

HUNTER VALLEY
OPERATIONS

EPL 640 MONITORING DATA – MARCH 2026

DOCUMENT NUMBER

STATUS

VERSION

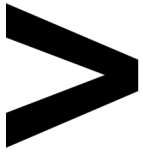
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REVIEW

[Planned Review Date]

OWNER

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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 ² /month	Grams per Metre Square per Month
µg/m ³	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

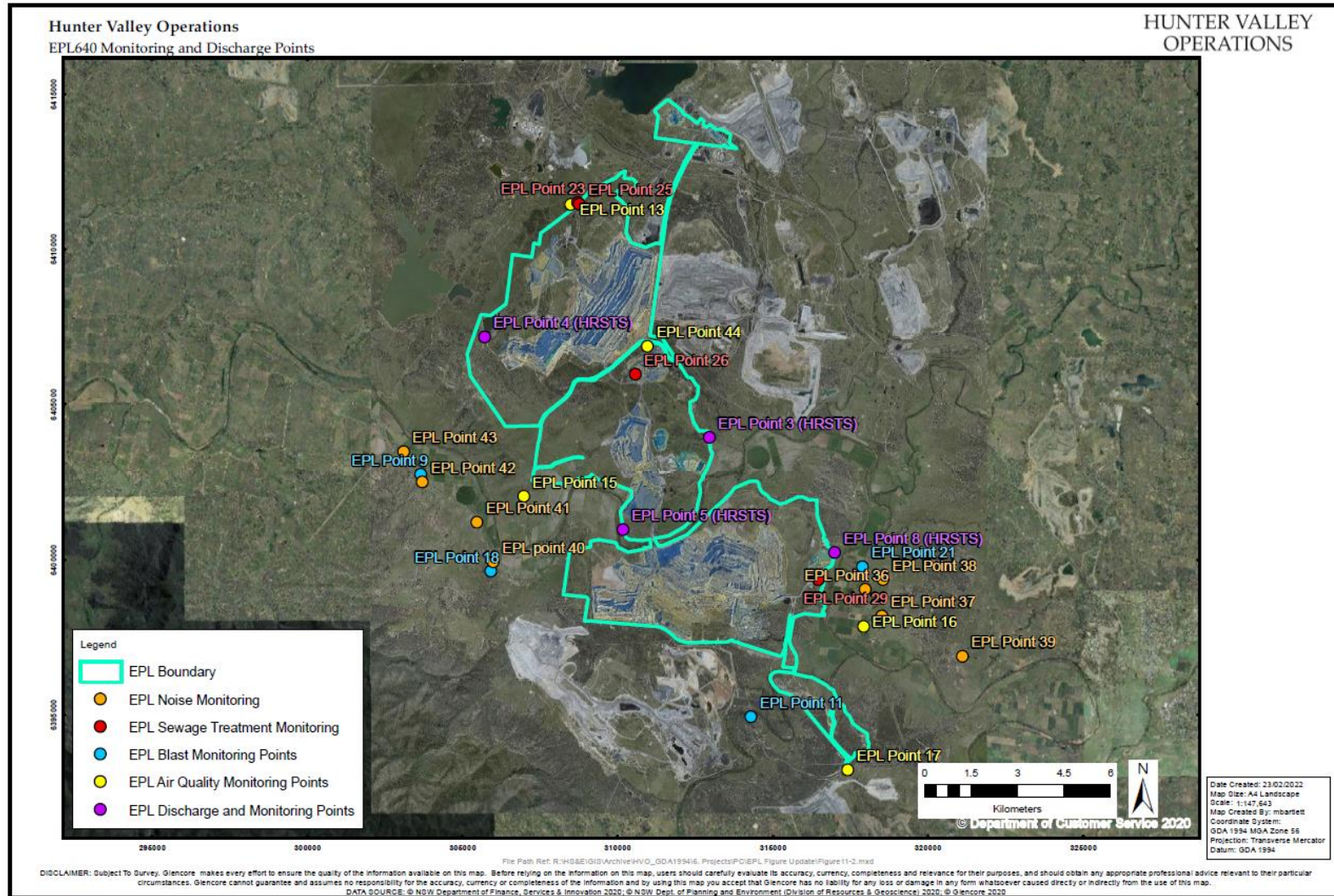
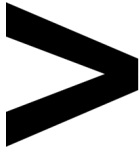


