

# EPL 21784 POLLUTION MONITORING REPORT January 2024





## EPL 21784 POLLUTION MONITORING REPORT January 2024

Project number	7040
Document number	SMWSTETP-JCG-SWD-SW000-EN-RPT-095011

#### **Document approval**

Rev	Date	Prepared by	Reviewed by	Comments	Approved by
0	16/01/2024				
Signature:					

#### **EASTERN** TUNNELLING PACKAGE



#### **Table of contents**

1.	Introduct	ion	2
1.1.	Project	overview	2
1.2.	Project	Scope	3
1.3.	Scope of	of this report	3
2.	Reporting	g Requirements	4
3.	Monitorin	ng	7
		ological Data	
3.2.	Noise		7
3.3.	Dischar	ge to water	7
4.	Correctio	n Log	8
Арр	endix A	Weather Data	g
App	endix B	Noise Monitoring Results	11



#### 1. Introduction

#### 1.1. Project overview

Sydney Metro West (SMW) is a new 24-kilometre metro line with nine new stations confirmed at Westmead, Parramatta, Sydney Olympic Park, North Strathfield, Burwood North, Five Dock, The Bays, Pyrmont, and Hunter Street in the Sydney CBD.

The planning process for Sydney Metro West was assessed as a staged infrastructure application under section 5.20 of the *Environment Planning and Assessment Act 1979 (EP&A Act)*.

Stage 1 of the development, the Sydney Metro West Concept and major civil construction work for Sydney Metro West between Westmead and The Bays (SSI-10038 Schedule 2), was approved on 11 March 2021 and includes:

- Construction and operation of new passenger rail infrastructure between Westmead and the central business district of Sydney, including:
  - o Tunnels, stations (including surrounding areas) and associated rail facilities
  - Stabling and maintenance facilities (including associated underground and overground connections to tunnels)
- Modification of existing rail infrastructure, including stations and surrounding areas
- Ancillary development.

The Eastern Tunnelling Package (ETP or this Project) is addressed under the Stage 2 Planning Approval (SSI 19238057). This Project includes all major civil construction work including station excavation (at the Pyrmont Station and Hunter Street Station (Sydney CBD) construction sites) and tunnelling between The Bays and Sydney CBD (Figure 1).

It is noted that the existing Sydney Metro West precast facility at Eastern Creek will be utilised in the delivery of the ETP Works. The facility, which was assessed by Sydney Metro in a Review of Environmental Factors (REF) and approved on 11 March 2021, is outside of the scope of the SWMP.

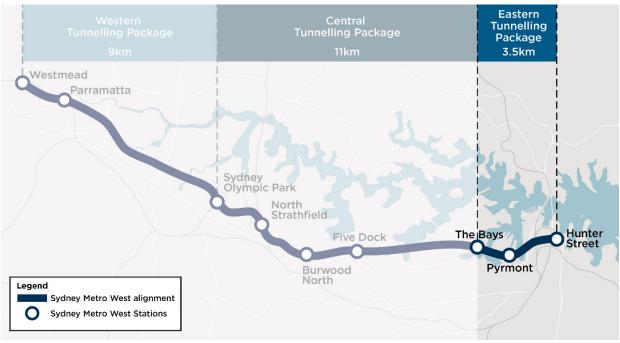


Figure 1: Sydney Metro West alignment



#### 1.2. Project Scope

The ETP Works include design and construction of:

- Demolition of existing buildings at Pyrmont East and West shaft sites and at Hunter Street East and West shaft sites
- Tunnel Boring Machine (TBM) assembly, launch, tunnelling support from an existing shaft at The Bays
- Approximately 2.5 km twin underground eastbound and westbound bored railway tunnels between The Bays and Hunter Street and six cross passages spaced up to 500 metres apart
- Pyrmont Station excavation, including two shaft excavations, associated access adits and nozzle enlargements, including temporary ground support and cast in situ cavern linings
- Excavation and lining of a mined crossover cavern to allow trains to cross from one track to the other
- Hunter Street station mined cavern excavation, including:
  - Two shaft excavations, associated access adits
  - Nozzle enlargements
  - Conversion of an existing temporary connection adit at Bligh Street linking Hunter Street Station to Martin Place Station into a permanent pedestrian connection linking the stations (including temporary ground support and cast in situ linings)
- A turnback extension tunnel, of approximately 675 metres, east of the Hunter Street Station works to enable Sydney Metro train storage and to change tracks and travel direction (eastbound to westbound)
- TBM disassembly and retrieval from Hunter Street East.

