

### Jondaryan Rail Loading Facility Air Quality Monitoring Results

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 January 2019

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	10	120	Mineral Material (55%)	Coal (15%), Vegetation (15%), Insects (10%), Copper Sludge (5%)	N/A	Rail and Highway to the north, north-west and north-east. JRLF to north-east. Gravel and bare ground immediately surrounding. Cropped paddock to north-east, east and south-east. Residential to north and west. Road with unsealed edges to north-west, north and north-east. Unsealed roads and driveways to east, south-east, west and north-east.
JD2	17	120	Mineral Material (50%)	Coal (20%), Vegetation (20%), Copper Sludge (10%)	Insects (<5%)	Rail and Highway to north, north-west and north-east. JRLF to the north-east. Grass immediately surrounding. Cropped paddock to east and south-east. Residential to south and west. Road with unsealed edges to north-east, east, south-east and south. Unsealed road to south-east, south.
JD3	33	120	Mineral Material (40%), Coal (25%)	Insects (15%), Vegetation (10%), Polysaccharide Slime (10%)	N/A	Highway and Rail to north-west, north and north-east. JRLF to the north-east. Residential surrounding. Grass and garden immediately surrounding. Road with unsealed edges to east, south-east and south. Unsealed driveways to north, north-east, east, south-east and south.
JD4	193	120	Vegetation (30%), Polysaccharide Slime (25%)	Insects (20%), Coal (10%), Mineral Material (10%), Copper Sludge (5%)	N/A	Rail, Highway and Jondaryan town to south-east, south, south-west and west. JRLF to the east. Immediate surround grass and cropped paddock. Cropped paddocks to north-west, north and north-east. Roads to north-east, east, south-east, south and south-west.
JD5	23	120	Mineral Material (35%), Vegetation (25%)	Polysaccharide Slime (15%), Coal (10%), Insects (10%), Copper Sludge (5%)	N/A	Rail and Highway to north-west, north and north-east. JRLF to the north-east. Grass immediately surrounding. Residential to east, south and west. Road to north-east, east and 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 January 2019 were North-East (48.3%), East (38.6%) and South-East (6.0%). The predominant wind speeds were light air to gentle breeze<sup>2</sup>. JD4 reported concentrations greater than the EA limit however dust deposition gauges in between the JRLF and JD4 reported concentrations less than the EA limit (47 and 103mg/m<sup>2</sup>/day), JD4's compositional analysis reported coal as 10% with the major constituent being vegetation (30%), polysaccharide slime (decomposed soft body parts of insects and vegetation) (25%) and insects (15%). Results indicate that contamination from other sources (polysaccharide slime, insects and vegetation) have influenced the elevated dust result and JRLF is not the major contributor to the elevated results.

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

Table 2: Quarterly PM<sub>10</sub> monitoring result for January 2019

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>4</sup>
Corner of Lagoon and Earl Streets, Jondaryan	18	22	50	"Winds from east and east-south-east placed the site downwind of the Jondaryan stockpile (~1.0km) for 56% 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 Average

January 2019

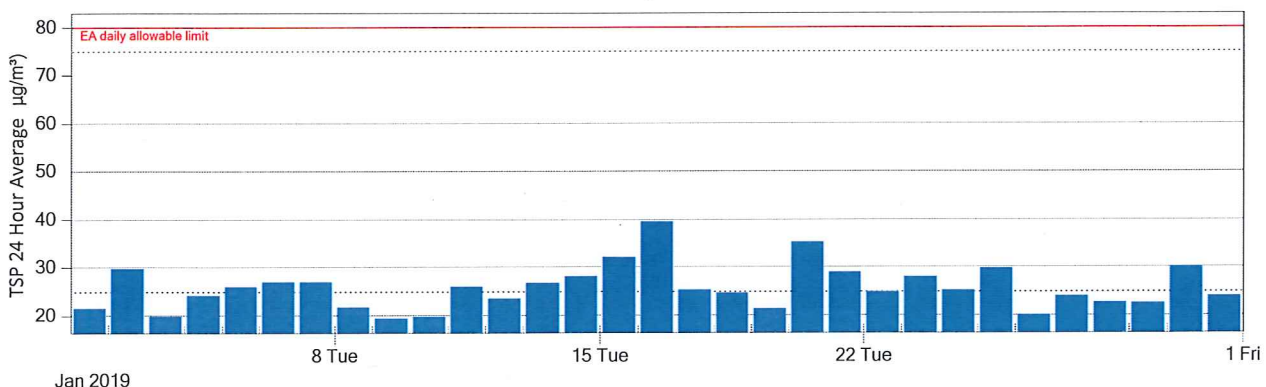



Figure 1: Jondaryan Township TSP continuous monitoring 24 Hr average results for January 2019

**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 January 2019 were North-East (48.3%), East (38.6%) and South-East (6.0%). The predominant wind speeds were light air to gentle breeze<sup>2</sup>. The TEOM unit availability for TSP determination was 99.2% of the sample period.

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

Issued by:  
Andrew Scouller  
CHPP Superintendent  
New Acland Coal Pty Ltd

  
Date: 28/02/19.