

Jondaryan Rail Loading Facility Air Quality Monitoring Results

Issue Month: August 2015



New Acland Coal Pty Ltd (NAC) undertakes air quality monitoring as part of the environmental monitoring program for the Jondaryan Rail Loading Facility (JRLF). The following air quality data is provided to the Jondaryan community.

Table 1: Dust deposition and compositional monitoring results for the period: July 2015

Site	Dust Deposition (mg/m ² /day)	EA Criteria (mg/m ² /day) [†]	Compositional Analysis [*]			Comments
			Major (>20%)	Minor (<20%>1%)	Trace (<1%)	
JD1	23.3	120	Mineral Material (75%)	Coal (10%), Insects (5%), Vegetation (5%), Copper Sludge (5%)	N/A	Rail and Highway to the north, north-west & north-east. JRLF to east. Grass and gravel immediately surrounding, bare paddock to south-east. Residential to north and west. Road with unsealed edges to north-west, north & north-east, unsealed road to landfill to north-east & gravel driveways to west, north-west, north & north-east. Road to south-west, west, north-west & north.
JD2	16.6	120	Coal (90%)	Mineral Material (10%)	Insects (<1%), Vegetation (<1%)	Rail and Highway to north, north-west & north-east. JRLF to the north-east. Grass immediately surrounding. Residential to south and west. Road with unsealed edges to north-east, east, south-east, south, south-west, north-west & north. Dirt road to south-east & south. Road to south-west, west, north-west, north-east. Stubble paddock to east.
JD3	13.3	120	Coal (85%)	Mineral Material (10%), Vegetation (5%)	Insects (<1%)	Highway and Rail to north-west, north, north-east. JRLF to the east. Grass immediately surrounding. Grass and garden immediately surrounding. Road to north, north-east, east, south-east. Road with unsealed edges to north, north-east, east, south-east, south, south-west. Gravel road to east. Spider web in funnel.
JD4	76.6	120	Mineral Material (85%)	Coal (5%), Insects (5%), Vegetation (5%)	N/A	Rail, Highway and Jondaryan town to south-east, south, south-west, west. JRLF to the east. Grass & bare paddock immediately surrounding. Roads to north-east, east, south-east, south, south-west. Road with unsealed edge to south-east & south. Spider web in funnel.
JD5	13.3	120	Coal (50%), Mineral Material (40%)	Insects (5%), Vegetation (5%)	N/A	Rail and Highway to north-west, north, north-east. JRLF to the north-east. Grass immediately surrounding. Gravel edge road to north, north-east, east, south-east, south. Residential to east, south and west. Road to east, south-east. Stubble paddock to west, south-west. Cropped paddock to south-west.

[†] A semi-qualitative visual analysis of a representative portion of the collected sample which is as consistent as possible (however potentially biased) to that of the complete sample

^{*} Copper sludge is a by product of the necessary preservative (copper sulphate) in sample containers as directed by the laboratory

[†] Polysaccharide slime is a by product of the bio-degradation of insects and vegetation

[†]When measured at a sensitive place, the allowable maximum level of the release of dust from the JRLF is 120 milligrams per square metre per day (120mg/m²/day) as stated in the JRLF's Environmental Authority (EA). The dust deposition monitors do not distinguish between dust sources. The predominant wind directions for July 2015 were from the east (21%), west (17%), south-west (15%) & south (11%). The predominant wind speed for July was calm to light winds.

Table 2: Quarterly PM₁₀ monitoring result for the period 13-14 May 2015

Location	24 Hour PM ₁₀ Result (µg/m ³)	Long-Term PM ₁₀ Average (µg/m ³)	NEPM Criteria for 24 Hour PM ₁₀ exposure [‡] (µg/m ³)	Comments [*]
Corner of Lagoon and Earl Streets, Jondaryan	11	22	50	"This site was never within the downwind area of coal stockpile during the sampling period" [‡]

^{*}Taken from monitoring report, with respect to most recent result

[†]PM₁₀ monitoring is undertaken on a quarterly basis for a nominal 24 hour period.

[‡]Monitoring in January 2014 returned a 24 Hour PM₁₀ result of 8 µg/m³ when the site was downwind of the coal stockpile most of the time.

The national 24-hour exposure standard for PM₁₀ particulates stated in the National Environment Protection Measure for Ambient Air Quality is 50 micrograms per cubic metre (50µg/m³). The PM₁₀ monitors do not distinguish between *particulate matter sources*.

July 2015 TEOM Results



Figure 1: Jondaryan Township TSP continuous monitoring results for the period: July 2015

Comments: A TEOM located within the Jondaryan Township continuously measures Total Suspended Particulate (TSP) matter. When measured at a sensitive place, the maximum level of the release of TSP from the JRLF (24-hour average) is 80 micrograms per cubic metre (80µg/m³) as stated in the JRLF's EA. The TEOM's do not distinguish between particulate matter sources. The predominant wind directions for July 2015 were from the east (21%), west (17%), south-west (15%) & south (11%). The predominant wind speed for July was calm to light winds. The TEOM unit was operational for >99% of the sample period.

If there are any queries regarding the air quality monitoring undertaken for the Jondaryan Rail Loading Facility please contact Rob Rashleigh at the New Acland Coal Mine during business hours on 4694 8888.

Issued by:
Rick Balsamo
CHPP Superintendent
New Acland Coal Pty Ltd

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