



VICKERY COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 21283

EPA Website Link:

Licensee: Vickery Coal Pty Ltd

Licensee Address: Vickery Coal Mine, Blue Vale Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: March 2024

Obtained Date: 4/04/2024

Publication Date: 16/07/2024

Table 1: Surface Water – No Pollutant Limits Apply

| EPL ID | Pollutant | Units of Measure | Monitoring Frequency | No. of Samples for the Period | Date Sampled | Date of Max. Value Obtained | Min Value | Mean Value | Median Value | Max or Only Value | Comment/s |
|--------|--------------|------------------|---------------------------------|-------------------------------|--------------|-----------------------------|-----------|------------|--------------|-------------------|--------------------------------------|
| 2 | TSS | mg/L | Quarterly (Mar, Jun, Sep & Dec) | - | - | - | - | - | - | - | Low water level – no sample possible |
| | Conductivity | µS/cm | | - | - | - | - | - | - | - | |
| | Oil & Grease | mg/L | | - | - | - | - | - | - | - | |
| | pH | pH | | - | - | - | - | - | - | - | |
| 3 | TSS | mg/L | Quarterly (Mar, Jun, Sep & Dec) | - | - | - | - | - | - | - | Low water level – no sample possible |
| | Conductivity | µS/cm | | - | - | - | - | - | - | - | |
| | Oil & Grease | mg/L | | - | - | - | - | - | - | - | |
| | pH | pH | | - | - | - | - | - | - | - | |
| 9 | TSS | mg/L | Quarterly (Mar, Jun, Sep & Dec) | 1 | 21/03/24 | 21/03/24 | - | - | - | - | TSS value not available |
| | Conductivity | µS/cm | | 1 | 21/03/24 | 21/03/24 | - | - | - | 564 | |
| | Oil & Grease | mg/L | | 1 | 21/03/24 | 21/03/24 | - | - | - | 5 | |
| | pH | pH | | 1 | 21/03/24 | 21/03/24 | - | - | - | 8.37 | |
| 10 | TSS | mg/L | Upon discharge | - | - | - | - | - | - | - | No discharge |
| | Conductivity | µS/cm | | - | - | - | - | - | - | - | |
| | Oil & Grease | mg/L | | - | - | - | - | - | - | - | |
| | pH | pH | | - | - | - | - | - | - | - | |

Table 2: Surface Water - Pollutant Limits Apply

| EPL ID | Pollutant | Units of Measure | Monitoring Frequency | No. of Samples for the Month | Date Sampled | Date of Max. Value Obtained | Min Value | Max or Only Value | 100%ile Limit | Exceed -ance (Yes/ No) | Comment/s |
|--------|--------------|------------------|----------------------|------------------------------|--------------|-----------------------------|-----------|-------------------|---------------|------------------------|--------------|
| 14 | TSS | mg/L | Upon discharge | - | - | - | - | - | 50 | - | No discharge |
| | Conductivity | µS/cm | | | | | | | NA | | |
| | Oil & Grease | mg/L | | - | - | - | - | - | 10 | - | |
| | pH | pH | | - | - | - | - | - | 8.5 | - | |
| 20 | TSS | mg/L | Upon discharge | - | - | - | - | - | 50 | - | No discharge |
| | Conductivity | µS/cm | | | | | | | NA | | |
| | Oil & Grease | mg/L | | - | - | - | - | - | 10 | - | |
| | pH | pH | | - | - | - | - | - | 8.5 | - | |
| 21 | TSS | mg/L | Upon discharge | - | - | - | - | - | 50 | - | No discharge |
| | Conductivity | µS/cm | | - | - | - | - | - | NA | - | |
| | Oil & Grease | mg/L | | - | - | - | - | - | 10 | - | |
| | pH | pH | | - | - | - | - | - | 8.5 | - | |

