

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

Issue Month: November 2014



**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 2014**

Site	Dust Deposition (mg/m <sup>2</sup> /day)	EA Criteria (mg/m <sup>2</sup> /day) <sup>#</sup>	Compositional Analysis <sup>*</sup>			Comments
			Major (>20%)	Minor (<20%>1%)	Trace (<1%)	
JD1	20.0	120	Coal (50%), Mineral Material (30%)	Insects (10%), Polysaccharide slime (5%), Vegetation (5%)	N/A	Rail and Highway to the north. JRLF to east. Grass and gravel immediately surrounding, cropped paddock to north-east, east. Residential to north and west. Road with unsealed edges immediately north, unsealed road to landfill to north-east.
JD2	26.6	120	Coal (60%), Mineral Material (20%)	Insects (15%), Polysaccharide Slime (5%), Vegetation (10%)	N/A	Rail and Highway to north, north-east. JRLF to the north-east. Grass immediately surrounding. Road works turnout exposed dirt 50m to north. Stubble paddock to east, cropped paddock to south. Roadwork on highway to north-east. Residential to south and west. Road with unsealed edges immediately east.
JD3	33.3	120	Coal (50%), Mineral Material (30%)	Insects (10%), Polysaccharide Slime (5%), Vegetation (5%)	N/A	Highway and Rail to north. JRLF to the east. Residential surrounding. Grass and garden immediately surrounding. Road with unsealed edges to south, dirt road to south.
JD4	66.6	120	Coal (50%), Mineral Material (30%)	Insects (5%), Polysaccharide Slime (5%), Vegetation (10%)	N/A	Rail, Highway and Jondaryan town to south. JRLF to the east. Immediate surround grass, stubble paddocks to east, cropped paddock to north, north-east. Roadwork's to the south-east on highway.
JD5	20.0	120	Coal (50%), Mineral Material (25%)	Insects (10%), Polysaccharide Slime (5%), Vegetation (10%)	N/A	Rail and Highway north. JRLF to the north-east. Grass immediately surrounding. Stubble paddocks to west, south-west. Residential to east, south and west. Road with unsealed edges south-east, road to east. Plant material (twig) blocking funnel

<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 2014 were from the east (27.23%), south-east (13.51%), north-west (10.61%), west (9.63%), south (9.42%) and north-east (9.39%). The predominant wind speed for September was calm to light winds.

**Table 2: Quarterly PM<sub>10</sub> monitoring result for the period 3-4 September 2014**

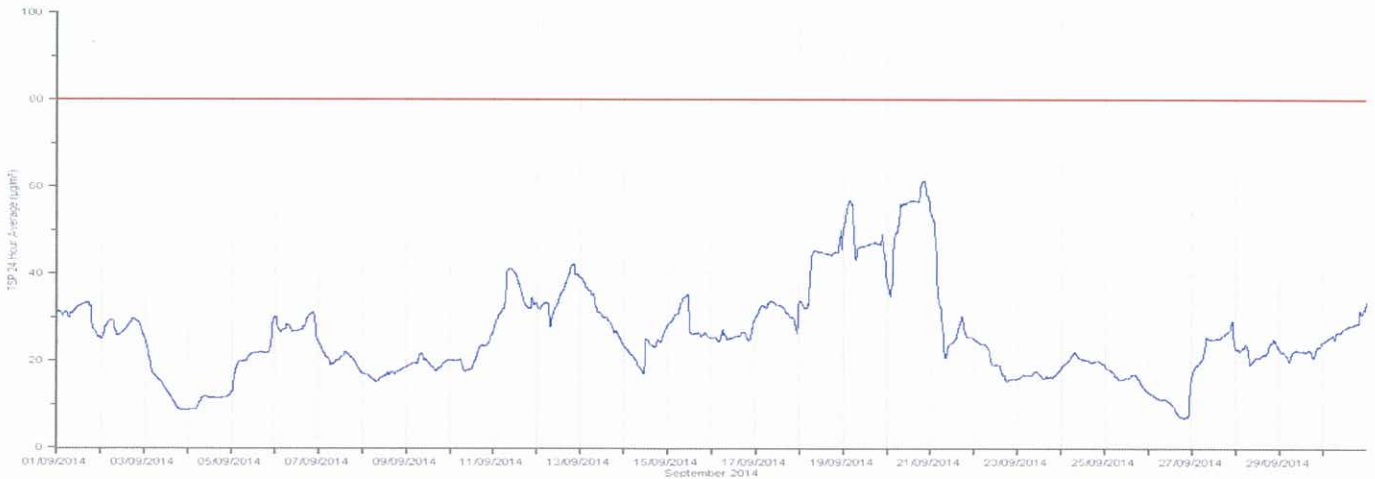
Location	24 Hour PM <sub>10</sub> Result (µg/m <sup>3</sup> )	Long-Term PM <sub>10</sub> Average (µg/m <sup>3</sup> )	NEPM Criteria for 24 Hour PM <sub>10</sub> exposure <sup>#</sup> (µg/m <sup>3</sup> )	Comments <sup>*</sup>
Corner of Lagoon and Earl Streets, Jondaryan	8	22	50	"This site was not within the downwind area of coal stockpile. Although there were road construction activities near to the sampling site, these were all downwind during sampling."

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

<sup>#</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 2014 TEOM Results



**Figure 1: Jondaryan Township TSP continuous monitoring results for the period: September 2014**

**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 2014 were from the east (27.23%), south-east (13.51%), north-west (10.61%), west (9.63%), south (9.42%) and north-east (9.39%). 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.

Issued by:

Rob Rashleigh  
CHPP Superintendent  
New Acland Coal Pty Ltd

*Rob Rashleigh*

Date: 06/11/2014