

# HUNTER VALLEY OPERATIONS

## ENVIRONMENT PROTECTION LICENCE 640 MONITORING DATA - JANUARY 2025

**DOCUMENT NUMBER**

HVOOC-1797567310-5189

**STATUS**

Approved

**VERSION**

1.0

**EFFECTIVE**

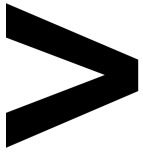
13/03/2025

**REVIEW**

[Planned Review Date]

**OWNER**

Superintendent - Environment and Community



**MONITORING DATA - JANUARY 2023**

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1 | Overview ..... 3

2 | Definitions ..... 3

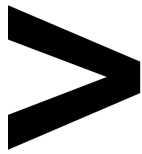
3 | Air Quality..... 5

4 | Surface Water Monitoring Data ..... 7

5 | Blast Monitoring Data ..... 8

6 | Sewage Treatment Plant Monitoring Data..... 12

7 | Noise Monitoring Data ..... 13



## 1 | OVERVIEW

<b>Environmental Protection Licence Number:</b>	640
<b>Licence Holder:</b>	HV Operations Pty Ltd (HVO)
<b>Address of Premises:</b>	Hunter Valley Operations, Lemington Road, Singleton, NSW, 2330
<b>Licence Holder Postal Address:</b>	PO Box 315, Singleton, NSW, 2330
<b>EPA Public Register Link:</b>	<a href="https://apps.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=640&amp;id=640&amp;option=licence&amp;searchrange=licence&amp;range=POEO%20licence&amp;prp=no&amp;status=Issued">https://apps.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=640&amp;id=640&amp;option=licence&amp;searchrange=licence&amp;range=POEO%20licence&amp;prp=no&amp;status=Issued</a>

The locations of each sampling or monitoring point number identified in EPL 640 are displayed in Figure 1.

## 2 | DEFINITIONS

Abbreviation	Explanation
DNR	Data Not Received
mm/s	Millimetres per Second
dB	Decibels
g/m <sup>2</sup> /month	Grams per Metre Square per Month
µg/m <sup>3</sup>	Micrograms per Cubic Meter of Air
µS/cm	Microsiemens per Centimetre
pH	A measure of the acidity or alkalinity of a solution
mg/L	Milligrams per Litre
NTU	Nephelometric Turbidity Units
ML/day	Megalitres per Day (1ML = 1,000,000L)
KL/day	Kilolitres per Day
PM10	Particulate Matter of 10 Microns in diameter or smaller
HVAS	High Volume Air Sampler
TEOM	Tapered Element Oscillating Microbalance
TSP	Total Suspended Particles
TSS	Total Suspended Solids
t	tonnes
YTD	Year To Date - rolling 12 month average

