

HUNTER VALLEY OPERATIONS

MONTHLY ENVIRONMENTAL MONITORING REPORT OCTOBER 2024

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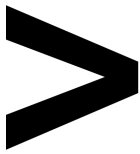
17/12/2024

REVIEW

[Planned Review Date]

OWNER

Superintendent - Environment and Community



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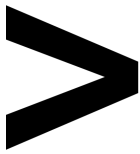
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1 | INTRODUCTION

This report has been compiled to provide a monthly summary of environmental monitoring results for Hunter Valley Operations (HVO). This report includes all monitoring data collected for the period 1 – 31 October 2024 (the 'Reporting Period').

2 | AIR QUALITY

2.1 | METEOROLOGICAL MONITORING

HVO maintains two meteorological stations: 'HVO Corporate' and 'Cheshunt' (refer to **Figure 4**).

2.1.1 | RAINFALL

Rainfall recorded at the HVO Corporate weather station during the period is summarised in **Table 1**. The 2022, 2023 and 2024 trends are shown in **Figure 1**.

Table 1 - Rainfall data for the reporting period

2024	Monthly Rainfall (mm)	Cumulative Rainfall (mm)
October	50.0	587.4

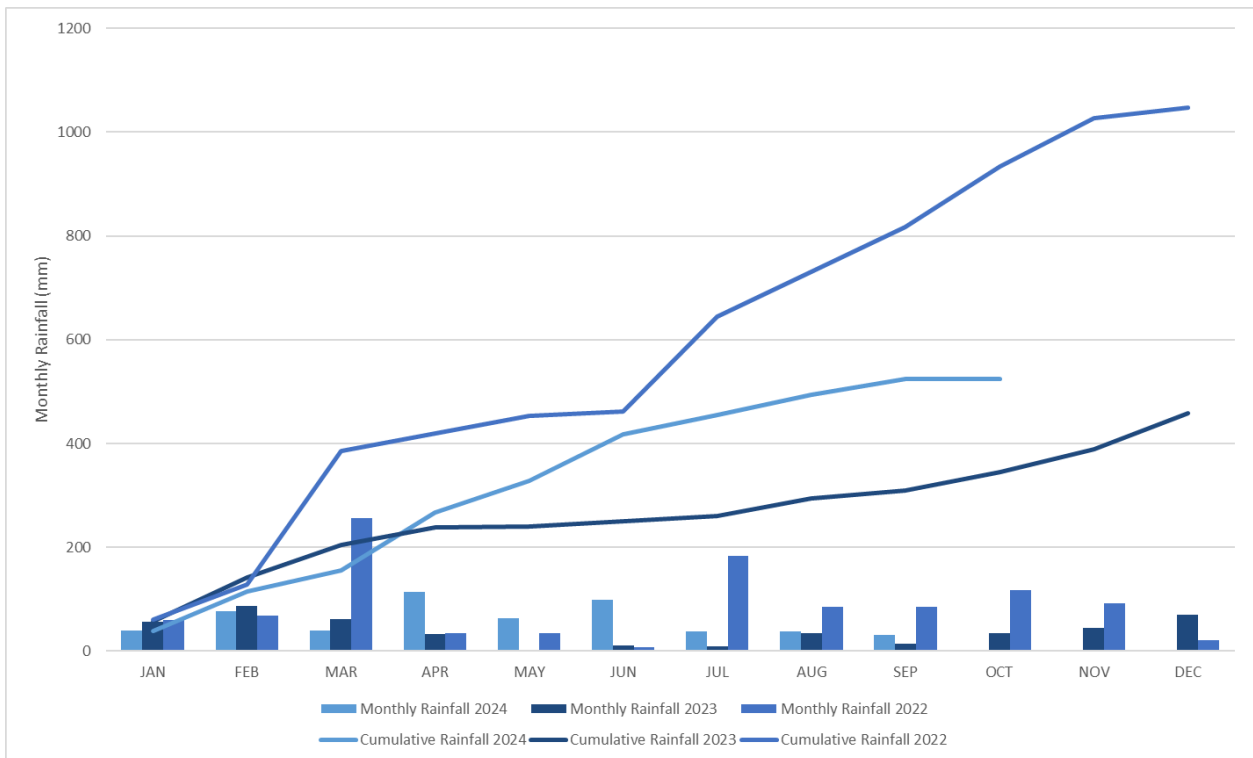


Figure 1 - Rainfall Summary 2024



2.1.2 | WIND SPEED AND DIRECTION

Figure 2 and Figure 3 wind roses show wind speeds and directions during the reporting period at HVO Corporate and Cheshunt meteorological stations. South easterly winds were prevailing at HVO Corporate station, whilst south easterly and north westerly winds were prevailing HVO Cheshunt station.

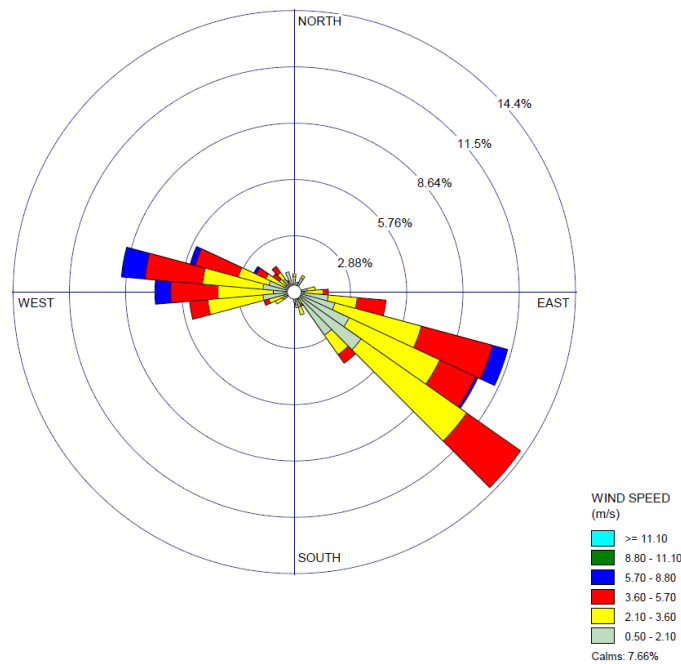


Figure 2 – HVO Corporate Wind Rose for the Reporting Period

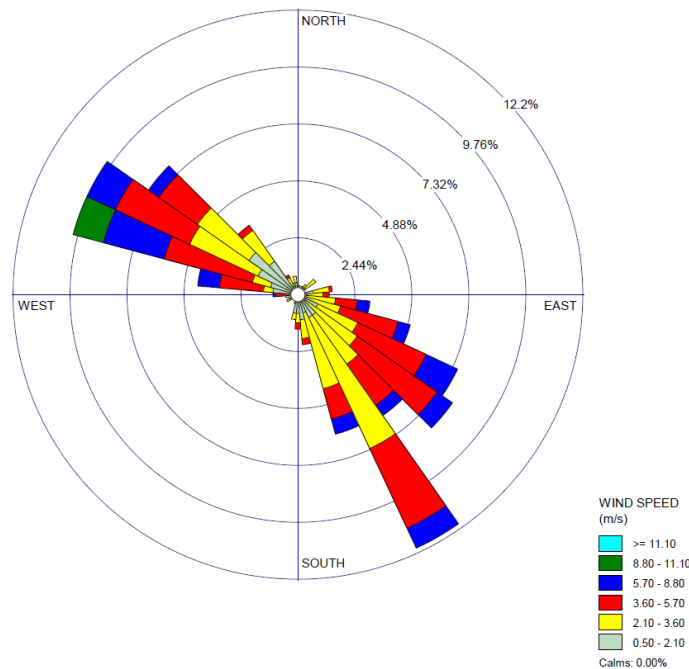


Figure 3 – HVO Cheshunt Wind Rose for the Reporting Period

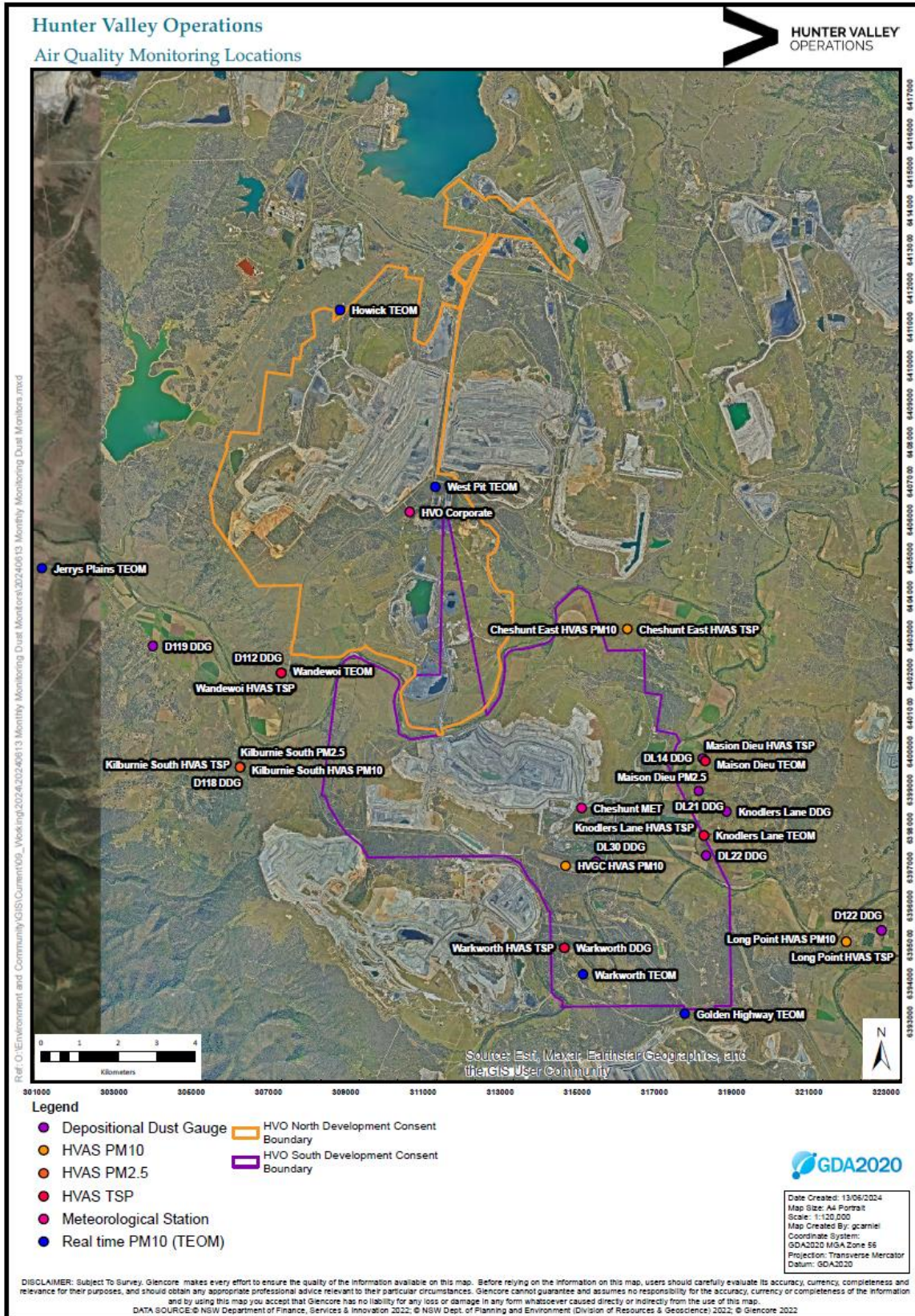
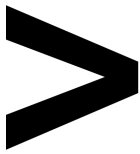


Figure 4 – Air Quality Monitoring Location Plan

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2.2 | DEPOSITIONAL DUST

HVO operates and maintains a network of depositional dust gauges situated on private and mine owned land surrounding HVO to monitor regional air quality.

