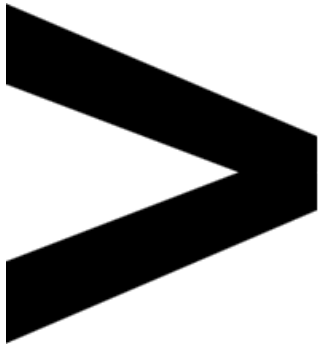




HUNTER VALLEY
OPERATIONS

ENVIRONMENT PROTECTION LICENCE 640 MONITORING DATA - JULY 2026

DOCUMENT NUMBER

HVOOC-1797567310-5808

STATUS

Approved

VERSION

1.0

EFFECTIVE

22/09/2026

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

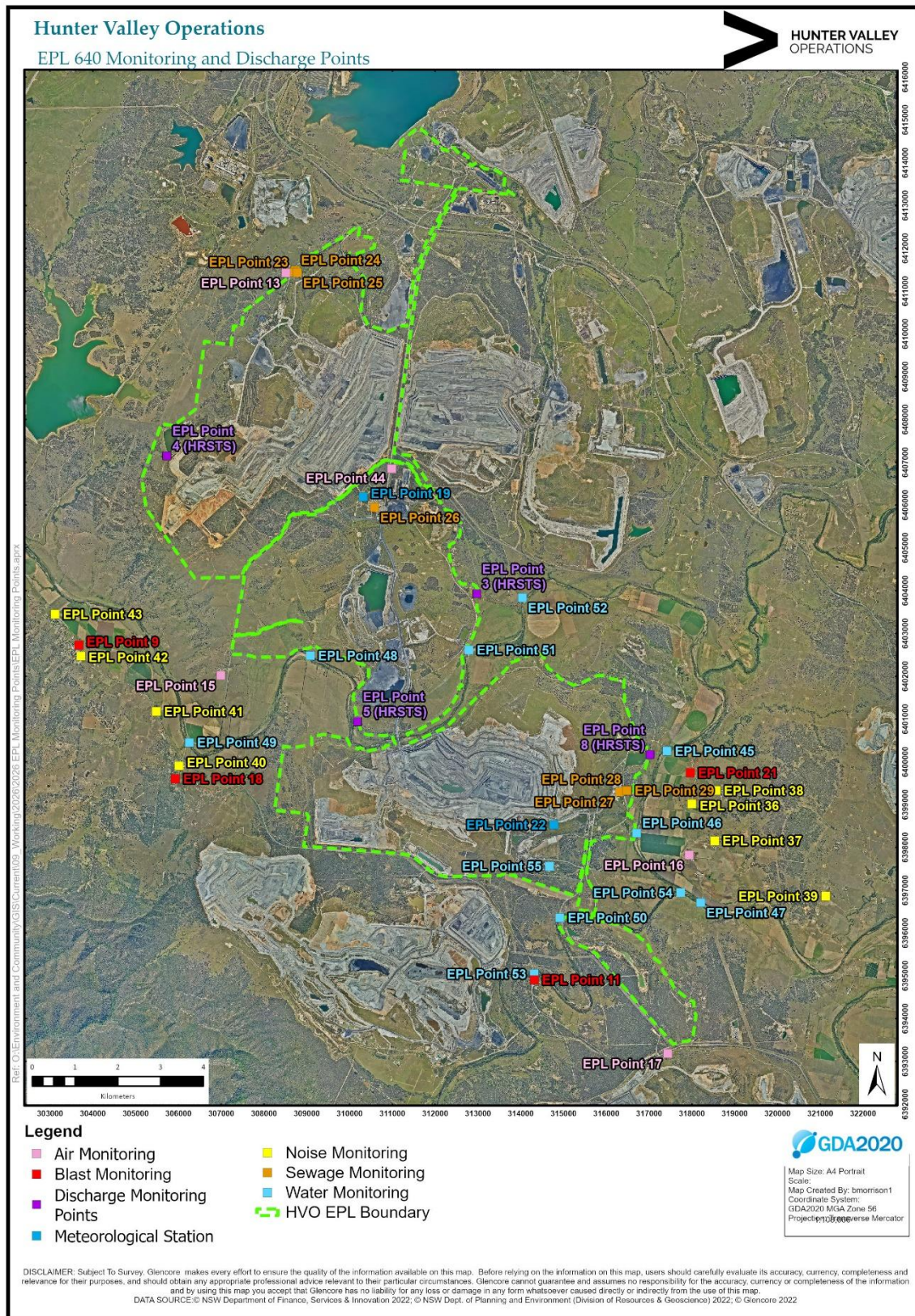
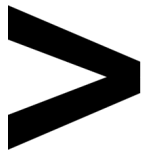


