

# HERA-FEDERATION MONTHLY ENVIRONMENTAL MONITORING SUMMARY MARCH 2025



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## 1. Intent

This monthly environmental monitoring report is a requirement under section 66(6) of the NSW Protection of the Environment Operations Act 1997 (POEO Act), in which holders of an environment protection licence make their pollution monitoring data publicly available. This report is intended to keep the community, stakeholders, and regulators informed of the Hera-Federation mine's environmental performance and to maintain a transparent and accountable reporting system.

## 2. Scope

This report covers all of Hera-Federation's environmental monitoring conditions for March 2025. These conditions, where applicable, are measured against Hera-Federation's Environmental Protection Licence (EPL), development consent conditions and Australian Standards to determine Hera-Federation's compliance.

These conditions include;

- Weather Conditions
- Surface Water Monitoring results
- Ground Water Monitoring results
- Noise Monitoring results
- Blasting monitoring results
- Air Quality Monitoring results
- Gold Room Stack Monitoring
- Ore transport
- Concentrate Transport
- Complaints

## 3. Definitions

Term	Definition
mm/s	The peak of the vibration in millimeters per second
Insoluble Solids	The insoluble portion of the dust deposited in dust deposition gauge
Total Lead	Including dissolved lead in the liquid portion and the lead particulates in the filter paper following laboratory analysis
g/m <sup>2</sup> /month	Grams per square meter per month
dB (L)	Decibel (linear maximum)
dB LA <sub>eq</sub> (15 minute)	Decibel (linear weighted average over 15 minutes)
CN Free	Free Cyanide (Hydrogen Cyanide and Cyanide ions in solution)
CN WAD	Weak Acid Dissociable Cyanide (includes Cyanide species liberated at moderate pH of 4.5)
TSS	Total Suspended Solids