Figure 5 displays year-to-date (YTD) insoluble solids results from depositional dust gauges during the reporting period compared against the annual impact assessment criteria. Any monthly results deemed to be contaminated (due to presence of bird droppings, insects, etc.) are not displayed. An assessment of HVO’s contribution against the long-term impact assessment criteria will be provided in the 2024 Annual Review.

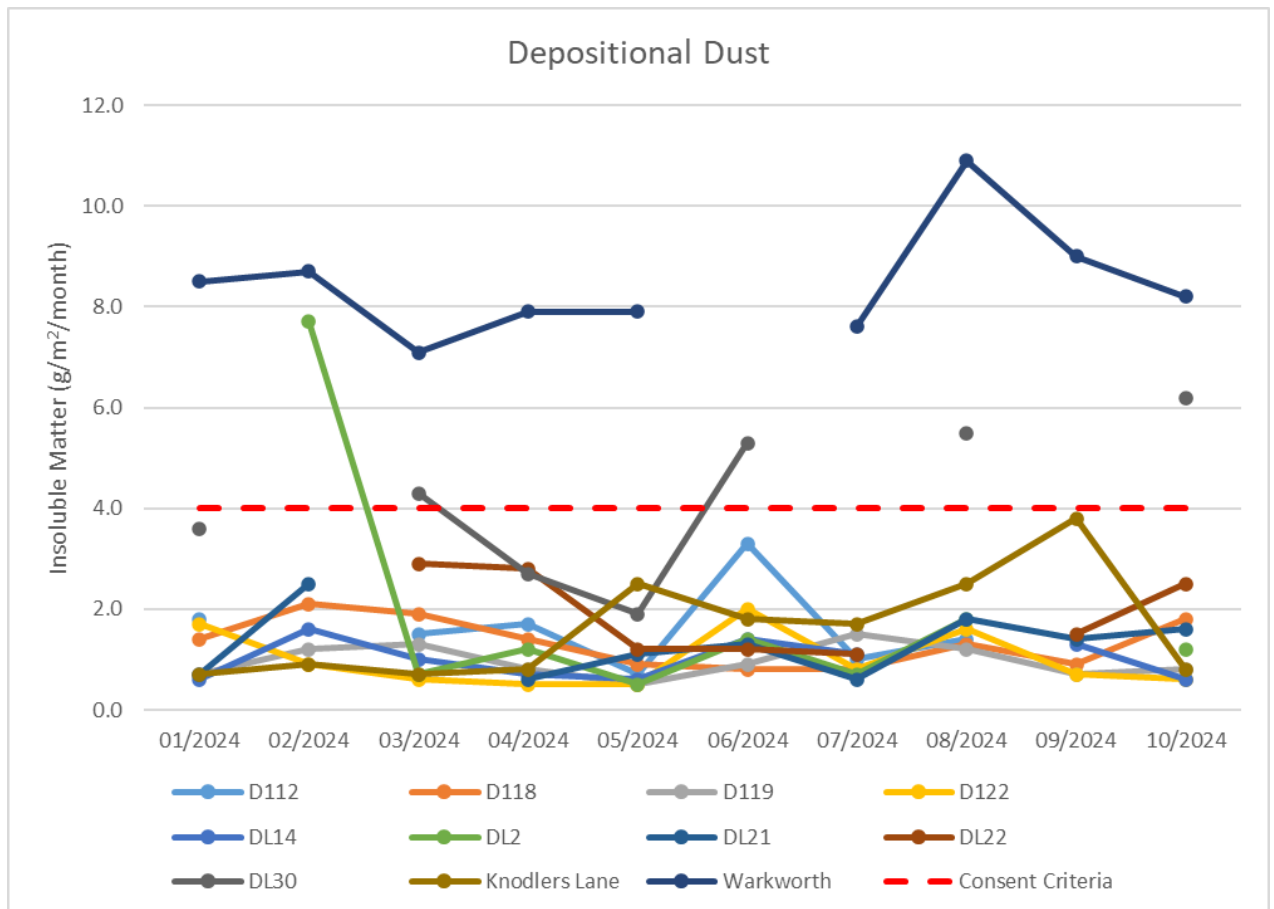


Figure 5 – YTD Depositional Dust Results as at end of the Reporting Period



2.3 | SUSPENDED PARTICLES

Suspended particles are measured by a network of High Volume Air Samplers (HVAS) measuring Total Suspended Particulates (TSP) and Particulate Matter <10µm (PM10). The Kilburnie South and Maison Dieu HVAS also monitor Particulate Matter <2.5µm (PM2.5). The location of these monitors is presented in Figure 4. Each HVAS runs for 24-hours on a six-day cycle.

2.3.1 | HVAS PM10 RESULTS

2.3.1.1 | PERFORMANCE AGAINST SHORT TERM IMPACT ASSESSMENT CRITERIA

Figure 6 shows individual PM10 results at each monitoring station against the short-term impact assessment criteria of 50µg/m³ for the reporting period. All monitors were below the short-term impact assessment criteria during the reporting period.

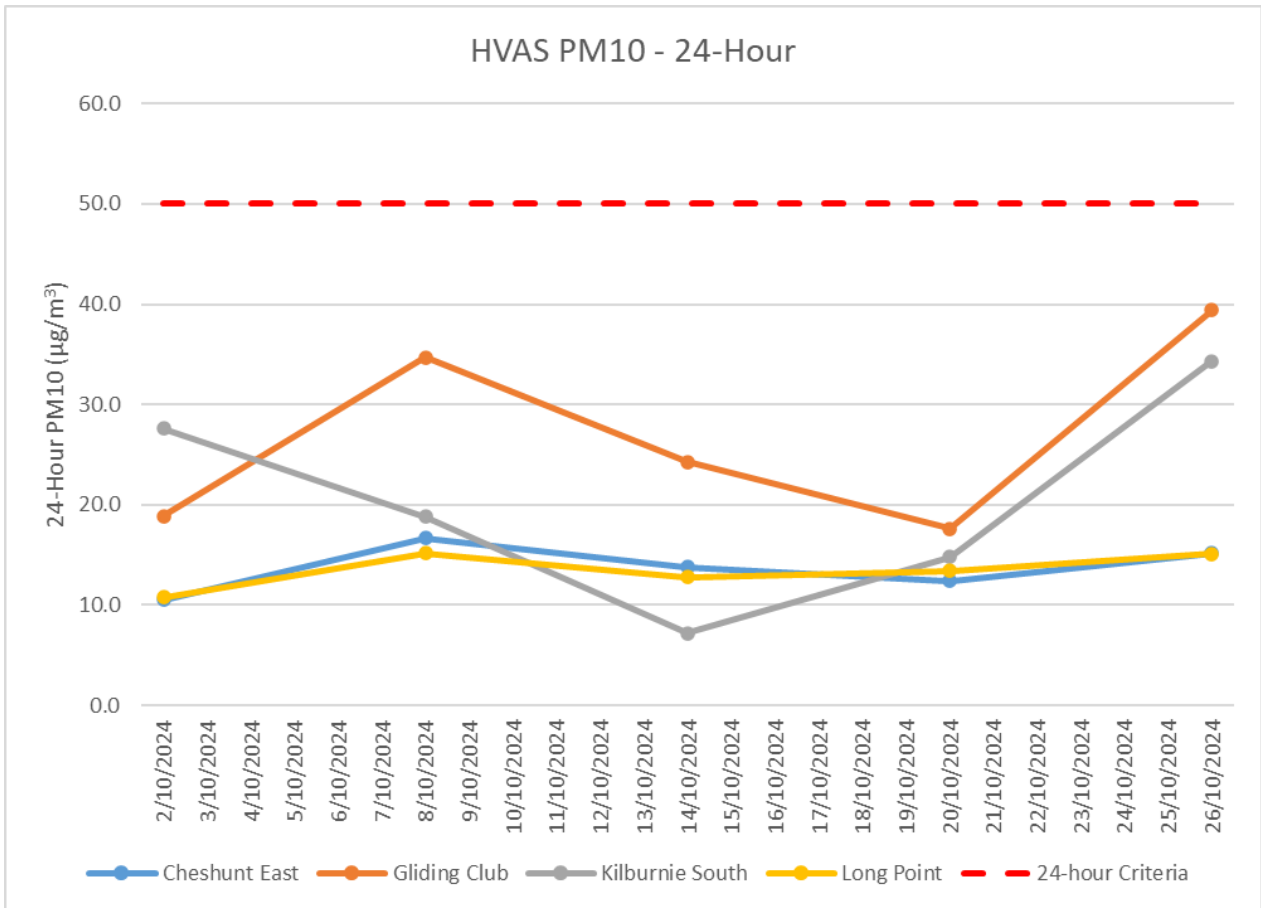


Figure 6 – Individual PM10 Results for the Reporting Period



2.3.1.2 | PERFORMANCE AGAINST LONG TERM IMPACT ASSESSMENT CRITERIA

Figure 7 shows the year-to-date annual average PM10 results. All monitors were below the relevant long term impact assessment criteria during the reporting period.

An assessment of HVO's contribution against the long-term impact assessment criteria will be provided in the 2024 Annual Review.

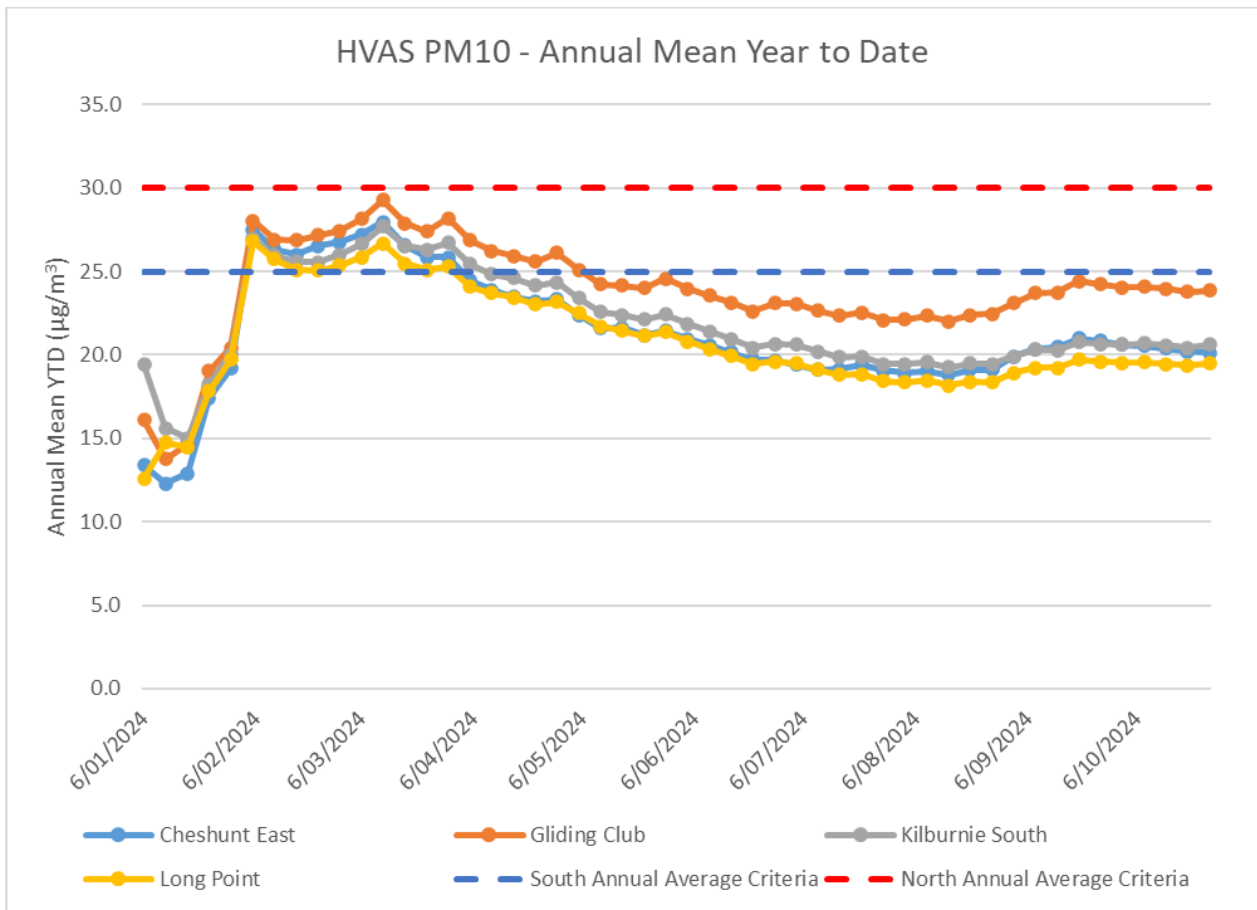
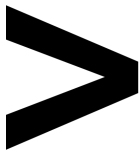


Figure 7 – Year to Date Average PM10 as at end of the Reporting Period



2.3.2 | HVAS PM_{2.5} RESULTS

HVO monitors PM_{2.5} at two HVAS locations, Kilburnie South and Maison Dieu.