Figure 1: EPL 640 Monitoring Location

Number: HVOOC-1797567310-5808
Owner: Superintendent - Environment and Community

Status: Approved
Version: 1.0

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3 | AIR QUALITY

Date Last Sampled: 31/07/2026

Date Obtained: 18/09/2026

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)
1/07/2026	µg/m ³	Continuous	11.8	14.3	10.7	30.9	-
2/07/2026	µg/m ³		13.2	7.2	10.4	15.7	26.3
3/07/2026	µg/m ³		16.1	7.9	16.5	17.5	49.5
4/07/2026	µg/m ³		12.4	7.1	11.5	17.4	36.1
5/07/2026	µg/m ³		24.2	14.2	11.7	29.0	64.4
6/07/2026	µg/m ³		15.6	9.3	9.2	18.5	20.2
7/07/2026	µg/m ³		19.2	9.2	13.5	22.4	22.6
8/07/2026	µg/m ³		20.1	13.1	10.5	20.4	21.7
9/07/2026	µg/m ³		14.5	10.6	7.0	11.0	14.0
10/07/2026	µg/m ³		21.9	18.6	6.6	17.9	57.2
11/07/2026	µg/m ³		14.8	9.1	10.7	21.3	57.8
12/07/2026	µg/m ³		14.6	9.4	16.0	21.3	53.7
13/07/2026	µg/m ³		19.4	8.3	15.8	16.9	50.6
14/07/2026	µg/m ³		14.8	7.2	16.2	17.7	41.4
15/07/2026	µg/m ³		25.6	11.8	16.0	28.6	59.5
16/07/2026	µg/m ³		-	20.9	12.7	19.7	150.6

Number: HVOOC-1797567310-5808

Owner: Superintendent - Environment and Community

Status: Approved

Version: 1.0

Effective: 22/09/2026

Review: [Planned Review Date]

REPORT | ENVIRONMENT PROTECTION LICENCE 640

MONITORING DATA - JULY 2026

17/07/2026	µg/m³	Continuous	14.6	11.3	7.9	11.5	21.0
18/07/2026	µg/m³		16.0	10.2	6.1	12.6	18.5
19/07/2026	µg/m³		25.0	21.6	6.5	15.8	10.5
20/07/2026	µg/m³		27.6	21.9	8.3	20.8	11.9
21/07/2026	µg/m³		29.2	15.8	11.6	39.2	70.2
22/07/2026	µg/m³		21.7	9.9	13.1	30.9	62.5
23/07/2026	µg/m³		12.6	7.0	20.2	24.8	42.0
24/07/2026	µg/m³		17.1	8.4	13.5	27.4	36.8
25/07/2026	µg/m³		14.7	8.5	16.0	25.5	36.2
26/07/2026	µg/m³		19.7	14.3	14.1	30.4	39.3
27/07/2026	µg/m³		30.5	24.5	15.2	39.7	101.7
28/07/2026	µg/m³		19.3	8.3	21.3	28.5	65.1
29/07/2026	µg/m³		12.5	9.0	27.5	28.2	68.0
30/07/2026	µg/m3		27.2	19.4	20.8	29.4	51.7
31/07/2026			31.2	24.0	25.0	47.5	135.7
Monthly Meaningful Data							
July	µg/m³	Minimum	11.8	7.0	6.1	11.0	10.5
	µg/m³	Mean	19.2	12.7	13.6	23.8	49.9
	µg/m³	Maximum	31.2	24.5	27.5	47.5	150.6
	µg/m³	Median	18.2	10.2	13.1	21.3	45.8

