



# Monthly compliance noise monitoring report

**Glebe Island / White Bay**

Port Authority of New South Wales

January 2025



**The Power of Commitment**

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# 1. Introduction

GHD Pty Ltd (GHD) has been engaged by Port Authority of New South Wales (Port Authority) to undertake compliance noise monitoring, as required by the *Port Noise Policy (Port Authority, 2020)*.

This report provides the details of the compliance noise monitoring for all vessels at berth during January 2025, as determined using the noise monitoring system. A detailed description of the permanent noise monitoring system including a map of monitoring locations is provided in the Noise Monitoring Plan, available on Port Authority's website.

# 2. Noise monitoring details and vessel schedule

Client	Company details	Noise monitor name	Noise monitor location	Noise monitor details / settings	Noise monitor serial numbers	Monthly calibration variance
Port Authority of New South Wales	GHD Pty Ltd	L01	Grafton Street, Balmain	<b>Meter details</b> Norsonic Nor145 Sound Level Meter with Nor1297 Noise Compass  <b>Meter settings</b> A-weighted Fast time response 15 minute intervals	14529646	<b>Initial calibration level 90.7 dBA</b> Min. deviation = 0.0 dB Max. deviation = 0.1 dB
		L02	Maintenance Building on White Bay		14529643	<b>Initial calibration level 91.9 dBA</b> Min. deviation = 0.3 dB Max. deviation = 0.3 dB
	Lead staff are Members of the Australian Acoustical Society (AAS)	L03	Adjacent to White Bay 2		14529645	<b>Initial calibration level 92.5 dBA</b> Min. deviation = 0.1 dB Max. deviation = 0.3 dB
		L04	Onsite at Glebe Island		14529640	<b>Initial calibration level 93.9 dBA</b> Min. deviation = -0.1 dB Max. deviation = 0 dB
Vessel name	Arrival date and time		Departure date and time		Berth location	Applicable noise monitoring location/s
<b>Bulk vessels</b>						
Adelie	January 5, 2025 / 3:11		January 7, 2025 / 22:58		GLB7	L03
Kondili	January 10, 2025 / 8:39		January 12, 2025 / 19:42		GLB8	L03

Vessel name	Arrival date and time	Departure date and time	Berth location	Applicable noise monitoring location/s
Pioneer	January 29, 2025 / 19:37	February 2, 2025 / 8:00	GLB7	L03
<b>Cruise vessel</b>				
Azamara Pursuit	December 31, 2025 / 8:20	January 2, 2025 / 15:54	WBCT	L01
Silver Nova <sup>1</sup>	January 5, 2025 / 6:11	January 5, 2025 / 18:55	WHT4	L02
Westerdam	January 5, 2025 / 7:11	January 5, 2025 / 18:27	WBCT	L01
Azamara Pursuit	January 6, 2025 / 8:21	January 8, 2025 / 13:02	WBCT	L01
Disney Wonder	January 10, 2025 / 5:10	January 10, 2025 / 16:46	WBCT	L01
Seabourn Quest	January 13, 2025 / 7:17	January 13, 2025 / 18:54	WBCT	L01
Disney Wonder	January 14, 2025 / 6:30	January 14, 2025 / 16:57	WBCT	L01
Disney Wonder	January 16, 2025 / 4:18	January 16, 2025 / 15:15	WBCT	L01
Seven Seas Explorer	January 16, 2025 / 8:00	January 18, 2025 / 11:34	WHT4	L02
Silver Muse	January 19, 2025 / 9:20	January 19, 2025 / 18:56	WBCT	L01
Viking Venus	January 19, 2025 / 11:52	January 20, 2025 / 18:22	WHT4/WBCT <sup>3</sup>	L01/L02
Disney Wonder	January 22, 2025 / 6:23	January 22, 2025 / 16:57	WBCT	L01
Viking Orion	January 23, 2025 / 7:48	January 25, 2025 / 18:13	WHT4	L02
Pacific Adventure	January 24, 2025 / 7:32	January 24, 2025 / 17:17	WBCT	L01
Regatta	January 25, 2025 / 6:38	January 25, 2025 / 16:00	WBCT	L01
Pacific Adventure	January 27, 2025 / 4:30	January 27, 2025 / 16:10	WBCT	L01
Seven Seas Voyager	January 28, 2025 / 06:56	January 29, 2025 / 12:02	WBCT	L01

Note: 1) Noise complaint received on 05/01/2025. Emergency diesel generator was tested at 10:45. This is allowed under the White Bay Cruise Terminal Noise Restriction Policy.