Table 3: Groundwater – No Limits apply

| EPL ID | Pollutant | Units of Measure | Monitoring Frequency | No. of Samples for the Period | Date Sampled | Date of Max. Value Obtained | Min Value | Mean Value | Median Value | Max or Only Value |
|--------|----------------------|------------------|--------------------------------------|-------------------------------|--------------|-----------------------------|-----------|------------|--------------|-------------------|
| 15 | Conductivity | µS/cm | Quarterly (Jan, April, Jul & Oct) | - | - | - | - | - | - | - |
| | Lead | mg/L | | - | - | - | - | - | - | - |
| | pH | pH | | - | - | - | - | - | - | - |
| | Standing Water Level | metres | | - | - | - | - | - | - | - |
| 16 | Conductivity | µS/cm | Quarterly (Jan, April, Jul & Oct) | - | - | - | - | - | - | - |
| | Lead | mg/L | | - | - | - | - | - | - | - |
| | pH | pH | | - | - | - | - | - | - | - |
| | Standing Water Level | metres | | - | - | - | - | - | - | - |
| 17 | Conductivity | µS/cm | Quarterly (Jan, April, Jul & Oct) | - | - | - | - | - | - | - |
| | Lead | mg/L | | - | - | - | - | - | - | - |
| | pH | pH | | - | - | - | - | - | - | - |
| | Standing Water Level | metres | | - | - | - | - | - | - | - |
| 18 | Conductivity | µS/cm | Quarterly (Jan, April, Jul & Oct) | - | - | - | - | - | - | - |
| | Lead | mg/L | | - | - | - | - | - | - | - |
| | pH | pH | | - | - | - | - | - | - | - |
| | Standing Water Level | metres | | - | - | - | - | - | - | - |

| EPL ID | Pollutant | Units of Measure | Monitoring Frequency | No. of Samples for the Period | Date Sampled | Date of Max. Value Obtained | Min Value | Mean Value | Median Value | Max or Only Value |
|--------|----------------------|------------------|--------------------------------------|-------------------------------|--------------|-----------------------------|-----------|------------|--------------|-------------------|
| 19 | Conductivity | µS/cm | Quarterly (Jan, April, Jul & Oct) | - | - | - | - | - | - | - |
| | Lead | mg/L | | - | - | - | - | - | - | - |
| | pH | pH | | - | - | - | - | - | - | - |
| | Standing Water Level | metres | | - | - | - | - | - | - | - |

Table 4 – Monthly Attended Noise Monitoring

(Noise Limits Apply - 40dB LAeq(15min) -Day, 37dB LAeq(15min) Evening and Night; 52dB LA1(1min) -Night)

| Table 4 | | | | | | | | |
|---|--------|---------------|----------------------------------|------------------------|----------------------------|--------------------|--|------------------------|
| VCM Operational Noise Monitoring Results Leq(15min) – 11 th March 2024 (Day) | | | | | | | | |
| Location | Time | dB(A), Leq | VCM Contribution dB(A),Leq | Criterion dB(A),Leq | Wind speed (m/s),dir | Stability Class | Identified Noise Sources dB(A),Leq | Exceedance (Yes/No) |
| N-AT1 / 7 | 4:27pm | 40 | IA | 45 ¹ | 4.2 / 098 | C | Birds (40), insects (26), VCM (IA) | No |
| N-AT2 / 8 | 2:12pm | 48 | IA | 45 ¹ | 4.5 / 097 | C | Birds (48), insects (33), traffic (28), VCM (IA) | No |
| Table 5 | | | | | | | | |
| VCM Operational Noise Monitoring Results Leq(15min) – 11 th March 2024 (Evening) | | | | | | | | |
| Location | Time | dB(A), Leq | VCM Contribution dB(A),Leq | Criterion dB(A),Leq | Wind speed (m/s),dir | Stability Class | Identified Noise Sources dB(A),Leq | Exceedance (Yes/No) |
| N-AT1 / 7 | 9:30pm | 39 | 30 | 35 | 2.1 / 116 | E | Insects (38), VCM (30) , frogs (28) | No |
| N-AT2 / 8 | 8:18pm | 36 | 29 | 42 ¹ | 4.9 / 068 | D | Insects (34), VCM (29) , aeroplane (28), traffic (23) | No |

| Table 6 | | | | | | | | |
|---|---------|-----------------------------|--|--|----------------------------|--------------------|--|------------------------|
| VCM Operational Noise Monitoring Results Leq(15min) – 11 th March 2024 (Night) | | | | | | | | |
| Location | Time | dB(A), Leq | VCM Contribution dB(A),Leq | Criterion dB(A),Leq | Wind speed (m/s),dir | Stability Class | Identified Noise Sources dB(A),Leq | Exceedance (Yes/No) |
| N-AT1 / 7 | 10:00pm | 36 | 23 | 35 | 2.8 / 149 | E | Insects (35), frogs (28), VCM (23) | No |
| N-AT2 / 8 | 11:53pm | 38 | 25 | 42 ¹ | 3.5 / 123 | D | Insects (37), frogs (26), VCM (25) , traffic (22) | No |
| Table 7 | | | | | | | | |
| VCM Operational Noise Monitoring Results LA _{max} – 11 th March 2024 | | | | | | | | |
| Location | Time | dB(A), LA _{max} | VCM Contribution dB(A), LA _{max} | Criterion dB(A), LA _{max} | Wind speed (m/s),dir | Stability Class | LA _{max} Noise Source | Exceedance (Yes/No) |
| N-AT1 / 7 | 10:00pm | 58 | 29 | 52 | 2.8 / 149 | E | Insects | No |
| N-AT2 / 8 | 11:53pm | 61 | 33 | 57 ¹ | 3.5 / 123 | D | Insects | No |