* Less than 75% 24-hour data capture

4 | SURFACE WATER MONITORING DATA

Water quality and quantity is monitored during discharge events and are shown in

Discharge Point	Pollutant	Licence Limits	Monitoring frequency	Result
EPL ID 3 (Dam 11N)	pH	6.5-9.5	Daily during discharge	N/A
	TSS (mg/L)	120		N/A
	EC (uS/cm)	N/A	Continuous during discharge	N/A
	Turbidity			N/A
EPL ID 4 (Dam 9W)	pH	6.5-9.5	Daily during discharge	N/A
	TSS (mg/L)	120		N/A
	EC (uS/cm)	N/A	Continuous during discharge	N/A
	Turbidity			N/A
EPL ID 5 (Alluvial Lands)	EC (µs/cm)	400	Special Frequency 1*	N/A
EPL ID 8 (Dam 15S)	pH	6.5-9.5	Daily during discharge	N/A
	TSS (mg/L)	120		N/A
	EC (uS/cm)	N/A	Continuous during discharge	N/A
	Turbidity			N/A

Table 2. Electrical conductivity (EC) and turbidity is monitored continuously using a probe. Total suspended solids (TSS) and pH is monitored via grab sample. Water quantity is continuously monitored while discharging using either an electronic level sensor or flowmeter.

No discharges under the HRSTS occurred during the reporting period.

Date Sampled: NA

Date Obtained: NA

Table 2 - HRSTS Discharge Monitoring

Discharge Point	Pollutant	Licence Limits	Monitoring frequency	Result
EPL ID 3 (Dam 11N)	pH	6.5-9.5	Daily during discharge	N/A
	TSS (mg/L)	120		N/A
	EC (uS/cm)	N/A	Continuous during discharge	N/A
	Turbidity			N/A
EPL ID 4 (Dam 9W)	pH	6.5-9.5	Daily during discharge	N/A
	TSS (mg/L)	120		N/A
	EC (uS/cm)	N/A	Continuous during discharge	N/A
	Turbidity			N/A
EPL ID 5 (Alluvial Lands)	EC (µs/cm)	400	Special Frequency 1*	N/A
EPL ID 8 (Dam 15S)	pH	6.5-9.5	Daily during discharge	N/A
	TSS (mg/L)	120		N/A
	EC (uS/cm)	N/A	Continuous during discharge	N/A
	Turbidity			N/A

*At least once every 10 minutes during discharge.



Ambient water quality is monitored quarterly and bi-annually. Electrical conductivity, pH and total suspended solids are monitored quarterly and will be provided in the September 2026 report. Ammonia, nitrogen, and total petroleum hydrocarbons (TPH) are monitored bi-annually and will be provided in the September 2026 report.

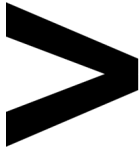
Date Sampled: NA

Date Obtained: NA

Table 3 – Ambient Surface Water

Discharge Point	Frequency	Pollutant	Result
EPL ID 45 (H1 Hunter River (upstream K Dam))	Quarterly	EC (µS/cm)	N/A
		pH	N/A
		TSS (mg/L)	N/A
EPL ID 46 (H2 Hunter River)	Quarterly	EC (µS/cm)	N/A
		pH	N/A
		TSS (mg/L)	N/A
EPL ID 47 (H3 Hunter River downstream Wollombi)	Quarterly	EC (µS/cm)	N/A
		pH	N/A
		TSS (mg/L)	N/A
EPL ID 48 (W1 Hunter River Carrington)	Quarterly	EC (µS/cm)	N/A
		pH	N/A
		TSS (mg/L)	N/A
EPL ID 49 (W109 Hunter River Moses Crossing)	Quarterly	EC (µS/cm)	N/A
		pH	N/A
		TSS (mg/L)	N/A
EPL ID 50 (W2 Wollombi Brook)	Quarterly	EC (µS/cm)	N/A
		pH	N/A
		TSS (mg/L)	N/A
EPL ID 51 (W3 Hunter River)	Quarterly	EC (µS/cm)	N/A
		pH	N/A
		TSS (mg/L)	N/A
EPL ID 52 (W4 Hunter River Oaklands)	Quarterly	EC (µS/cm)	N/A
		pH	N/A
		TSS (mg/L)	N/A
EPL ID 53 (Warkworth Bridge Wollombi Brook)	Quarterly	EC (µS/cm)	N/A
		pH	N/A
		TSS (mg/L)	N/A
EPL ID 54 (WL1 Wollombi Brook)	Quarterly	EC (µS/cm)	N/A
		pH	N/A
		TSS (mg/L)	N/A
EPL ID 55 (Dam 19S)	Bi-annually*	Ammonia (mg/L)	N/A
		Nitrogen (Total) (mg/L)	N/A
		TPH (mg/L)	N/A

* EPL ID 55 is conducted more frequently than required by the EPL. It is conducted quarterly as per the HVO Water Management Plan.