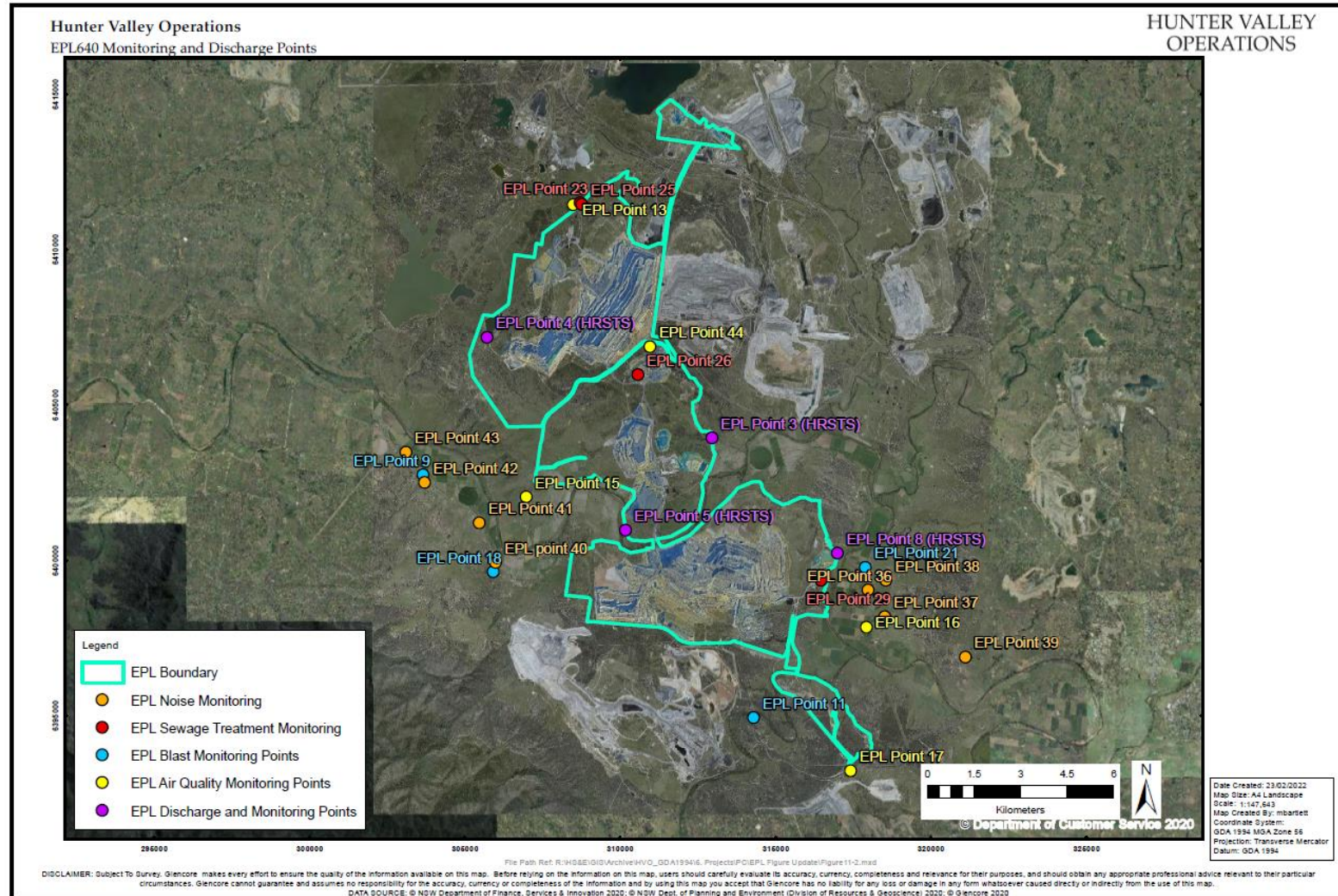
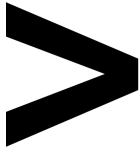


Figure 1: EPL 640 Monitoring Location

## 3 | AIR QUALITY

**Date Last Sampled:** 31/01/2025

**Date Obtained:** 20/02/2025

*Table 1 - Particulate Matter Monitoring (<10µm)*

Date	Unit of Measure	Monitoring Frequency & Capture	Monitoring Point				
			EPL ID 13 (Howick)	EPL ID 15 (Wandewoi)	EPL ID 16 (Knodlers Lane)	EPL ID 17 (Golden Highway)	EPL ID 44 (West Pit)
1/01/2025	µg/m <sup>3</sup>	Continuous	46.9	35.4	27.1	31.1	78.8
2/01/2025	µg/m <sup>3</sup>		46.2	24.2	24.5	32.6	67.8
3/01/2025	µg/m <sup>3</sup>		26.3	21.2	23.6	23.0	41.4
4/01/2025	µg/m <sup>3</sup>		47.0	32.9	21.0	20.6	34.9
5/01/2025	µg/m <sup>3</sup>		55.9	30.0	35.3	37.5	91.6
6/01/2025	µg/m <sup>3</sup>		53.2	35.4	38.0	50.7	226.1
7/01/2025	µg/m <sup>3</sup>		15.4	11.1	8.7	14.8	29.1
8/01/2025	µg/m <sup>3</sup>		7.3	6.4	6.1	8.9	27.7
9/01/2025	µg/m <sup>3</sup>		11.1	8.2	8.2	12.8	18.6
10/01/2025	µg/m <sup>3</sup>		24.0	13.6	8.3	11.4	13.3
11/01/2025	µg/m <sup>3</sup>		20.7	11.3	7.2	7.2	23.0
12/01/2025	µg/m <sup>3</sup>		20.8	15.2	9.9	15.6	25.5
13/01/2025	µg/m <sup>3</sup>		22.3	18.8	16.1	19.8	49.5
14/01/2025	µg/m <sup>3</sup>		46.1	24.3	14.1	22.1	38.7
15/01/2025	µg/m <sup>3</sup>		43.5	21.1	*	28.6	*
16/01/2025	µg/m <sup>3</sup>		16.7	14.7	*	16.3	*

