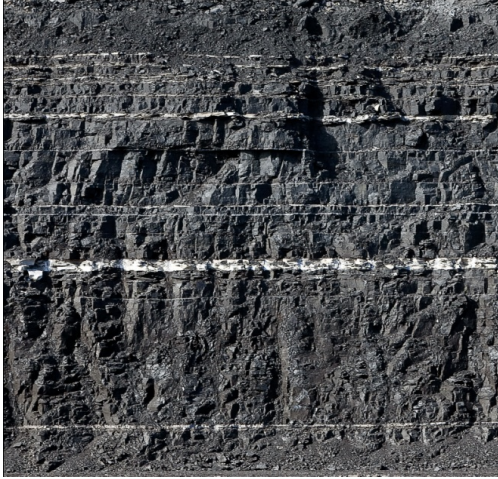


**HUNTER VALLEY
OPERATIONS**



**Monthly
Environmental
Monitoring Report**

Hunter Valley Operations

October 2018

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Revision History

Version No.	Person Responsible	Document Status	Date
1.0	Environment & Community Officer	Draft	11/12/2018
1.1	Environment & Community Coordinator	Final	10/01/2019

1.0 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 October to 31 October 2018.

2.0 AIR QUALITY

2.1 Meteorological Monitoring

HVO maintains two meteorological stations; 'Corporate' and 'Cheshunt' as shown on Figure 4.

2.1.1 Rainfall

Rainfall for the period is summarised in Table 1, the 2018 trend and historical trend are shown in Figure 1.

Table 1: Monthly Rainfall HVO

2018	Monthly Rainfall (mm)	Cumulative Rainfall (mm)
October	112.2	351.8

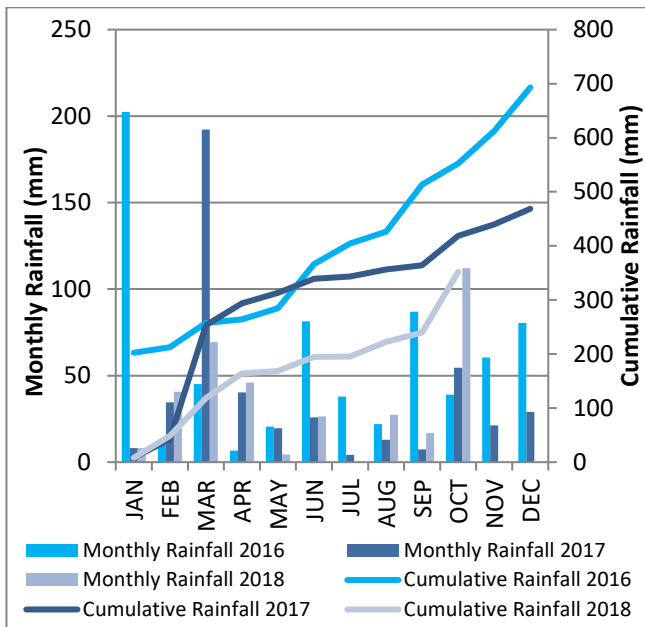


Figure 1: Rainfall Summary 2018

2.1.2 Wind Speed and Direction

South-Easterly winds were dominant during October as shown in Figure 2 (HVO Corporate) and Figure 3 (HVO Cheshunt).