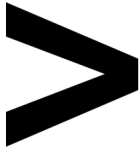
5 | BLAST MONITORING DATA

Date Last Sampled: 31/07/2026

Date Obtained: 10/08/2026

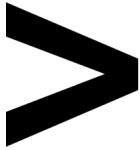
Table 4 – Blast Monitoring (Air Blast Overpressure)

Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		EPL ID 18 (Moses Crossing)	Monitoring Point		
				95% of Blasts	100% of Blasts		EPL ID 9 (Jerrys Plains)	EPL ID 21 (Maison Dieu)	EPL ID 11 (Warkworth)
P210BRN105A	1/07/2026 13:01	dB(L)	All Blasts 100%	115	120	99.87	111.82	101.22	92.92
M2B2BP502A	3/07/2026 12:07	dB(L)		115	120	98.61	109.32	107.59	97.62
P210VAX107A_P210PCF108A	4/07/2026 13:22	dB(L)		115	120	99.13	111.15	116.13	102.22
WT12LEC101A	6/07/2026 12:55	dB(L)		115	120	97.06	96.07	100.83	98.94
P10304801A_P102V1P02A	9/07/2026 13:15	dB(L)		115	120	101.00	91.64	105.46	83.61
P102M3P04B_P210N4002A	10/07/2026 13:10	dB(L)		115	120	101.35	99.33	93.41	92.90



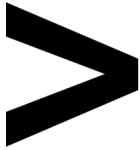
REPORT | ENVIRONMENT PROTECTION LICENCE 640 MONITORING DATA - JULY 2026

Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Monitoring Point			
				95% of Blasts	100% of Blasts	EPL ID 18 (Moses Crossing)	EPL ID 9 (Jerrys Plains)	EPL ID 21 (Maison Dieu)	EPL ID 11 (Warkworth)
M1B3BAR101A	10/07/2026 14:35	dB(L)	All Blasts 100%	115	120	93.61	96.68	94.43	90.02
M2B2BP502B	10/07/2026 14:37	dB(L)		115	120	96.91	100.70	80.28	96.11
WS15BAY109A	13/07/2026 13:18	dB(L)		115	120	97.20	103.05	84.50	95.55
WT11LDU701A	13/07/2026 13:20	dB(L)		115	120	108.92	103.95	106.13	102.86
P101DYKE01	14/07/2026 13:15	dB(L)		115	120	93.54	106.13	111.77	100.24
P210BRN106A	14/07/2026 13:16	dB(L)		115	120	105.38	106.11	108.53	105.68
WT12LEC103A	16/07/2026 13:08	dB(L)		115	120	91.20	96.66	107.85	96.16
M2B1BP504A	17/07/2026 13:30	dB(L)		115	120	98.48	90.24	92.75	100.42
P102M3P04C_P102MTA306A	20/07/2026 13:19	dB(L)		115	120	102.07	101.88	100.46	94.74



REPORT | ENVIRONMENT PROTECTION LICENCE 640 MONITORING DATA - JULY 2026

Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Monitoring Point			
				95% of Blasts	100% of Blasts	EPL ID 18 (Moses Crossing)	EPL ID 9 (Jerrys Plains)	EPL ID 21 (Maison Dieu)	EPL ID 11 (Warkworth)
P102PCF101A	21/07/2026 14:10	dB(L)	All Blasts 100%	115	120	97.57	94.16	97.01	95.29
P102M3P04D	22/07/2026 13:03	dB(L)		115	120	100.38	89.52	95.06	92.98
WT11LDU702A	24/07/2026 11:02	dB(L)		115	120	97.91	110.79	104.31	101.73
WT12LEC102A	24/07/2026 11:03	dB(L)		115	120	94.36	98.75	91.37	96.45
WT12LEC104A	28/07/2026 11:12	dB(L)		115	120	95.17	90.41	92.68	87.79
P102MTA307A	29/07/2026 13:17	dB(L)		115	120	92.02	94.72	101.65	97.30
WS15BAY111A	30/07/2026 12:58	dB(L)		115	120	98.39	101.04	102.45	102.34
WT13LECP01A	31/07/2026 13:02	dB(L)		115	120	94.59	94.75	85.73	88.70
WT12LEC105A	31/07/2026 13:04	dB(L)		115	120	92.63	93.55	88.86	85.09



