

**HUNTER VALLEY**  
OPERATIONS

**ENVIRONMENT  
PROTECTION LICENCE 640  
MONITORING DATA -  
NOVEMBER 2024**

**DOCUMENT NUMBER**

HVOOC-1797567310-5098

**STATUS**

Approved

**VERSION**

1.0

**EFFECTIVE**

10/01/2025

**REVIEW**

[Planned Review Date]

**OWNER**

Superintendent - Environment and Community



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## 1 | OVERVIEW

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

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

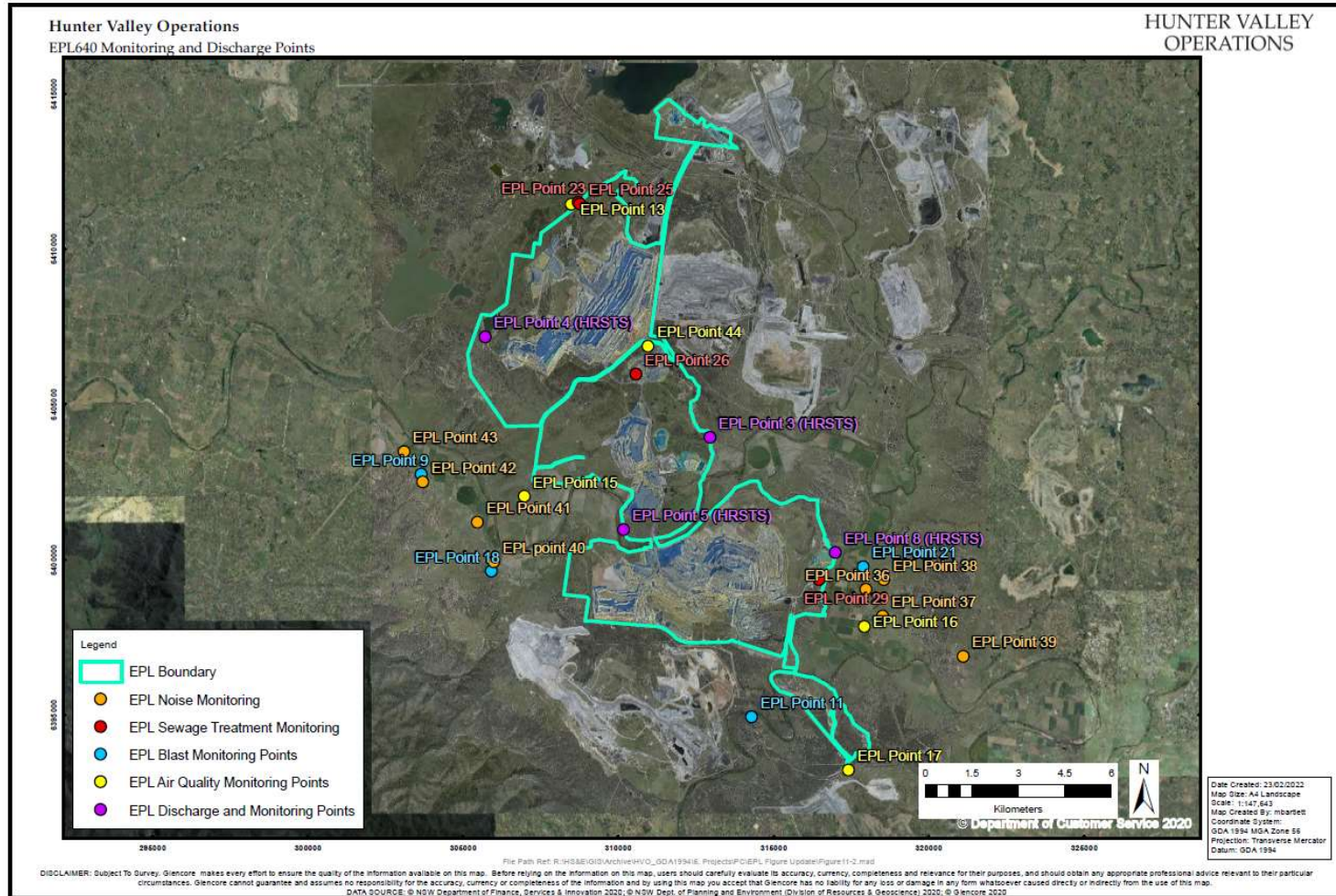


Figure 1: EPL 640 Monitoring Location

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## 3 | AIR QUALITY

**Date Last Sampled:** 30/11/2024

**Date Obtained:** 19/12/2024

*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)
1/11/2024	µg/m <sup>3</sup>	Continuous	28.8	22.8	18.7	20.5	28.1
2/11/2024	µg/m <sup>3</sup>		27.2	18.2	21.5	19.5	27.7
3/11/2024	µg/m <sup>3</sup>		29.3	24.3	29.8	42.0	168.2
4/11/2024	µg/m <sup>3</sup>		38.8	33.4	49.4	46.0	154.4
5/11/2024	µg/m <sup>3</sup>		30.8	23.5	37.4	24.9	33.8
6/11/2024	µg/m <sup>3</sup>		56.1	30.7	41.5	32.5	94.0
7/11/2024	µg/m <sup>3</sup>		39.4	27.9	48.5	51.8	140.1
8/11/2024	µg/m <sup>3</sup>		12.1	7.2	19.7	18.9	81.3
9/11/2024	µg/m <sup>3</sup>		45.1	33.1	24.8	30.0	74.0
10/11/2024	µg/m <sup>3</sup>		39.9	28.1	29.5	44.9	63.7
11/11/2024	µg/m <sup>3</sup>		33.4	19.3	24.8	34.8	41.0
12/11/2024	µg/m <sup>3</sup>		17.1	9.4	9.4	16.1	14.3