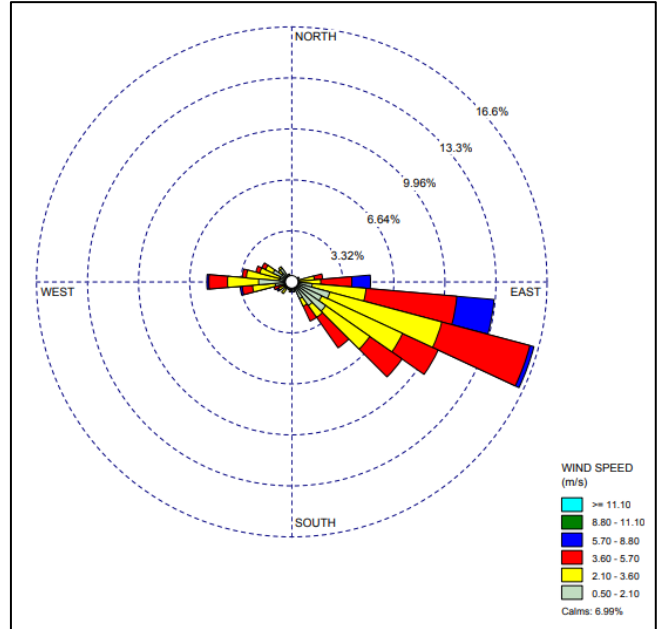


Figure 2: HVO Corporate Wind Rose – October 2018

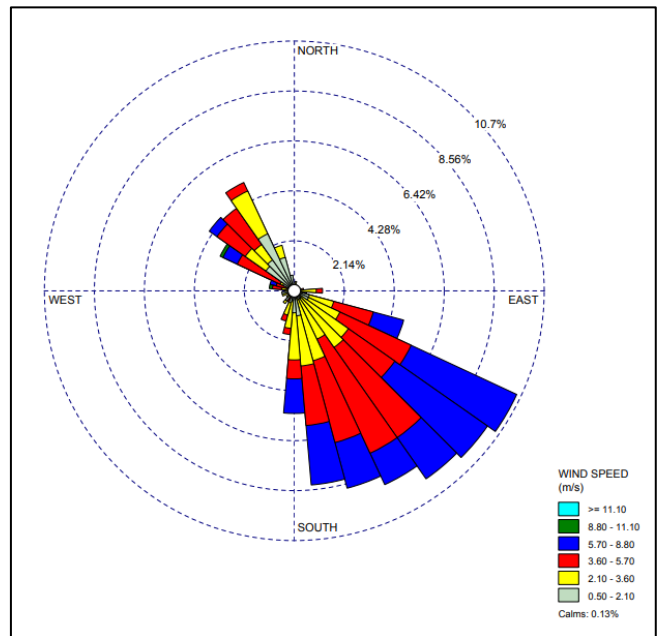


Figure 3: HVO Cheshunt Wind Rose – October 2018

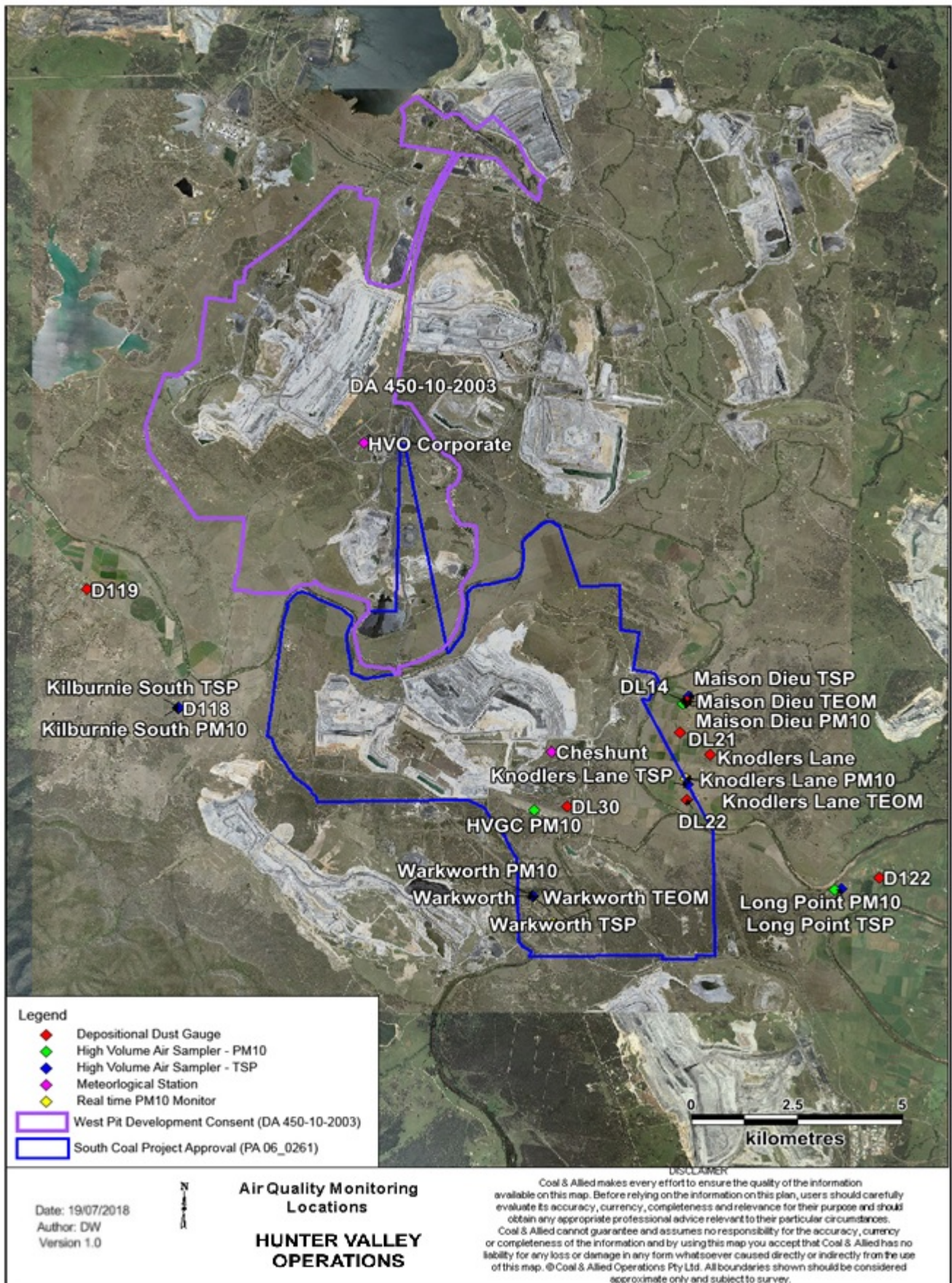


Figure 4: Air Quality Monitoring Location Plan

2.2 Depositional Dust

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

Figure 5 displays insoluble solids results from depositional dust gauges during the reporting period compared against the year-to-date average and the annual impact assessment criteria.

During the reporting period the D122, DL30 and Warkworth monitors recorded a monthly result above the long term impact assessment criteria of 4.0 g/m² per month.

The field notes associated with the D122 monitor result confirm the presence of insects and bird droppings. As such the results are considered contaminated and will be excluded from calculation of the annual average.

There was no evidence to suggest the DL30 and Warkworth monitor's result was contaminated, as such the result will be included in the annual average for those monitors.

An assessment of HVO's contribution against the long term impact assessment criteria will be provided in the 2018 Annual Review.

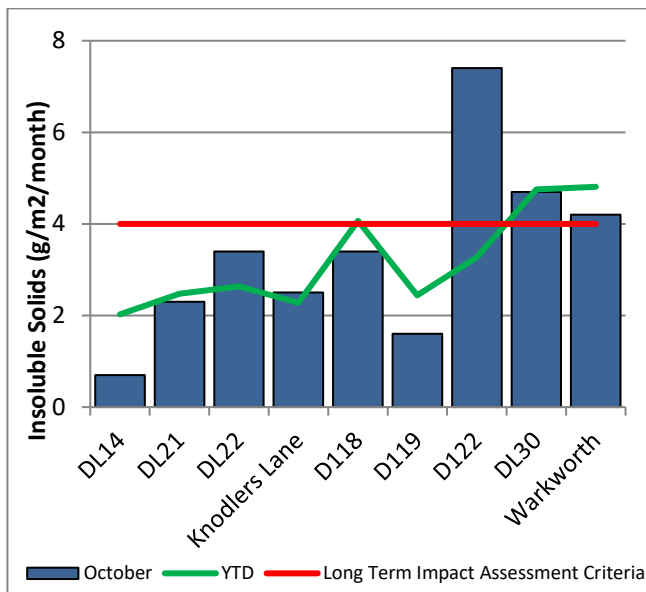


Figure 5: Depositional Dust Results – October 2018

2.3 Suspended Particulates

Suspended particulates are measured by a network of High Volume Air Samplers (HVAS) measuring Total Suspended Particulates (TSP) and Particulate Matter <10µm (PM₁₀). The location of these monitors can be found in Figure 4. Each HVAS was run for 24 hours on a six-day cycle.

2.3.1 HVAS PM₁₀ Results

Figure 6 shows individual PM₁₀ results at each monitoring station against the short term impact assessment criteria of 50 µg/m³.

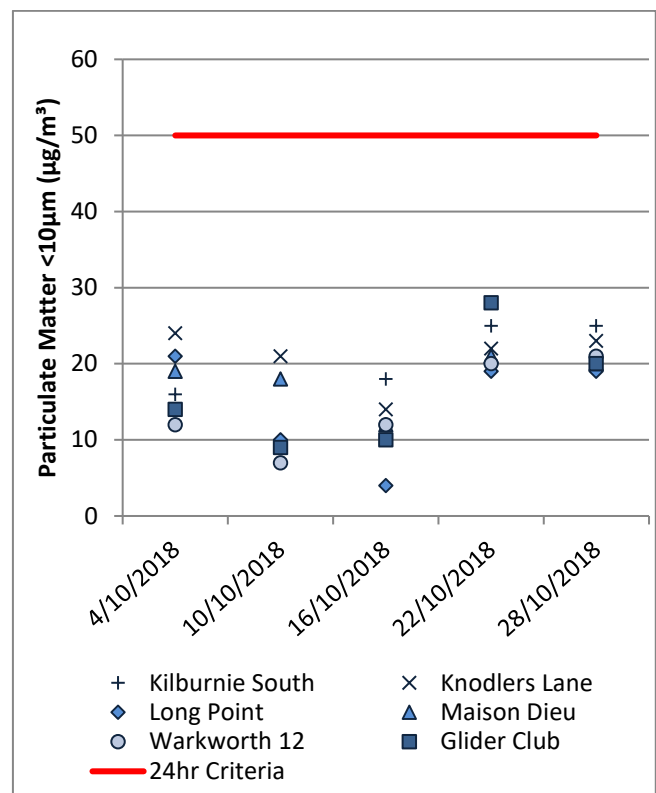


Figure 6: Individual PM₁₀ Results – October 2018

Figure 7 shows the year to date annual average PM₁₀ results.

An assessment of HVO's contribution against the long term impact assessment criteria will be provided in the 2018 Annual Review.