4. Maps

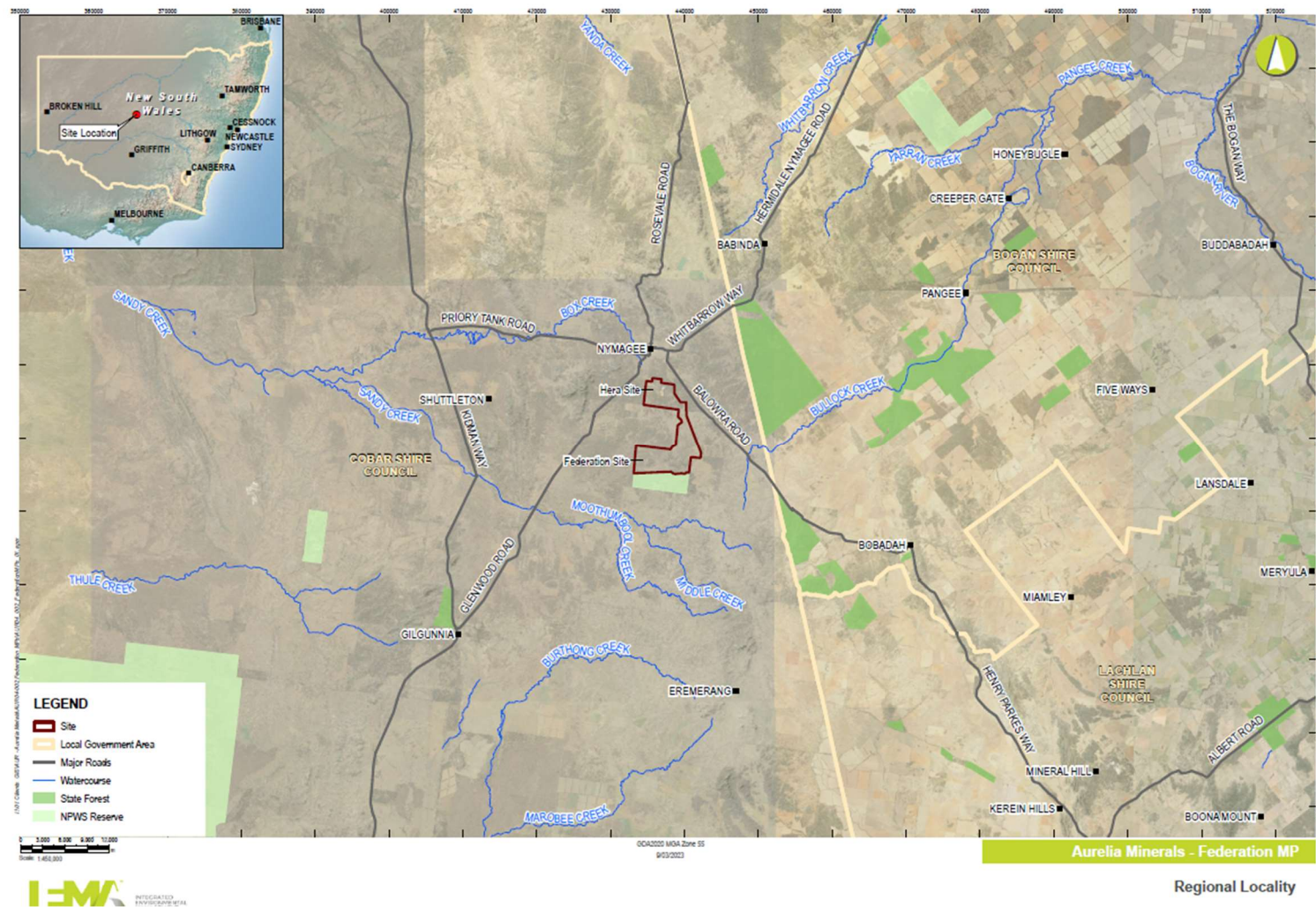


Figure 1 – Hera-Federation regional locality





Figure 2 – Hera Surface Water Monitoring Locations



Figure 3 – Federation Surface Water Monitoring Locations





Figure 4 – Hera Groundwater Monitoring Locations



*Figure 5 – Federation Groundwater Monitoring Locations*





Figure 6 – Federation Groundwater Monitoring bores

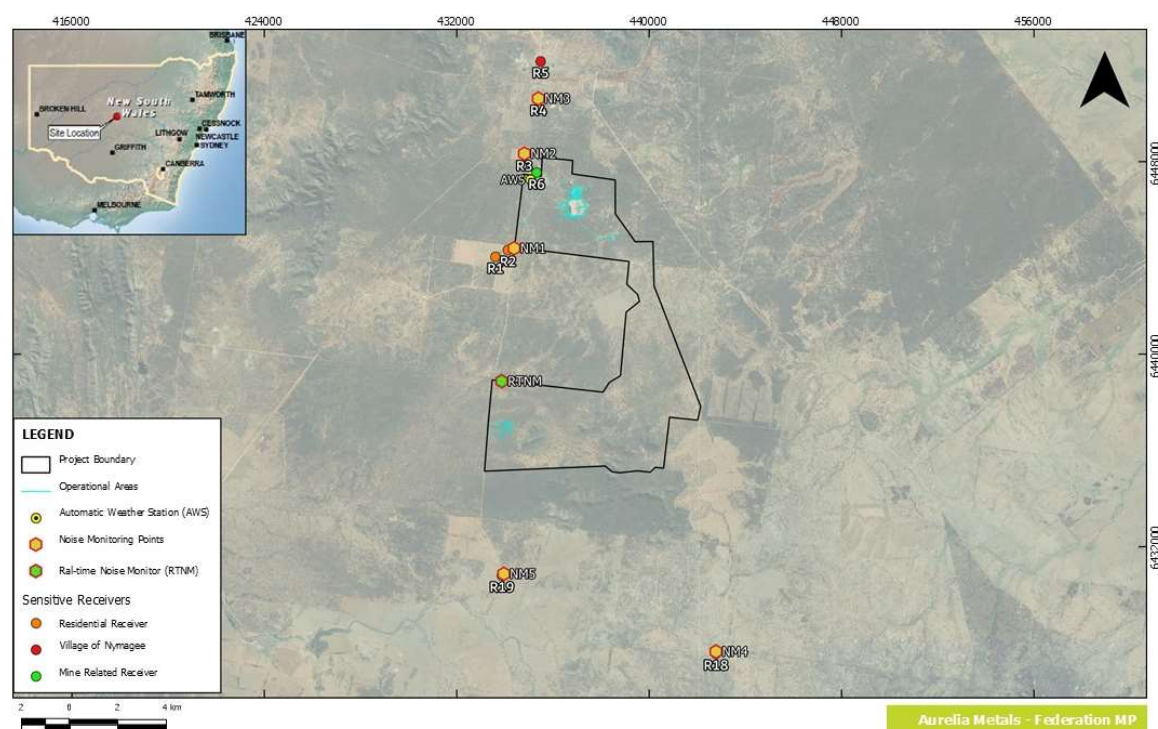


Figure 7 – Hera-Federation Noise Monitoring locations



Figure 8 – Hera-Federation Air Quality Monitoring Locations

## 5. Monitoring Results

### 5.1. Weather

The meteorology monitoring data is acquired through Hera's weather station located on the Hera Mine site, approximately 4km south of the town of Nymagee, NSW, Refer **Figure 1**.

Meteorological monitoring is conducted on a continuous basis. **Table 1** shows a summary of the data collected by the weather station this month. **Figure 9** is the wind rose for the month of March 2025.