2.3.2.1 | HVAS PM_{2.5} RESULTS

Figure 8 shows individual PM_{2.5} results at each monitoring station against the HVO South short-term impact assessment criteria of 25µg/m³ for the reporting period. Both monitors were below the relevant short-term impact assessment criteria during the reporting period.

An assessment of HVO’s contribution against the long-term impact assessment criteria will be provided in the 2024 Annual Review.

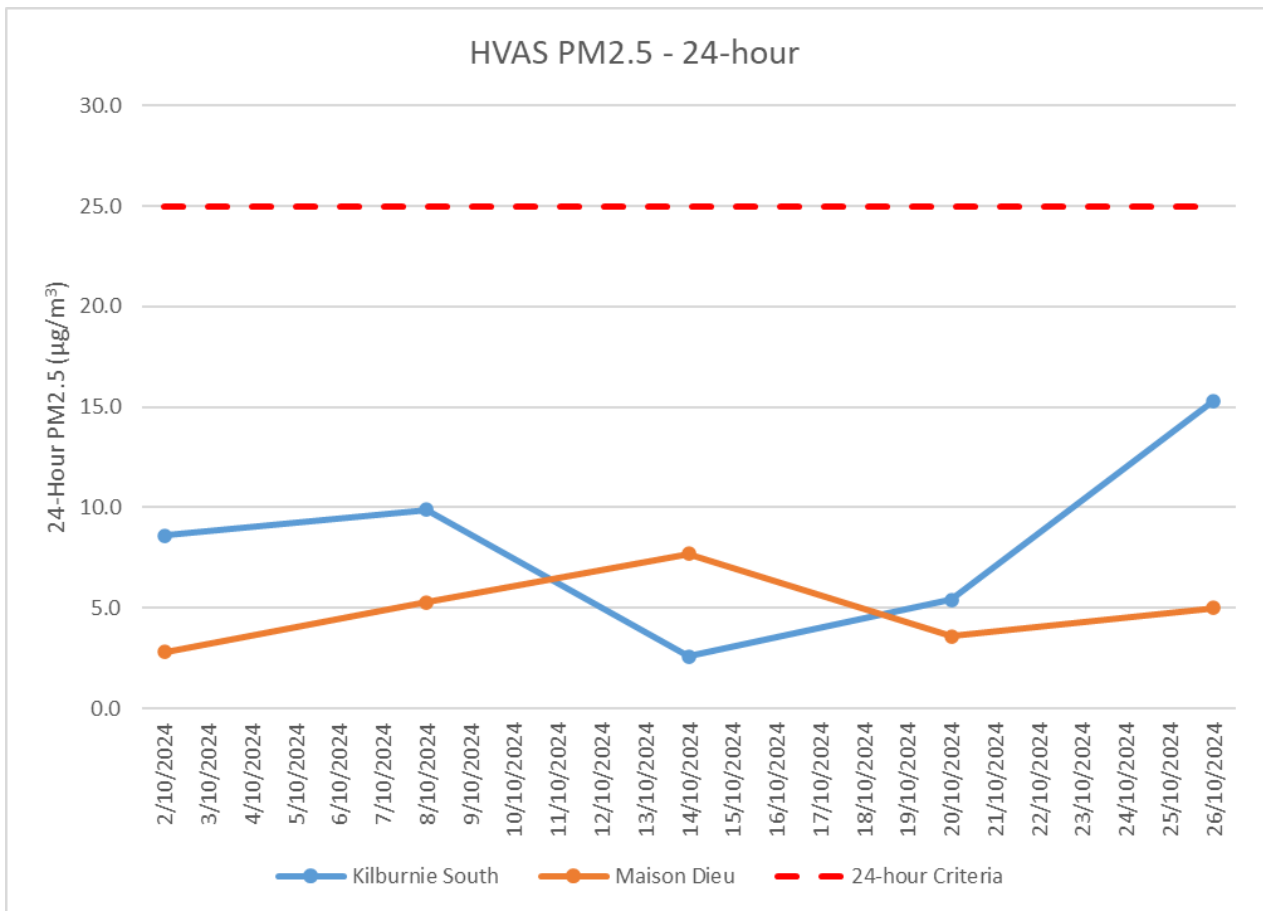


Figure 8 - Results for the Reporting Period



2.3.2.2 | PERFORMANCE AGAINST LONG TERM IMPACT ASSESSMENT CRITERIA

Figure 9 shows the year-to-date annual average PM2.5 results. During the reporting period, the Maison Dieu monitors annual average year to date result was above the PM2.5 annual rolling mean criteria of 8µg/m³.

An assessment of HVO’s contribution against the long-term impact assessment criteria will be provided in the 2024 Annual Review.

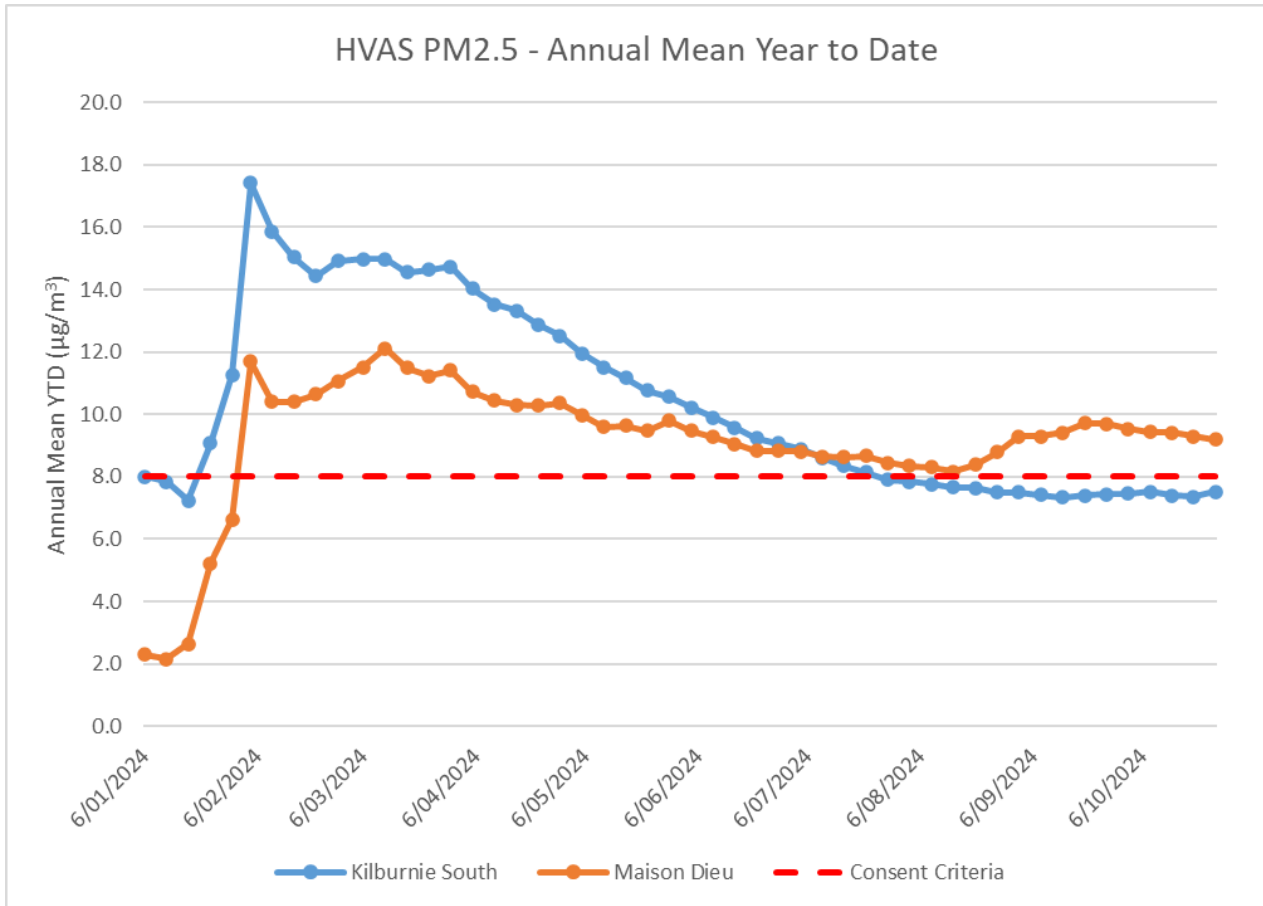
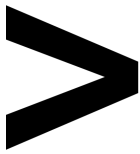


Figure 9 - Year to Date Average PM_{2.5} as at end of the Reporting Period



2.3.3 | TSP RESULTS

2.3.3.1 | PERFORMANCE AGAINST LONG TERM IMPACT ASSESSMENT CRITERIA

Figure 10 shows the annual average TSP results compared against the long-term impact assessment criteria of 90µg/m³. All monitors, except for Warkworth, were below the relevant long-term impact assessment criteria during the reporting period.

An assessment of HVO’s contribution against the long-term impact assessment criteria will be provided in the 2024 Annual Review.

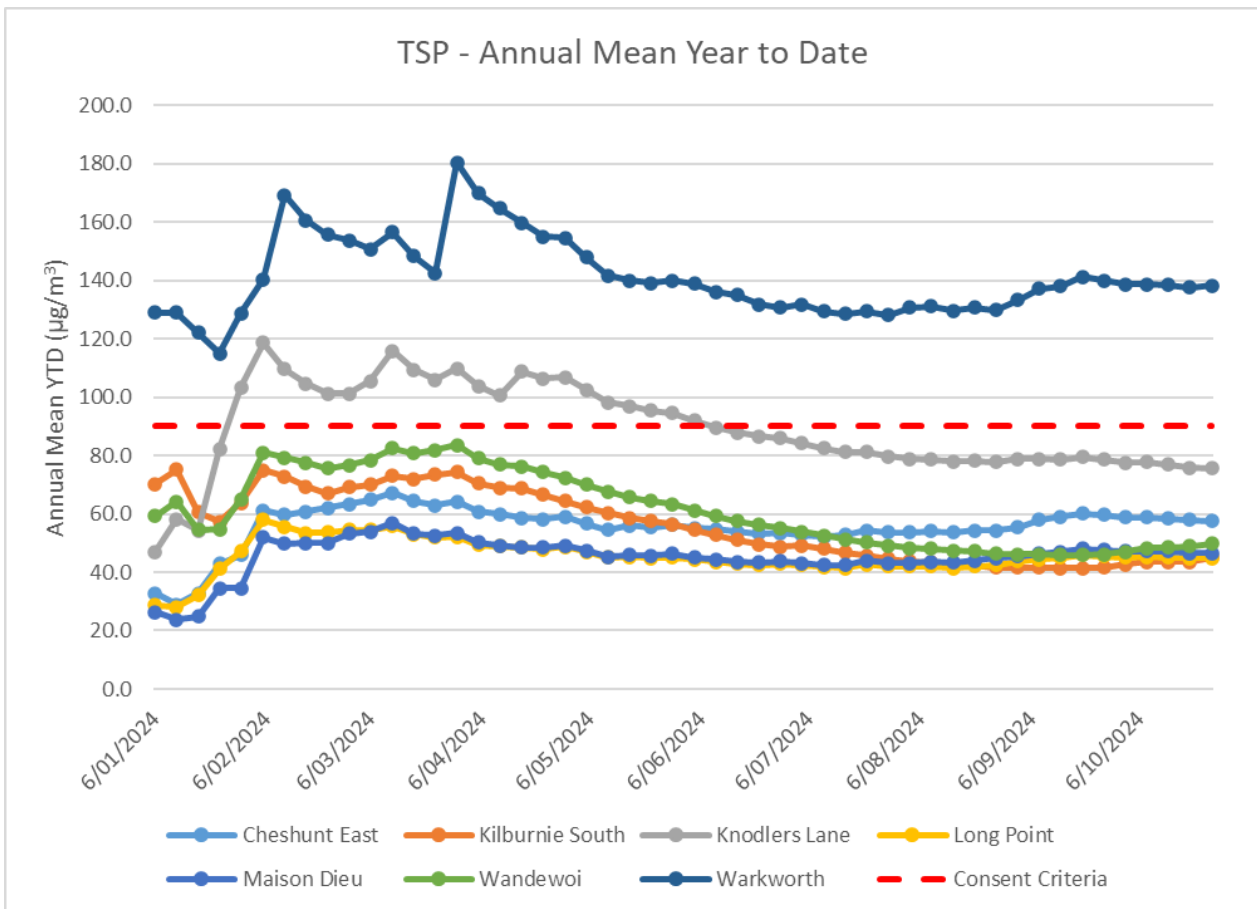


Figure 10 - Year to Date Average Total Suspended Particulates as at end of the Reporting Period