Figure 1: EPL 640 Monitoring Location

3 | AIR QUALITY
Date Last Sampled: 31/03/2026

Date Obtained: 11/05/2026

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)
1/03/2026	µg/m ³	Continuous	30.4	20.8	20.8	15.1	15.6
2/03/2026	µg/m ³		32.4	24.1	24.1	17.8	33.1
3/03/2026	µg/m ³		28.8	20.1	20.1	24.0	28.9
4/03/2026	µg/m ³		28.1	22.8	22.8	33.7	37.6
5/03/2026	µg/m ³		42.5	43.7	43.7	47.7	44.7
6/03/2026	µg/m ³		40.8	35.4	35.4	31.6	41.1
7/03/2026	µg/m ³		30.7	22.8	22.8	29.4	34.7
8/03/2026	µg/m ³		15.9	10.1	10.1	*	26.5
9/03/2026	µg/m ³		10.0	6.1	6.1	*	14.0
10/03/2026	µg/m ³		21.3	14.7	14.7	*	15.0
11/03/2026	µg/m ³		23.0	21.4	21.4	22.8	72.9
12/03/2026	µg/m ³		37.7	32.0	32.0	57.0	50.7
13/03/2026	µg/m ³		31.7	22.4	22.4	20.3	25.1
14/03/2026	µg/m ³		33.4	23.7	23.7	18.9	18.6
15/03/2026	µg/m ³		47.8	32.9	32.9	38.4	74.2

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16/03/2026	µg/m ³		49.1	37.2	37.2	47.7	85.2
17/03/2026	µg/m ³		39.8	30.1	30.1	28.0	80.8
18/03/2026	µg/m ³		35.0	26.7	26.7	19.3	23.5
19/03/2026	µg/m ³		*	13.8	13.8	17.2	16.0
20/03/2026	µg/m ³		17.4	20.5	20.5	15.6	21.9
21/03/2026	µg/m ³		25.0	19.8	19.8	18.2	14.0
22/03/2026	µg/m ³		27.6	15.3	15.3	23.0	15.7
23/03/2026	µg/m ³		24.5	13.5	13.5	14.9	10.8
24/03/2026	µg/m ³		27.3	19.5	19.5	12.9	16.3
25/03/2026	µg/m ³		22.9	22.7	22.7	21.6	38.8
26/03/2026	µg/m ³		16.5	11.0	11.0	19.0	38.4
27/03/2026	µg/m ³		11.9	7.7	7.7	15.6	46.4
28/03/2026	µg/m ³		26.4	17.1	17.1	24.8	37.4
29/03/2026	µg/m ³		34.3	25.0	25.0	42.4	70.8
30/03/2026	µg/m ³		41.5	29.3	29.3	22.5	31.7
31/03/2026	µg/m ³		47.2	26.3	26.3	23.1	51.1
Monthly Meaningful Data							
March	µg/m ³	Minimum	10.0	6.1	6.1	12.9	10.8
	µg/m ³	Mean	30.0	22.2	22.2	25.8	36.5
	µg/m ³	Maximum	49.1	43.7	43.7	57.0	85.2
	µg/m ³	Median	29.6	22.4	22.4	22.7	33.1

* Less than 75% 24-hour data capture



4 | SURFACE WATER MONITORING DATA

No discharges under the HRSTS occurred during the reporting period.

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: 31/03/2026

Date Obtained: 08/04/2026

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
M2B1BP501A	2/03/2026 11:13	dB(L)	All Blasts 100%	115	120	96.96	101.34	89.63	92.72
P210B6P03A	2/03/2026 13:05	dB(L)		115	120	89.05	93.06	86.75	84.05
RAVS_260302	2/03/2026 13:11	dB(L)		115	120	90.03	92.72	93.58	85.93
P210BRN502A	5/03/2026 13:07	dB(L)		115	120	89.92	89.22	93.28	95.32
P102N1007A_P102N10P03B	11/03/2026 17:21	dB(L)		115	120	96.31	90.82	106.87	105.11
WS49BAR04A	12/03/2026 13:46	dB(L)		115	120	100.83	110.81	87.21	100.59
WT12LEA204A	14/03/2026 15:05	dB(L)	All Blasts 100%	115	120	102.64	99.58	90.06	96.38