TABLE 1: Summary of meteorological data for March 2025

Parameter	No. of measurements for the month	Minimum Value	Mean Value	Median Value	Maximum value	Total
Air Temperature (°C)	Continuous	10.63	24.32	23.81	37.68	-
Wind Speed (m/s)	Continuous	0.00	8.62	8.45	26.91	-
Sigma Theta (°)	Continuous	3.22	20.43	16.37	102.85	-
Rainfall (mm)	Continuous	0.00	0.01	0.00	3.80	64.20
Relative Humidity (%)	Continuous	18.10	57.53	56.28	97.84	-



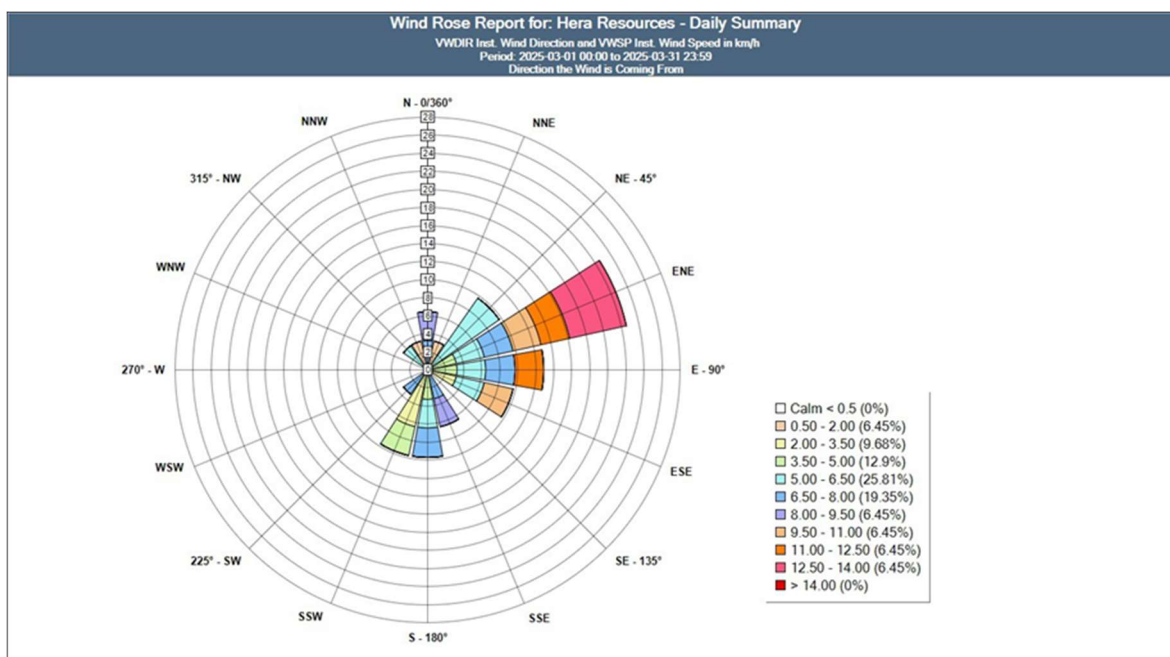


Figure 9 - Wind Rose for March 2025

## 5.2. Water

Water monitoring involves collecting water samples from several locations around site. The water samples are submitted to a NATA accredited laboratory for physical and chemical analysis. Analysis of pH and electrical conductivity are obtained in the field using a handheld monitor.