Note: 2) On 19/01/2025 at 19:42, Viking Venus moved from WHT4 to WBCT. Then, it departed WBCT on 20/01/2025 at 18:22

## 2.1 Compliance summary

## 2.2 Bulk vessels

Vessel	Dates at berth	Monitor location	Vessel Noise Level, dBA (inclusive of any modifying factor penalties)			Vessel Noise Trigger Levels, dBA			Compliance <sup>1</sup>	
			Day L <sub>Aeq</sub> (15 hr)	Night L <sub>Aeq</sub> (1 hr)	Night L <sub>Amax</sub>	Day <sup>2</sup> L <sub>Aeq</sub> (15 hr)	Night L <sub>Aeq</sub> (1 hr)	Night L <sub>Amax</sub>	Day	Night
Adelie	Jan 5 – Jan 7	L03	59	54	63	60	55	65	Yes	Yes
Kondili	Jan 10 – Jan 12	L03	52	54	65	60	55	65	Yes	Yes
Pioneer	Jan 29 – Feb 2	L03	56	49	66 <sup>4</sup>	60	55	65	Yes	No <sup>4</sup>

Note: 1) If non-compliance is detected, a detailed investigation of the results will be undertaken and reported separately if required

Note: 2) Daytime period (7 am to 10 pm) – 15 hour logarithmic average

Note: 3) Night-time (10 pm to 7 am) – loudest 1 hour period

Note: 4) This maximum level event only occurred once during the entire night time period of January 30. Given it only occurred once and only a 1 dB above the maximum noise trigger level, this is not considered an adverse impact. The vessel was compliant with the night time vessel noise trigger level at all other times during the visit.

## 2.3 Cruise vessels

Vessel	Dates at berth	Monitor location	Vessel Noise Level, dBA (inclusive of any modifying factor penalties)		Vessel Noise Trigger Levels, dBA		Compliance <sup>1</sup>	
			Day <sup>2</sup> L <sub>Aeq</sub> (15 hr)	Night <sup>3</sup> L <sub>Aeq</sub> (9 hr)	Day <sup>2</sup> L <sub>Aeq</sub> (15 hr)	Night <sup>3</sup> L <sub>Aeq</sub> (9 hr)	Day <sup>4</sup>	Night
Azamara Pursuit	Dec 31	L01	57	50 <sup>5</sup>	N/A	58	N/A	Yes
	Jan 1	L01	51	51	N/A	58	N/A	Yes
	Jan 2	L01	54	-	N/A	58	N/A	-
Silver Nova	Jan 5	L02	55	-	N/A	58	N/A	-
Westerdam	Jan 5	L01	58 <sup>6</sup>	-	N/A	58	N/A	-
Azamara Pursuit	Jan 6	L01	55	53	N/A	58	N/A	Yes
	Jan 7	L01	56	53	N/A	58	N/A	Yes
	Jan 8	L01	56	-	N/A	58	N/A	-
Disney Wonder	Jan 10	L01	56	52	N/A	58	N/A	Yes
Seabourn Quest	Jan 13	L01	52	-	N/A	58	N/A	-
Disney Wonder	Jan 14	L01	58	55	N/A	58	N/A	Yes
Disney Wonder	Jan 16	L01	59	52	N/A	58	N/A	Yes