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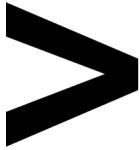
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Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits			Monitoring Point		
				95% of Blasts	100% of Blasts	Moses Crossing EPL ID 18	Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	Warkworth EPL ID 11
WS15BAY102A	17/03/2026 13:35	dB(L)		115	120	99.03	111.88	105.16	91.30
WT12LECP01A	18/03/2026 13:45	dB(L)		115	120	88.39	98.53	100.13	81.56
WT11ARU108A	19/03/2026 15:42	dB(L)		115	120	87.24	90.42	88.77	90.49
WT11BP104A	19/03/2026 15:43	dB(L)		115	120	89.56	85.82	78.96	90.06
WS15BAY104A	21/03/2026 13:05	dB(L)		115	120	95.53	92.30	96.08	88.44
WS49BAR05A	23/03/2026 13:15	dB(L)		115	120	86.52	86.13	97.22	84.43
WT12LEA203A	23/03/2026 13:20	dB(L)		115	120	97.81	94.23	94.43	89.57
P210B6P03B	25/03/2026 13:12	dB(L)		115	120	88.98	90.34	92.10	94.05
WS15BAY105A	26/03/2026 13:55	dB(L)	All Blasts 100%	115	120	99.59	95.12	105.46	90.55

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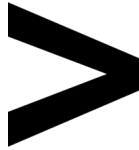
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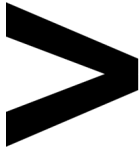
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Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Monitoring Point			
				95% of Blasts	100% of Blasts	Moses Crossing EPL ID 18	Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	Warkworth EPL ID 11
WT10LDU108A	28/03/2026 12:57	dB(L)		115	120	87.20	85.14	88.61	82.57
P101B4P03A	28/03/2026 15:01	dB(L)		115	120	99.55	89.35	85.53	78.48
P210BRN503A_P210B6P03C	31/03/2026 13:03	dB(L)		115	120	98.86	101.70	92.80	94.68
Monthly Meaningful Data									
March		dB(L)	Minimum	115	120	86.52	85.14	78.96	78.48
		dB(L)	Mean	115	120	93.89	94.66	93.30	90.33
		dB(L)	Maximum	115	120	102.64	111.88	106.87	105.11
		dB(L)	Median	115	120	95.53	92.72	92.80	90.49

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
M2B1BP501A	2/03/2026 11:13	mm/s	All Blasts 100%	5	10	0.23	0.39	0.11	0.07
P210B6P03A	2/03/2026 13:05	mm/s		5	10	0.12	0.12	0.20	0.15
RAVS_260302	2/03/2026 13:11	mm/s		5	10	0.12	0.13	0.14	0.09
P210BRN502A	5/03/2026 13:07	mm/s		5	10	0.09	0.12	0.13	0.41
P102N1007A_P102N10P03B	11/03/2026 17:21	mm/s		5	10	0.80	0.24	0.36	0.91
WS49BAR04A	12/03/2026 13:46	mm/s		5	10	0.19	0.18	0.18	0.60
WT12LEA204A	14/03/2026 15:05	mm/s		5	10	0.20	0.20	0.13	0.35
WS15BAY102A	17/03/2026 13:35	mm/s		5	10	0.12	0.17	0.11	0.52
WT12LECP01A	18/03/2026 13:45	mm/s		5	10	0.19	0.22	0.16	0.08