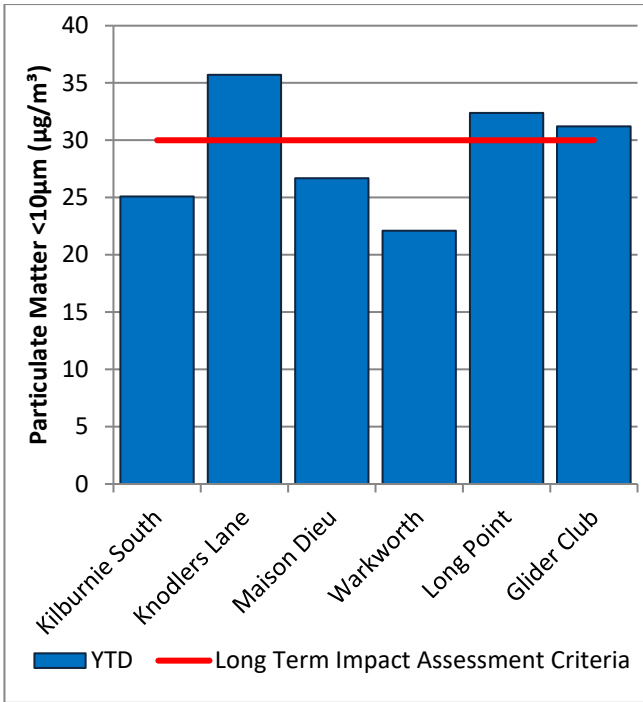


Figure 7: Year to Date Average PM₁₀ – October 2018

2.3.2 TSP Results

Figure 8 shows the annual average TSP results compared against the long term impact assessment criteria of 90µg/m³.

An assessment of HVO's contribution against the long term impact assessment criteria will be provided in the 2018 Annual Review.

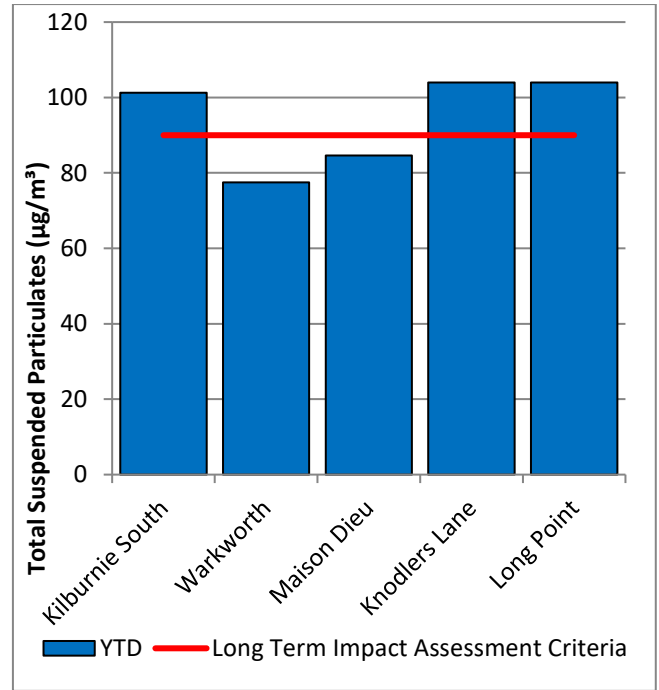


Figure 8: Year to Date Average Total Suspended Particulates – October 2018

2.3.3 Real Time PM₁₀ Results

Hunter Valley Operations maintains a network of real time PM₁₀ monitors. The real time air quality monitoring stations continuously log information and transmit data to a central database, generating alarms when particulate matter levels exceed internal trigger limits. 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.

Results for real time dust sampling is shown in Figure 9, including the daily 24 hour average PM₁₀ result and the year to date 24 hour PM₁₀ annual average.

Results from investigations of elevated results are presented in Table 2.

2.3.4 Real Time Alarms for Air Quality

During October the real time monitoring system generated 82 automated air quality related alarms. 23 were related to adverse weather conditions and 59 alarms relating to PM₁₀.

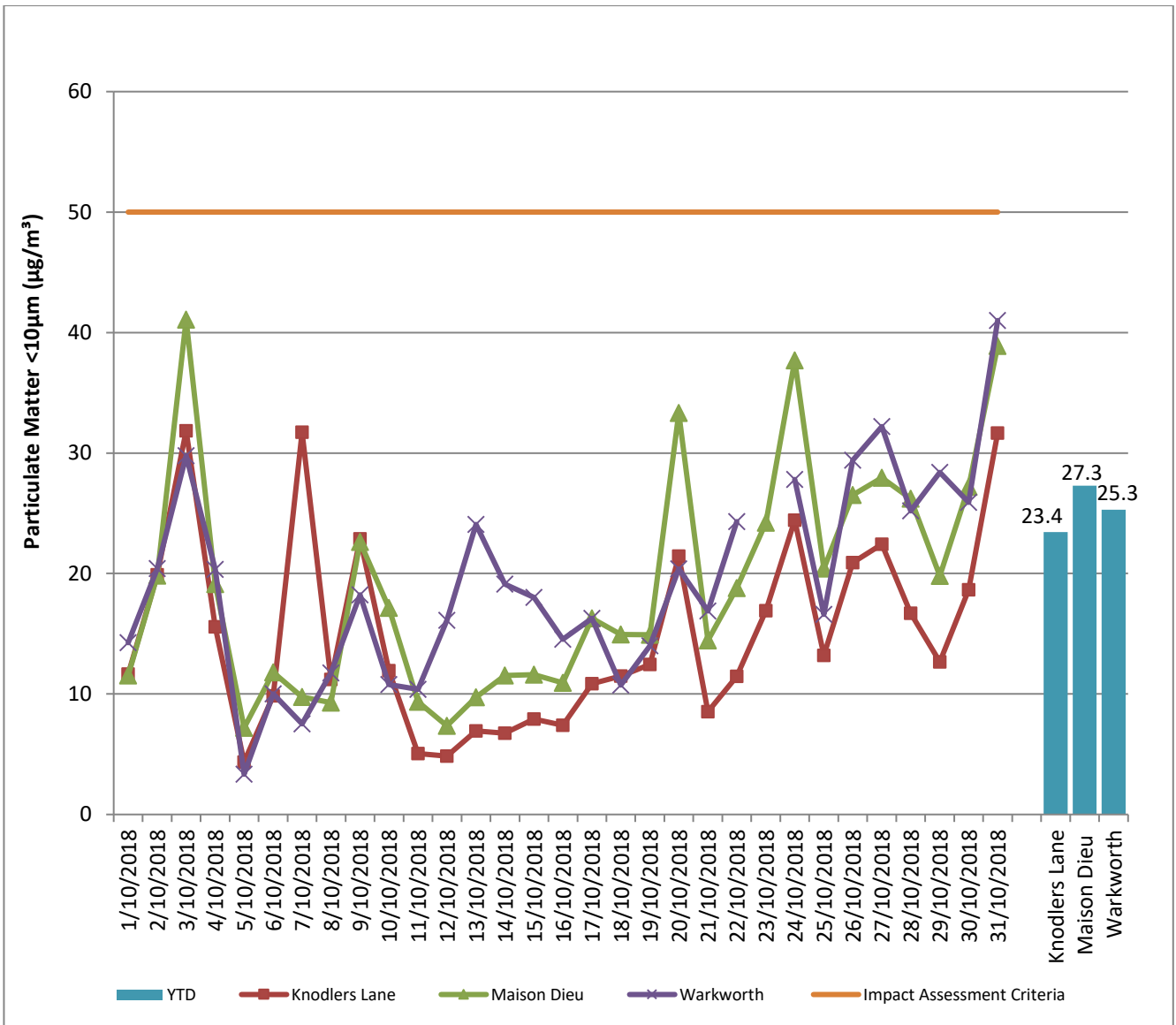


Figure 9: Real Time PM₁₀ 24hr average and YTD average – October 2018

3.0 WATER QUALITY

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

3.1.1 Surface Water

Surface water courses are sampled on a quarterly sampling regime. Water quality is evaluated through the parameters of pH, Electrical Conductivity (EC) and Total Suspended Solids (TSS).