Vessel	Dates at berth	Monitor location	Vessel Noise Level, dBA (inclusive of any modifying factor penalties)		Vessel Noise Trigger Levels, dBA		Compliance <sup>1</sup>	
			Day <sup>2</sup> L <sub>Aeq</sub> (15 hr)	Night <sup>3</sup> L <sub>Aeq</sub> (9 hr)	Day <sup>2</sup> L <sub>Aeq</sub> (15 hr)	Night <sup>3</sup> L <sub>Aeq</sub> (9 hr)	Day <sup>4</sup>	Night
Seven seas explorer	Jan 16	L02	Adverse weather was experience during the entire visit, including high winds and rain. As such, no noise level was able to be obtained during this visit		N/A	58	N/A	-
	Jan 17	L02			N/A	58	N/A	-
	Jan 18	L02			N/A	58	N/A	-
Silver Muse	Jan 19	L01	55	-	N/A	58	N/A	-
Viking Venus	Jan 19	L02	56	-	N/A	58	N/A	-
	Jan 19	L01	53	49	N/A	58	N/A	Yes
	Jan 20	L01	56	-	N/A	58	N/A	-
Disney Wonder	Jan 22	L01	57	55	N/A	58	N/A	Yes
Viking Orion	Jan 23	L02	55	53	N/A	58	N/A	Yes <sup>7</sup>
	Jan 24	L02	56	50	N/A	58	N/A	Yes
	Jan 25	L02	52	-	N/A	58	N/A	-
Pacific Adventure	Jan 24	L01	58	-	N/A	58	N/A	-
Regatta	Jan 25	L01	53	-	N/A	58	N/A	-
Pacific Adventure	Jan 27	L01	57 <sup>8</sup>	-	N/A	58	N/A	-
Seven Seas Adventure	Jan 28	L01	55	52	N/A	58	N/A	Yes
	Jan 29	L01	53	-	N/A	58	N/A	-

Note: 1) If non-compliance is detected, a detailed investigation of the results will be undertaken and reported separately if required

Note: 2) Daytime period (7 am to 10 pm) – 15 hour logarithmic average

Note: 3) Night-time (10 pm to 7 am) – 9 hour logarithmic average

Note: 4) Port Authority provides attenuation to a defined area of residences where noise modelling indicates that current noise levels reach or exceed 55 dBA **at night** ('attenuation eligibility trigger'). Under the White Bay Cruise Terminal Noise Restriction Policy, cruise ship noise which causes further residences than those currently identified to exceed the attenuation eligibility trigger is considered to be Excessive Noise. Hence under the Noise Restriction Policy a day time trigger level does not apply. The area of residences currently offered attenuation (ie meeting the 'attenuation eligibility trigger') is based on a reference cruise vessel intrusive noise level of 58 dBA at the nearest residence, which sets the Vessel Noise Trigger Level for assessing compliance at night.

Excessive noise is defined as “any noise including but not limited to engine, generator or ventilation noise which causes further residences than those currently identified to exceed the attenuation eligibility trigger.”

Note: 5) Noise levels were impacted by the New Year's Eve fireworks. These have excluded from these results.

Note: 6) The Westerdam and Silver Nova were in berth simultaneously in White Bay 4 and White Bay Cruise Terminal. It is possible that the noise level measured for the include contributions from the Silver Nova. Based on previous visits, it is likely that the noise levels of the Westerdam are 58 dBA. It is also noted that there was adverse weather during periods throughout the day which may have impacted noise measurements.

Note: 7) Noise levels were impacted by extraneous noise. As such, the LA90 descriptor has been used to estimate the noise level from the vessel.

Note: 8) Noise levels were impacted by adverse weather. This data has been excluded from the overall result.

### 3. Detailed results – bulk vessels

#### 3.1 Adelie (GLB7) – January 5 – January 7, 2025

##### 3.1.1 Daily noise monitoring results

Date	Time period <sup>1</sup>	Monitor location	Noise descriptor	Vessel noise level dBA <sup>2</sup>	Tonal	LFN <sup>3</sup>	Vessel Noise Trigger Levels, dBA	Compliance
January 4, 2024 <sup>4</sup>	Day	L03	L <sub>Aeq</sub> , 15 hour <sup>1</sup>	-	-	-	60	-
	Night		L <sub>Aeq</sub> , 1 hour <sup>1</sup>	53	No	Yes	55	Yes
			L <sub>Amax</sub>	63	-	-	65	Yes
January 5, 2024	Day	L03	L <sub>Aeq</sub> , 15 hour <sup>1</sup>	52	No	Yes	60	Yes
	Night		L <sub>Aeq</sub> , 1 hour <sup>1</sup>	52	No	Yes	55	Yes
			L <sub>Amax</sub>	59	-	-	65	Yes
January 6, 2024	Day	L03	L <sub>Aeq</sub> , 15 hour <sup>1</sup>	53	No	Yes	60	Yes
	Night		L <sub>Aeq</sub> , 1 hour <sup>1</sup>	54	No	Yes	55	Yes
			L <sub>Amax</sub>	63 <sup>5</sup>	-	-	65	Yes
January 7, 2025	Day	L03	L <sub>Aeq</sub> , 15 hour <sup>1</sup>	59	No	Yes	60	Yes
	Night		L <sub>Aeq</sub> , 1 hour <sup>1</sup>	50	No	Yes	55	Yes
			L <sub>Amax</sub>	62	-	-	65	Yes

