

### Jondaryan Rail Loading Facility Air Quality Monitoring Results

Issue Month: May 2017

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 April 2017

Site	Dust Deposition (mg/m <sup>2</sup> /day)	EA Criteria (mg/m <sup>2</sup> /day)	Compositional Analysis <sup>1</sup>			Comments
			Major (>20%)	Minor (5% - 20%)	Trace (<5%)	
JD1	7	120	Mineral Material (60%), Coal (30%)	Vegetation (10%)	Insects (<5%)	Rail and Highway to the north, north-west & north-east. JRLF to north-east. Grass and gravel immediately surrounding. Bare paddock to north-east, east and south-east. Stubble 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 north-west.
JD2	20	120	Insects (40%), Mineral Material (40%)	Coal (10%), Vegetation (10%)	N/A	Rail and Highway to north, north-west & north-east. JRLF to the north-east. Grass immediately surrounding. 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.
JD3	40	120	Mineral Material (75%)	Vegetation (15%), Coal (10%)	Insects (<5%)	Highway and Rail to north-west, north, north-east. JRLF to the north-east. Residential surrounding. Grass & garden immediately surrounding. Bare paddock to south. Road to north-west, north, north-east, east, south-east, south & south-west. Gravel drive to north-east & south.
JD4	190	120	Insects (75%), Mineral Material (20%)	Coal (5%)	Vegetation (<5%)	Rail, Highway and Jondaryan town to south-east, south, south-west & west. JRLF to the east. Immediate surrounding grass and bare paddock. Bare paddocks to south-west, west, north-west, north, north-east. Roads to north-east, east, south-east, south, south-west.
JD5	17	120	Mineral Material (50%), Insects (30%)	Coal (10%), Vegetation (10%)	N/A	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.

<sup>1</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

When measured at a sensitive place, the allowable maximum level of the release of dust from JRLF is 120 milligrams per square metre per day (120 mg/m<sup>2</sup>/day as stated in JRLF's Environmental Authority (EA)). The dust deposition monitors do not distinguish between dust sources. The predominant wind directions for April 2017 were South-East (31.02%), East (30.02%) and South (12.85%). The predominant wind speeds were light air to light breeze<sup>2</sup>. JD4 reported a concentration greater than the EA limit however two dust deposition gauges in between the JRLF and JD4 report concentrations less than JD4 (106 and 50 mg/m<sup>2</sup>/day), JD4's compositional analysis reported coal at 5% with the major constituent being insects (75%) and mineral material (20%), results indicate localised sources are the likely cause of the elevated result at JD4.

<sup>2</sup> Wind speed classification uses the Beaufort scale

Table 2: Quarterly PM<sub>10</sub> monitoring result for 19-20 April 2017

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 (µg/m <sup>3</sup> ) <sup>3</sup>	Comments <sup>3</sup>
Corner of Lagoon and Earl Streets, Jondaryan	16	22	50	"Site downwind of the Jondaryan Coal Stockpile (~1km) for approximately 46.9% of the sampling period."

<sup>3</sup> Taken from monitoring report, with respect to most recent result

<sup>4</sup> PM<sub>10</sub> monitoring is undertaken on a quarterly basis for a nominal

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

### TSP 24 Hour Rolling Average

April 2017

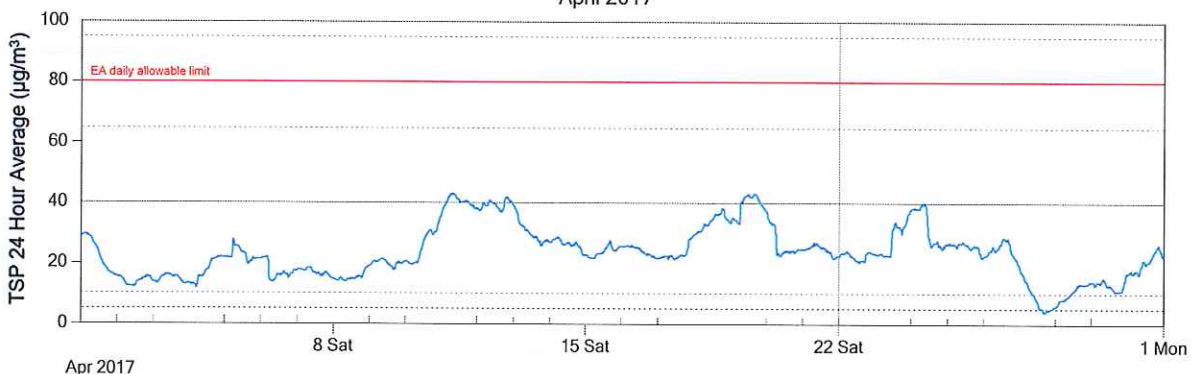
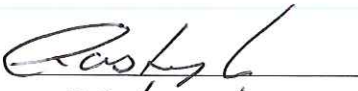


Figure 1: Jondaryan Township TSP continuous monitoring results for April 2017

**Comments:** Ecotech Pty Ltd has been contracted by NAC for the maintenance and data collection at a TEOM site located in the Jondaryan Township which 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 rolling average) is 80 micrograms per cubic metre (80 µg/m<sup>3</sup>) as stated in the JRLF's EA. Any exceedances of this limit are displayed in Figure 1 (above) The TEOM does not distinguish between particulate matter sources. The predominant wind directions for April 2017 were South-East (31.02%), East (30.02%) and South (12.85%). The predominant wind speeds were light air to light breeze. The TEOM unit availability for TSP determination was 99.7% 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:  
Robert Rashleigh  
CHPP Manager – Coal Operations  
New Acland Coal Pty Ltd

  
Date: 29/05/2017