#### 1.3. Scope of this report

John Holland CPB Contactors Ghella (JCG) have been issued an Environmental Protection Licence (EPL No. 21784) from the NSW Environment Protection Authority (EPA) for the Sydney Metro West Eastern Tunnelling Package (ETP) Project.

The EPL applies to the works approved under the Infrastructure Approval SSI-19238057 associated with the delivery of the Sydney Metro West Eastern Tunnelling Package (ETP) Project.

This EPL Pollution Monitoring Report provides the results of all pollution monitoring required to be measured or monitored by the licensee of EPL 21784 as required by Section 66 of the Protection of the Environment Operations Act 1997 (POEO Act) and with reference to EPA Publication Requirements for publishing pollution monitoring data (Environment Protection Authority, 2013).

Table 1 provides a summary of the EPL 21784 details.

Table 1: Licence Details

Licence Details	
Number	21784
Copy of Licence	https://apps.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=266460&SYSUID=1&LICID=21784
Anniversary Date	16 March
Licensee	John Holland Pty Ltd
Premises	Sydney Metro West – Eastern Tunnelling Package
Scheduled Activity	Railway activities – railway infrastructure construction



#### 2. Reporting Requirements

Under the POEO Act, holders of environment protection licences (licensees) must publish or make pollution monitoring data available to members of the public.

The POEO Act Section 66 requires:

"66 Conditions requiring monitoring, certification or provision of information, and related offences

- (1) Monitoring The conditions of a licence may require—
  - (a) monitoring by the holder of the licence of the activity or work authorised, required or controlled by the licence, including with respect to—
    - (i) the operation or maintenance of premises or plant, and
    - (ii) discharges from premises, and
    - (iii) relevant ambient conditions prevailing on or outside premises,

and

- (iv) anything required by the conditions of the licence, and
- (b) the provision and maintenance of appropriate measuring and recording devices for the purposes of that monitoring, and
- (c) the analysis, reporting and retention of monitoring data.
- (2) False or misleading information A holder of a licence who supplies information, or on whose behalf information is supplied, to the appropriate regulatory authority under the conditions of the licence is guilty of an offence if the information is false or misleading in a material respect."

The primary objective of the pollution monitoring reporting requirements is that members of the public have access to the results of all pollution monitoring (which a licence specifies must be carried out) in a way that is meaningful to them. Data for the Sydney Metro West Eastern Tunnelling Package is presented on a monthly sampling period.

The monitoring data that must be published and/or made available on request is any data that is obtained as a result of a monitoring condition on a licence that relates to air, water (surface or groundwater), noise and/or land pollution. The data to be published or provided is limited to data that relates to pollutants generated, discharged or emitted from the licensed premises.

The data is provided in tabular format that is easy for the general public to understand. Tables definitively display raw data values, while graphs and charts are useful for overviews and visualisation of long-term trends. Raw data will be provided upon request.

An upfront note will be included on the licensee's website or in this report to explain why any data may appear to be missing because there is no discharge or the level of pollutant being below the detection level of the measurement instrument.

It is possible from time to time that incorrect data may be published in good faith. As soon as practicable after the licensee becomes aware that the published pollution monitoring data is incorrect or misleading, licensees must then publish a correction log to correct this data that is incorrect or misleading (refer to **Section 4**).

#### **EASTERN** TUNNELLING PACKAGE



Table 1 provides a summary of the pollution monitoring requirements of EPL 21784.