Notes

1) Daytime period (7 am to 10 pm) – 15 hours

Night-time period (10 pm to 7 am) – worst case 1 hour

2) Inclusive of any penalties for modifying factors

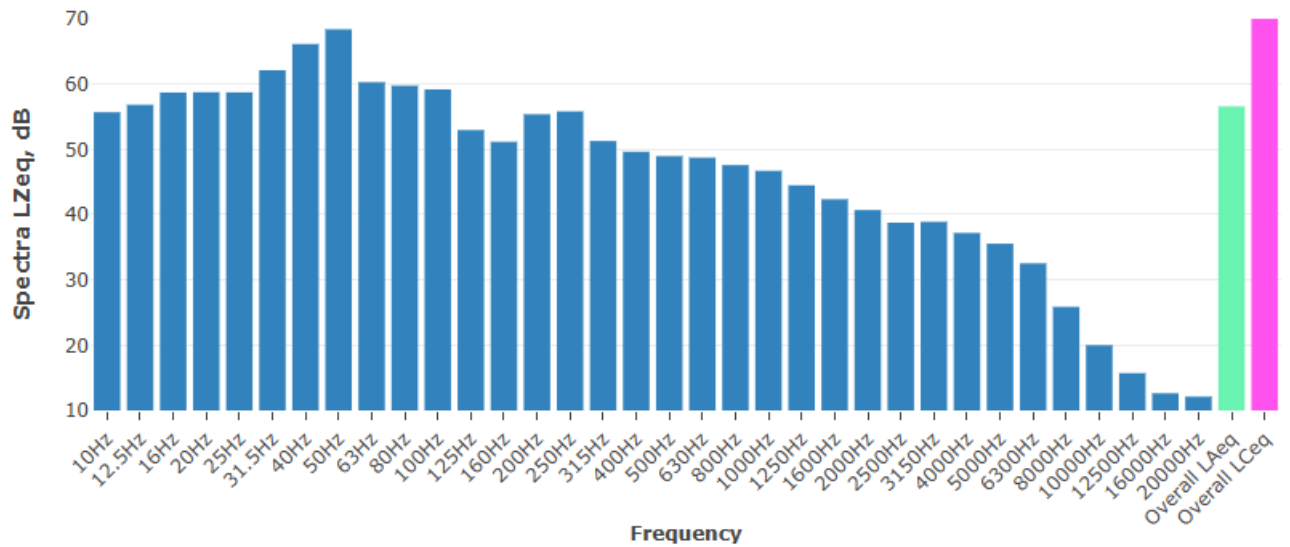
3) LFN = Low Frequency Noise

4) Note that the system classifies January as the period from 7 am on January 4 to 7 am on January 5. The Adelie arrived at 3:11 am on January 5, and has been incorporated in the data for January 4.

5) Maximum noise levels were detected during this period. A review of the data and audio files determined this was not associated with the vessel, and have therefore been excluded.



### 3.1.2 Additional information



Note: The overall frequency spectrum can be classified into low ( $\leq 160$  Hz), medium (160-2000 Hz) and high ( $\geq 2000$  Hz) frequencies. Where low frequency components are identified in the hourly spectra, the frequency bars are shaded in cyan. Where tones are identified in the hourly spectra, the frequency bars are shaded in red.

