



WHITEHAVEN CHPP – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 3637

EPA Website Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637>

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: September 2018

Obtained Date: 10th October 2018

Publication Date: 10th October 2018

Table 1 - No Pollutant Limits Apply

| EPL ID | Pollutant | Units of Measure | Monitoring Frequency | No. of Measurements for the Month | Date Sampled | Date Obtained | Min Value | Mean Value | Median Value | Max or Only Value |
|--------|------------------------|-------------------------|----------------------|-----------------------------------|--------------|---------------|-----------|------------|--------------|-------------------|
| 3 | Solid Particles | g/m ² /month | Continuous | 1 | 18/09/18 | 27/09/18 | - | - | - | 2.1 |
| 11 | PM ₁₀ | µg/m ³ | Every 6 days | 4 | Various | 5/10/18 | 4.1 | 17.8 | 18.7 | 29.7 |
| 12 | PM ₁₀ | µg/m ³ | Every 6 days | 4 | Various | 5/10/18 | 3.8 | 17.87 | 15.95 | 35.8 |
| 6 | Conductivity | ms/cm | Each overflow event | - | - | - | - | - | - | - |
| | Oil and Grease | mg/L | | - | - | - | - | - | - | - |
| | Total Organic Carbon | mg/L | | - | - | - | - | - | - | - |
| | Total Suspended Solids | mg/L | | - | - | - | - | - | - | - |
| | pH | pH | | - | - | - | - | - | - | - |
| 7 | Conductivity | ms/cm | Quarterly | 1 | 08/08/18 | 05/10/18 | - | - | - | 2240 |
| | Oil and Grease | mg/L | | 1 | 08/08/18 | 05/10/18 | - | - | - | <5 |
| | Total Organic Carbon | mg/L | | 1 | 08/08/18 | 05/10/18 | - | - | - | 3 |
| | Total Suspended Solids | mg/L | | 1 | 08/08/18 | 05/10/18 | - | - | - | <5 |



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|--------|-----------|------------------|----------------------|-----------------------------------|--------------|---------------|-----------|------------|--------------|-------------------|
| | pH | pH | | | 08/08/18 | 05/10/18 | - | - | - | 8.19 |

Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

| EPL ID | Pollutant | Units of Measure | Monitoring Frequency | No. of Samples for the Period | Date Sampled | Date Obtained | Min Value | Mean Value | Median Value | Max or Only Value |
|--------|----------------------|------------------|----------------------|-------------------------------|--------------|---------------|-----------|------------|--------------|-------------------|
| 8 | Ammonia | mg/L | Quarterly | 1 | 5/09/2018 | 05/10/2018 | - | - | - | 0.08 |
| | Bicarbonate | mg/L | | | | | - | - | - | 1150 |
| | Calcium | mg/L | | | | | - | - | - | 33 |
| | Chloride | mg/L | | | | | - | - | - | 1440 |
| | Conductivity | µs/cm | | | | | - | - | - | 7220 |
| | Lead | mg/L | | | | | - | - | - | 0.008 |
| | Magnesium | mg/L | | | | | - | - | - | 112 |
| | Nitrate | mg/L | | | | | - | - | - | 1.39 |
| | Potassium | mg/L | | | | | - | - | - | 21 |
| | Sodium | mg/L | | | | | - | - | - | 1570 |
| | Standing Water Level | m | | | | | - | - | - | 7.58 |
| | Sulphate | mg/L | | | | | - | - | - | 608 |
| pH | pH | - | - | - | 8.61 | | | | | |
| 9 | Ammonia | mg/L | Quarterly | 1 | 5/09/2018 | 05/10/2018 | - | - | - | 0.08 |
| | Bicarbonate | mg/L | | | | | - | - | - | 1150 |
| | Calcium | mg/L | | | | | - | - | - | 33 |
| | Chloride | mg/L | | | | | - | - | - | 1440 |



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| EPL ID | Pollutant | Units of Measure | Monitoring Frequency | No. of Samples for the Period | Date Sampled | Date Obtained | Min Value | Mean Value | Median Value | Max or Only Value |
|--------|----------------------|------------------|----------------------|-------------------------------|--------------|---------------|-----------|------------|--------------|-------------------|
| | Conductivity | µs/cm | | | | | - | - | - | 0.03 |
| | Lead | mg/L | | | | | - | - | - | 821 |
| | Magnesium | mg/L | | | | | - | - | - | 264 |
| | Nitrate | mg/L | | | | | - | - | - | 1230 |
| | Potassium | mg/L | | | | | - | - | - | 5760 |
| | Sodium | mg/L | | | | | - | - | - | 0.001 |
| | Standing Water Level | m | | | | | - | - | - | 227 |
| | Sulphate | mg/L | | | | | - | - | - | 0.2 |
| | pH | pH | | | | | - | - | - | 115 |
| 10 | Ammonia | mg/L | Quarterly | 1 | 5/09/2018 | 05/10/2018 | - | - | - | 12.2 |
| | Bicarbonate | mg/L | | | | | - | - | - | 582 |
| | Calcium | mg/L | | | | | - | - | - | 159 |
| | Chloride | mg/L | | | | | - | - | - | 1530 |
| | Conductivity | µs/cm | | | | | - | - | - | 5640 |
| | Lead | mg/L | | | | | - | - | - | 0.002 |
| | Magnesium | mg/L | | | | | - | - | - | 204 |
| | Nitrate | mg/L | | | | | - | - | - | 12.2 |
| | Potassium | mg/L | | | | | - | - | - | 56 |
| | Sodium | mg/L | | | | | - | - | - | 671 |
| | Standing Water Level | m | | | | | - | - | - | 1.69 |
| | Sulphate | mg/L | | | | | - | - | - | 276 |
| pH | pH | - | - | - | 7.6 | | | | | |



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Table 3 – Monitoring (Quarterly Noise – Limits Apply)

| EPL ID | Date | Start Time | Measurement Period | Measured levels – CHPP – dB(A) | | Limit(s) | Wind speed (m/s) | Observations | (Potential) Non-compliance /breach |
|--------|---------|------------|--------------------|--------------------------------|------------------------------|----------|------------------|---|------------------------------------|
| | | | | L _{A1} , 1 minute | L _{Aeq} , 15 minute | | | | |
| N1 | 5/09/18 | 12:00 | 15 mins | | I/A | 35dBA | 3 m/s NE | Road Traffic 37-40 Birds 31-68 Dogs barking 52-54 | None |
| | 5/09/18 | 19:41 | 15 mins | | 30 | 35dBA | 3 m/s NE | Dozer 'clang' noise identifiable 33 -40 Dozer engine whirl 31 Other Noise Events: Road Traffic 40-45 | |
| | 5/09/18 | 22:24 | 15 mins | | 29 | 35dBA | 1.5 m/s SE | Dozer engine whirl – 28-32 | |
| | 5/09/18 | 22:24 | 1 mins | 40 | | 45dBA | 1.5 m/s SE | - | |

When site noise is noted as inaudible, no site noise was audible at the monitoring location. Not Measurable indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- *site noise levels were insignificant and unlikely, in many cases, to be even noticed; or*
- *site noise levels were masked by another relatively loud noise source, but were estimated to be less than L_{Aeq} 30 dB, which is insignificant in terms of any applicable criterion.*

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Figure 1 – EPL 3637 Monitoring Locations