Table 1 EPL 21784 Pollution Monitoring Requirements

EPL Condition	Requirement				Report Reference
Condition Weather					
M5.1	velocity and rainfa equivalent weathe Monitoring must: a) be representati	humidity, wind direction, wind tion, or through analysis of ustralia Bureau of Meteorology.	Section 3.1 Appendix A3.1		
	and c) continue to be o	vities cease at the premises			
Maia	and the site has b	een stabilise	d.		
L5.9	under condition LS a) Prepare a cons with the Interim Co i. a description of constructions ho ii. predictions of from these work than those perm iii. a monitoring boundary of rep that are represe predicted to have	t assessment in accordance (2009) that is to include: es outside of standard at noise sensitive receivers is are predicted to be greater ons, based on monitoring at the ring noise generating activities, including during the period/s	Section 3.2 Appendix B		
M4.4	The licensee must	t undertake r of the EPA.	lf a licensee is unable	onitoring as directed by an to obtain permission, they	N/A
Water	•				
P1.1	The following poin purposes of the m to water from the p	Section 3.3			
	EPA Identi- Type of Minimum fication no.	onitoring Point	Type of Discharge Point	Location Description	
	1 Discharge	& Monitoring & monitoring	Discharge & Monitoring  Discharge & monitoring	Discharge from the Hunter St Station WTP to Sydney Harbour Discharge from the Eastern Creek	
	3 Discharge	& monitoring	Discharge & monitoring	Precast Facility sediment basin Discharge from The Bays	
	4 Discharge	& Monitoring	Discharge & Monitoring	Discharge from the Pyrmont Station	
	5 Discharge	& Monitoring	Discharge & Monitoring	WTP to Sydney Harbour Discharge from the Eastern Tunnelling Package Eastern Creek Precast Facility Water Treatment Plant into Ropes Creek	
M2.1	number), the licen analysis) the cond	see must mo entration of pling method	onitor (by sampling an each pollutant specific I, units of measure, an	ea specified below (by a point ad obtaining results by ed in Column 1. The licensee and sample at the frequency,	Section 3.3