Results of monitoring on Site Dams and the Hunter River as well as other natural tributaries are provided on a quarterly basis, results will appear in the December 2018 report.

3.1.2 Site Water Use

Under water allocation licences issued by Water NSW, HVO is permitted to extract water from the Hunter River. During the reporting period, HVO extracted 191.2ML of water from the Hunter River.

3.1.3 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.

During the reporting period no water was discharged under the HRSTS

3.2.1 Groundwater Monitoring Results

Groundwater monitoring is undertaken on a quarterly basis in accordance with the HVO Water Management Plan and Ground Water Monitoring Programme. Results of groundwater monitoring are reported quarterly and as such will be reported in the December 2018 monthly report.

4.0 BLASTING

HVO have a network of five blast monitoring units. These are 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 are summarised in Table 3.

Table 2: Blasting Criteria

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

4.1 Blast Monitoring Results

During October, 16 blasts were initiated at HVO, Figure 10 through to Figure 14 show the blast monitoring results for the reporting period against the impact assessment criteria. The criteria are summarised in Table 3.

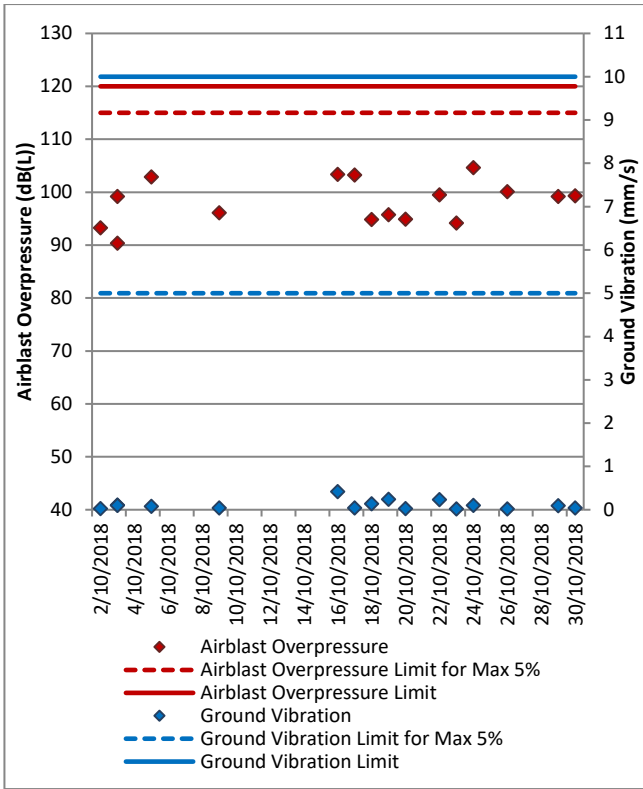


Figure 10: Moses Crossing Blast Monitoring Results – October 2018

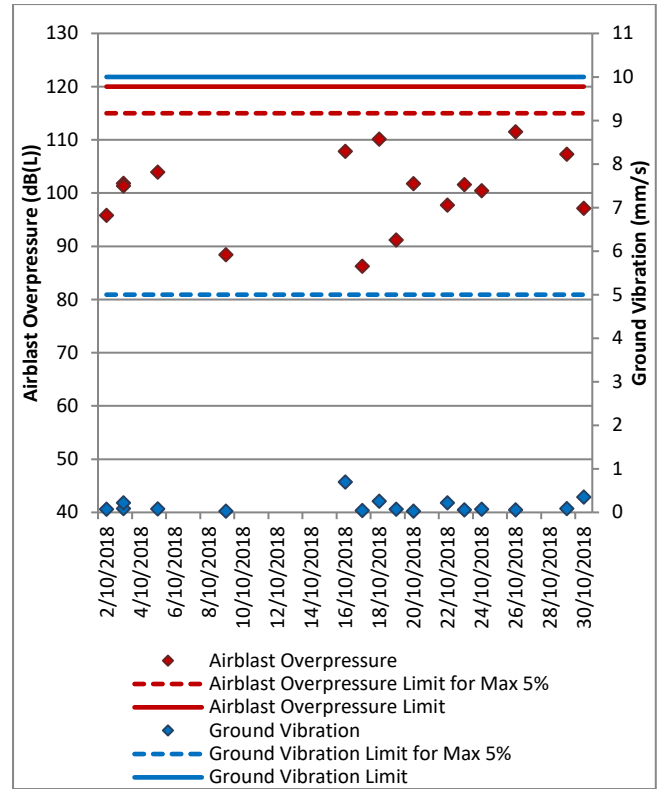


Figure 12: Maison Dieu Blast Monitoring Results – October 2018

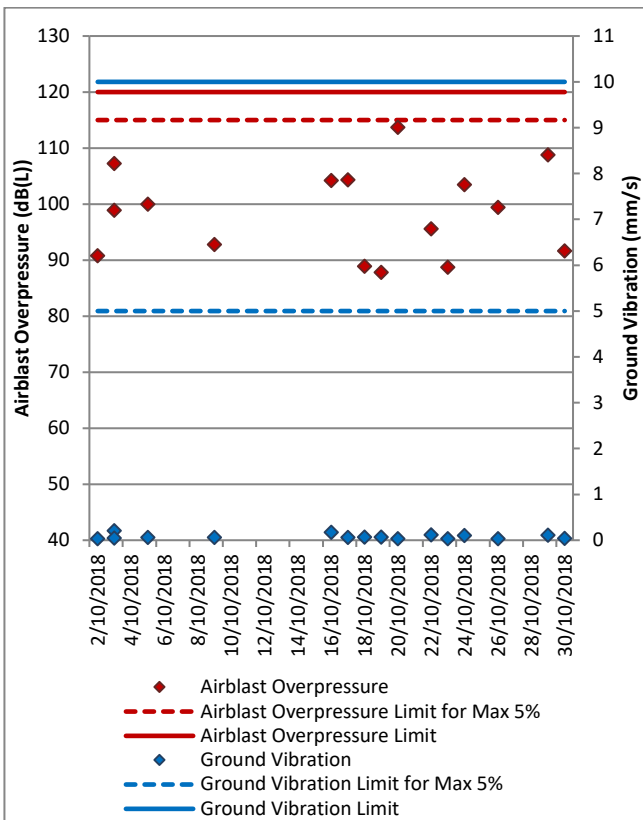


Figure 11: Jerrys Plains Blast Monitoring Results – October 2018

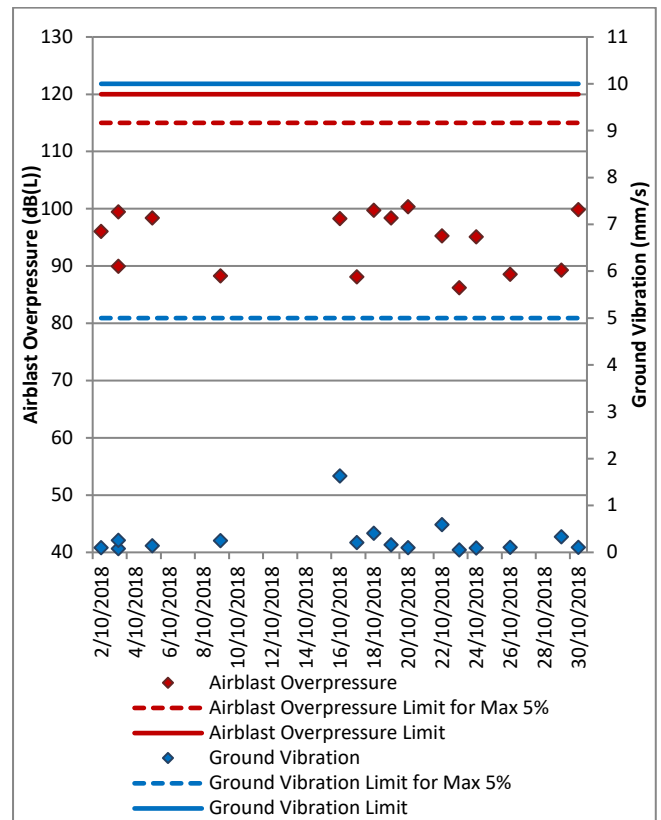


Figure 13: Warkworth Blast Monitoring Results – October 2018

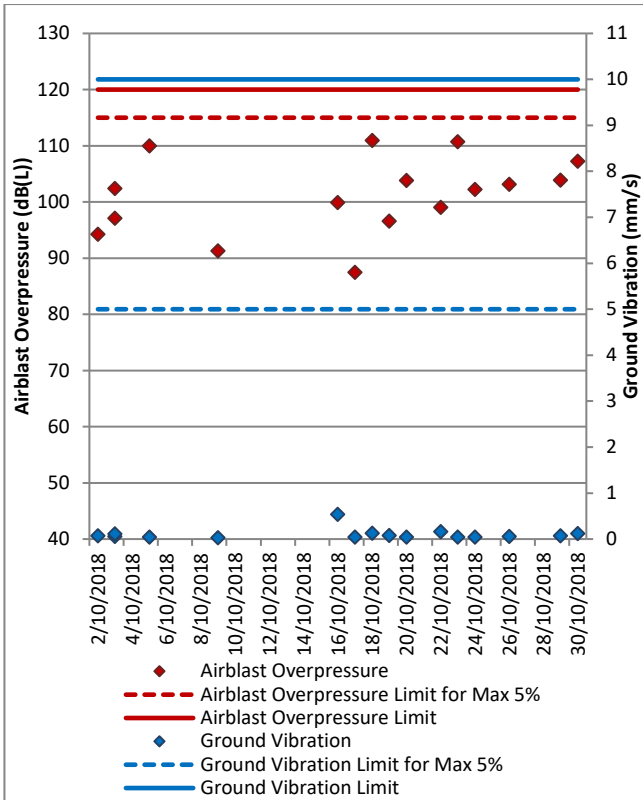


Figure 14: Knodlers Lane Blast Monitoring Results – October 2018



Figure 15: Blast Monitoring Location Plan

5.0 NOISE

Routine attended noise monitoring is carried out at defined locations around HVO as described in the HVO Noise Monitoring Programme. The purpose of the noise surveys is to quantify and describe the acoustic environment around the site and compare results with specified limits. Unattended monitoring (real time noise monitoring) also occurs at five sites surrounding HVO. The attended noise monitoring locations are displayed in Figure 16.

5.1 Attended Noise Monitoring Results

Attended monitoring was conducted at receiver locations surrounding HVO on the night of 11 October 2018. Monitoring results are detailed in Table 4 to Table 9. During October attended noise monitoring, a single exceedance of the HVO North Impact assessment criteria was measured at the Jerrys Plains Village monitoring location. As per the HVO Noise Management Plan, follow up monitoring was conducted which indicated compliance. The results were reported to the Department of Planning & Environment

