80 km/h) Wind direction – from SW/W</p> <p>Considering wind was predominantly blowing from the SW/W direction, <u>towards</u> the site, any impact on dust levels cannot be attributed to the site activities.</p>
24:00 14/03/2025	7.64	48.42	Yes	
24:00 15/03/2025	8.22	36.77	Yes	
24:00 16/03/2025	63.06	341.38	No	<p>Period of exceedance - 10:00h 16/03/2025 to 05:00h 17/03/2025.</p> <p>Average wind speed – 20.12 km/hr (up to 33.76 km/h) Wind direction – swirling winds from W/SW/S with occasional wind gusts.</p> <p>Considering swirling winds blowing <u>towards</u> the site, any impact on dust levels cannot be attributed to the site activities.</p>
24:00 17/03/2025	11.75	98.8	No	Continuation of event from 16/03/2025.
24:00 18/03/2025	7.43	21.77	Yes	
24:00 19/03/2025	8.11	38.5	Yes	
24:00 20/03/2025	13.13	62.73	No	<p>Period of exceedance - 16:00h to 22:00h 20/03/2025.</p> <p>Average wind speed – 15.40 km/hr (up to 27.03 km/h) Wind direction – swirling winds from NW/N/SW/S/SE</p> <p>Ongoing site activities were assessed to have not contributed to the event considering the wind was not blowing in direction from the site.</p> <p>Swirling winds with occasional wind gusts might have impacted the particulate matter concentration at the monitor.</p>
24:00 21/03/2025	<Samp	<Samp	N/A	Bad weather event in the area caused technical issues in the monitor. Issue was addressed the same day and monitor was back operational on 22/03/2025.
24:00 22/03/2025	5.36	19.53	Yes	

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Date Time	PM2.5	PM10	Compliant (Yes/No)	Comments
24:00 23/03/2025	4.42	19.26	Yes	
24:00 24/03/2025	6.15	14.8	Yes	
24:00 25/03/2025	12.06	21.25	Yes	
24:00 26/03/2025	7.93	19.09	Yes	
24:00 27/03/2025	12.19	24.87	Yes	
24:00 28/03/2025	6.81	17.6	Yes	
24:00 29/03/2025	4.92	46.09	Yes	
24:00 30/03/2025	4.33	16.61	Yes	
24:00 31/03/2025	2.68	8.69	Yes	