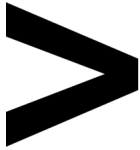
REPORT | ENVIRONMENT PROTECTION LICENCE 640

MONITORING DATA - JULY 2026

Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Monitoring Point			
				95% of Blasts	100% of Blasts	EPL ID 18 (Moses Crossing)	EPL ID 9 (Jerrys Plains)	EPL ID 21 (Maison Dieu)	EPL ID 11 (Warkworth)
Monthly Meaningful Data									
July		dB(L)	Minimum	115	120	91.20	89.52	80.28	83.61
		dB(L)	Mean	115	120	97.81	99.68	98.77	95.74
		dB(L)	Maximum	115	120	108.92	111.82	116.13	105.68
		dB(L)	Median	115	120	97.74	99.04	100.65	96.14

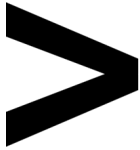
Table 5 -Blast Monitoring (Ground Vibration)

Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Monitoring Point			
				95% of Blasts	100% of Blasts	EPL ID 18 (Moses Crossing)	EPL ID 9 (Jerrys Plains)	EPL ID 21 (Maison Dieu)	EPL ID 11 (Warkworth)
P210BRN105A	1/07/2026 13:01	mm/s	All Blasts 100%	5	10	99.87	111.82	101.22	92.92
M2B2BP502A	3/07/2026 12:07	mm/s		5	10	98.61	109.32	107.59	97.62
P210VAX107A_P210PCF108A	4/07/2026 13:22	mm/s		5	10	99.13	111.15	116.13	102.22



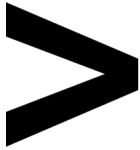
REPORT | ENVIRONMENT PROTECTION LICENCE 640 MONITORING DATA - JULY 2026

Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Monitoring Point			
				95% of Blasts	100% of Blasts	EPL ID 18 (Moses Crossing)	EPL ID 9 (Jerrys Plains)	EPL ID 21 (Maison Dieu)	EPL ID 11 (Warkworth)
WT12LEC101A	6/07/2026 12:55	mm/s	All Blasts 100%	5	10	0.15	0.09	0.19	0.36
P10304801A_P102V1P02A	9/07/2026 13:15	mm/s		5	10	0.18	0.13	0.10	0.39
P102M3P04B_P210N4002A	10/07/2026 13:10	mm/s		5	10	0.13	0.07	0.11	0.49
M1B3BAR101A	10/07/2026 14:35	mm/s		5	10	0.19	0.06	0.10	0.20
M2B2BP502B	10/07/2026 14:37	mm/s		5	10	0.42	0.16	0.10	0.16
WS15BAY109A	13/07/2026 13:18	mm/s		5	10	0.34	0.21	0.16	0.24
WT11LDU701A	13/07/2026 13:20	mm/s		5	10	0.16	0.11	0.24	0.44
P101DYKE01	14/07/2026 13:15	mm/s		5	10	0.14	0.13	0.06	0.38
P210BRN106A	14/07/2026 13:16	mm/s		5	10	0.15	0.13	0.07	0.42



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Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Monitoring Point			
				95% of Blasts	100% of Blasts	EPL ID 18 (Moses Crossing)	EPL ID 9 (Jerrys Plains)	EPL ID 21 (Maison Dieu)	EPL ID 11 (Warkworth)
WT12LEC103A	16/07/2026 13:08	mm/s	All Blasts 100%	5	10	0.12	0.11	0.09	0.36
M2B1BP504A	17/07/2026 13:30	mm/s		5	10	0.18	0.06	0.07	0.48
P102M3P04C_P102MTA306A	20/07/2026 13:19	mm/s		5	10	0.31	0.07	0.11	0.20
P102PCF101A	21/07/2026 14:10	mm/s		5	10	0.17	0.24	0.39	0.93
P102M3P04D	22/07/2026 13:03	mm/s		5	10	0.15	0.15	0.11	0.85
WT11LDU702A	24/07/2026 11:02	mm/s		5	10	0.45	0.61	0.07	0.59
WT12LEC102A	24/07/2026 11:03	mm/s		5	10	0.15	0.16	0.36	0.81
WT12LEC104A	28/07/2026 11:12	mm/s		5	10	0.17	0.06	0.09	0.59
P102MTA307A	29/07/2026 13:17	mm/s		5	10	0.12	0.10	0.23	1.01