### Surface Water

Hera has 6 licence points associated with surface water. Four of these points are located within the mining lease and two are located off the mining lease, with one upstream and another downstream of the lease, refer **Figure 2**. Due to the Hera site being in a Care and Maintenance phase no processing was completed during March 2025. As a result, there were no surface water quality results for licence points.

Federation has 3 surface monitoring points (refer to **Figure 3**), all of which are triggered upon discharge. No discharge occurred during March 2025.

### Groundwater

Hera has 11 licence points associated with groundwater. These points are located around the Project Area, (refer **Figure 4**) and are a combination of observation bores, productions bores and piezometers. Monitoring is conducted quarterly for SWL and water chemistry is completed annually. Annual sampling was completed in June 2024 and quarterly SWL monitoring was completed in March 2025. Results are shown in **Figure 10**.

Federation has 16 licence points associated with groundwater (Refer to **Figure 5** and **Figure 6**). Monitoring is conducted quarterly for SWL and water chemistry and was completed in March 2025. Results are shown in **TABLE 2** and **TABLE 3**.

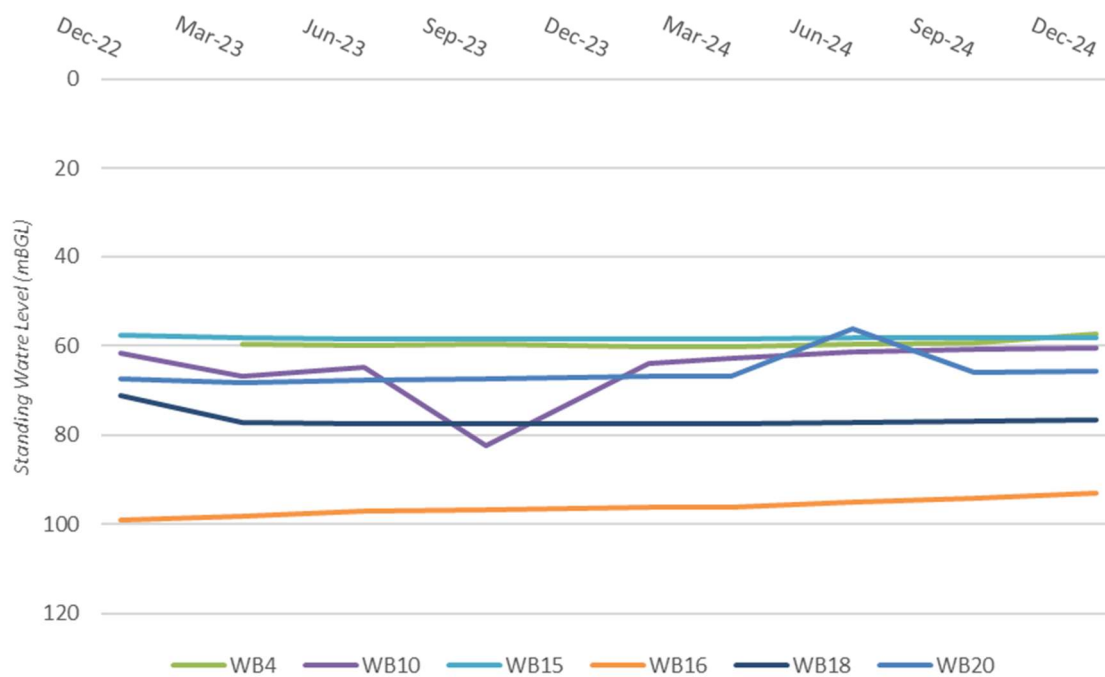


Figure 10 – Hera Groundwater Standing Water Level – March 2025



TABLE 2: Summary of Federation groundwater monitoring results for March 2025

Licence Point	Analyte (mg/L)													
	Sb	As	HCO3-	B	Cd	Ca	CO3-2	Cl	Cr	Cu	CN-(Free)	CN-(Total)	CN-(WAD)	EC (mS/cm)
FMB001	0.001	0.004	447	0.4	0.0001	168	<1	1400	<0.001	<0.001	<0.004	<0.004	<0.004	6280
FMB002	0.014	0.002	430	0.38	0.0009	122	<1	890	<0.001	0.002	<0.004	<0.004	<0.004	4380
FMB003	<0.001	0.003	439	0.56	<0.0001	157	<1	1360	<0.001	<0.001	<0.004	<0.004	<0.004	6020
FMB004	<0.001	0.002	510	0.32	<0.0001	99	<1	816	0.002	<0.001	<0.004	<0.004	<0.004	4590
FMB005	0.009	<0.001	180	0.35	0.0023	371	<1	2960	<0.001	0.006	<0.004	<0.004	<0.004	10200
FMB006	<0.001	<0.001	265	0.45	<0.0001	435	<1	3680	<0.001	<0.001	<0.004	<0.004	<0.004	12000
