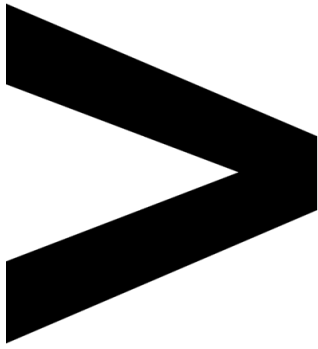




HUNTER VALLEY OPERATIONS

EPL 640 MONITORING DATA – MAY 2025

DOCUMENT NUMBER

HVOOC-1797567310-5322

STATUS

Approved

VERSION

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EFFECTIVE

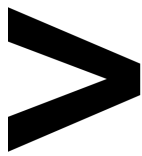
15/07/2025

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 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

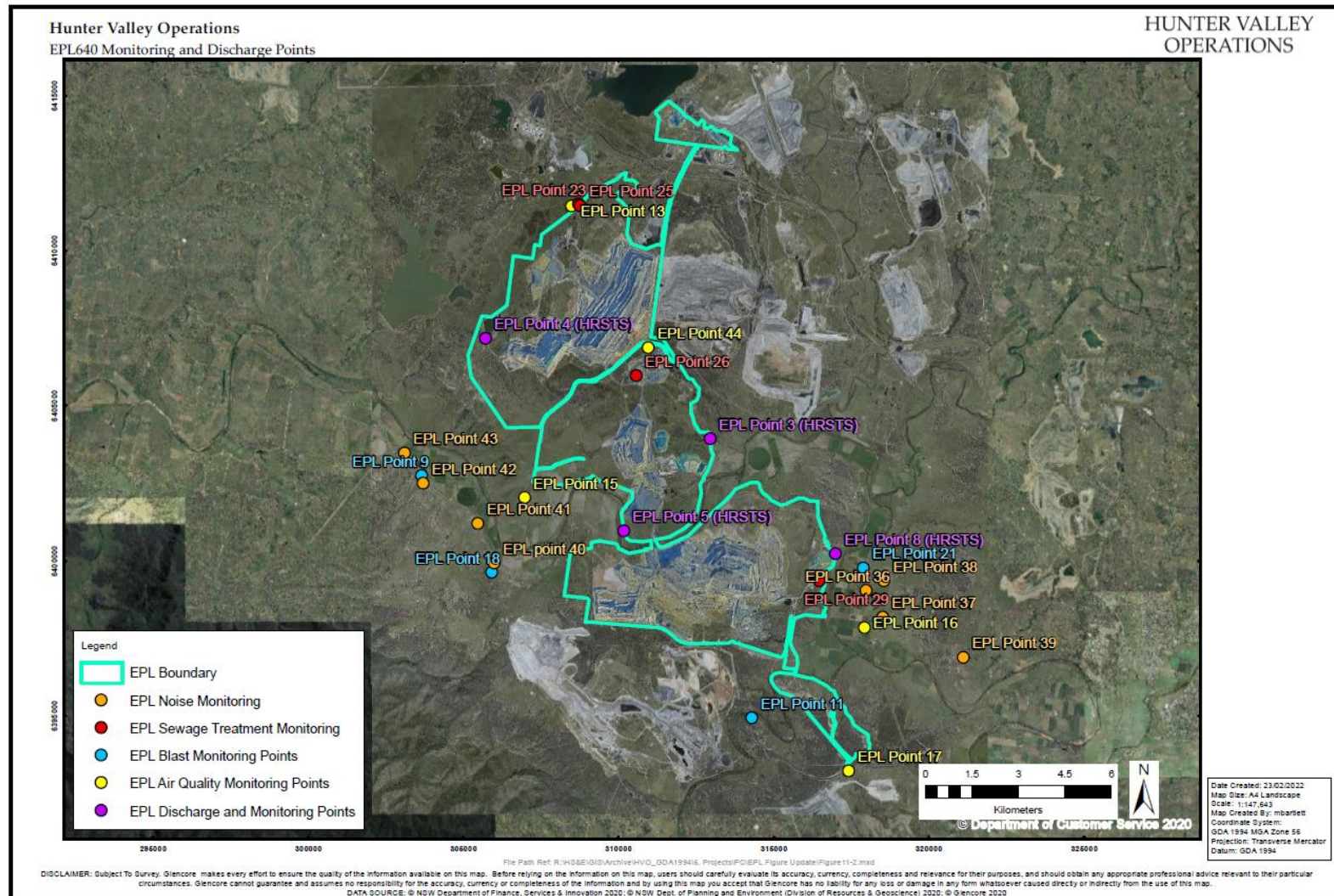
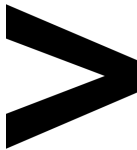