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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
WT11ARU108A	19/03/2026 15:42	mm/s	All Blasts 100%	5	10	0.08	0.10	0.10	0.39
WT11BP104A	19/03/2026 15:43	mm/s		5	10	0.13	0.14	0.12	0.21
WS15BAY104A	21/03/2026 13:05	mm/s		5	10	0.20	0.17	0.12	0.07
WS49BAR05A	23/03/2026 13:15	mm/s		5	10	0.11	0.15	0.14	0.08
WT12LEA203A	23/03/2026 13:20	mm/s		5	10	0.09	0.12	0.09	0.06
P210B6P03B	25/03/2026 13:12	mm/s		5	10	0.18	0.14	0.30	0.36
WS15BAY105A	26/03/2026 13:55	mm/s		5	10	0.20	0.28	0.13	0.07
WT10LDU108A	28/03/2026 12:57	mm/s		5	10	0.08	0.11	0.09	0.04
P101B4P03A	28/03/2026 15:01	mm/s		5	10	0.13	0.14	0.15	0.31

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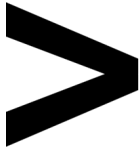
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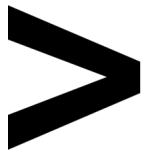
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Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Monitoring Point			
				95% of Blasts	100% of Blasts	Moses Crossing EPL ID 18	Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	Warkworth EPL ID 11
P210BRN503A_P210B6P03C	31/03/2026 13:03	mm/s	All Blasts 100%	5	10	0.13	0.13	0.22	0.29
Monthly Meaningful Data									
March	mm/s	Minimum	5	10	0.08	0.10	0.09	0.04	
	mm/s	Mean	5	10	0.18	0.17	0.16	0.27	
	mm/s	Maximum	5	10	0.80	0.39	0.36	0.91	
	mm/s	Median	5	10	0.13	0.14	0.17	0.45	



6 | SEWAGE TREATMENT PLANT MONITORING DATA

Date Sampled: 10/03/2026

Date Obtained: 28/04/2026

Table 5 - Sewage Treatment Plant Monitoring

Monitoring Site	Date & Time	Pollutant	Unit of Measure	Monitoring Result
EPA ID 23	02/12/2025	Faecal Coliforms	Colony forming units/100ml	910000
		pH	pH	7.22
EPA ID 25	02/12/2025	Faecal Coliforms	Colony forming units/100ml	*
		pH	pH	*
EPA ID 26	02/12/2025	Faecal Coliforms	Colony forming units/100ml	3.52
		pH	pH	<100
EPA ID 29	02/12/2025	Faecal Coliforms	Colony forming units/100ml	*
		pH	pH	*

* Insufficient sample amount

7 | NOISE MONITORING DATA

Date Sampled: 19-20/03/2026

Date Obtained: 30/03/2026

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? ¹	EPL limits, dB ¹		HVO levels, dB ^{2,3}		Exceedances, dB	
		Speed m/s	Direction ⁴			$L_{Aeq,15minute}$	$L_{A1,1min}$	$L_{Aeq,15minute}$ ²	$L_{A1,1min}$	$L_{Aeq,15minute}$	$L_{A1,1min}$
Shearers Lane	19/03/2026 23:52	2.2	170	E	No	41	46	IA	IA	Nil	Nil
Knodlers Lane	20/03/2026 00:45	2.2	137	E	No	40	46	<25	31	Nil	Nil
Maison Dieu	20/03/2026 00:17	2.0	167	E	No	39	46	IA	IA	Nil	Nil
Long Point (Dights Crossing)	19/03/2026 23:19	1.4	124	E	No	37	46	IA	IA	Nil	Nil
Moses Crossing	19/03/2026 23:49	2.2	170	E	No	39	46	33	35	Nil	Nil
Jerrys Plains East	19/03/2026 23:28	1.6	141	F	No	39	46	26	30	Nil	Nil
Jerrys Plains Village	19/03/2026 22:19	2.1	144	E	No	40	46	<25	<25	Nil	Nil
Jerrys Plains West	19/03/2026 22:00	1.8	152	E	No	40	46	<25	35	Nil	Nil
Shearers Lane	19/03/2026 23:52	2.2	170	E	No	41	46	IA	IA	Nil	Nil

Notes:

- Noise limits are adjusted by +5 dB during 'very noise-enhancing meteorological conditions' in accordance with the NPfI.
- Site-only $L_{Aeq,15minute}$, includes modifying factor penalties if applicable.
- Site-only $L_{A1,1minute}$ based on measured site-only L_{Amax} as detailed in Section 3.2.
- Degrees magnetic north, "-" indicates calm conditions.

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