**Number:** HVOOC-1797567310-5189

**Status:** Approved

**Effective:** 13/03/2025

Page 5 of 13

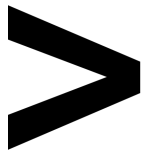
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**Version:** 1.0

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17/01/2025	µg/m <sup>3</sup>		13.4	*	10.6	22.8	21.3
18/01/2025	µg/m <sup>3</sup>		13.7	*	8.4	16.3	18.3
19/01/2025	µg/m <sup>3</sup>		32.6	16.3	12.1	24.3	32.3
20/01/2025	µg/m <sup>3</sup>		35.7	25.7	15.9	30.0	57.3
21/01/2025	µg/m <sup>3</sup>		41.7	43.7	22.6	36.9	78.9
22/01/2025	µg/m <sup>3</sup>		56.3	26.5	29.8	42.4	*
23/01/2025	µg/m <sup>3</sup>		29.8	25.6	21.3	31.2	*
24/01/2025	µg/m <sup>3</sup>		29.8	28.7	22.1	22.9	*
25/01/2025	µg/m <sup>3</sup>		42.2	26.9	18.8	24.0	*
26/01/2025	µg/m <sup>3</sup>		39.5	31.3	25.1	33.3	*
27/01/2025	µg/m <sup>3</sup>		30.3	23.2	22.0	31.7	*
28/01/2025	µg/m <sup>3</sup>		*	*	*	*	*
29/01/2025	µg/m <sup>3</sup>		34.7	24.6	16.7	31.1	29.8
30/01/2025	µg/m <sup>3</sup>		25.1	11.5	11.0	26.3	20.5
31/01/2025	µg/m <sup>3</sup>		19.4	9.1	*	32.0	38.3
<b>Monthly Meaningful Data</b>							
<b>January</b>	µg/m <sup>3</sup>	<b>Minimum</b>	7.3	6.4	6.1	7.2	13.3
	µg/m <sup>3</sup>	<b>Mean</b>	31.6	22.0	17.9	25.3	48.3
	µg/m <sup>3</sup>	<b>Maximum</b>	56.3	43.7	38.0	50.7	226.1
	µg/m <sup>3</sup>	<b>Median</b>	30.1	23.7	16.7	24.2	33.6

\* < 75% data available



## 4 | SURFACE WATER MONITORING DATA

No discharges under the HRSTS occurred during January.

*Table 2 - HRSTS Discharge Monitoring*

Discharge Point	Pollutant	Unit of Measure	Licence Limits	No. Samples Required by Licence	No. Samples Collected and Analysed
EPL ID 3 (Dam 11N)	pH	pH	6.5-9.5	0	0
	Total Suspended Solids	Milligrams per Litre	120	0	0
EPL ID 4 (Dam 9W)	pH	pH	6.5-9.5	0	0
	Total Suspended Solids	Milligrams per Litre	120	0	0
EPL ID 8 (Dam 15S)	pH	pH	6.5-9.5	0	0
	Total Suspended Solids	Milligrams per Litre	120	0	0

### 5 | BLAST MONITORING DATA

**Date Last Sampled:** 29/01/2025

**Date Obtained:** 18/02/2025

*Table 3 – Blast Monitoring (Air Blast Overpressure)*

Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits			Monitoring Point		
				95% of Blasts	100% of Blasts	Moses Crossing EPL ID 18	Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	Warkworth EPL ID 11
WN49LDL01B	2/01/2025 13:28	dB(L)	All blasts 100%	115	120	107.60	106.38	99.22	104.27
WS49LEB15B	2/01/2025 13:31	dB(L)		115	120	101.38	98.06	100.79	104.33
M1T480P01B	3/01/2025 13:03	dB(L)		115	120	86.48	98.66	96.88	93.08
P210PCF101B	6/01/2025 13:03	dB(L)		115	120	99.85	106.32	103.39	100.38
P210N2005A_P210M3P03A	6/01/2025 13:05	dB(L)		115	120	100.32	90.21	99.75	103.19
P101MTA305A	6/01/2025 13:24	dB(L)		115	120	91.66	87.14	97.80	100.65
P101VAX102A_P101V1P02B	8/01/2025 11:03	dB(L)		115	120	98.96	92.96	107.67	106.90
WS49LAP01A	8/01/2025 13:08	dB(L)		115	120	94.80	76.71	98.35	86.68
M1TB13001A	9/01/2025 12:46	dB(L)		115	120	98.40	93.27	109.08	103.09
WS49LEC12A	11/01/2025 13:04	dB(L)		115	120	95.63	86.84	98.43	93.93
WS49ARL101A	13/01/2025 13:01	dB(L)		115	120	81.92	96.06	99.73	82.14