REPORT | ENVIRONMENT PROTECTION LICENCE 640 MONITORING DATA - JULY 2026

Blast ID	Date & Time	Unit of Measure	Monitoring Frequency & Capture	EPL Limits		Monitoring Point			
				95% of Blasts	100% of Blasts	EPL ID 18 (Moses Crossing)	EPL ID 9 (Jerrys Plains)	EPL ID 21 (Maison Dieu)	EPL ID 11 (Warkworth)
WS15BAY111A	30/07/2026 12:58	mm/s	All Blasts 100%	5	10	0.26	0.05	0.09	0.09
WT13LECP01A	31/07/2026 13:02	mm/s		5	10	0.21	0.16	0.14	0.16
WT12LEC105A	31/07/2026 13:04	mm/s		5	10	0.34	0.14	0.13	0.05
Monthly Meaningful Data									
July		mm/s	Minimum	5	10	0.12	0.05	0.06	0.05
		mm/s	Mean	5	10	0.21	0.14	0.15	0.44
		mm/s	Maximum	5	10	0.45	0.61	0.39	1.01
		mm/s	Median	5	10	0.18	0.13	0.11	0.41



6 | SEWAGE TREATMENT PLANT MONITORING DATA

Sewage treatment plant monitoring results are provided on a quarterly basis. Results will be provided in the September 2026 report.

7 | NOISE MONITORING DATA

Date Sampled: 9-10/07/2026

Date Obtained: 24/08/2026

Table 7 – 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 ^{2,3}		Exceedances, dB	
		Speed m/s	Direction ⁴			$L_{Aeq,15minute}$	$L_{A1,1min}$	$L_{Aeq,15minute}$ ²	$L_{A1,1min}$	$L_{Aeq,15minute}$	$L_{A1,1min}$
EPL ID 36 (Shearers Lane)	9/07/2026 22:03	0.5	122	D	Yes	35	46	IA	IA	Nil	Nil
EPL ID 37 (Knodlers Lane)	9/07/2026 22:46	0.8	134	E	Yes	35	46	IA	IA	Nil	Nil
EPL ID 38 (Maison Dieu)	9/07/2026 22:24	1.1	128	F	Yes	35	46	IA	IA	Nil	Nil
EPL ID 39 (Long Point)	9/07/2026 23:16	0.5	124	E	Yes	35	46	IA	IA	Nil	Nil
EPL ID 40 (Moses Crossing)	9/07/2026 23:54	0.4	129	F	Yes	39	46	IA	IA	Nil	Nil
EPL ID 41 (Jerrys Plains East)	9/07/2026 23:34	0.5	136	F	Yes	39	46	IA	IA	Nil	Nil
EPL ID 42 (Jerrys Plains Village)	9/07/2026 22:21	0.9	122	E	Yes	40	46	IA	IA	Nil	Nil
EPL ID 43 (Jerrys Plains West)	9/07/2026 22:00	0.5	122	D	Yes	40	46	28	30	Nil	Nil

Number: HVOOC-1797567310-5808

Status:

Approved

Effective:

22/09/2026

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Owner: Superintendent - Environment and Community

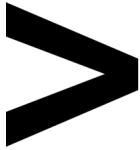
Version:

1.0

Review:

[Planned Review Date]

Uncontrolled when printed



Notes:

1. Noise limits are adjusted by +5 dB during 'very noise-enhancing meteorological conditions' in accordance with the NPfl. Refer to Section 2.6 for additional information.
2. Site-only $L_{Aeq,15\text{minute}}$, includes modifying factor penalties if applicable.
3. Site-only $L_{A1,1\text{minute}}$ based on measured site-only L_{Amax} as detailed in Section 3.2.
4. Degrees magnetic north, "-" indicates calm conditions.