Figure 3.1 Typical vessel spectrum – noise level at L03

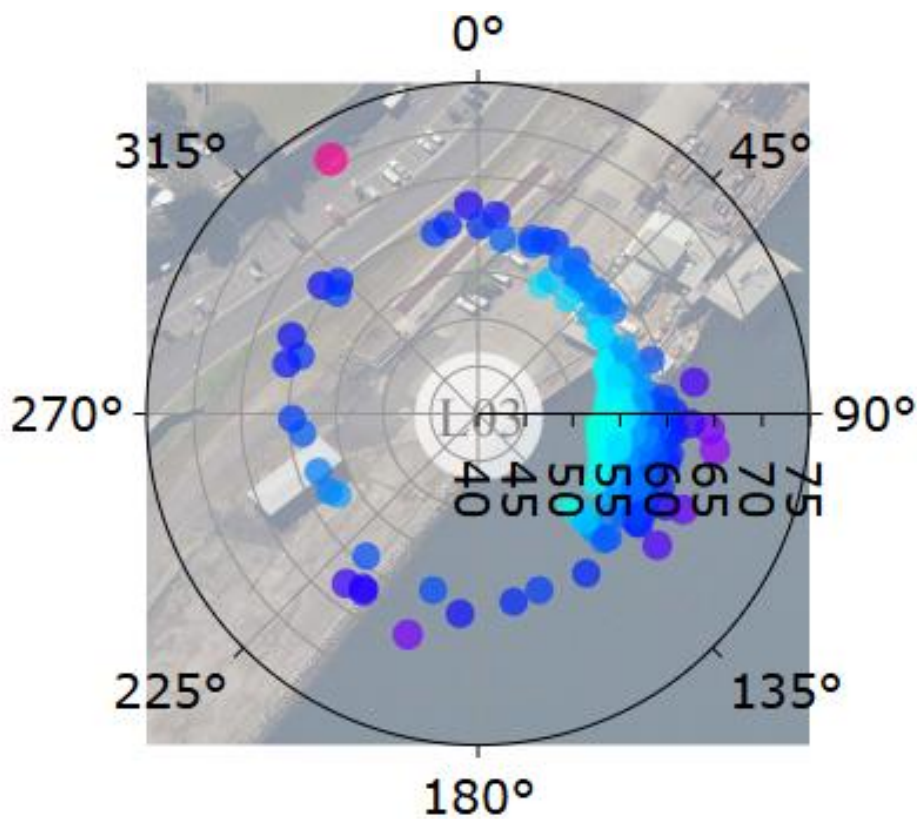


Figure 3.2 Typical vessel polar (directional) plot

## 3.2 Kondili (GLB8) – January 10 – January 12, 2025

### 3.2.1 Daily noise monitoring results

Date	Time period <sup>1</sup>	Monitor location	Noise descriptor	Vessel noise level dBA <sup>2</sup>	Tonal	LFN <sup>3</sup>	Vessel Noise Trigger Levels, dBA	Compliance
January 10, 2025	Day	L03	L <sub>Aeq, 15 hour</sub> <sup>1</sup>	52	No	Yes	60	Yes
	Night		L <sub>Aeq, 1 hour</sub> <sup>1</sup>	53	No	Yes	55	Yes
			L <sub>Amax</sub>	65	-	-	65	Yes
January 11, 2025	Day	L03	L <sub>Aeq, 15 hour</sub> <sup>1</sup>	51	No	Yes	60	Yes
	Night		L <sub>Aeq, 1 hour</sub> <sup>1</sup>	52	No	Yes	55	Yes
			L <sub>Amax</sub>	63	-	-	65	Yes
January 12, 2025	Day	L03	L <sub>Aeq, 15 hour</sub> <sup>1</sup>	50	No	Yes	60	Yes
	Night		L <sub>Aeq, 1 hour</sub> <sup>1</sup>	-	-	-	55	-
			L <sub>Amax</sub>	-	-	-	65	-

Notes

1) Daytime period (7 am to 10 pm) – 15 hours  
Night-time period (10 pm to 7 am) – worst case 1 hour