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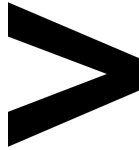
Page 8 of 13

**Owner:** Superintendent - Environment and Community

**Version:** 1.0

**Review:** [Planned Review Date]





# REPORT | ENVIRONMENT PROTECTION LICENCE 640 MONITORING DATA - JANUARY 2025

Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits			Monitoring Point		
				95% of Blasts	100% of Blasts	Moses Crossing EPL ID 18	Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	Warkworth EPL ID 11
M1T609501A	14/01/2025 13:04	dB(L)	All Blasts 100%	115	120	96.88	94.93	95.35	84.06
P101PCF104A	16/01/2025 12:21	dB(L)		115	120	97.92	95.15	97.99	101.70
WS49ARL101B	17/01/2025 13:18	dB(L)		115	120	108.50	101.01	98.96	94.13
P210PCF301A	20/01/2025 13:23	dB(L)		115	120	87.36	103.86	90.30	93.31
P101N4001A	21/01/2025 14:04	dB(L)		115	120	89.06	85.76	93.61	93.91
WS49ARL101C	23/01/2025 13:19	dB(L)		115	120	96.97	109.41	104.50	96.31
P101VAX103A	24/01/2025 15:18	dB(L)		115	120	105.18	105.19	112.67	111.15
P10206401A_P102B4P01A	24/01/2025 15:19	dB(L)		115	120	109.93	106.64	108.54	99.91
WS49PGU06A	25/01/2025 13:04	dB(L)		115	120	96.39	93.46	92.42	83.76
M2T112001A_M2TB11501A	29/01/2025 13:04	dB(L)		115	120	96.87	100.47	111.04	107.98
<b>Monthly Meaningful Data</b>									
<b>January</b>		dB(L)	Minimum	115	120	81.92	76.71	90.30	82.14
		dB(L)	Mean	115	120	97.24	96.59	100.78	97.37
		dB(L)	Maximum	115	120	109.93	109.41	112.67	111.15
		dB(L)	Median	115	120	96.97	96.06	99.22	99.91

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Table 4 – Blast Monitoring (Ground Vibration)

Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits			Monitoring Point		
				95% of Blasts	100% of Blasts	Moses Crossing EPL ID 18	Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	Warkworth EPL ID 11
WN49LDL01B	2/01/2025 13:28	mm/s	All Blasts 100%	5	10	0.07	0.13	0.06	0.44
WS49LEB15B	2/01/2025 13:31	mm/s		5	10	0.05	0.07	0.06	0.57
M1T480P01B	3/01/2025 13:03	mm/s		5	10	0.20	0.32	0.08	0.10
P210PCF101B	6/01/2025 13:03	mm/s		5	10	0.06	0.05	0.08	0.28
P210N2005A_P210M3P03A	6/01/2025 13:05	mm/s		5	10	0.27	0.17	0.36	0.57
P101MTA305A	6/01/2025 13:24	mm/s		5	10	0.17	0.08	0.24	0.58
P101VAX102A_P101V1P02B	8/01/2025 11:03	mm/s		5	10	0.13	0.08	0.10	0.34
WS49LAP01A	8/01/2025 13:08	mm/s		5	10	0.07	0.07	0.05	0.10
M1TB13001A	9/01/2025 12:46	mm/s		5	10	0.10	0.26	0.09	0.55
WS49LEC12A	11/01/2025 13:04	mm/s		5	10	0.19	0.11	0.11	0.07
WS49ARL101A	13/01/2025 13:01	mm/s		5	10	0.09	0.10	0.11	0.08
M1T609501A	14/01/2025 13:04	mm/s		5	10	0.13	0.33	0.08	0.09
P101PCF104A	16/01/2025 12:21	mm/s		5	10	0.07	0.08	0.06	0.35
WS49ARL101B	17/01/2025 13:18	mm/s		5	10	0.06	0.08	0.07	0.05