2.3.4 | REAL TIME PM₁₀ RESULTS

HVO maintains a network of real time PM₁₀ monitors. The real time air quality monitoring stations continuously record information and transmit data to a central database, generating alarms when particulate matter levels exceed internal HVO trigger levels. Results from real time PM₁₀ monitoring are used as a reactive measure to guide mining operations to help achieve compliance with the relevant conditions of the project approval.

Figure 11 shows the daily 24-hour average PM₁₀ result from the real time monitoring sites. During the reporting period, daily results were below the 24-hr average criteria of 50µg/m³ with the exception of Warkworth monitor on 23 October. This exceedance was investigated internally by HVO and it was found that the maximum calculated HVO contribution was below the compliance limit.

Figure 12 shows the annual rolling average PM₁₀ results from the real time monitoring sites. All monitoring results were below the annual average for the relevant long-term impact assessment criteria during the reporting period, with the exception of Warkworth.

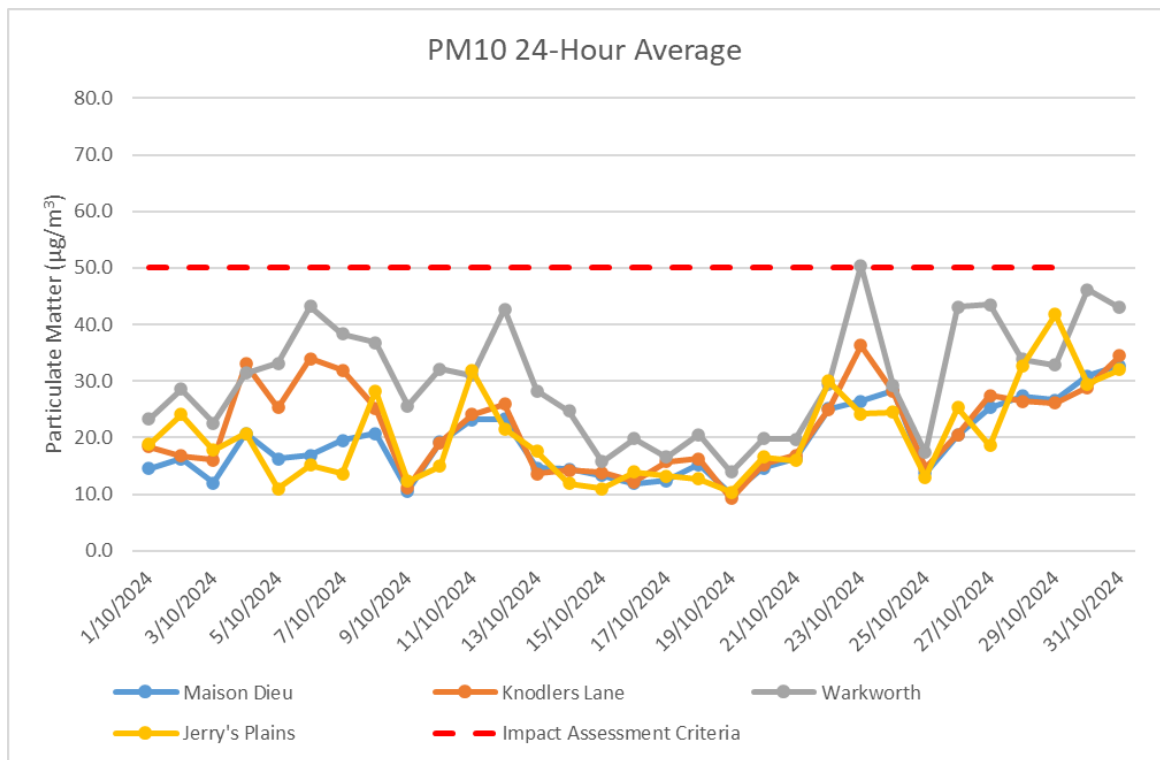


Figure 11 – Real Time PM₁₀ 24hr for the Reporting Period

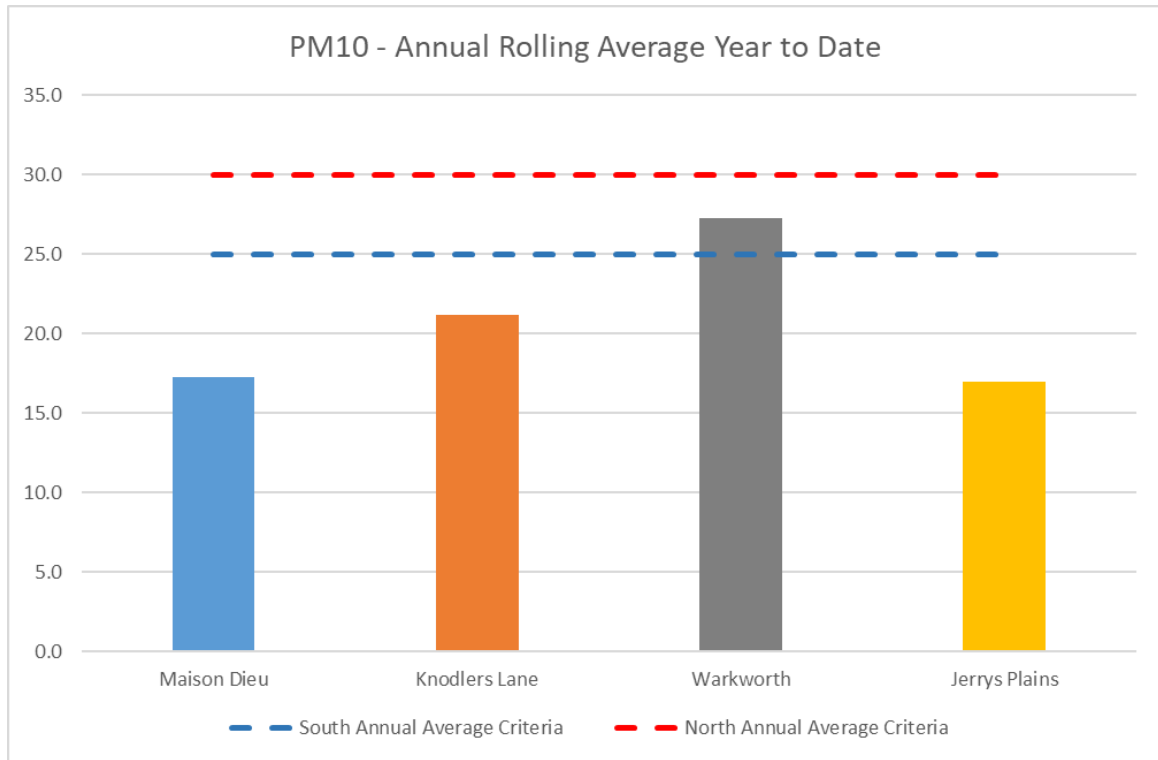
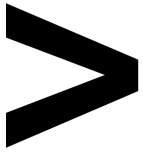


Figure 12 – Real Time PM₁₀ Annual Average for the Reporting Period

2.3.5 | REAL TIME ALARMS FOR AIR QUALITY

The real time monitoring system generated ninety-five (95) automated air quality related alarms during the reporting period. Seventeen (17) alarms related to adverse weather conditions (wind or rain) and seventy-eight (78) alarms related to dust conditions.



3 | WATER QUALITY

HVO maintains a network of surface water and groundwater monitoring sites.

3.1 | SURFACE WATER

Surface watercourses are sampled on a quarterly sampling regime. Water quality is assessed through the parameters of pH, electrical conductivity (EC) and Total Suspended Solids (TSS). The location of surface water monitoring points across HVO is shown in **Figure 13**.

Results from monitoring on site dams, the Hunter River and other natural tributaries are provided on a quarterly basis. Results will be provided in the December 2024 Monthly Environmental Monitoring Report.

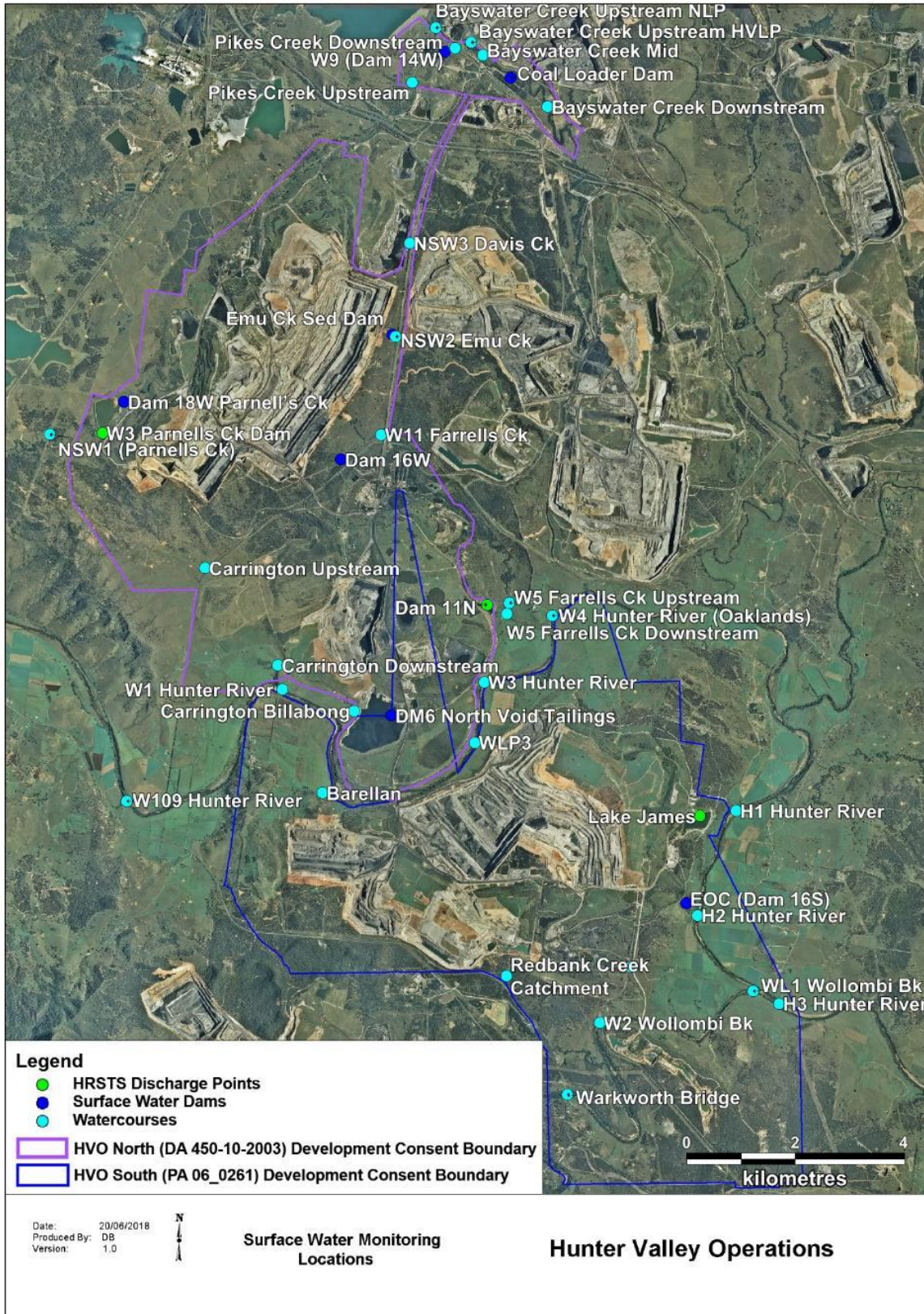


Figure 13 – HVO Surface Water Monitoring Locations



3.1.1 | SURFACE WATER TRIGGER TRACKING

Internal trigger limits have been developed to assess monitoring data on an on-going basis and to highlight potentially adverse surface water impacts. The process for evaluating monitoring results against the internal triggers and subsequent responses are outlined in the HVO Water Management Plan.