2) Inclusive of any penalties for modifying factors

3) LFN = Low Frequency Noise

### 3.2.2 Additional information

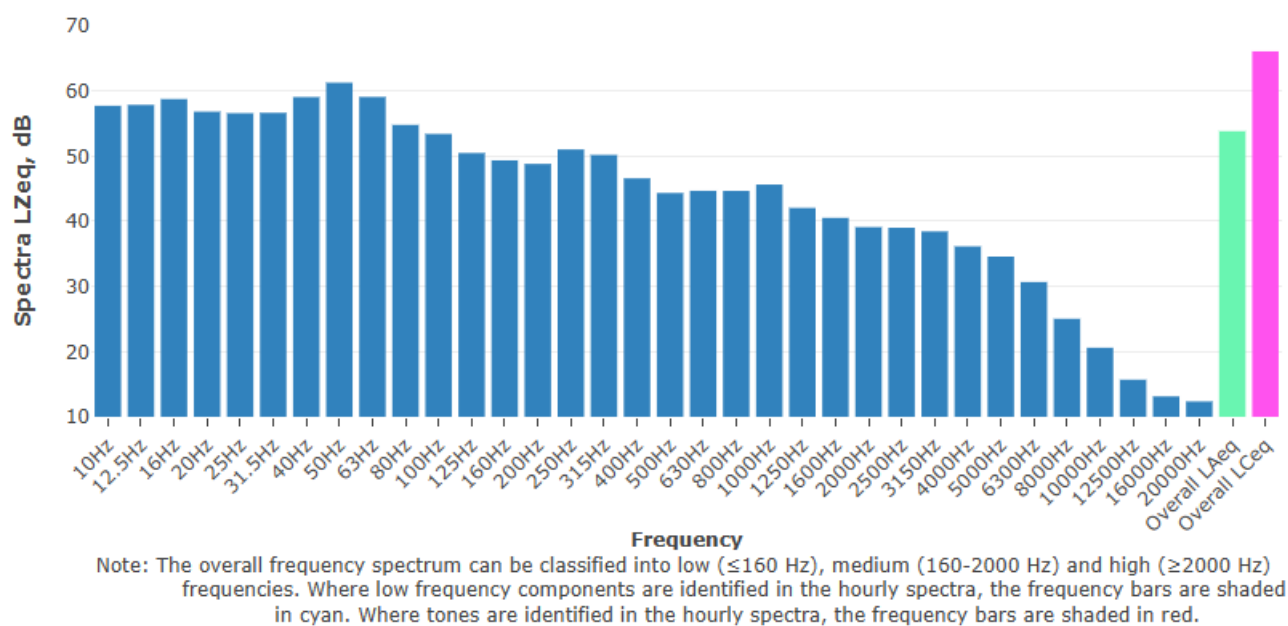


Figure 3.3 Typical vessel spectrum – noise level at L03

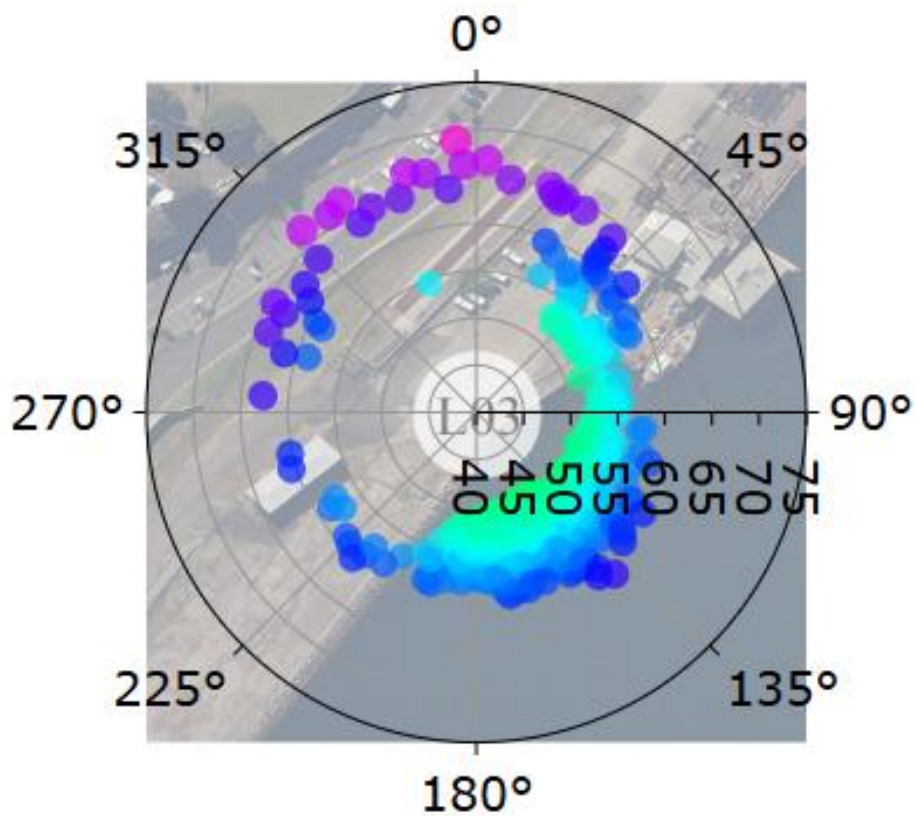


Figure 3.4 Typical vessel polar (directional) plot

### 3.3 Pioneer (GLB7) – January 29 – February 2, 2025

#### 3.3.1 Daily noise monitoring results

Date	Time period <sup>1</sup>	Monitor location	Noise descriptor	Vessel noise level dBA <sup>2</sup>	Tonal	LFN <sup>3</sup>	Vessel Noise Trigger Levels, dBA	Compliance
January 29, 2025	Day	L03	L <sub>Aeq</sub> , 15 hour <sup>1</sup>	47	No	Yes	60	Yes
	Night		L <sub>Aeq</sub> , 1 hour <sup>1</sup>	46	No	Yes	55	Yes
			L <sub>Amax</sub>	61	-	-	65	Yes
January 30, 2025	Day	L03	L <sub>Aeq</sub> , 15 hour <sup>1</sup>	56	No	Yes	60	Yes