Table 3: LAeq, 15 minute HVO South - Impact Assessment Criteria – October 2018

Location	Date and Time	Wind Speed (m/s) ¹	VTG °C/100m ¹	Criterion dB (A)	Criterion Applies? ²	HVO South LAeq dB ^{3,4}	Exceedance ^{4,5}
Knodlers Lane	11/10/2018 21:22	3	-1	46	Yes	IA	Nil
Maison Dieu	11/10/2018 21:43	3.3	-1	46	No	IA	NA
Shearers Lane	11/10/2018 21:00	3.1	-1	46	No	IA	NA
Kilburnie South	11/10/2018 22:59	2.2	0.5	46	Yes	IA	Nil
Jerrys Plains Village	11/10/2018 21:28	3	-1	46	Yes	42	Nil
Jerrys Plains East	11/10/2018 21:00	3.1	-1	46	No	43	NA
Long Point	11/10/2018 22:59	2.3	3	46	Yes	IA	Nil
HVGC	11/10/2018 23:42	2.4	-1	NA	NA	IA	NA

Notes:

1. Atmospheric data is sourced from the HVO Cheshunt or HVO Corp. weather station using logged meteorological data;

2. Assumed noise emission limits (see Section 2.2 of this report for more information) apply for wind speeds up to 3 metres per second (at a height of 10m), or temperature inversion conditions of up to 3 degrees/100m (at a height of 10m). Criterion may or may not apply due to rounding of meteorological data values;

3. Estimated or measured LAeq, 15minute attributed to HVO South Pit Area;

4. Bold results in red indicate exceedance of criteria; and

5. NA in exceedance column means atmospheric conditions outside specified in approval and so criterion is not applicable.

Table 4: LAeq, 15 minute HVO South - Land Acquisition Criteria – October 2018

Location	Date and Time	Wind Speed (m/s) ¹	VTG °C/100m ¹	Criterion dB (A)	Criterion Applies? ²	HVO South LAeq dB ^{3,4}	Exceedance ^{4,5}
Knodlers Lane	11/10/2018 21:22	3.4	-1	41	No	IA	NA
Maison Dieu	11/10/2018 21:43	3.1	-1	41	No	IA	NA
Shearers Lane	11/10/2018 21:00	3.9	-1	41	No	IA	NA
Kilburnie South	11/10/2018 22:59	2.6	0.5	41	Yes	33	Nil
Jerrys Plains Village	11/10/2018 21:28	3.4	-1	40	No	IA	NA
Jerrys Plains East	11/10/2018 21:00	3.9	-1	40	No	32	NA
Long Point	11/10/2018 22:59	2.3	3	40	Yes	IA	Nil

HVGC	11/10/2018 23:42	2.5	-1	NA	NA	<35	NA
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Notes:

1. Atmospheric data is sourced from the HVO Cheshunt or HVO Corp. weather station using logged meteorological data;
2. Assumed noise emission limits (see Section 2.2 of this report for more information) apply for wind speeds up to 3 metres per second (at a height of 10m), or temperature inversion conditions of up to 3 degrees/100m (at a height of 10m). Criterion may or may not apply due to rounding of meteorological data values;
3. Estimated or measured LAeq, 15minute attributed to HVO South Pit Area;
4. Bold results in red indicate exceedance of criteria;
5. NA in exceedance column means atmospheric conditions outside specified in approval and so criterion is not applicable;