FMDD1	Dry at 7.95m													
FMDD2	Dry at 8.09m													
FMDD3	Dry at 8.38m													
FLLP01	Dry at 7.87m													
FLLP02	Dry at 8.05m													
FLLP03	Dry at 8.06m													
FLLP04	Dry at 7.52m													





### 5.3. Noise

The Company has six licenced monitoring points (R1, R2, R3, R4 and R18, R19) located along the Burthong and Balowra Road (**Figure 7**). The locations are strategically placed near the Hera-Federation's nearest neighbours. R1 and R2 are measured from the same point as both neighbours are in very close proximity to each other.

The annual noise assessment was carried out by Muller Accoustic Consulting on 13 to 16<sup>th</sup> May 2024. Results were presented in the May 2024 monthly website report.

Hera holds a Noise and Blast agreement with the Landholder of R3. The agreement has been provided to the EPA and the Department of Planning Housing and Infrastructure (DPHI).

### 5.4. Blast Monitoring

The blast monitor is located between the mining operations and the nearest residential receiver (**Figure 7**).

During November 2024 DPHI was notified that Hera-Federation had commenced mining with associated blasting.

Hera holds a Noise and Blast agreement with the Landholder of R3. The agreement has been provided to the EPA and DPHI.

A total of 67 blasts were completed during the month with no exceedances of blasting criteria. Blast monitoring results are presented in **Table 4**.

TABLE 4: Blast monitoring results for March 2025

Date	Time	Vibration (mm/s)	Overpressure (dB)
1/03/2025	03:00	0.01	71.8
1/03/2025	06:40	0.02	73.9
1/03/2025	17:25	0.02	77.4
2/03/2025	06:28	0.02	73.9
2/03/2025	13:17	0.02	84.4
3/03/2025	06:33	0.03	74.5
4/03/2025	10:32	0.02	105.8
4/03/2025	18:48	0.19	91.4
5/03/2025	04:34	0.02	76.6
6/03/2025	06:45	0.01	75.1
6/03/2025	18:30	0.01	73.3
7/03/2025	06:29	0.03	71.0
8/03/2025	06:35	0.02	79.0
8/03/2025	15:34	0.02	93.3
9/03/2025	06:26	0.02	77.8
9/03/2025	18:30	0.01	79.3
10/03/2025	00:30	0.02	96.9
10/03/2025	06:30	0.02	73.9
10/03/2025	15:30	0.01	87.9
10/03/2025	18:30	0.01	72.6