	Night		L <sub>Aeq</sub> , 1 hour <sup>1</sup>	49	No	Yes	55	Yes
			L <sub>Amax</sub>	66 <sup>4</sup>	-	-	65	No <sup>4</sup>
January 31, 2025	Day	L03	L <sub>Aeq</sub> , 15 hour <sup>1</sup>	54	No	Yes	60	Yes
	Night		L <sub>Aeq</sub> , 1 hour <sup>1</sup>	49 <sup>5</sup>	No	Yes	55	Yes
			L <sub>Amax</sub>	57	-	-	65	Yes
February 1, 2025	Day	L03	L <sub>Aeq</sub> , 15 hour <sup>1</sup>	50	No	Yes	60	Yes
	Night		L <sub>Aeq</sub> , 1 hour <sup>1</sup>	48 <sup>5</sup>	No	Yes	55	Yes
			L <sub>Amax</sub>	57	-	-	65	Yes
February 2, 2025	Day	L03	L <sub>Aeq</sub> , 15 hour <sup>1</sup>	50	No	Yes	60	Yes
	Night		L <sub>Aeq</sub> , 1 hour <sup>1</sup>	-	-	-	55	-
			L <sub>Amax</sub>	-	-	-	65	-

**Notes**

1) Daytime period (7 am to 10 pm) – 15 hours

Night-time period (10 pm to 7 am) – worst case 1 hour

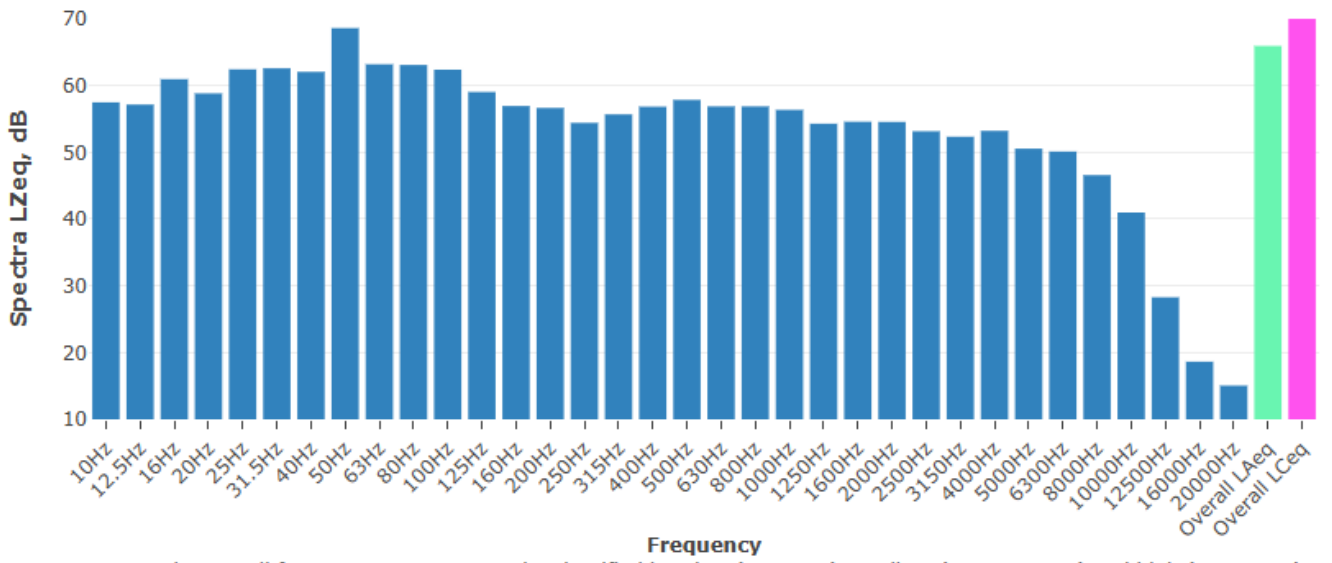
2) Inclusive of any penalties for modifying factors