13/11/2024	µg/m <sup>3</sup>		21.1	13.4	13.3	22.2	33.3
14/11/2024	µg/m <sup>3</sup>		22.9	17.7	14.7	21.6	31.6
15/11/2024	µg/m <sup>3</sup>		26.6	17.0	13.6	19.5	20.1
16/11/2024	µg/m <sup>3</sup>		31.3	16.3	12.4	13.0	23.1

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17/11/2024	µg/m <sup>3</sup>		21.9	16.9	13.8	22.8	108.6
18/11/2024	µg/m <sup>3</sup>		17.5	13.1	13.0	16.1	24.3
19/11/2024	µg/m <sup>3</sup>		29.0	23.1	17.7	20.8	24.1
20/11/2024	µg/m <sup>3</sup>		25.7	21.1	14.7	14.7	24.0
21/11/2024	µg/m <sup>3</sup>		23.8	16.2	12.4	11.2	19.6
22/11/2024	µg/m <sup>3</sup>		32.6	23.2	14.0	15.7	39.2
23/11/2024	µg/m <sup>3</sup>		43.3	29.0	16.8	27.5	55.6
24/11/2024	µg/m <sup>3</sup>		41.7	33.7	24.5	30.5	86.7
25/11/2024	µg/m <sup>3</sup>		40.4	30.3	27.8	25.3	60.6
26/11/2024	µg/m <sup>3</sup>		62.2	25.8	27.6	26.3	100.5
27/11/2024	µg/m <sup>3</sup>		37.4	23.0	43.8	39.0	203.8
28/11/2024	µg/m <sup>3</sup>		29.7	12.9	18.0	20.5	57.4
29/11/2024	µg/m <sup>3</sup>		33.0	21.9	18.2	25.2	26.8
30/11/2024	µg/m <sup>3</sup>		15.3	11.6	8.7	10.6	17.4
<b>Monthly Meaningful Data</b>							
<b>November</b>	µg/m <sup>3</sup>	<b>Minimum</b>	12.1	7.2	8.7	10.6	14.3
	µg/m <sup>3</sup>	<b>Mean</b>	31.8	21.5	22.7	25.5	62.6
	µg/m <sup>3</sup>	<b>Maximum</b>	62.2	33.7	49.4	51.8	203.8
	µg/m <sup>3</sup>	<b>Median</b>	30.3	22.4	18.5	22.5	40.1



**4 | SURFACE WATER MONITORING DATA**

No discharges under the HRSTS occurred during November.