Table 5: LA1, 1minute HVO South - Impact Assessment Criteria – October 2018

Location	Date and Time	Wind Speed (m/s) ¹	VTG °C/100m ¹	Criterion dB (A)	Criterion Applies? ²	HVO South LA1, 1min dB ^{3,4}	Exceedance ^{4,5}
Knodlers Lane	11/10/2018 21:22	3.4	-1	45	No	IA	NA
Maison Dieu	11/10/2018 21:43	3.1	-1	45	No	IA	NA
Shearers Lane	11/10/2018 21:00	3.9	-1	45	No	IA	NA
Kilburnie South	11/10/2018 22:59	2.6	0.5	45	Yes	50	5
Jerrys Plains Village	11/10/2018 21:28	3.4	-1	45	No	IA	NA
Jerrys Plains East	11/10/2018 21:00	3.9	-1	45	No	41	NA
Long Point	11/10/2018 22:59	2.3	3	45	Yes	IA	Nil
HVGC	11/10/2018 23:42	2.5	-1	NA	NA	41	NA

Notes:

1. Atmospheric data is sourced from the HVO Cheshunt or HVO Corp. weather station using logged meteorological data;
2. Assumed noise emission limits (see Section 2.3 of this report for more information) apply for wind speeds up to 3 metres per second (at a height of 10m), or temperature inversion conditions of up to 3 degrees/100m (at a height of 10m). Criterion may or may not apply due to rounding of meteorological data values;
3. These are results for HVO South Pit Area in the absence of all other noise sources;
4. Bold results in red indicate exceedance of criteria; and
5. NA in exceedance column means atmospheric conditions outside specified in approval and so criterion is not applicable.

Table 6.1: LA1, 1minute HVO South - Impact Assessment Criteria Re-measures – October 2018

Location	Time/date	Criterion	HVO South LA1,1min dB ^{1,2}	Exceedance ²
Kilburnie South	11/10/2018 23:20	45	NM ³	Nil
Kilburnie South	11/10/2018 23:22	45	36	Nil
Kilburnie South	11/10/2018 23:23	45	43	Nil
Kilburnie South	11/10/2018 23:24	45	NM ³	Nil
Kilburnie South	11/10/2018 23:25	45	NM ³	Nil

Notes:

1. These are results for HVO South Pit Area in the absence of all other noise sources;
2. Bold results in red indicate exceedance of criteria;
3. "NM" indicates that other noise sources (frogs) were present during this measurement and generated L_{Amax} levels. This prevented a precise determination of HVO South site-only LA1,1minute levels, however, these levels were less than the criterion of 45 dB.

Table 7: LAeq, 15minute HVO North – Impact Assessment Criteria – October 2018

Location	Date and Time	Wind Speed (m/s) ¹	VTG °C/100m ¹	Criterion dB (A)	Criterion Applies? ²	HVO North LAeq dB ^{3,4}	Exceedance ^{4,5}
Knodlers Lane	11/10/2018 21:22	3	-1	35	Yes	IA	Nil
Maison Dieu	11/10/2018 21:43	3.3	-1	35	No	IA	NA
Shearers Lane	11/10/2018 21:00	3.1	-1	35	No	IA	NA
Kilburnie South	11/10/2018 22:59	2.2	0.5	39	Yes	IA	Nil
Jerrys Plains Village	11/10/2018 21:28	3	-1	36	Yes	36	Nil
Jerrys East	11/10/2018 21:00	3.1	-1	39	No	34	NA
Long Point	11/10/2018 22:59	2.3	3	35	Yes	IA	Nil
HVGC	11/10/2018 23:42	2.4	-1	NA	NA	IA	NA

Notes:

1. Atmospheric data is sourced from the HVO Cheshunt or HVO Corp. weather station using logged meteorological data;
2. Noise emission limits apply under all meteorological conditions, except during periods of rain or hail, when average winds speed at microphone heights exceeds 5 metres per second, when wind speeds greater than 3 metres per second are measured at 10m above ground level, or during temperature inversion conditions greater than 3 degrees C/100m. Criterion may or may not apply due to rounding of meteorological data values;
3. Estimated or measured LAeq, 15minute attributed to HVO North Pit Area;
4. Bold results in red indicate exceedance of criteria; and
5. NA in exceedance column means atmospheric conditions outside specified in approval and so criterion is not applicable.

Table 8: LAeq,15minute HVO North - Land Acquisition Criteria – October 2018

Location	Date and Time	Wind Speed (m/s) ¹	VTG °C/100m ¹	Criterion dB (A)	Criterion Applies? ²	HVO North LAeq dB ^{3,4}	Exceedance ^{4,5}
Knodlers Lane	11/10/2018 21:22	3	-1	0:00	Yes	IA	Nil
Maison Dieu	11/10/2018 21:43	3.3	-1	0:00	No	IA	NA
Shearers Lane	11/10/2018 21:00	3.1	-1	41	No	IA	NA
Kilburnie South	11/10/2018 22:59	2.2	0.5	0:00	Yes	IA	Nil
Jerrys Plains Village	11/10/2018 21:28	3	-1	41	Yes	36	Nil
Jerrys East	11/10/2018 21:00	3.1	-1	41	No	34	NA
Long Point	11/10/2018 22:59	2.3	3	41	Yes	IA	Nil
HVGC	11/10/2018 23:42	2.4	-1	NA	NA	IA	NA

Notes:

1. Atmospheric data is sourced from the HVO Cheshunt or HVO Corp. weather station using logged meteorological data;
2. Noise emission limits apply under all meteorological conditions, except during periods of rain or hail, when average winds speed at microphone heights exceeds 5 metres per second, when wind speeds greater than 3 metres per second are measured at 10m above ground level, or during temperature inversion conditions greater than 3 degrees C/100m. Criterion may or may not apply due to rounding of meteorological data values;
3. Estimated or measured LAeq,15minute attributed to HVO North Pit Area;
4. Bold results in red indicate exceedance of criteria; and
5. NA in exceedance column means atmospheric conditions outside specified in approval and so criterion is not applicable.

Table 9: LA1, 1Minute HVO North - Impact Assessment Criteria – October 2018

Location	Date and Time	Wind Speed (m/s) ¹	VTG °C/100m ¹	Criterion dB (A)	Criterion Applies? ²	HVO North LA1, 1min dB ^{3,4}	Exceedance ^{4,5}
Knodlers Lane	11/10/2018 21:22	3	-1	46	Yes	IA	Nil
Maison Dieu	11/10/2018 21:43	3.3	-1	46	No	IA	NA
Shearers Lane	11/10/2018 21:00	3.1	-1	46	No	IA	NA
Kilburnie South	11/10/2018 22:59	2.2	0.5	46	Yes	IA	Nil
Jerrys Plains Village	11/10/2018 21:28	3	-1	46	Yes	42	Nil
Jerrys East	11/10/2018 21:00	3.1	-1	46	No	43	NA
Long Point	11/10/2018 22:59	2.3	3	46	Yes	IA	Nil
HVGC	11/10/2018 23:42	2.4	-1	NA	NA	IA	NA

Notes:

1. Atmospheric data is sourced from the HVO Cheshunt or HVO Corp. weather station using logged meteorological data;
2. Noise emission limits apply under all meteorological conditions, except during periods of rain or hail, when average winds speed at microphone heights exceeds 5 metres per second, when wind speeds greater than 3 metres per second are measured at 10m above ground level, or during temperature inversion conditions greater than 3 degrees C/100m. Criterion may or may not apply due to rounding of meteorological data values;
3. These are results for HVO North Pit Area in the absence of all other noise sources;
4. Bold results in red indicate exceedance of criteria; and
5. NA in exceedance column means atmospheric conditions outside specified in approval and so criterion is not applicable.