POINT					Section 3.3
	Pollutant	Units of measure	Frequency	Sampling Method	- 00000011 0.0
	Ammonia	micrograms per litre	Monthly during	Grab sample	
			discharge		
	Arsenic	micrograms per litre	Monthly during discharge	Grab sample	
	Manganese	micrograms per litre	Monthly during	Grab sample	
	Nitrogen (total)	micrograms per litre	discharge Monthly during	Grab sample	
	17.0 S. O.	10.736 (0.34%)	discharge		
	Oil and Grease	Visible	Monthly during discharge	Visual Inspection	
	pH	рН	Daily during any	Probe	
	Phosphorus (total)	micrograms per litre	discharge Monthly during discharge	Grab sample	
	TSS	milligrams per litre	Monthly during	Grab sample	
POINT	2		discharge		_
	Pollutant	Units of measure	Frequency	Sampling Method	
	Oil and Grease	Visible	Special Frequency 1	Visual Inspection	
	рН	pH	Special Frequency 1	Probe	
	TSS	milligrams per litre	Special Frequency 1	Grab sample	
POINT	3				
	Pollutant	Units of measure	Frequency	Sampling Method	
	Arsenic (III)	micrograms per litre	Monthly during	Grab sample	
	Manganese	micrograms per litre	discharge Monthly during	Grab sample	
	Nitrate + nitrite	micrograms per litre	discharge Monthly during	Grab sample	
	(oxidised nitrogen) Oil and Grease	Visible	discharge Monthly during	Visual Inspection	
			discharge		
	pH	pH	Daily during any discharge	Probe	
	Phosphorus (total)	micrograms per litre	Monthly during	Grab sample	
	TSS	milligrams per litre	discharge Monthly during discharge	Grab sample	
POINT			alout or go		_
FOIRT					
			-		_
	Pollutant	Units of measure	Frequency	Sampling Method	
	Pollutant Aluminium	micrograms per litre	Monthly during discharge	Grab sample	
	Pollutant		Monthly during		
	Pollutant Aluminium	micrograms per litre	Monthly during discharge Monthly during discharge Monthly during	Grab sample	
	Pollutant Aluminium Ammonia	micrograms per litre	Monthly during discharge Monthly during discharge	Grab sample Grab sample	
	Pollutant Aluminium Ammonia Arsenic (III) Cadmium	micrograms per litre micrograms per litre micrograms per litre micrograms per litre	Monthly during discharge Monthly during discharge Monthly during discharge Monthly during discharge	Grab sample Grab sample Grab sample Grab sample	
	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium (hexavalent)	micrograms per litre micrograms per litre micrograms per litre	Monthly during discharge Monthly during discharge Monthly during discharge Monthly during	Grab sample Grab sample Grab sample	
	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium	micrograms per litre micrograms per litre micrograms per litre micrograms per litre	Monthly during discharge Monthly during discharge Monthly during discharge Monthly during discharge Monthly during discharge Monthly during	Grab sample Grab sample Grab sample Grab sample	
	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium (hexavalent)	micrograms per litre	Monthly during discharge Monthly during	Grab sample Grab sample Grab sample Grab sample Grab sample	
	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium (hexavalent) Cobalt Copper	micrograms per litre	Monthly during discharge	Grab sample	
	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium (hexavalent) Cobalt Copper	micrograms per litre	Monthly during discharge	Grab sample	
	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium (hexavalent) Cobalt Copper	micrograms per litre	Monthly during discharge Monthly during	Grab sample	
	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium (hexavalent) Cobalt Copper	micrograms per litre	Monthly during discharge Monthly during	Grab sample	
	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium (hexavalent) Cobalt Copper Iron Manganese	micrograms per litre	Monthly during discharge	Grab sample	
	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium (hexavalent) Cobalt Copper Iron Manganese Nitrate	micrograms per litre	Monthly during discharge	Grab sample	
	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium (hexavalent) Cobalt Copper Iron Manganese Nitrate Nitrogen (total) Oil and Grease	micrograms per litre	Monthly during discharge	Grab sample Visual Inspection	
	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium (hexavalent) Cobalt Copper Iron Manganese Nitrate Nitrogen (total) Oil and Grease pH	micrograms per litre vicrograms per litre micrograms per litre	Monthly during discharge Daily during any discharge	Grab sample Visual Inspection Probe	
	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium (hexavalent) Cobalt Copper Iron Manganese Nitrate Nitrogen (total) Oil and Grease	micrograms per litre	Monthly during discharge Monthly during	Grab sample Visual Inspection	
	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium (hexavalent) Cobalt Copper Iron Manganese Nitrate Nitrogen (total) Oil and Grease pH	micrograms per litre vicrograms per litre micrograms per litre	Monthly during discharge Daily during any discharge Monthly during	Grab sample Visual Inspection Probe	
	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium (hexavalent) Cobalt Copper Iron Manganese Nitrate Nitrogen (total) Oil and Grease pH Phosphorus (total)	micrograms per litre visible pH micrograms per litre	Monthly during discharge Dally during discharge Monthly during discharge Dally during discharge Monthly during	Grab sample	
POINT	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium (hexavalent) Cobalt Copper Iron Manganese Nitrate Nitrogen (total) Oil and Grease pH Phosphorus (total) TSS Zinc	micrograms per litre visible pH micrograms per litre milligrams per litre	Monthly during discharge	Grab sample Visual Inspection Probe Grab sample	
POINT	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium (hexavalent) Cobalt Copper Iron Manganese Nitrate Nitrogen (total) Oil and Grease pH Phosphorus (total) TSS Zinc	micrograms per litre pH micrograms per litre milligrams per litre micrograms per litre	Monthly during discharge	Grab sample Visual Inspection Probe Grab sample Grab sample	
POINT	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium (hexavalent) Cobalt Copper Iron Manganese Nitrate Nitrogen (total) Oil and Grease pH Phosphorus (total) TSS Zinc	micrograms per litre visible pH micrograms per litre milligrams per litre	Monthly during discharge	Grab sample Visual Inspection Probe Grab sample Grab sample Grab sample Grab sample	
POINT	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium (hexavalent) Cobalt Copper Iron Manganese Nitrate Nitrogen (total) Oil and Grease pH Phosphorus (total) TSS Zinc  5 Pollutant Oil and Grease	micrograms per litre visible pH micrograms per litre milligrams per litre micrograms per litre	Monthly during discharge	Grab sample  Grab sample  Visual Inspection Probe Grab sample Grab sample Grab sample Grab sample Grab sample Grab sample	
POINT	Pollutant Aluminium Ammonia Arsenic (III) Cadmium Chromium (hexavalent) Cobalt Copper Iron Manganese Nitrate Nitrogen (total) Oil and Grease pH Phosphorus (total) TSS Zinc	micrograms per litre pH micrograms per litre milligrams per litre milligrams per litre micrograms per litre	Monthly during discharge Daily during any discharge Monthly during discharge	Grab sample Visual Inspection Probe Grab sample Grab sample Grab sample Grab sample	



#### Monitoring

Section 3 presents a summary of the monitoring programs completed in the reporting period from 17 December 2023 to 16 January 2024. Some meteorological data was unavailable on the Bureau of Meteorology at the time of report submission.