Date	Time	Vibration (mm/s)	Overpressure (dB)
11/03/2025	06:30	0.01	77.0
11/03/2025	18:31	0.02	85.0
12/03/2025	00:30	0.01	71.0
12/03/2025	05:30	0.01	81.1
13/03/2025	06:30	0.01	72.6
13/03/2025	18:35	0.01	82.4
13/03/2025	19:50	0.02	71.0
14/03/2025	06:30	0.02	71.8
14/03/2025	18:45	0.01	71.0
15/03/2025	05:45	0.01	71.0
15/03/2025	06:11	0.11	73.9
15/03/2025	15:30	0.01	73.3
16/03/2025	06:30	0.01	77.4
16/03/2025	11:35	0.02	104.6
16/03/2025	18:45	0.03	75.6
17/03/2025	06:31	0.02	99.6
18/03/2025	06:34	0.06	88.7
18/03/2025	18:31	0.02	72.6
19/03/2025	05:41	0.02	83.7
19/03/2025	18:30	0.01	91.1
20/03/2025	06:25	0.02	73.9
20/03/2025	18:39	0.02	74.5
21/03/2025	06:32	0.03	71.0
21/03/2025	18:33	0.02	92.8
22/03/2025	06:46	0.02	71.8
22/03/2025	18:27	0.03	79.9
23/03/2025	06:33	0.04	76.6
23/03/2025	18:31	0.03	71.8
24/03/2025	06:37	0.01	71.8
24/03/2025	12:00	0.01	75.1
24/03/2025	18:30	0.01	72.6
25/03/2025	06:30	0.01	85.3
25/03/2025	07:14	0.02	85.5
25/03/2025	18:29	0.02	77.8
26/03/2025	01:46	0.02	70.1
26/03/2025	18:30	0.02	92.3
27/03/2025	06:31	0.02	74.5
27/03/2025	18:36	0.02	90.5
28/03/2025	06:31	0.01	76.6



Date	Time	Vibration (mm/s)	Overpressure (dB)
28/03/2025	18:30	0.02	93.3
29/03/2025	06:32	0.03	77.0
29/03/2025	18:28	0.03	73.3
30/03/2025	01:00	0.02	72.6
30/03/2025	06:30	0.01	72.6
30/03/2025	18:26	0.03	74.5
31/03/2025	06:39	0.02	86.7
31/03/2025	18:31	0.05	92.7

## 5.5. Air Quality

Two High Volume Air Samplers (HVAS), designed to sample Particulate matter less than 10 µm (PM10) or Total Suspended Particulate (TSP) matter an EBAM and two E-samplers form the Hera-Federation air quality monitoring network (refer to **Figure 8**).

Results for air quality monitoring conducted in March 2025 have been summarised in **TABLE 5**. No exceedances were recorded.

EBAM and E-Sampler results are presented in **Figures 11, 12 and 13**.

TABLE 5: Summary of HVAS monitoring results for March 2025

Pollutant	Unit	Limit	Averaging Period	Result
TSP	µg/m <sup>3</sup>	90	Annual	35.46
PM-10	µg/m <sup>3</sup>	25	Annual	12.84
<b>High Volume Air Samplers (PM<sub>10</sub>)</b>				
1/03/2025	µg/m <sup>3</sup>	50	24 Hour	13.2
7/03/2025	µg/m <sup>3</sup>	50	24 Hour	21.6
13/03/2025	µg/m <sup>3</sup>	50	24 Hour	5.8
19/03/2025	µg/m <sup>3</sup>	50	24 Hour	23.7
25/03/2025	µg/m <sup>3</sup>	50	24 Hour	11.1
31/03/2025	µg/m <sup>3</sup>	50	24 Hour	3.6