Table 5 – Monthly Monitoring (Blasts – Limits Apply)

| Location | Parameter | Units of Measure | Frequency | No. of Blasts for the Month | Average Value | Max Value | 100%ile Limit | (Potential) Non-compliance /breach | Date of Max. Value Obtained |
|----------|-----------------|------------------|-------------|-----------------------------|---------------|-----------|---------------|------------------------------------|-----------------------------|
| B-01 | Blast Noise | dB (Lin Peak) | Every Blast | 3 | 106.1 | 108.80 | 133 | Nil | 28/03/2024 |
| | Blast Vibration | mm/s | Every Blast | 3 | 0.41 | 0.62 | 10 | Nil | 28/03/2024 |

| Location | Parameter | Units of Measure | Frequency | No. of Blasts for the Month | Average Value | Max Value | 100%ile Limit | (Potential) Non-compliance /breach | Date of Max. Value Obtained |
|----------|-----------------|------------------|-------------|-----------------------------|---------------|-----------|---------------|------------------------------------|-----------------------------|
| B-02 | Blast Noise | dB (Lin Peak) | Every Blast | 3 | 109.77 | 113.00 | N/A | N/A | 28/03/2024 |
| | Blast Vibration | mm/s | Every Blast | 3 | 0.82 | 1.21 | 80 | N/A | 28/03/2024 |

| Location | Parameter | Units of Measure | Frequency | No. of Blasts for the Month | Average Value | Max Value | 100%ile Limit | (Potential) Non-compliance /breach | Date of Max. Value Obtained |
|----------|-----------------|------------------|-------------|-----------------------------|---------------|-----------|---------------|------------------------------------|-----------------------------|
| B-03 | Blast Noise | dB (Lin Peak) | Every Blast | 3 | 101.50 | 104.60 | 120 | N/A | 28/03/2024 |
| | Blast Vibration | mm/s | Every Blast | 3 | 0.21 | 0.27 | 10 | N/A | 28/03/2024 |

Table 6- Monthly Monitoring (Dust PM10 – Limits apply)

| Location | No. of samples required by licence | Lowest sample value | Mean of sample | Highest sample value |
|---|---|----------------------------|-----------------------|-----------------------------|
| PM1 TEOM ($\mu\text{g}/\text{m}^3$) | Continuous | 4.8 | 9.8 | 19.8 |
| PM2 TEOM ($\mu\text{g}/\text{m}^3$) | Continuous | 5.2 | 10.6 | 23.2 |

Table 7- Monthly Monitoring (Dust PM2.5 – Limits apply)

| Location | No. of samples required by licence | Lowest sample value | Mean of sample | Highest sample value |
|---|---|----------------------------|-----------------------|-----------------------------|
| PM1 TEOM ($\mu\text{g}/\text{m}^3$) | Continuous | 1.1 | 4.1 | 3.6 |
| PM2 TEOM ($\mu\text{g}/\text{m}^3$) | Continuous | 1.3 | 4.1 | 7.3 |

Figure 1 – EPL 21283 Monitoring Locations



EPL Monitoring Locations

| | |
|------------------|-----------------------------|
| ● Attened Noise | ● TEOM |
| ● Blast Monitor | □ Approved Disturbance Area |
| ● Groundwater | — Mining Lease |
| ● Meteorological | |
| ● Surface Water | |



**Vickery Coal Mine
EPL Monitoring Locations**

Date: Sept 2023
MGA Zone 56
Scale: 1:68,000
Author: A. Quiroz





VICKERY COAL MINE – EPL 21283

EPL MONTHLY MONITORING REPORTS CORRECTION LOG

| Month of EPL Report: | Date of Original Publishing: | Date of Correction: | Date of Republishing: | Correction/s made: |
|----------------------|------------------------------|---------------------|-----------------------|---|
| March 2024 | 09/04/2023 | 16/07/2023 | 16/07/2023 | EPL ID 9 in Table 1 corrected to display TSS. |