Surface water trigger tracking results are provided on a quarterly basis. Results will be reported in the December 2024 Monthly Environmental Monitoring Report.

3.2 | SITE WATER USE

HVO is permitted to extract water from the Hunter River under water allocation licenses issued by Water NSW.

HVO did not extract water from the Hunter River during the reporting period.

3.3 | HRSTS DISCHARGE

HVO participates in the Hunter River Salinity Trading Scheme (HRSTS), allowing discharge from licensed discharge points Dam 11N (to Farrell’s Creek), Lake James (to the Hunter River) and Parnell’s Dam (to Parnell’s Creek). Discharges can only take place subject to HRSTS regulations.

HVO did not undertake any HRSTS discharges during the reporting period.

3.4 | GROUNDWATER MONITORING RESULTS

Groundwater monitoring is undertaken on a quarterly basis in accordance with the HVO Water Management Plan and Groundwater Monitoring Programme. The location of groundwater monitoring points across HVO are show in **Figure 14**

Groundwater monitoring results are provided on a quarterly basis. Results will be provided in the December 2024 Monthly Environmental Monitoring Report.

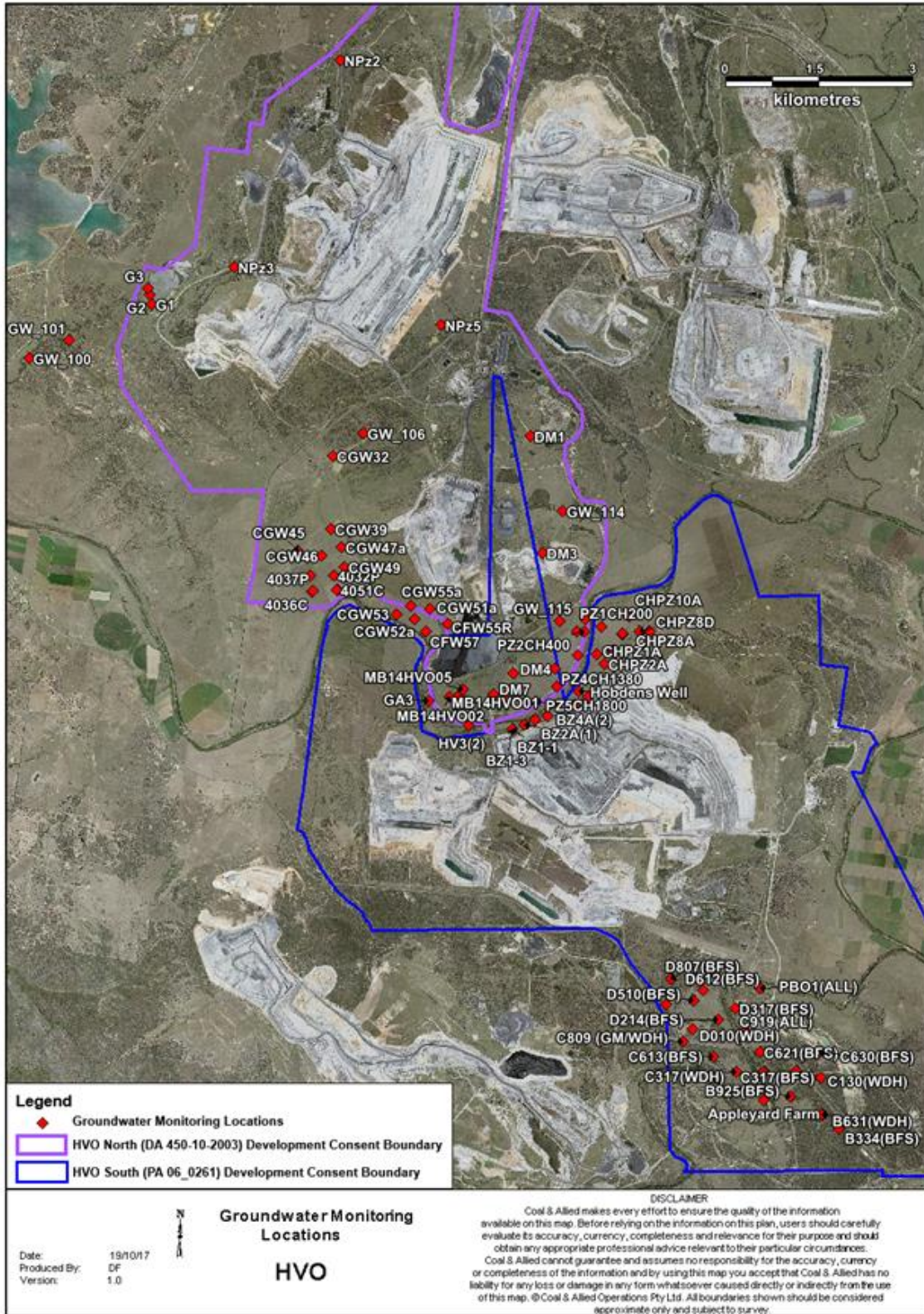
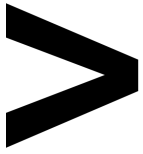


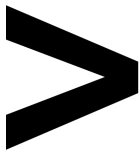
Figure 14 - Groundwater Monitoring Locations at HVO



Groundwater Trigger Tracking

Internal trigger limits have been developed to assess monitoring data on an on-going basis and to highlight potentially adverse groundwater impacts. The process for evaluating monitoring results against the internal triggers and subsequent responses is outlined in the HVO Water Management Plan.

Groundwater trigger tracking results are provided on a quarterly basis. Results will be provided in the December 2024 Monthly Environmental Monitoring Report.

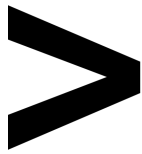


4 | BLASTING

HVO maintains a network of blast monitoring units located at nearby privately owned residences and function as regulatory compliance monitors. The location of these monitors can be found in **Figure 15**. Blasting criteria for HVO are summarised in **Table 2 – Blasting Criteria**

Table 2 – Blasting Criteria

Airblast Overpressure (dBL)	Comments
115	5% of the total number of blasts in a 12-month period
120	0% of blasts
Ground Vibration (mm/s)	Comments
5	5% of the total number of blasts in a 12-month period
10	0% of blasts



4.1 | BLAST MONITORING RESULTS

Eighteen (18) blasts were initiated at HVO during the reporting period. Blast monitoring results for the period are shown in **Table 3 – Overpressure Blast Monitoring Results for the reporting period** and **Table 4**

Table 3 – Overpressure Blast Monitoring Results for the reporting period

Date and Time	Moses Crossing (dBL)	Jerrys Plains Village (dBL)	Maison Dieu (dBL)	Warkworth (dBL)	Knodlers Lane (dBL)
1/10/2024 13:09	93.28	77.12	84.92	87.33	83.76
2/10/2024 15:15	90.84	89.80	81.06	99.66	79.02
8/10/2024 13:21	98.15	99.69	112.55	93.15	105.59
8/10/2024 13:21	101.33	101.34	111.60	110.98	105.59
10/10/2024 14:17	97.30	81.71	86.52	82.27	86.40
12/10/2024 11:01	96.72	96.56	102.84	100.93	98.53
12/10/2024 13:02	96.97	100.05	95.30	95.12	95.01
14/10/2024 13:21	100.65	98.88	98.66	100.18	98.01
15/10/2024 13:03	95.10	85.53	92.64	89.11	90.04
15/10/2024 15:25	100.07	97.47	92.83	93.06	88.76
22/10/2024 13:12	97.00	100.42	101.87	81.71	84.13
23/10/2024 14:55	96.50	83.00	99.47	96.37	95.83
24/10/2024 14:47	103.80	101.11	105.54	107.10	97.26
24/10/2024 14:49	102.03	102.24	103.93	98.75	99.88
29/10/2024 13:18	101.65	85.54	86.53	87.57	84.38
29/10/2024 13:19	97.72	84.72	91.04	93.73	86.40
31/10/2024 14:13	97.70	87.26	95.29	96.01	94.50
31/10/2024 14:15	98.27	88.54	95.66	95.64	95.49

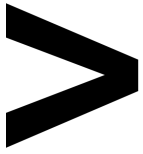


Table 4 – Ground Vibration Blast Monitoring Results for the reporting period

Date and Time	Moses Crossing (mm/s)	Jerrys Plains Village (mm/s)	Maison Dieu (mm/s)	Warkworth (mm/s)	Knodlers Lane (mm/s)
1/10/2024 13:09	0.10	0.05	0.10	0.56	0.04
2/10/2024 15:15	0.10	0.05	0.06	0.12	0.02
8/10/2024 13:21	0.11	0.06	0.24	0.70	0.20
8/10/2024 13:21	0.21	0.11	0.24	0.70	0.20
10/10/2024 14:17	0.07	0.05	0.07	0.36	0.03
12/10/2024 11:01	0.07	0.06	0.19	0.40	0.16
12/10/2024 13:02	0.09	0.06	0.06	0.09	0.02
14/10/2024 13:21	0.06	0.04	0.04	0.91	0.02
15/10/2024 13:03	0.20	0.09	0.17	0.15	0.13
15/10/2024 15:25	0.08	0.06	0.17	0.41	0.15
22/10/2024 13:12	0.10	0.19	0.07	0.27	0.04
23/10/2024 14:55	0.14	0.08	0.11	0.24	0.05
24/10/2024 14:47	0.21	0.15	0.24	0.90	0.17
24/10/2024 14:49	0.14	0.11	0.30	0.88	0.24
29/10/2024 13:18	0.23	0.43	0.13	0.14	0.07
29/10/2024 13:19	0.05	0.04	0.08	0.62	0.03
31/10/2024 14:13	0.07	0.05	0.09	0.84	0.04
31/10/2024 14:15	0.16	0.08	0.18	0.43	0.14