Figure 1: EPL 640 Monitoring Location

3 | AIR QUALITY

Date Last Sampled: 31/05/2025

Date Obtained: 07/07/2025

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)
1/05/2025	µg/m ³	Continuous	19.5	11.4	10.7	21.0	22.3
2/05/2025	µg/m ³		19.3	11.2	9.0	20.4	16.3
3/05/2025	µg/m ³		20.2	19.2	9.1	25.2	14.7
4/05/2025	µg/m ³		17.4	20.1	10.9	28.5	40.6
5/05/2025	µg/m ³		17.7	20.9	9.6	26.2	34.0
6/05/2025	µg/m ³		15.6	16.1	*	40.9	61.0
7/05/2025	µg/m ³		22.5	12.9	3.1	26.0	84.9
8/05/2025	µg/m ³		25.3	16.8	9.1	24.8	36.1
9/05/2025	µg/m ³		30.6	18.0	15.9	25.2	19.3
10/05/2025	µg/m ³		17.0	17.9	9.4	12.3	10.4
11/05/2025	µg/m ³		16.6	14.7	7.7	7.9	5.7
12/05/2025	µg/m ³		16.3	14.5	9.8	9.3	7.1
13/05/2025	µg/m ³		18.0	19.3	14.9	14.9	7.6
14/05/2025	µg/m ³		19.6	27.3	20.8	24.1	40.5
15/05/2025	µg/m ³		20.7	15.6	15.2	21.6	18.1

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Status: Approved

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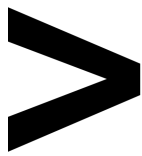
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16/05/2025	µg/m ³		11.9	10.5	9.0	20.1	20.5
17/05/2025	µg/m ³		17.1	12.6	10.9	18.0	24.9
18/05/2025	µg/m ³		14.9	11.5	11.5	15.4	13.7
19/05/2025	µg/m ³		6.2	5.7	7.3	10.0	9.7
20/05/2025	µg/m ³		2.1	8.6	8.8	10.4	11.6
21/05/2025	µg/m ³		7.5	6.1	7.2	9.6	7.3
22/05/2025	µg/m ³		9.7	6.5	7.0	*	4.3
23/05/2025	µg/m ³		8.2	3.9	17.2	*	4.7
24/05/2025	µg/m ³		*	*	*	*	*
25/05/2025	µg/m ³		18.0	9.3	24.4	*	28.5
26/05/2025	µg/m ³		17.5	9.5	14.9	*	*
27/05/2025 ¹	µg/m ³		43.0	55.6	66.9	*	76.7
28/05/2025	µg/m ³		2.2	8.1	14.5	9.9	28.6
29/05/2025	µg/m ³		8.8	13.2	18.2	18.8	23.9
30/05/2025	µg/m ³		24.4	18.8	18.9	30.4	28.1
31/05/2025	µg/m ³		31.2	21.8	14.6	23.2	22.3
Monthly Meaningful Data							
May	µg/m ³	Minimum	2.1	3.9	3.1	7.9	4.3
	µg/m ³	Mean	17.3	15.2	14.0	19.8	24.9
	µg/m ³	Maximum	43.0	55.6	66.9	40.9	84.9
	µg/m ³	Median	17.5	13.9	10.9	20.4	20.5

* Less than 75% 24-hour data capture

¹ “extraordinary event” classified by DPHI



4 | SURFACE WATER MONITORING DATA

Date/s Sampled:

