

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 April 2018

| Site | Dust Deposition (mg/m ² /day) | EA Criteria (mg/m ² /day) | Compositional Analysis ¹ | | | Comments |
|------|--|--------------------------------------|---|--|-------------|---|
| | | | Major (>20%) | Minor (5% - 20%) | Trace (<5%) | |
| JD1 | 13 | 120 | Mineral Material (80%) | Vegetation (10%), Coal (5%), Insects (5%) | N/A | Rail and Highway to the north, north-west and north-east. JRLF to north-east. Gravel and bare ground immediately surrounding. Bare paddock to north-east. Stubble 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 | 37 | 120 | Mineral Material (80%) | Insects (10%), Coal (5%), Vegetation (5%) | N/A | Rail and Highway to north, north-west and 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 and south. Unsealed road to south-east, south and south-west. |
| JD3 | 33 | 120 | Mineral Material (80%) | Vegetation (10%), Coal (5%), Insects (5%) | N/A | Highway and Rail to north-west, north and north-east. JRLF to the north-east. Residential surrounding. Grass and garden immediately surrounding. Bare paddock to south. Road with unsealed edges to south-east. Unsealed driveways to north-east, south-east and south. |
| JD4 | 190 | 120 | Polysaccharide Slime (30%), Mineral Material (25%) | Insects (20%), Vegetation (20%), Coal (5%) | N/A | Rail, Highway and Jondaryan town to south-east, south, south-west and west. JRLF to the east. Immediate surround grass. Stubble paddocks to south-west, west, north-west, north and north-east. Bare paddock to north. Roads to north-east, east, south-east, south and south-west. |
| JD5 | 400 | 120 | Polysaccharide Slime (30%), Insects (30%), Vegetation (30%) | Mineral Material (10%) | Coal (<5%) | 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. |

¹ 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/m²/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 2018 were East (39.2%), South-East (26.1%) and South (10.8%). The predominant wind speeds were light air to gentle breeze². 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 (76 and 50mg/m²/day), JD4's compositional analysis reported coal as 5% with the major constituent being polysaccharide slime (decomposed soft body parts of insects and vegetation) (30%) and mineral material (25%). JD5 reported concentrations greater than the EA limit however dust deposition gauges in between the JRLF and JD5 reported concentrations less than the EA limit (37 and 33 mg/m²/day), JD5's compositional analysis reported coal as less than 5% with the major constituent being polysaccharide slime (decomposed soft body parts of insects and vegetation) (30%), insect (30%) and vegetation (30%). 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.

²Wind speed classification uses the Beaufort scale

Table 2: Quarterly PM₁₀ monitoring result for 4-5 April 2018

| 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) ³ | Comments ⁴ |
|--|--|---|---|--|
| Corner of Lagoon and Earl Streets, Jondaryan | 16 | 22 | 50 | "Site was potentially downwind for 33.2% of the sampling." |

³Taken from monitoring report, with respect to most recent result

⁴PM₁₀ monitoring is undertaken on a quarterly basis for a nominal

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

TSP 24 Hour Average April 2018

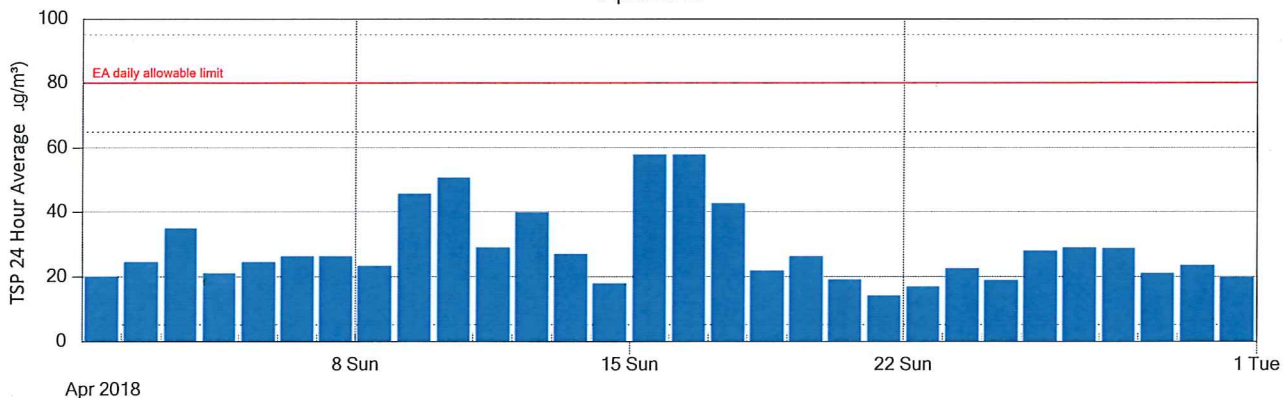
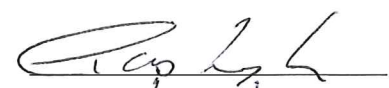


Figure 1: Jondaryan Township TSP continuous monitoring 24 Hr average results for April 2018

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/m³) 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 2018 were East (39.2%), South-East (26.1%) and South (10.8%). The predominant wind speeds were light air to gentle breeze². The TEOM unit availability for TSP determination was 97.9% 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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