

**Jondaryan Rail Loading Facility Air Quality Monitoring Results**

Issue Month: November 2016



**NEW HOPE GROUP**

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: September 2016**

Site	Dust Deposition (mg/m <sup>2</sup> /day)	EA Criteria (mg/m <sup>2</sup> /day) <sup>a</sup>	Compositional Analysis <sup>b</sup>			Comments
			Major (>20%)	Minor (<20%>1%)	Trace (<1%)	
JD1	13	120	Mineral Material (65%), Coal (25%)	Vegetation (10%)	Insects (<1%)	Rail and Highway to the north, north-west & north-east. JRLF to north-east. Dirt and gravel immediately surrounding, stubble paddock to north-east. Cropped paddock to south-east, 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.
JD2	17	120	Mineral Material (40%), Coal (40%)	Insects (10%), Vegetation (10%)	N/A	Rail and Highway to north, north-west & north-east. JRLF to the north-east. Grass immediately surrounding. Cropped paddock to east, stubble paddock to south-east Residential to south and west. Road with unsealed edges to north-east, east, south-east & south. Gravel road to south-east, south, south-west. Spider web in funnel.
JD3	20	120	Mineral Material (45%), Coal (30%)	Vegetation (25%)	Insects (<1%)	Highway and Rail to north-west, north, north-east. JRLF to the north-east. Grass immediately surrounding. Grass & garden immediately surrounding. Road to north-west, north, north-east, east, south-east, south & south-west. Gravel drive to north-east & south.
JD4	37	120	Mineral Material (70%)	Coal (20%), Vegetation (10%)	Insects (<1%)	Rail, Highway and Jondaryan town to south-east, south, south-west & west. JRLF to the east. Immediately surrounding grass, cropped paddocks to north, north-east, north-west, west, south-west, bare paddock to north. Roads to north-east, east, south-east, south, south-west.
JD5	50	120	Insects (70%)	Coal (10%), Mineral Material (20%)	Vegetation (<1%)	Rail and Highway to north-west, north, north-east. JRLF to the north-east. Grass immediately surrounding. Residential to east, south and west. Road to north-east, east & south-east. Funnel blocked with bird faeces.

<sup>+</sup> 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

<sup>^</sup> Copper sludge is a by product of the necessary preservative (copper sulphate) in sample containers as directed by the laboratory

<sup>\*</sup> Polysaccharide slime is a by product of the bio-degradation of insects and vegetation

<sup>¶</sup> 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/m<sup>2</sup>/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 September 2016 were from the north-west (17.59%), south-west (15.09%), west (14.47%), east (13.08%) and north-east (10.23%). The predominant wind speed for September was calm to light winds.

**Table 2: Quarterly PM<sub>10</sub> monitoring result for the period 1-2 June 2016**

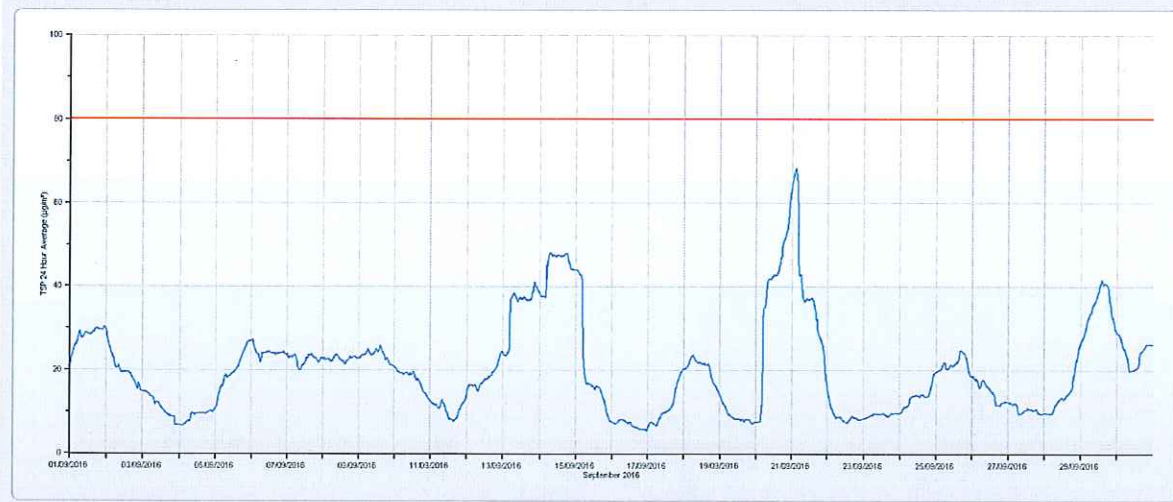
Location	24 Hour PM <sub>10</sub> Result (µg/m <sup>3</sup> )	Long-Term PM <sub>10</sub> Average (µg/m <sup>3</sup> )	NEPM Criteria for 24 Hour PM <sub>10</sub> exposure <sup>a</sup> (µg/m <sup>3</sup> )	Comments <sup>*</sup>
Corner of Lagoon and Earl Streets, Jondaryan	10	22	50	*This site was located downwind of mine-related activities (Jondaryan coal stockpile) for the greatest fraction of monitoring (26% of the sampling period 1 – 2 June 2016)*

<sup>\*</sup> Taken from monitoring report, with respect to most recent result

<sup>a</sup> PM<sub>10</sub> monitoring is undertaken on a quarterly basis for a nominal 24 hour period.

The national 24-hour exposure standard for PM<sub>10</sub> particulates stated in the National Environment Protection Measure for Ambient Air Quality is 50 micrograms per cubic metre (50µg/m<sup>3</sup>). The PM<sub>10</sub> monitors do not distinguish between *particulate matter sources*.

September 2016 TEOM Results



**Figure 1: Jondaryan Township TSP continuous monitoring results for the period: September 2016**

**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/m<sup>3</sup>) as stated in the JRLF's EA. The TEOM's do not distinguish between particulate matter sources. The predominant wind directions for September 2016 were from the north-west (17.59%), south-west (15.09%), west (14.47%), east (13.08%) and north-east (10.23%). The predominant wind speed for September 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.

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