5.2 NPfl Low Frequency Assessment

In accordance with the requirements of the EPA's Noise Policy for Industry (NPfl), the applicability of the low frequency modification penalty has been assessed. During October 2018 no measurements required the penalty to be applied. The assessment for low frequency noise is shown in Table 10.

Table 10: Low Frequency Noise Assessment - October 2018

Location	Date and Time	Measured Site Only LA _{eq} dB (Sth/Nth)	Site Only LC _{eq} dB ¹ (Sth/Nth)	Site Only LC _{eq} -LA _{eq} dB ^{1,2} (Sth/Nth)	Result Max exceedance of ref spectrum dB ^{1,3} (Sth/Nth)	Penalty dB(A) ¹	Site L _{Aeq,15min} dB with modifying factor (if applicable)
Knodlers Lane	11/10/2018 21:22	IA/IA	NA/NA	NA/NA	NA/NA	NA/NA	NA/NA
Maison Dieu	11/10/2018 21:43	IA/IA	NA/NA	NA/NA	NA/NA	NA/NA	NA/NA
Shearers Lane	11/10/2018 21:00	IA/IA	NA/NA	NA/NA	NA/NA	NA/NA	NA/NA
Kilburnie South	11/10/2018 22:59	33/IA	NA/NA	NA/NA	NA/NA	NA/NA	NA/NA
Jerrys Plains Village	11/10/2018 21:28	IA/36	NA/NA	NA/NA	NA/NA	NA/NA	NA/NA
Jerrys East	11/10/2018 21:00	32/34	NA/NA	NA/NA	NA/NA	NA/NA	NA/NA
Long Point Road	11/10/2018 22:59	IA/IA	NA/NA	NA/NA	NA/NA	NA/NA	NA/NA
HVGC	11/10/2018 23:42	"35/IA	NA/NA	NA/NA	NA/NA	NA/NA	NA/NA

Notes:

1. Where it is not possible to determine the site only result due to the presence of other low frequency noise sources occurring during the measurement, or where criteria were not applicable due to meteorological conditions, this is noted as NA (not available) and no further assessment has been undertaken;
2. As per NPfl, if LC_{eq} - LA_{eq} ≥ 15 dB further assessment of low frequency noise required; and
3. As per NPfl, compare measured spectrum against reference spectrum to determine if the low frequency modifying factor is triggered and application of penalty is required.

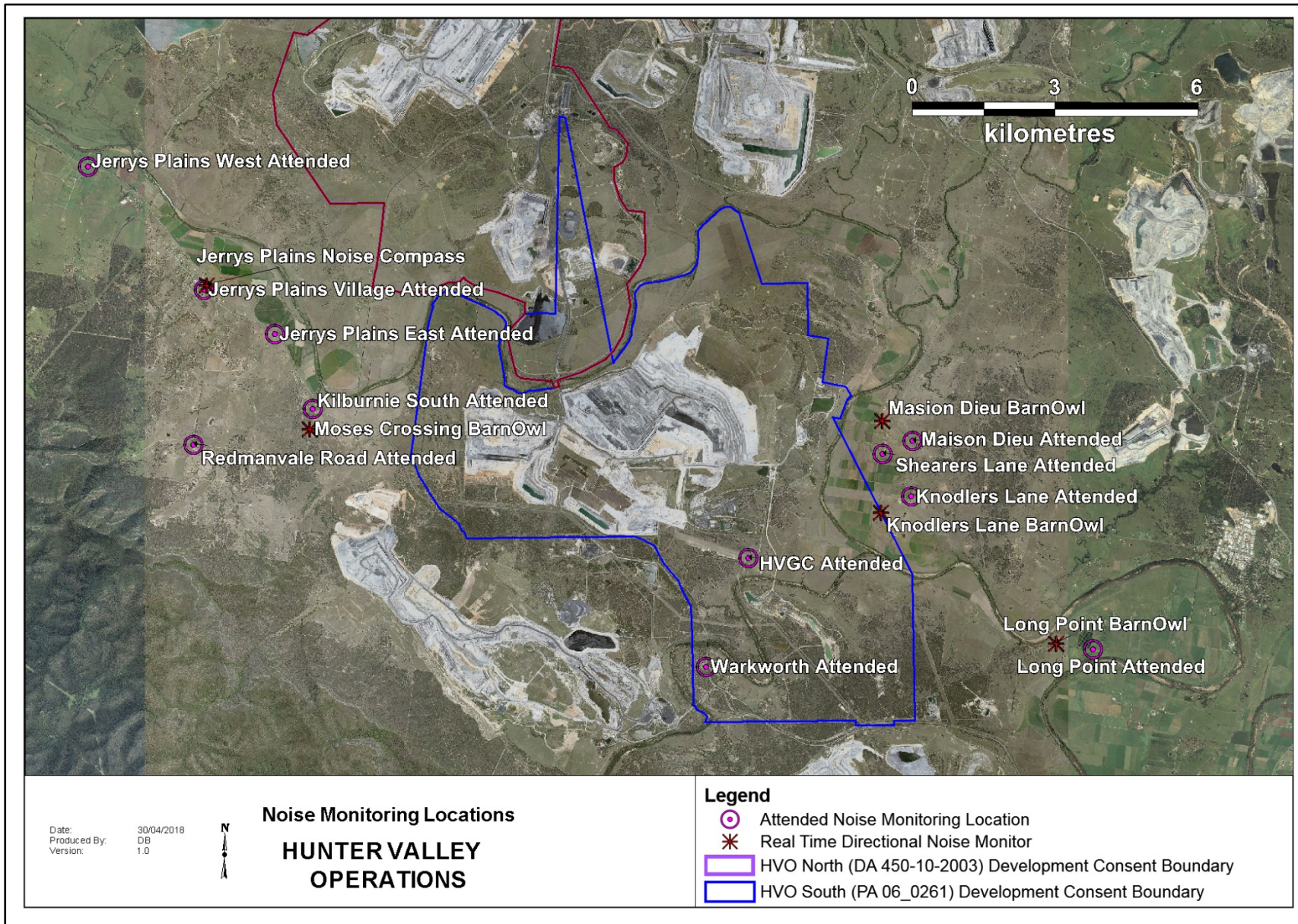


Figure 16: Noise Monitoring Location Plan

5.2.1 Real Time Noise Monitoring

HVO utilises a network of real-time directional noise monitors to manage noise impacts on a continuous basis. 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 likely to be attributable to HVO. Noise alarms are investigated and responded to with the appropriate level of operational modification. Changes in response to a noise alarm can include replacing equipment with quieter (noise attenuated) units, changing or relocating tasks, and shutting down equipment.

It should be noted that this assessment does not compliment or conflict with attended noise monitoring detailed in Section 5.1, and that real time monitoring data includes non-mine noise sources such as dogs, cows, or more commonly, road traffic.

6.0 OPERATIONAL DOWNTIME

During October, a total of 105 hours of equipment downtime was logged in response to real time monitoring and visual inspections for environmental reasons such as dust, noise and meteorological conditions. Operational downtime by equipment type is shown in Figure 17.