3) LFN = Low Frequency Noise

4) This maximum level event only occurred once during the entire night time period of January 30. Given it only occurred once and only a 1 dB above the maximum noise trigger level, this is not considered an adverse impact. The vessel was compliant with the night time vessel noise trigger level at all other times during the visit.

5) Measurements determined that noise was tonal at 6,300 Hz for periods during this night time period. A further review into the data determined that this was likely associated with extraneous noise in the area rather than the vessel. As such, no tonal correction has been applied.

### 3.3.2 Additional information



Note: The overall frequency spectrum can be classified into low ( $\leq 160$  Hz), medium (160-2000 Hz) and high ( $\geq 2000$  Hz) frequencies. Where low frequency components are identified in the hourly spectra, the frequency bars are shaded in cyan. Where tones are identified in the hourly spectra, the frequency bars are shaded in red.

Figure 3.5 Typical vessel spectrum – noise level at L03

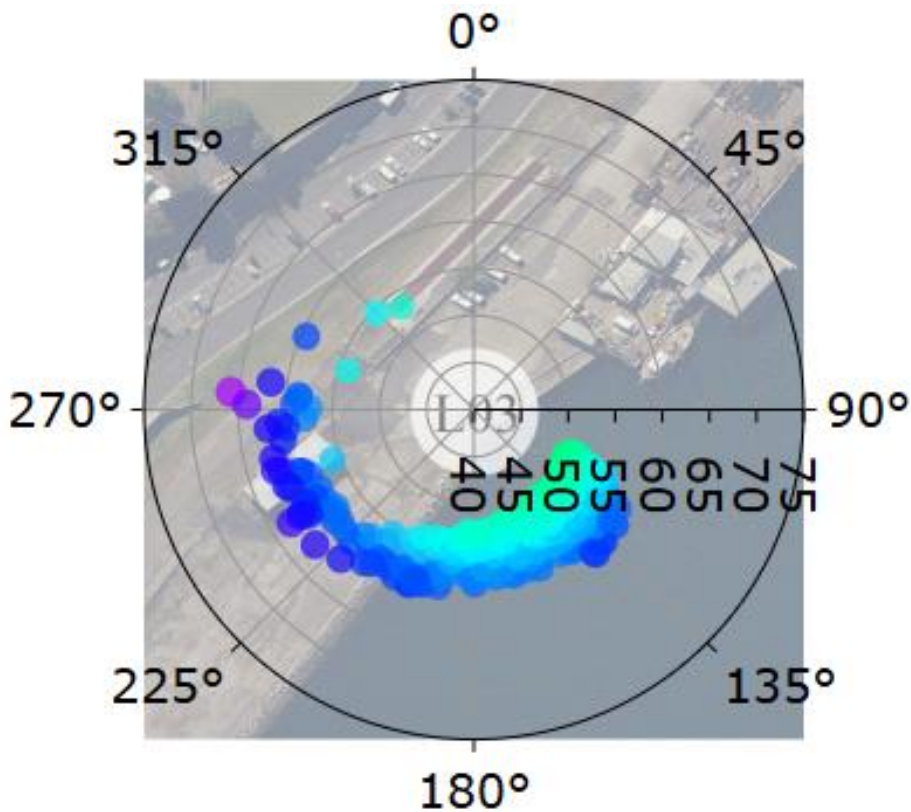


Figure 3.6 Typical vessel polar (directional) plot



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