*Table 2 - HRSTS Discharge Monitoring*

<b>Discharge Point</b>	<b>Pollutant</b>	<b>Unit of Measure</b>	<b>Licence Limits</b>	<b>No. Samples Required by Licence</b>	<b>No. Samples Collected and Analysed</b>
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:** 30/11/2024

**Date Obtained:** 6/12/2024

*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
P21000005A	2/11/2024 13:23	dB(L)	All blasts 100%	115	120	98.25	96.94	100.32	99.24
M1T409501C	4/11/2024 13:19	dB(L)		115	120	101.64	91.53	93.64	94.76
WN49BAR01A_WN49BAP03B_WN49LDU701A	7/11/2024 13:11	dB(L)		115	120	111.43	101.98	95.45	88.88
WS49ARU301A_WS49ARU3P01A	9/11/2024 13:16	dB(L)		115	120	90.66	93.48	94.23	90.92
WS49LEA201A_WS49LEP08A	9/11/2024 13:21	dB(L)		115	120	92.44	88.99	101.33	89.74
P101MTA302A	11/11/2024 13:15	dB(L)		115	120	96.81	94.60	97.00	100.40
P210MTA301A	13/11/2024 13:15	dB(L)		115	120	93.63	88.98	95.44	92.69
WS49ARU302A	15/11/2024 13:24	dB(L)		115	120	99.02	94.61	100.48	94.03
P101MTA302B	16/11/2024 16:13	dB(L)		115	120	98.23	105.99	107.19	90.65
WS49LEA201B	18/11/2024 16:16	dB(L)		115	120	88.07	101.49	99.59	98.49

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Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Moses Crossing EPL ID 18	Monitoring Point		Warkworth EPL ID 11
				95% of Blasts	100% of Blasts		Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	
P210MTA301B	21/11/2024 13:28	dB(L)	All Blasts 100%	115	120	93.30	111.61	94.86	95.45
WS49ARU302B	22/11/2024 13:20	dB(L)		115	120	94.63	96.32	92.58	84.14
P210WKW602A	23/11/2024 13:35	dB(L)		115	120	87.11	87.89	90.63	89.78
P101V1P02A	23/11/2024 13:36	dB(L)		115	120	89.01	87.70	93.12	89.60
P125WKW905A	26/11/2024 11:19	dB(L)		115	120	89.05	96.94	108.24	98.58
WN49LDU701B	26/11/2024 13:39	dB(L)		115	120	89.59	108.02	94.81	103.51
P101PCF103A	28/11/2024 16:52	dB(L)		115	120	88.22	78.08	97.11	109.09
P101VAX101A	28/11/2024 16:53	dB(L)		115	120	85.76	80.89	83.45	99.10
WS49LDP03B	29/11/2024 13:09	dB(L)		115	120	98.10	97.58	84.17	91.04
WS49PGL04A	30/11/2024 13:05	dB(L)		115	120	88.77	86.23	94.18	102.07
<b>Monthly Meaningful Data</b>									
<b>November</b>		dB(L)	Minimum	115	120	85.76	78.08	83.45	84.14
		dB(L)	Mean	115	120	93.69	94.49	95.89	95.11
		dB(L)	Maximum	115	120	111.43	111.61	108.24	109.09
		dB(L)	Median	115	120	97.71	93.18	95.48	95.38

\*Greater than 115 dB(L)