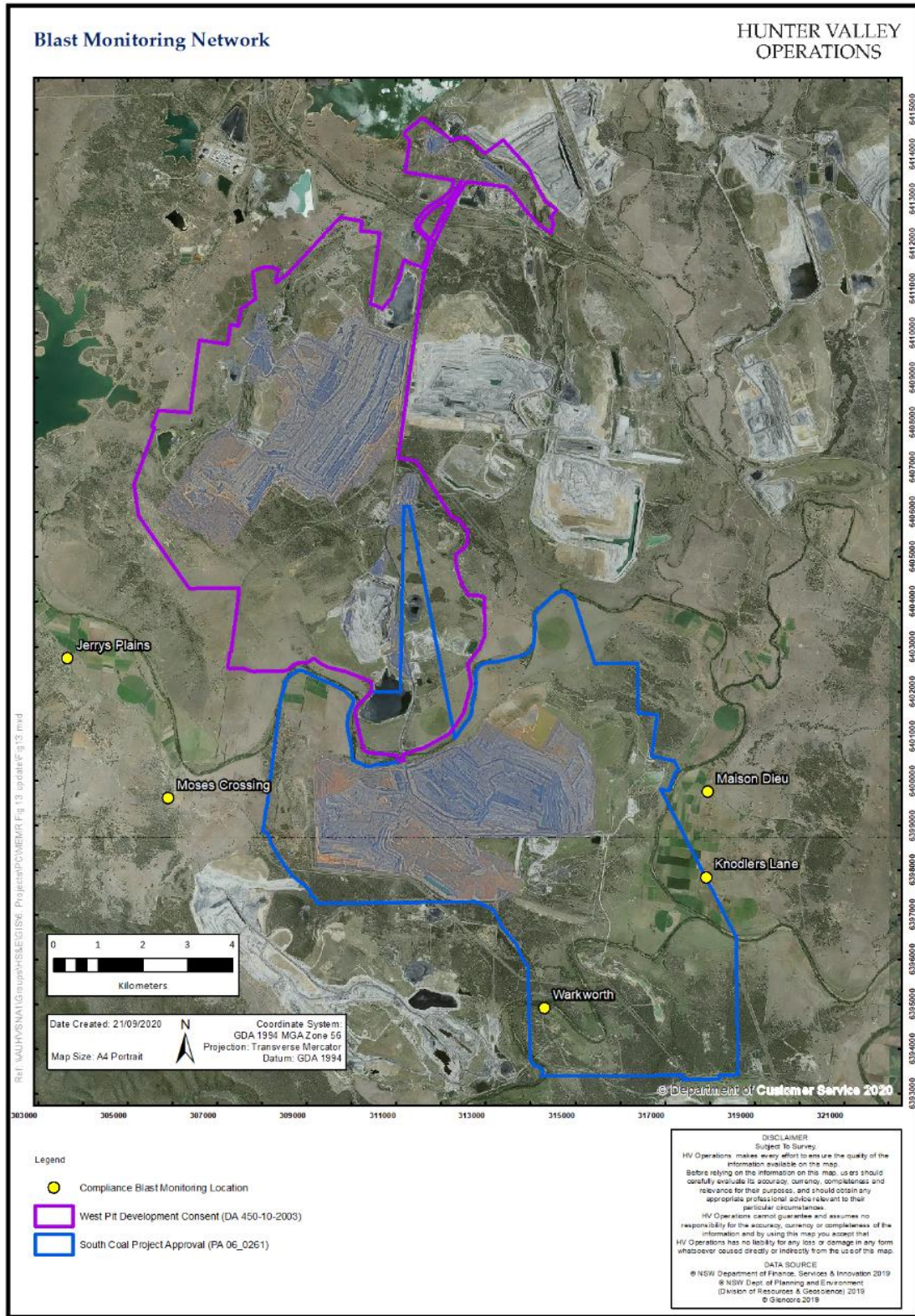
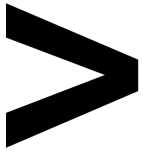


Figure 15 - Blast Monitoring Location Plan

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5 | NOISE

Routine attended noise monitoring occurs at defined locations around HVO, as described in the HVO Noise Monitoring Programme. The noise monitoring aims to quantify and describe the acoustic environment around the site and compare results with specified limits. The attended noise monitoring locations are displayed in **Figure 16** - Noise Monitoring Location Plan.

5.1 | ATTENDED NOISE MONITORING RESULTS

Attended monitoring was conducted at receiver locations around HVO during the night period of 15 October 2024. In addition, quarterly monitoring at HVO North sites Kilburnie South, Jerrys Plains East and Jerrys Palins Village was conducted during the night period of 3 October 2024.

Compliance with the HVO noise impact limits ensures compliance with the land acquisition criteria. Therefore, since no noise impact exceedances occurred for the reporting period the land acquisition assessment has not been presented. These will only be reported in instances of noise impact exceedances.

Monitoring results are detailed in **Table 5** and **Table 6**.

Table 5 - LAeq,15minute and 1minute HVO North Against Impact Assessment Criteria for the Reporting Period

Location	Start date and time	Wind		Stability class	Very enhancing? ¹	HVO North limits, dB ¹		HVO North levels, dB		Exceedances, dB	
		Speed m/s	Direction ³			L _{Aeq,15minute}	L _{A1,1min}	L _{Aeq,15minute} ²	L _{A1,1min}	L _{Aeq,15minute}	L _{A1,1min}
Shearers Lane	15/10/2024 21:00	3.1	123	D	No	35	46	IA	IA	N/A	N/A
Knodlers Lane	15/10/2024 21:41	2.4	113	D	Yes	35	46	IA	IA	Nil	Nil
Maison Dieu	15/10/2024 21:21	2.8	126	D	Yes	35	46	IA	IA	Nil	Nil
Long Point (Dights Crossing)	15/10/2024 22:32	2.1	114	D	Yes	35	46	IA	IA	Nil	Nil
Kilburnie South	15/10/2024 23:17	1.6	136	D	Yes	39	46	IA	IA	Nil	Nil
Jerrys Plains East	15/10/2024 22:55	1.5	135	D	Yes	39	46	IA	IA	Nil	Nil
Jerrys Plains Village	15/10/2024 21:22	2.4	113	D	Yes	40	46	IA	IA	Nil	Nil
Jerrys Plains West	15/10/2024 21:00	3.1	123	D	No	40	46	IA	IA	N/A	N/A
Kilburnie South	3/10/2024 21:00	2.5	136	D	Yes	39	46	30	34	Nil	Nil
Jerrys Plain East	3/10/2024 21:26	2.5	135	D	Yes	39	46	24	41	Nil	Nil
Jerrys Plain Village	3/10/2024 21:52	2.8	133	D	Yes	40	46	<20	31	Nil	Nil

1. Noise limits are adjusted by +5 dB during 'very noise-enhancing meteorological conditions' in accordance with the NPfI.
2. Site-only LAeq,15minute, includes modifying factor penalties if applicable.
3. Degrees magnetic north, "-" indicates calm conditions.

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Table 6 - LAeq,15minute and 1minute HVO South Against Impact Assessment Criteria for the Reporting Period

Location	Start date and time	Wind		Stability class	Very enhancing? ¹	HVO South limits, dB ¹		HVO South levels, dB		Exceedances, dB	
		Speed m/s	Direction ³			L _{Aeq,15minute}	L _{A1,1min}	L _{Aeq,15minute} ²	L _{A1,1min}	L _{Aeq,15minute}	L _{A1,1min}
Shearers Lane	15/10/2024 21:00	4.5	141	D	No	41	45	IA	IA	N/A	N/A
Knodlers Lane	15/10/2024 21:41	2.8	128	E	Yes	40	45	IA	IA	Nil	Nil
Maison Dieu	15/10/2024 21:21	3.5	139	D	No	39	45	IA	IA	Nil	Nil
Long Point (Dights Crossing)	15/10/2024 22:32	2.6	126	E	Yes	37	45	IA	IA	N/A	N/A
Kilburnie South	15/10/2024 23:17	2.5	151	E	Yes	39	45	32	37	N/A	N/A
Jerrys Plains East	15/10/2024 22:55	2.2	147	E	Yes	38	45	IA	IA	N/A	N/A
Jerrys Plains Village	15/10/2024 21:22	3.5	139	D	No	35	45	IA	IA	N/A	N/A
Jerrys Plains West	15/10/2024 21:00	4.5	141	D	No	35	45	IA	IA	N/A	N/A
HVGC	15/10/2024 23:45	2.2	147	E	Yes	55	--	IA	N/A	Nil	N/A

1. Noise limits are adjusted by +5 dB during 'very noise-enhancing meteorological conditions' in accordance with the NPfl.
2. Site-only LAeq,15minute, includes modifying factor penalties if applicable.
3. Degrees magnetic north, "--" indicates calm conditions.
4. NM = Not Measurable

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5.2 | LOW FREQUENCY ASSESSMENT

In accordance with the requirements of the EPA’s Noise Policy for Industry (NPfI), the applicability of the low frequency modification penalty has been assessed. No penalties were applied for monitoring undertaken through the reporting period. The assessments for the low frequency noise are shown in **Table 7** and **Table 8**

Table 7 - Modifying Factor Assessment HVO North for the Reporting Period

Location	Start date and time	Measured HVO South L _{Aeq} dB	Very enhancing? ¹	Intermittency modifying factor?	Tonality modifying factor?	Frequency of tonality	Low-frequency modifying factor? ^{1,2}	Exceedance of reference spectrum ^{2,3}	Total penalty dB ^{2,3}
Shearers Lane	15/10/2024 21:00	IA	No	N/A	N/A	N/A	N/A	N/A	N/A
Knodlers Lane	15/10/2024 21:41	IA	Yes	No	No	N/A	No	N/A	Nil
Maison Dieu	15/10/2024 21:21	IA	Yes	No	No	N/A	No	N/A	Nil
Long Point (Dights Crossing)	15/10/2024 22:32	IA	Yes	No	No	N/A	No	N/A	Nil
Kilburnie South	15/10/2024 23:17	IA	Yes	No	No	N/A	No	N/A	Nil
Jerrys Plains East	15/10/2024 22:55	IA	Yes	No	No	N/A	No	N/A	Nil
Jerrys Plains Village	15/10/2024 21:22	IA	Yes	No	No	N/A	No	N/A	Nil
Jerrys Plains West	15/10/2024 21:00	IA	No	N/A	N/A	N/A	N/A	N/A	N/A
Kilburnie South	3/10/2024 21:00	30	Yes	No	No	N/A	No	N/A	Nil
Jerrys Plains East	3/10/2024 21:26	24	Yes	No	No	N/A	No	N/A	Nil
Jerrys Plains Village	3/10/2024 21:52	<20	Yes	No	No	N/A	No	N/A	Nil

1. Low-frequency modifying factors are not applicable during 'very noise-enhancing meteorological conditions' in accordance with the NPfI.

2. NA denotes 'not applicable'.

3. Bold results indicate that application of NPfI modifying factor(s) is required.

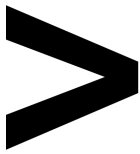


Table 8 - Modifying Factor Assessment HVO South for the Reporting Period

Location	Start date and time	Measured HVO South LAeq dB	Very enhancing? ¹	Intermittency modifying factor?	Tonality modifying factor?	Frequency of tonality	Low-frequency modifying factor? ^{1,2}	Exceedance of reference spectrum ^{2,3}	Total penalty dB ^{2,3}
Shearers Lane	15/10/2024 21:00	IA	No	N/A	N/A	N/A	N/A	N/A	N/A
Knodlers Lane	15/10/2024 21:41	IA	Yes	No	No	N/A	No	N/A	Nil
Maison Dieu	15/10/2024 21:21	IA	No	N/A	N/A	N/A	N/A	N/A	N/A
Long Point (Dights Crossing)	15/10/2024 22:32	IA	Yes	No	No	N/A	No	N/A	Nil
Kilburnie South	15/10/2024 23:17	32	Yes	No	No	N/A	No	N/A	Nil
Jerrys Plains East	15/10/2024 22:55	IA	Yes	No	No	N/A	No	N/A	Nil
Jerrys Plains Village	15/10/2024 21:22	IA	No	N/A	N/A	N/A	N/A	N/A	N/A
Jerrys Plains West	15/10/2024 21:00	IA	No	N/A	N/A	N/A	N/A	N/A	N/A
HVGC	15/10/2024 23:45	IA	Yes	No	No	N/A	No	N/A	Nil

1. NA denotes 'not applicable'

2. NM denotes 'not measurable'

3. Bold results indicate that application of NPfI modifying factor/s is required

5.3 | REAL TIME NOISE MONITORING

HVO utilises a network of real-time directional noise monitors to manage noise impacts on a continuous basis, shown in **Figure 16**. Noise alarms are in place at five monitoring locations (Knodlers Lane, Maison Dieu, Jerrys Plains, Moses Crossing, and Long Point) which alert HVO staff to elevated noise levels that require investigation.