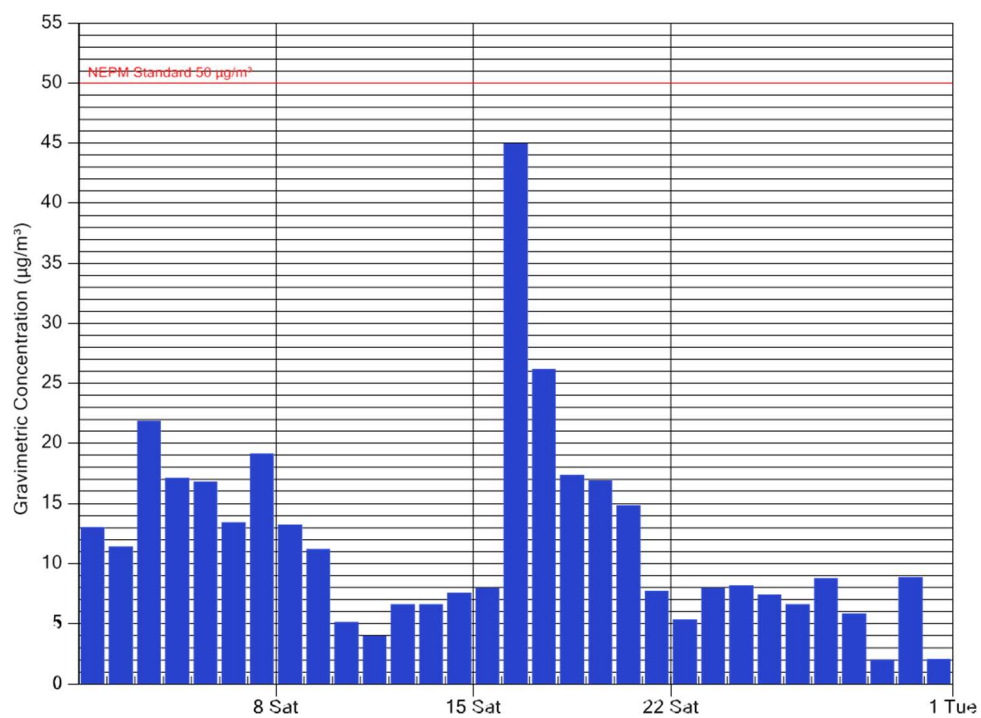


Figure 11 - EBAM plus PM<sub>10</sub> Daily Average Concentration - March 2025

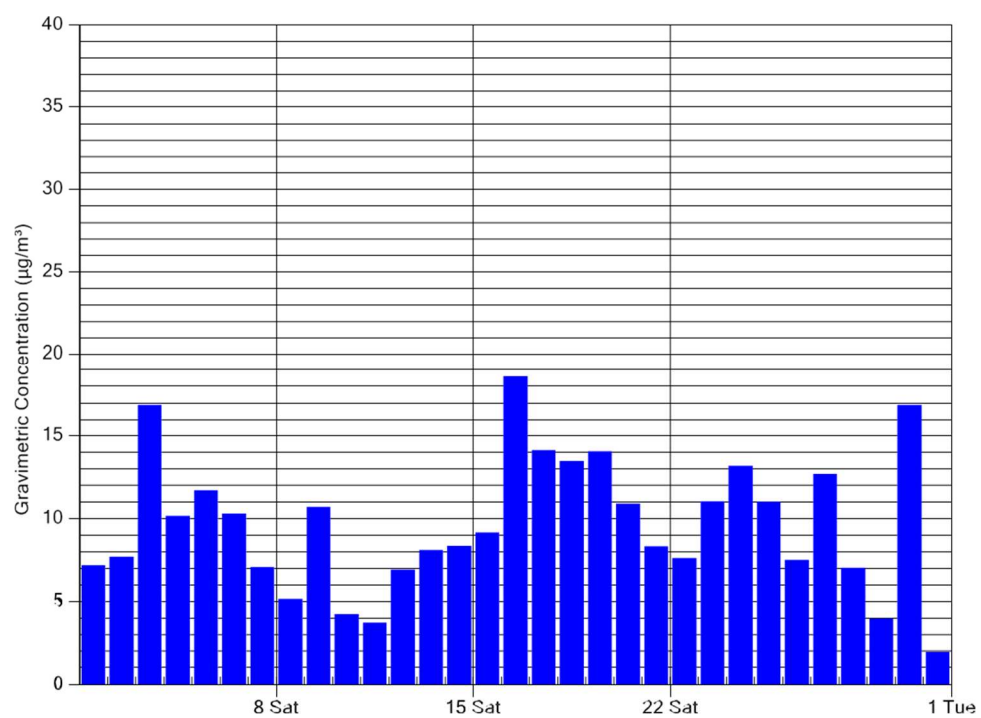


Figure 12 - E-Sampler 1 PM<sub>10</sub> Daily Average Concentration - March 2025

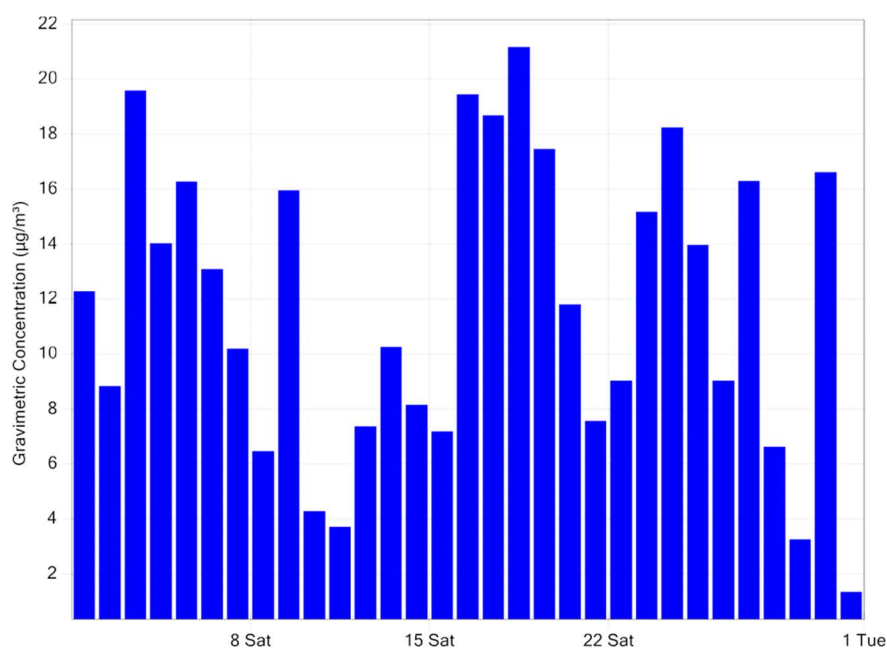


Figure 13 – E-Sampler 2 PM<sub>10</sub> Daily Average Concentration - March 2025

## 5.6. Gold Room Stack Monitoring

Hera-Federation has two licenced gold room stack monitoring points (Refer to **Figure 8**).

The Hera site is on Care and Maintenance and no stack monitoring will be undertaken unless the gold room operations recommence.

## 5.7. Ore and Waste Rock Transport

The Company is licenced to transport 200,000 tonnes annually (FY) of ore from the Hera-Federation site to The Peak mine between 7am to 7pm daily.

During November 2024 DPHI was notified that Hera-Federation had commenced mining and trucking of ore to The Peak Mine.

Truck movements per day and quantity of ore transported is presented in **Table 6**.