Detailed monitoring results for each program are presented in the Appendices.

#### 3.1. Meteorological Data

Meteorological data for the Project has been mostly taken from the Observatory Hill but some has also been taken from Fort Denison and Sydney Airport, Bureau of Meteorology Weather Station.

The total rainfall recorded during the reporting period was 160.6 mm with 19 days exceeding one millimetre of rain and 5 days of rain exceeding 10mm.

During the reporting period, there were 22 days where the maximum wind gust recorded was greater than 25km/h, 5 days where the maximum wind gust recorded was greater than 50km/h and 3 days where the maximum wind gust recorded was greater than 60km/h. Winds recorded during the reporting period in the mornings had no prevailing direction and easterly into the afternoons, with some variability throughout the month.

A summary of the weather observations and weather events during the reporting period of relevance to the Soil and Water Management Sub-plan and Air Quality Management Sub-plan Trigger Action Response Plans (TARPs) are summarised in Table 2.

Detailed weather observation records for the reporting period are presented in Appendix A.

Table 2 Weather summary and trigger weather events for the reporting period

Weather Event	Observation
Minimum temperature	16.2°C
Maximum temperature	40 °C
Total rainfall	160.6 mm
Number of days with rain (>1 mm)	19 days
Number of days with rain (>10 mm)	5 days
>25 km/hr wind	22 days
>50 km/hr wind	5 days
>60 km/hr wind	3 day

#### 3.2. Noise

No noise and vibration monitoring was undertaken as a result of a direction by the EPA.

#### 3.3. Discharge to water

Discharge water quality monitoring is a requirement of the following conditions of EPL 21784:

 M2.1 Monitoring the concentration of each pollutant specified using the specified sampling method, units of measure and frequency

During the reporting period sampling was undertaken from Point 1 – Discharge from the Hunter St Station WTP, Point 2 – Eastern Creek Precast Facility and Point 3 – Discharge from The Bays temporary WTP. The Pyrmont Station water treatment plant is yet to be commissioned. As such no water sampling or discharge has occurred in this recording period.

Table 3, 5 and 6 provide the details of the concentration of pollutants discharged during the reporting period. There were no exceedances of the discharge criteria specified in L2.4 for all discharge points.

#### **EASTERN** TUNNELLING PACKAGE



Table 3 Concentration of pollutants discharged from Point 1 during the reporting period

Date			18/12/23
Туре	Units	Criteria	Discharge
Ammonia	(μg/L)	910	21
Arsenic (III)	(μg/L)	8	4
Manganese	(μg/L)	80	27
Nitrogen (Total)	(μg/L)	1720	210
Oil and Grease	Visible	Not Visible	Not visible
рН	pН	7.0-8.5	7.5
Phosphorus (total) (μg/L)	(μg/L)	140	<50
TSS	(mg/L)	15	8

Table 5 Concentration of pollutants discharged from Point 2 during the reporting period

Date	12/01/24		
Туре	Units	Criteria	Discharge
Oil and Grease	Visible	Not Visible	Not visible
pH	pН	6.5-8.5	8.4
TSS	(mg/L)	50	<5

Table 6 Concentration of pollutants discharged from Point 3 during the reporting period

Date		21/12/23	
Туре	Units	Criteria	Discharge
Arsenic (III)	(μg/L)	90	<1
Manganese	(μg/L)	1900	100
Nitrate + Nitrite (oxidised nitrogen)	(μg/L)	200	110
Oil and Grease	Visible	Not Visible	Not Visible
pH	pН	6.5-8.5	7.5
Phosphorus (total) (μg/L)	(μg/L)	1000	100
TSS (mg/L)	(mg/L)	50	<5

#### 4. Correction Log

It is possible from time to time for incorrect data to get published in good faith.

As soon as practicable after the licensee becomes aware that the published pollution monitoring data is incorrect or misleading, licensees must then publish a correction log to correct this data that is incorrect or misleading.

There are no matters included in the correction log for this reporting period.



#### Appendix A Weather Data

Table 7 Weather Observations. Temperature and Relative Humidity. Observatory Hill BOM Station.