HVO investigates and responds to noise alarms with appropriate modification to operations. Changes in response to a noise alarm can include replacing equipment with alternative units, changing or relocating tasks, or shutting down equipment. It should be noted that this assessment does not compliment or conflict with attended noise monitoring detailed in **Section 5.1** |. Real time monitoring data includes non-mine noise sources such as animals, road traffic and weather.

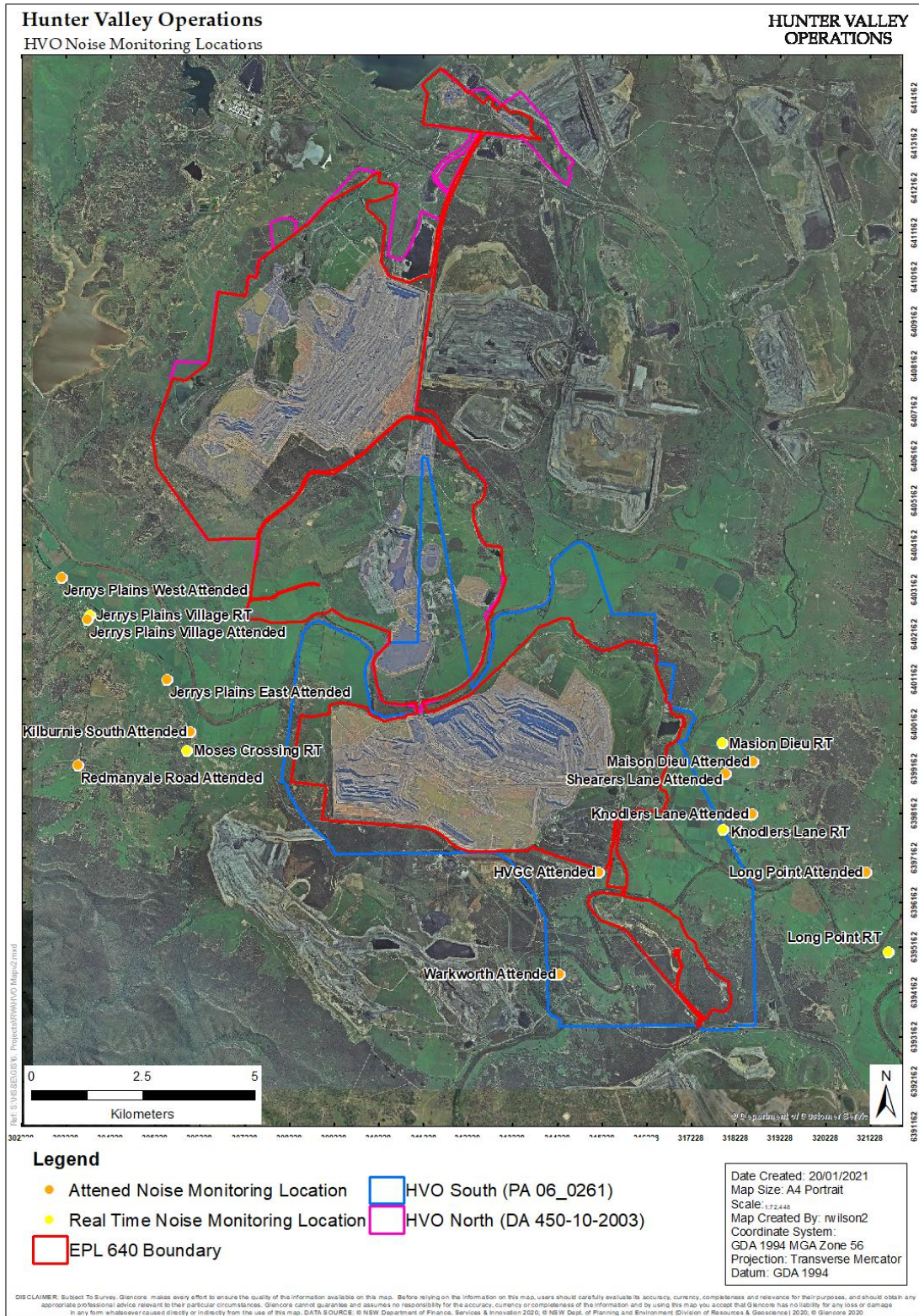
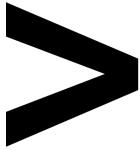


Figure 16 - Noise Monitoring Location Plan

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6 | OPERATIONAL DOWNTIME

A total of one hundred and fifteen (115) hours of equipment downtime was logged in response to real time monitoring and inspections for environmental factors such as noise and dust during the reporting period. Operational downtime by equipment type is show in **Figure 17**. Note that these delays are instances where operations were completely stopped and does not include occasions where operations were changed/modified but not stopped (e.g. changed from exposed dump to in-pit dump).

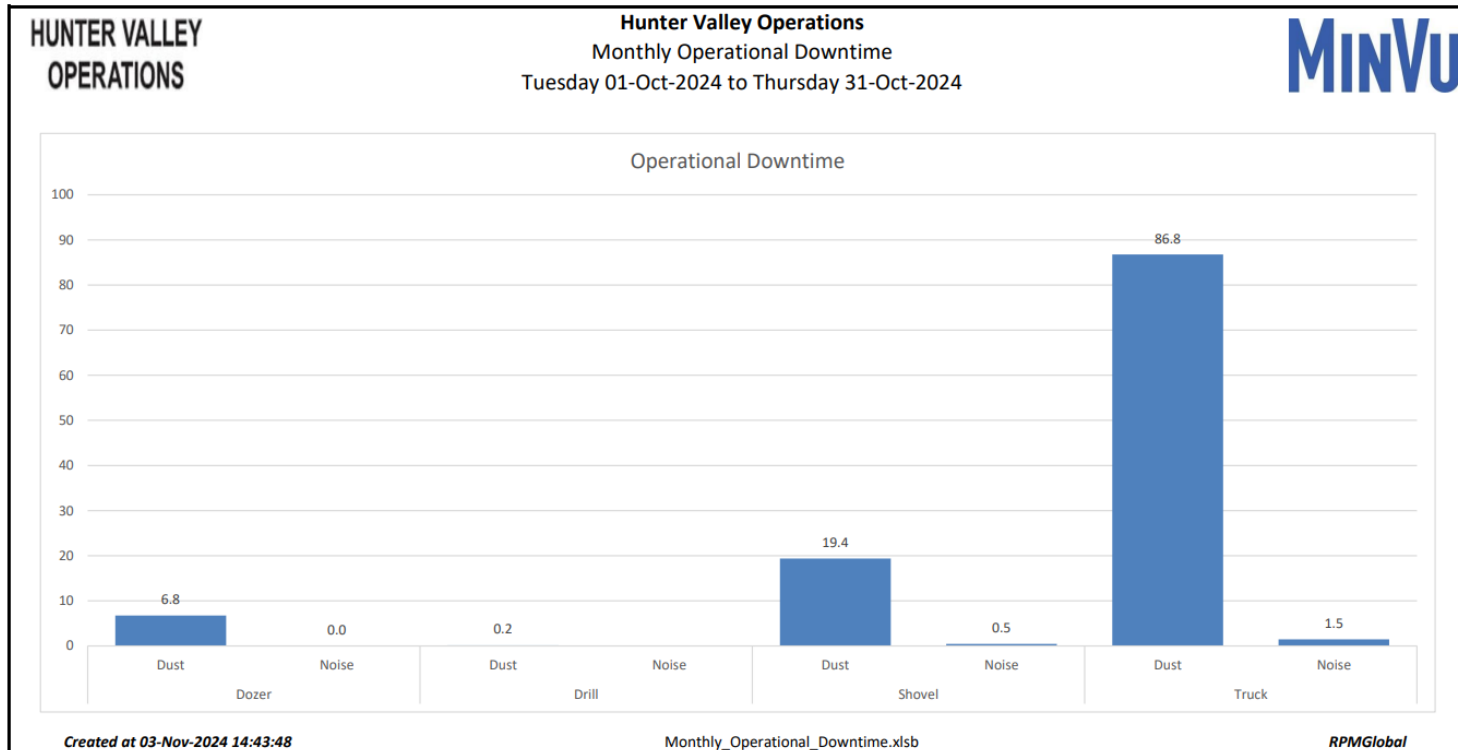
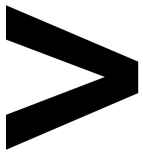


Figure 17 - Operational Downtime by Equipment Type for the Reporting Period



7 | REHABILITATION

The following activities related to rehabilitation were completed during the reporting period:

- 4.64ha of land was reshaped;
- 4.64ha of land was released (became available for the application of topsoil);
- 15.27ha of land was topsoiled; and
- 0.00ha of land was rehabilitated.

Year to date progress is shown in **Figure 18**

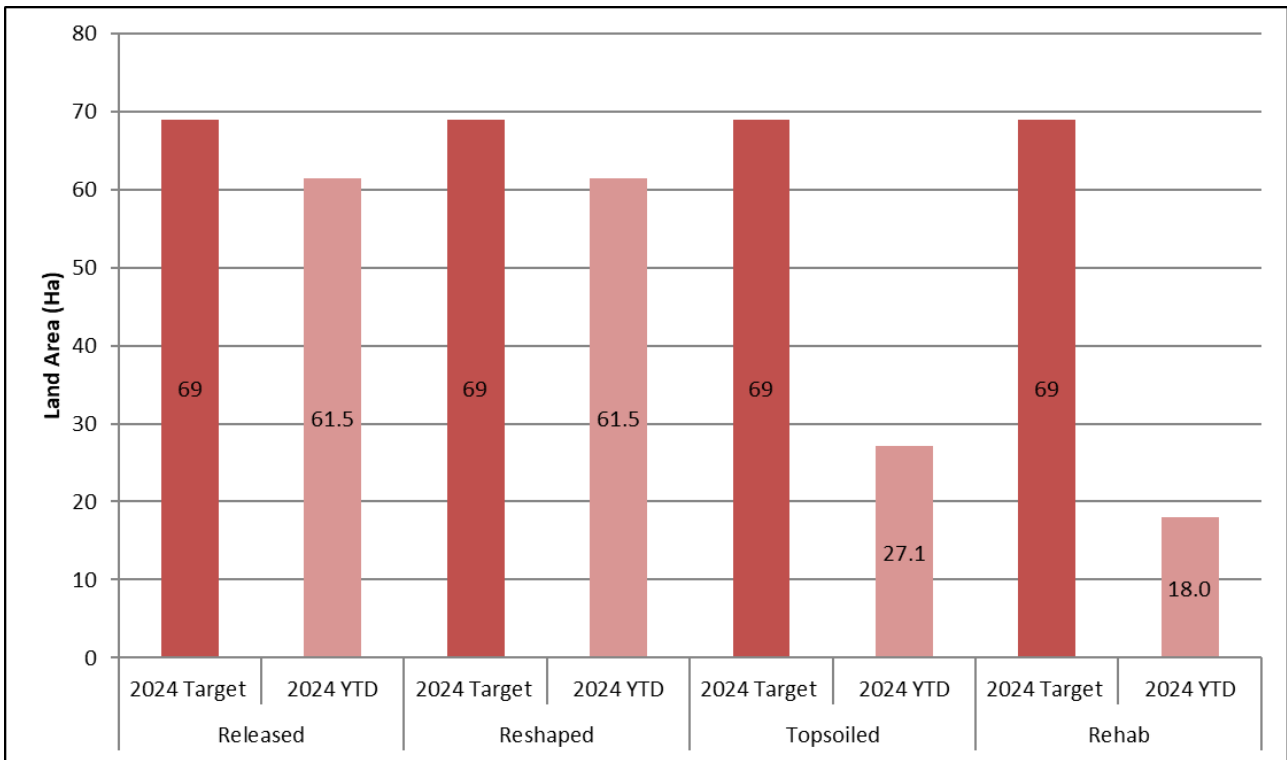


Figure 18 - Rehabilitation YTD October 2024

8 | COMPLAINTS

There were two (2) complaints received during the reporting period. Details of these and other complaints received during 2024 are shown in **Table 9 - Complaints Summary 2024**.