EPL ID 8: 20-23/05/2025

EPL ID 3: 28-31/05/2025

EPL ID 4: N/A

Date Obtained: 20-23/05/2025 and 28-31/05/2025

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	4	4
	Total Suspended Solids	Milligrams per Litre	120	4	4
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	4	4
	Total Suspended Solids	Milligrams per Litre	120	4	4

5 | BLAST MONITORING DATA

Date Last Sampled: 31/05/2025

Date Obtained: 12/06/2025

Table 3 – Blast Monitoring (Air Blast Overpressure)

Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Moses Crossing EPL ID 18	Monitoring Point		
				95% of Blasts	100% of Blasts		Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	Warkworth EPL ID 11
P210MTA305A_P210FCL01B	2/05/2025 13:12	dB(L)	All blasts 100%	115	120	97.52	91.24	98.17	89.32
P10203601A_P10204401A	3/05/2025 17:11	dB(L)		115	120	108.10	100.14	93.73	109.36
P210PCF402A	6/05/2025 13:56	dB(L)		115	120	83.08	86.68	87.74	90.64
WS49ARU304A	7/05/2025 13:16	dB(L)		115	120	83.69	102.71	101.16	100.52
WS49ARL102A	9/05/2025 13:31	dB(L)		115	120	93.45	84.25	86.31	91.29
P210PCF403A	10/05/2025 12:53	dB(L)		115	120	96.28	98.03	104.00	95.83
WS49ARL102B_WS49PGM05C	14/05/2025 13:15	dB(L)		115	120	91.86	87.95	101.28	88.22

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Status:

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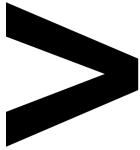
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Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Monitoring Point			
				95% of Blasts	100% of Blasts	Moses Crossing EPL ID 18	Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	Warkworth EPL ID 11
P210WKW905A	15/05/2025 14:06	dB(L)	All Blasts 100%	115	120	98.14	93.10	97.81	98.22
P102BWF403A	16/05/2025 13:20	dB(L)		115	120	90.74	84.29	92.70	93.78
P210PCF404A	16/05/2025 13:25	dB(L)		115	120	83.86	108.85	89.64	89.96
P210MTA306A_MA1C01A	17/05/2025 16:43	dB(L)		115	120	90.46	81.87	92.08	98.08
WS49ARL102C	20/05/2025 13:06	dB(L)		115	120	93.20	99.96	104.65	99.37
P101B4P01D	20/05/2025 15:15	dB(L)		115	120	97.56	93.71	86.64	103.66
WST12BRN502A	24/05/2025 17:25	dB(L)		115	120	88.95	81.78	98.08	97.13
P101BRN102A	26/05/2025 15:27	dB(L)		115	120	101.16	91.94	104.61	114.12
P210N1001A	26/05/2025 15:28	dB(L)		115	120	96.37	86.19	105.37	114.58

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Status: Approved

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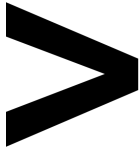
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Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Monitoring Point			
				95% of Blasts	100% of Blasts	Moses Crossing EPL ID 18	Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	Warkworth EPL ID 11
WS49ARL102D_WS49PGM05D	30/05/2025 15:45	dB(L)		115	120	87.54	89.42	88.15	94.62
P210MTA306B	31/05/2025 15:23	dB(L)		115	120	101.12	93.95	104.40	102.24
Monthly Meaningful Data									
May		dB(L)	Minimum	115	120	83.08	81.78	86.31	88.22
		dB(L)	Mean	115	120	93.50	92.00	96.47	98.39
		dB(L)	Maximum	115	120	108.10	108.85	105.37	114.58
		dB(L)	Median	115	120	93.33	91.59	97.95	97.61

Table 4 – Blast Monitoring (Ground Vibration)

Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Moses Crossing EPL ID 18	Monitoring Point		
				95% of Blasts	100% of Blasts		Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	Warkworth EPL ID 11
P210MTA305A_P210FCL01B	2/05/2025 13:12	mm/s	All Blasts 100%	5	10	0.06	0.04	0.14	0.21
P10203601A_P10204401A	3/05/2025 17:11	mm/s		5	10	0.64	0.23	0.31	0.39
P210PCF402A	6/05/2025 13:56	mm/s		5	10	0.06	0.08	0.09	0.07
WS49ARU304A	7/05/2025 13:16	mm/s		5	10	0.06	0.08	0.08	0.08
WS49ARL102A	9/05/2025 13:31	mm/s		5	10	0.09	0.09	0.13	0.21
P210PCF403A	10/05/2025 12:53	mm/s		5	10	0.04	0.08	0.09	0.06
WS49ARL102B_WS49PGM05C	14/05/2025 13:15	mm/s		5	10	0.08	0.12	0.12	0.05
P210WKW905A	15/05/2025 14:06	mm/s		5	10	0.09	0.07	0.20	0.44
P102BWF403A	16/05/2025 13:20	mm/s		5	10	0.04	0.08	0.09	0.26
P210PCF404A	16/05/2025 13:25	mm/s		5	10	0.03	0.08	0.09	0.14
P210MTA306A_MA1C01A	17/05/2025 16:43	mm/s		5	10	0.07	0.10	0.19	0.37
WS49ARL102C	20/05/2025 13:06	mm/s		5	10	0.08	0.10	0.15	0.27
P101B4P01D	20/05/2025 15:15	mm/s		5	10	0.09	0.08	0.20	0.53
WST12BRN502A	24/05/2025 17:25	mm/s		5	10	0.11	0.21	0.08	0.35

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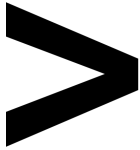
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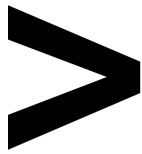
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Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Monitoring Point			
				95% of Blasts	100% of Blasts	Moses Crossing EPL ID 18	Jerrys Plains EPL ID 9	Maison Dieu EPL ID 21	Warkworth EPL ID 11
P101BRN102A	26/05/2025 15:27	mm/s		5	10	0.10	0.08	0.14	0.41
P210N1001A	26/05/2025 15:28	mm/s		5	10	0.14	0.10	0.22	0.61
WS49ARL102D_WS49PGM05D	30/05/2025 15:45	mm/s		5	10	0.11	0.11	0.13	0.35
P210MTA306B	31/05/2025 15:23	mm/s		5	10	0.05	0.10	0.17	1.21
Monthly Meaningful Data									
May		mm/s	Minimum	5	10	0.03	0.04	0.08	0.05
		mm/s	Mean	5	10	0.11	0.10	0.15	0.33
		mm/s	Maximum	5	10	0.64	0.23	0.31	1.21
		mm/s	Median	5	10	0.08	0.09	0.14	0.31



6 | SEWAGE TREATMENT PLANT MONITORING DATA

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

7 | NOISE MONITORING DATA

Date Sampled: 28/29/05/2025

Date Obtained: 30/06/2025

Table 6 – Night $L_{Aeq,15minute}$ and 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		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	29/05/2025 00:03	4.8	307	E	Yes	46	51	36	40	Nil	Nil
Knodlers Lane	29/05/2025 02:02	4.5	308	E	Yes	45	51	<25	28	Nil	Nil
Maison Dieu	29/05/2025 01:39	4.1	316	E	Yes	44	51	30	31	Nil	Nil
Long Point (Dights Crossing)	28/05/2025 23:31	4.6	305	E	Yes	42	51	IA	IA	Nil	Nil
Moses Crossing	28/05/2025 23:06	4.4	309	E	Yes	44	51	IA	IA	Nil	Nil
Jerrys Plains East	28/05/2025 22:40	3.8	309	E	Yes	44	51	34	<20	Nil	Nil
Jerrys Plains Village	28/05/2025 22:19	4.4	305	E	Yes	45	51	IA	IA	Nil	Nil
Jerrys Plains West	28/05/2025 22:00	4.1	307	E	Yes	45	51	IA	IA	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.