TABLE 6: Truck movements and quantity trucked to Peak in March 2025

Date	No. truck movements/day	Quantity (Dry tonnes)
1-Mar	6	227.85
2-Mar	4	155.75
3-Mar	2	76.2
4-Mar	10	381.55
5-Mar	22	858.65
6-Mar	6	229.45
7-Mar	18	716.25
8-Mar	20	772.2
10-Mar	4	153.25
11-Mar	18	693.35



Date	No. truck movements/day	Quantity (Dry tonnes)
12-Mar	16	615.95
13-Mar	18	687.95
14-Mar	24	919.3
15-Mar	16	612.75
17-Mar	16	611.6
18-Mar	18	689.8
19-Mar	18	687.9
20-Mar	24	919.05
21-Mar	4	152.1
22-Mar	22	842.85
24-Mar	22	842.95
25-Mar	24	918.65
26-Mar	24	923.4
27-Mar	24	917.1
30-Mar	8	308.65
31-Mar	18	693.25
<b>TOTAL</b>		<b>15607.75</b>

## 5.8. Concentrate Transport

The Company is licenced to transport 155,000 tonnes of lead/zinc concentrate from the Hera site to Hermidale rail siding from 7am to 7pm daily.

The Federation site does not produce concentrate.

The Hera site is on Care and Maintenance and no concentrate movements have occurred during March 2025.

## 5.9. Complaints

No complaints were received during March 2025.