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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
P21000005A	2/11/2024 13:23	mm/s	All Blasts 100%	5	10	0.07	0.08	0.19	0.67
M1T409501C	4/11/2024 13:19	mm/s		5	10	0.12	0.28	0.07	0.07
WN49BAR01A_WN49BAP03B_WN49LDU701A	7/11/2024 13:11	mm/s		5	10	0.16	0.21	0.16	0.10
WS49ARU301A_WS49ARU3P01A	9/11/2024 13:16	mm/s		5	10	0.28	0.17	0.25	0.12
WS49LEA201A_WS49LEP08A	9/11/2024 13:21	mm/s		5	10	0.16	0.22	0.10	0.10
P101MTA302A	11/11/2024 13:15	mm/s		5	10	0.10	0.07	0.11	0.25
P210MTA301A	13/11/2024 13:15	mm/s		5	10	0.06	0.04	0.11	0.28
WS49ARU302A	15/11/2024 13:24	mm/s		5	10	0.11	0.14	0.13	0.14
P101MTA302B	16/11/2024 16:13	mm/s		5	10	0.16	0.08	0.20	0.38
WS49LEA201B	18/11/2024 16:16	mm/s		5	10	0.05	0.07	0.06	0.08
P210MTA301B	21/11/2024 13:28	mm/s		5	10	0.03	0.04	0.08	0.31
WS49ARU302B	22/11/2024 13:20	mm/s		5	10	0.12	0.10	0.23	0.11
P210WKW602A	23/11/2024 13:35	mm/s		5	10	0.04	0.03	0.09	0.12
P101V1P02A	23/11/2024 13:36	mm/s		5	10	0.08	0.07	0.13	0.18

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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
P125WKW905A	26/11/2024 11:19	mm/s		5	10	0.16	0.10	0.25	0.61
WN49LDU701B	26/11/2024 13:39	mm/s		5	10	0.04	0.05	0.09	0.43
P101PCF103A	28/11/2024 16:52	mm/s		5	10	0.20	0.14	0.14	0.46
P101VAX101A	28/11/2024 16:53	mm/s		5	10	0.03	0.06	0.03	0.46
WS49LDP03B	29/11/2024 13:09	mm/s		5	10	0.05	0.08	0.05	0.09
WS49PGL04A	30/11/2024 13:05	mm/s		5	10	0.05	0.07	0.09	0.05
<b>Monthly Meaningful Data</b>									
<b>November</b>		mm/s	Minimum	5	10	0.03	0.03	0.05	0.05
		mm/s	Mean	5	10	0.11	0.13	0.25	0.24
		mm/s	Maximum	5	10	0.28	0.25	0.67	0.67
		mm/s	Median	5	10	0.08	0.11	0.16	0.16

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## **6 | SEWAGE TREATMENT PLANT MONITORING DATA**

Sewage treatment plant monitoring results are provided on a quarterly basis. Results will be provided in the December 2024 report.

## 7 | NOISE MONITORING DATA

**Date Sampled:** 19/11/2024

**Date Obtained:** 4/12/2024

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	19/11/2024 21:00	4.2	123	D	Yes	46	51	IA	IA	Nil	Nil
Knodlers Lane	19/11/2024 21:46	4.1	137	E	Yes	45	51	IA	IA	Nil	Nil
Maison Dieu	19/11/2024 21:24	4.2	128	D	Yes	44	51	IA	IA	Nil	Nil
Long Point (Dights Crossing)	19/11/2024 22:38	3.7	149	D	Yes	42	51	IA	IA	Nil	Nil
Kilburnie South	19/11/2024 23:09	4.2	141	E	Yes	44	51	<30	40	Nil	Nil
Jerrys Plains East	19/11/2024 22:48	3.7	149	D	Yes	44	51	<20	<25	Nil	Nil
Jerrys Plains Village	19/11/2024 21:19	4.5	121	D	Yes	45	51	<25	28	Nil	Nil
Jerrys Plains West	19/11/2024 21:00	4.2	123	D	Yes	45	51	NM	NM	Nil	Nil

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

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

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

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