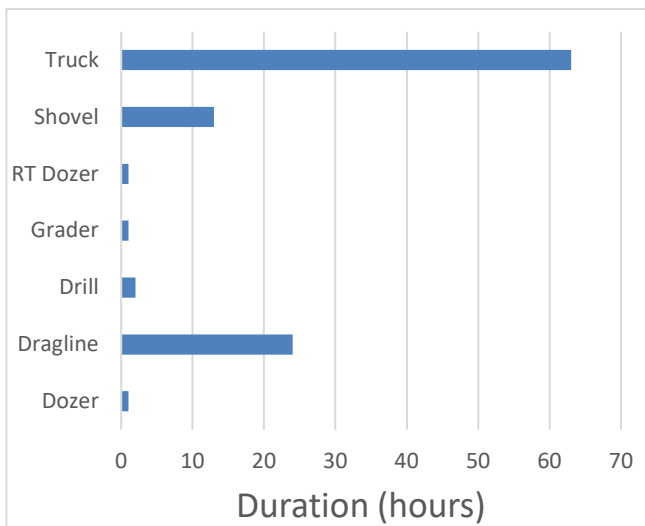


Figure 17: Operational Downtime by Equipment Type – October 2018

7.0 REHABILITATION

During October 7.8 Ha of land was released, 21.4 Ha of land was bulk shaped and 14.6 Ha of land was rehabilitated. Year to date progress can be viewed in Figure 18.

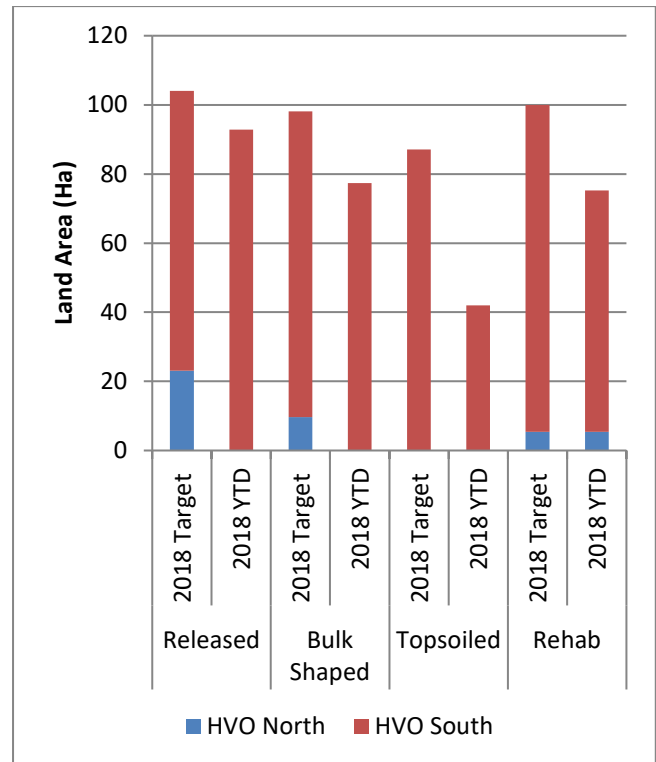


Figure 18: Rehabilitation YTD – October 2018

8.0 COMPLAINTS

No complaints were received during the reporting period. Details of complaints received YTD are shown in Table 11 below.

Table 11: Complaints Summary YTD

	Noise	Dust	Blast	Lighting	Other	Total
January	-	2	4	-	-	6
February	1	-	-	-	1	2
March	-	-	-	-	-	0
April	-	-	1	-	-	1
May	4	1	2	-	-	7
June	1	-	1	-	1	3
July	-	-	2	-	-	2
August	1	-	-	-	-	1
September	1	-	-	-	-	1
October	-	-	-	-	-	0
November	-	-	-	-	-	-
December	-	-	-	-	-	-
Total	8	3	10	-	2	23

9.0 ENVIRONMENTAL INCIDENTS

During the reporting period there were four recordable environmental incidents (Category 1 or greater);

5 October 2018 – Turbid water flowed offsite

Inspection following approximately 75mm of overnight rainfall identified turbid water flowing offsite and in to Farrell's Creek. Observations indicate that rainfall on disturbed areas in the upper pre-strip catchment had overtopped surface water management controls and flowed to lower catchment dams prior to reporting offsite with runoff generated from undisturbed catchment areas.

An investigation was undertaken which included water sampling and construction of temporary drainage diversions to reduce the area of disturbed catchment.

The incident was reported to the EPA, Department of Planning & Environment and the Resources Regulator.

10 October 2018 – Overflow of water from Newdell CHPP Sump N690

Inspection following overnight rainfall identified turbid water had overflowed from Sump N690 and onto the road verge due to pump failure. Investigation determined that the volume would have been low and did not appear to have flowed into natural drainage lines.

An investigation was undertaken which included water sampling, immediate repair of pump and check of similar pumps in area, clean out of sump N690.

12 October 2018 – Noise Exceedance

An exceedance of the $L_{A1,1 \text{ minute}}$ (sleep disturbance) criteria at Kilburnie South. The source of the noise deemed to be from dragline bucket impact from HVO South. As per the Noise Management Plan, five 1 minute re-measures were undertaken resulting in compliant measurements.

The results were reported to the Department of Planning & Environment.

16 October 2018 – 3A Blast Fume Event

A category 3A fume was generated from Cheshunt Pit. An acute plume from the blast migrated across to HVO North but dissipated onsite.

Appendix A: Meteorological Data

Table 12: Meteorological Data - HVO Corporate Meteorological Station – October 2018

Date	Air Temperature Maximum (°C)	Air Temperature Minimum (°C)	Relative Humidity Maximum (%)	Relative Humidity Minimum (%)	Solar Radiation Maximum (W/Sq. M)	Wind Direction Average (°)	Wind Speed Average (m/sec)	Rainfall(mm)
1/10/2018	23	4	100	22	1106	107	2.0	0
2/10/2018	27	5	90	8	921	149	1.8	0
3/10/2018	27	7	89	14	1154	211	2.4	0
4/10/2018	18	10	100	85	274	127	2.5	74.8
5/10/2018	16	8	100	71	443	142	3.6	1.2
6/10/2018	19	8	87	58	1434	129	3.4	0
7/10/2018	21	7	99	45	1408	221	1.3	3.6
8/10/2018	26	9	100	24	1016	219	2.3	0
9/10/2018	28	9	100	18	1179	198	1.4	0
10/10/2018	18	7	100	76	673	132	2.8	13.2
11/10/2018	16	6	100	59	1100	103	4.1	4.2
12/10/2018	20	6	100	43	1381	106	3.9	0
13/10/2018	21	10	100	49	1411	110	3.8	5.2
14/10/2018	23	12	100	37	1496	104	4.1	0.2
15/10/2018	25	11	100	47	1619	107	4.5	0
16/10/2018	26	10	100	44	1411	116	3.6	0
17/10/2018	25	11	100	53	1064	171	1.9	4.8
18/10/2018	29	11	100	33	1310	202	1.3	2.2
19/10/2018	30	12	100	27	1100	236	1.7	0
20/10/2018	32	14	100	29	1221	232	2.5	2.6
21/10/2018	21	11	100	72	1462	147	2.6	0
22/10/2018	26	11	99	36	1402	111	2.3	0.2
23/10/2018	32	11	100	11	1018	195	1.6	0
24/10/2018	25	11	83	24	1379	143	4.3	0
25/10/2018	24	10	89	44	1411	107	2.8	0
26/10/2018	28	10	100	18	1037	163	2.7	0
27/10/2018	30	10	89	12	1013	186	2.6	0
28/10/2018	20	10	86	54	966	106	3.5	0
29/10/2018	23	8	83	38	1426	110	3.6	0
30/10/2018	31	8	87	19	1013	196	1.6	0
31/10/2018	30	-	48	-	1020	188	4.2	0

“-“ Indicates that data was not available due to technical issues.