Table 9 - Complaints Summary 2024

Complaint Number	Date	Time	Complainant ID	Nature of Complaint	Mode of Complaint	Brief Description and Response
No community complaints were received during January						
No community complaints were received during February						
1	12 March	8:59pm	1	Noise	Community Hotline	<ul style="list-style-type: none"> A resident of Jerrys Plains called the Community Complaints Hotline at 8:59pm regarding noise, commenting that “noise is pretty loud tonight” as well as equipment horns could be heard. The OCE on duty in South Pit contacted the resident at 9:02pm and subsequently notified the OCE on duty in West Pit. Following communication between West Pit OCE and relevant equipment operators, horn blasting and dumping practices – thought to be the causes of the disturbance – were altered and/or stopped. An internal investigation conducted following the complaint found that no noise alarms had triggered within one hour of the complaint. Horn noise was audible from noise recordings at the Jerrys Plains noise monitor.
2	2 April	1:31pm	2	Blast	Community Hotline	<ul style="list-style-type: none"> A resident of Jerrys Plains called the United Wambo Joint Venture (UWJV) Community Complaints Hotline at 1:31pm regarding noise and vibration from a blast. This was relayed to HVO given they did not have a blast at that time. A member of the HVO Environment and Community team contacted the resident to advise a blast had been fired in the Mitchell Pit at 1:29pm.

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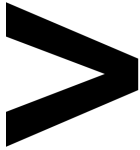
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Complaint Number	Date	Time	Complainant ID	Nature of Complaint	Mode of Complaint	Brief Description and Response
						<ul style="list-style-type: none"> The closest monitor to the resident recorded overpressure of 105.5 dBL against a criteria of 120 dBL and ground vibration of 0.11mm/s against a criteria of 10mm/s.
3	4 April	12:30pm	3	Traffic	Community Hotline	<ul style="list-style-type: none"> A resident of Jerrys Plains called the Community Complaints Hotline at 12:30pm regarding traffic incidents at HVO North entry off Lemington Road. The resident reported that a vehicle exiting HVO North on the afternoon of 3 April failed to stop at the stop sign and almost collided with his wifes vehicle. They have witnessed other vehicles failing to stop at the same location within the past two months. An internal investigation following the complaint resulted in a site-wide presentation about the importance of road safety whilst travelling to and from HVO delivered at daily HCOMs. Vegetation maintenance will be performed to increase visibility at the intersection.
4	3 May	7:40am	3	Traffic	Direct call to Environment and Community Officer	<ul style="list-style-type: none"> A resident of Jerrys Plains called the Environment and Community Officer directly regarding a traffic incident at HVO North's intersection with Lemington Road. The resident reported that a vehicle (small truck) exiting HVO North at approximately 7:40am on 3 May failed to stop at the stop sign and almost collided with his wifes vehicle. Following an internal investigation into the complaint, a site-wide communication about road safety and the 100km/h speed limit along Lemington Road was delivered at daily HCOMs. In addition, road marking, signs and the surveillance camera near the intersection will be upgraded.
No community complaints were received during June						

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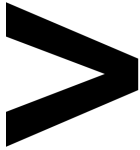
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Complaint Number	Date	Time	Complainant ID	Nature of Complaint	Mode of Complaint	Brief Description and Response
No community complaints were received during July						
5	30 August	10:05am	4	Blast	Direct call to Environment and Community Officer	<ul style="list-style-type: none"> A resident of Jerrys Plains contacted the HVO Environment and Community officer directly via telephone at 10:05am describing two loud blasts in succession as well as floor movement and house shudder. The Environment and Community Officer communicated to the resident advising that a blast had been fired in the HVO Mitchell Pit at 10:04am. The closest monitor to the resident recorded overpressure of 100.18 dBL against a criteria of 120 dBL and ground vibration of 0.06mm/s against a criteria of 10mm/s.
6	30 August	10:13am	5	Blast	Community Hotline	<ul style="list-style-type: none"> A resident of Jerrys Plains contacted the HVO Community Complaints Hotline at 10:13am describing their house rattling as well as two loud bangs. The Environment and Community Officer communicated to the resident via telephone shortly after the call to advise a blast had been fired in the HVO Mitchell Pit at 10:04am. The closest monitors to the resident – Jerrys Plains and Moses Crossing – recorded overpressure results of 100.18 dBL and 112.37 dBL respectively against a criteria of 120dBL and ground vibration results of 0.06mm/s and 0.21mm/s respectively against a criteria of 10mm/s. HVO conducted an internal investigation into the blast and as requested provided the outcomes to the resident via email.
7	30 August	10:19am	1	Blast	Community Hotline	<ul style="list-style-type: none"> A resident of Jerrys Plains contacted the HVO Community Complaints Hotline at 10:19am describing ground movement worse than a recent earthquake. The Environment and Community Officer communicated to the resident via telephone

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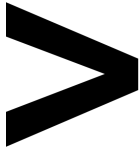
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REPORT | MONTHLY ENVIRONMENTAL MONITORING REPORT OCTOBER 2024

Complaint Number	Date	Time	Complainant ID	Nature of Complaint	Mode of Complaint	Brief Description and Response
						<p>shortly after the call to advise a blast had been fired in the HVO Mitchell Pit at 10:04am.</p> <ul style="list-style-type: none"> The closest monitors to the resident – Jerrys Plains and Moses Crossing – recorded overpressure results of 100.18 dBL and 112.37 dBL respectively against a criteria of 120dBL and ground vibration results of 0.06mm/s and 0.21mm/s respectively against a criteria of 10mm/s. HVO conducted an internal investigation into the blast and as requested provided the outcomes to the resident via email.
8	24 September	1:50pm	6	Blast	Community Hotline	<ul style="list-style-type: none"> A resident of Maison Dieu contacted the HVO Community Complaints Hotline at 1:50pm describing a blast that occurred at 1.30pm that shook their house and left dust over their cars. The HVO Environment and Community Officer communicated to the resident via telephone shortly after the call to advise a blast had been fired in the HVO Cheshunt Pit at 1:29pm. The closest monitors to the resident, Maison Dieu and Knodlers Lane, recorded blasting levels below relevant criteria. These monitors recorded overpressures of 112.74 and 114.6dBL respectively against a criteria of 120dBL and ground vibration of 0.33 and 0.26mm/s respectively against a criteria of 10mm/s. HVO conducted an internal investigation into the blast and as requested, and provided the outcomes to the resident.
9	21 October	6:33am	7	Traffic	Community Hotline	<ul style="list-style-type: none"> A member of the community called the HVO Community Complaints Hotline at 6:33am on 22 October regarding a traffic hazard at the intersection of the HVO South access road and Golden Highway. The community member reported that a vehicle exiting HVO South on the afternoon of 21 October failed to give way causing

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Complaint Number	Date	Time	Complainant ID	Nature of Complaint	Mode of Complaint	Brief Description and Response
						<p>them to brake sharply to avoid a collision with the offending vehicle.</p> <ul style="list-style-type: none"> A communication about the importance of providing an adequate gap at this intersection was provided to Mine and Maintenance teams at HVO South.
10	30 October	1:50pm	8	Air quality	Community Hotline	<ul style="list-style-type: none"> A resident of Putty Road, Mt Thorley contacted the HVO community complaints hotline at 1.50pm on 30 October 2024 regarding poor air quality. The resident was not able to attribute the dusty conditions to a blast event or any other event or location related to HVO. The residence is approximately 13km from HVO's nearest active mining area. The daily 24-hr results from the two closest real-time PM₁₀ monitors (Knodlers Lane and Maison Dieu) were below the compliance limits.

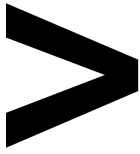


9 | ENVIRONMENTAL INCIDENTS

One (1) reportable environmental incident occurred during the reporting period. A summary of this incident is provided below:

15/10/2024 – Post blast fume event (Level 4B)

After firing the P210WK608B shot at 3:25pm in South Pit 2, post blast fume was observed across parts of the blast surface. The blast was ranked Level 4B in accordance with the AEISG rating scale. Fume from the blast travelled from the initiation point in a north-westerly direction and dispersed within the pit. No community complaints were received relating to the blast. The blast was fired in accordance with blasting permissions for wind speed and direction. An external investigation found cracking and weak strata as the likely causes for the fume event. As a result, loading practices will be reviewed and updated accordingly to minimise the risk of such events in the future. An incident report was provided to the Department of Planning Housing and Infrastructure (DPHI). No further follow up was requested.



APPENDIX A: METEOROLOGICAL DATA (HVO CORPORATE)

Date	Air Temp Max (°C)	Air Temp Min (°C)	Relative Humidity (Max %)	Relative Humidity (Min %)	Solar Radiation Maximum (W/Sq. M)	Average Wind Direction (°)	Average Wind Speed (m/sec)	Rainfall (mm)
1/10/2024	22.74	9.67	92.70	30.76	937	163	1.60	0.0
2/10/2024	20.07	12.03	90.70	53.35	1277	112	3.19	4.6
3/10/2024	21.13	9.10	94.60	36.70	1305	118	2.76	0.2
4/10/2024	24.62	8.65	89.90	33.86	1306	273	2.35	0.0
5/10/2024	25.35	15.40	73.47	28.14	1386	277	4.61	0.0
6/10/2024	26.69	13.43	60.95	22.55	982	272	4.76	0.0
7/10/2024	28.36	13.60	64.61	15.29	1064	269	3.56	0.0
8/10/2024	21.46	10.48	92.20	31.67	1297	137	3.82	0.0
9/10/2024	14.32	10.19	93.40	72.92	1184	124	3.53	2.4
10/10/2024	24.48	8.96	92.60	34.39	1040	187	1.51	0.0
11/10/2024	27.64	11.51	88.50	32.03	992	152	1.09	0.0
12/10/2024	17.35	11.59	86.30	58.33	1365	126	3.72	0.0
13/10/2024	21.57	9.99	92.80	40.30	1378	115	3.01	0.8
14/10/2024	18.85	10.16	94.90	65.68	512	249	2.39	22.4
15/10/2024	16.38	11.77	95.70	72.64	954	159	1.83	1.0
16/10/2024	14.61	10.71	92.80	67.61	340	123	1.49	3.6
17/10/2024	22.76	8.43	96.00	53.46	1483	174	0.95	0.0
18/10/2024	26.14	15.15	94.40	53.13	1414	257	2.18	8.0
19/10/2024	24.95	15.81	93.80	46.70	1624	235	3.77	1.2
20/10/2024	23.90	13.31	95.60	45.47	1383	126	2.21	0.2
21/10/2024	21.31	11.78	80.00	41.07	1641	121	2.64	0.0
22/10/2024	25.41	11.47	81.30	29.74	1207	158	1.17	0.0
23/10/2024	29.24	11.48	89.40	26.23	1298	244	2.32	0.0
24/10/2024	27.04	13.05	89.60	31.63	1350	173	2.56	5.8
25/10/2024	24.06	10.72	90.30	16.79	1138	197	2.66	0.0
26/10/2024	20.56	11.45	70.78	24.61	1177	121	2.55	0.0
27/10/2024	25.61	9.62	76.99	26.69	1269	212	1.74	0.0
28/10/2024	29.55	12.10	78.16	13.23	1341	227	3.18	0.0
29/10/2024	24.34	14.08	81.70	38.17	1506	115	2.66	0.0
30/10/2024	29.29	11.71	87.70	23.14	1029	200	1.76	0.0
31/10/2024	30.75	14.89	69.34	14.09	1196	219	2.56	0.0