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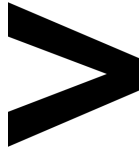
**Effective:** 13/03/2025

**Page 10 of 13**

**Owner:** Superintendent - Environment and Community

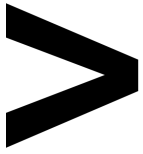
**Version:** 1.0

**Review:** [Planned Review Date]



# REPORT | ENVIRONMENT PROTECTION LICENCE 640 MONITORING DATA - JANUARY 2025

Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits			Monitoring Point		
				95% of Blasts	100% of Blasts	Moses Crossing EPL ID 18	Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	Warkworth EPL ID 11
P210PCF301A	20/01/2025 13:23	mm/s		5	10	0.03	0.04	0.09	0.08
P101N4001A	21/01/2025 14:04	mm/s		5	10	0.11	0.06	0.17	0.51
WS49ARL101C	23/01/2025 13:19	mm/s		5	10	0.09	0.12	0.07	0.56
P101VAX103A	24/01/2025 15:18	mm/s		5	10	0.07	0.07	0.06	0.55
P10206401A_P102B4P01A	24/01/2025 15:19	mm/s		5	10	0.10	0.07	0.10	0.20
WS49PGU06A	25/01/2025 13:04	mm/s		5	10	0.04	0.04	0.06	0.06
M2T112001A_M2TB11501A	29/01/2025 13:04	mm/s		5	10	0.09	0.34	0.11	0.06
Monthly Meaningful Data									
January		mm/s	Minimum	5	10	0.03	0.04	0.05	0.05
		mm/s	Mean	5	10	0.10	0.13	0.11	0.29
		mm/s	Maximum	5	10	0.27	0.34	0.36	0.58
		mm/s	Median	5	10	0.09	0.08	0.08	0.28



## 6 | SEWAGE TREATMENT PLANT MONITORING DATA

Sewage treatment plant monitoring results are provided on a quarterly basis. Results will be provided in the March 2025 report.

## 7 | NOISE MONITORING DATA

**Date Sampled:** 29/01/2025

**Date Obtained:** 12/03/2025

Table 6 – Night  $L_{Aeq,15minute}$  and  $L_{A1,1minute}$  Generated by HVO Against EPL Criteria

Location	Start date and time	Wind		Stability class	Very enhancing? <sup>1</sup>	EPL limits, dB <sup>1</sup>		HVO levels, dB		Exceedances, dB	
		Speed m/s	Direction <sup>3</sup>			$L_{Aeq,15minute}$	$L_{A1,1min}$	$L_{Aeq,15minute}$ <sup>2</sup>	$L_{A1,1min}$	$L_{Aeq,15minute}$	$L_{A1,1min}$
Shearers Lane	29/01/2025 21:00	2.5	138	D	No	41	46	IA	IA	Nil	Nil
Knodlers Lane	29/01/2025 21:50	2.7	116	D	No	40	46	IA	IA	Nil	Nil
Maison Dieu	29/01/2025 21:23	2.8	123	D	No	39	46	IA	IA	Nil	Nil
Long Point (Dights Crossing)	29/01/2025 22:43	2.4	110	D	No	37	46	IA	IA	Nil	Nil
Kilburnie South	29/01/2025 23:16	2.0	102	E	No	39	46	IA	IA	Nil	Nil
Jerrys Plains East	29/01/2025 22:54	2.2	115	D	No	39	46	IA	IA	Nil	Nil
Jerrys Plains Village	29/01/2025 21:21	3.0	122	D	No	40	46	NM	NM	Nil	Nil
Jerrys Plains West	29/01/2025 21:00	2.5	138	D	No	40	46	NM	NM	Nil	Nil

Notes: 1. Noise limits are adjusted by +5 dB during 'very noise-enhancing meteorological conditions' in accordance with the NPfI.

2. Site-only  $L_{Aeq,15minute}$ , includes modifying factor penalties if applicable.

3. Degrees magnetic north, "-" indicates calm conditions.

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**Effective:** 13/03/2025

Page 13 of 13

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