Date	ations. Temperature and Re Min temperature (°C)	Max temperature (°C)	Rainfall (mm)	9am Temperature (°C)	9am relative humidity (%)	3pm Temperature (°C)	3pm relative humidity (%)
17/12/2023	20.4	28.5	0	22.3	77	27.5	56
18/12/2023	20.3	29	0	23.9	83	27.8	72
19/12/2023	23.4	33.5	0	25.1	91	32.2	53
20/12/2023	18.2	18.5	9.2	18.3	98	17.3	98
21/12/2023	16.4	22	22.2	18.4	98	21.8	69
22/12/2023	16.2	25.6	2	20.6	65	25	41
23/12/2023	16.5	25.9	3.2	20	87	25.2	63
24/12/2023	19.7	24.4	0.4	21.1	81	21.1	98
25/12/2023	17.9	27.9	23.4	20.5	98	27.1	74
26/12/2023	20.4	29.7	0.6	23.8	90	24.3	86
27/12/2023	19.8	26.3	0.2	23	79	17.2	95
28/12/2023	17	29.5	10.2	22.7	74	27.5	48
29/12/2023	19.6	26.6	0	23.8	86	25.3	79
30/12/2023	19.2	27.7	0	22.7	68	25.9	63
31/12/2023	17	21.6	9.6	19.4	77	20.8	70
1/01/2024	18.6	24.8	7.4	20.7	98	23.5	78
2/01/2024	20.7	27.6	0	24.7	82	25.6	80
3/01/2024	20.6	27.5	0	24.6	80	26.1	70
4/01/2024	20.9	26.9	0	25	87	22.9	91
5/01/2024	20.1	26.0	1.8	23.3	67	24.6	59
6/01/2024	17.9	27.8	0	22.2	68	26	56
7/01/2024	19.5	27.8		23.6	71	26.6	68
8/01/2024	21.4	27.3	0	25.3	75	23.6	93
9/01/2024	21.2	28.0	2.8	23.7	80	25.7	72
10/01/2024	21.4	29.3	0	24.1	82	28.7	69
11/01/2024	23.0	30.8	0	26	92	29.1	76
12/01/2024	22.6	30.1	0.4	25	92	29.2	70
13/01/2024	20.7	29.9	0	23.9	91	28.9	69
14/01/2024	20.3		5.0	23.3	86	25.8	82
15/01/2024	19.3	nd	62.2	20.4	97	23.4	72
16/01/2024	nd	nd	nd		nd	nd	nd

Note: nd = not data available



Table 8 Wind Observations. Observatory Hill BOM Station.

Date	Direction of max wind gust	Speed of max wind gust (km/h)	Time of max wind gust	9am wind direction	9am wind speed (km/h)	3pm wind direction	3pm wind speed (km/h)
17/12/2023	Е	39	15:13	Е	19	Е	26
18/12/2023	Е	30	15:53	ESE	9	Е	19
19/12/2023	S	67	19:41	WNW	6	N	22
20/12/2023	S	57	8:54	S	31	SSW	30
21/12/2023	SSW	59	15:51	SSW	24	SSW	33
22/12/2023	SSE	44	16:59	SSW	15	SSE	28
23/12/2023	SSW	30	23:53	SSW	9	ESE	20
24/12/2023	SW	56	16:16	ESE	15	ENE	15
25/12/2023	ENE	50	18:53	WNW	7	Е	19
26/12/2023	ENE	46	15:56	SW	15	Е	11
27/12/2023	WSW	78	13:29	SSW	15	WSW	4
28/12/2023	ESE	30	15:01	W	13	ESE	20
29/12/2023	WNW	28	20:26	SSE	7	Е	15
30/12/2023	ESE	46	16:23	S	7	ESE	20
31/12/2023	Е	35	18:26	SSE	15	ESE	17
1/01/2024	ENE	41	14:45	W	7	ENE	17
2/01/2024	NE	48	14:11	NE	20	NE	26
3/01/2024	ENE	46	11:25	NE	17	ENE	31
4/01/2024	S	48	12:09	WNW	9	SSW	17
5/01/2024	SSE	41	13:50	SSE	22	SSE	26
6/01/2024	ENE	41	19:28	ESE	2	Е	17
7/01/2024	NE	50	13:31	ENE	19	NE	31
8/01/2024	NNE	39	23:02	ESE	7	NNE	15
9/01/2024	S	44	9:10	S	28	SSE	22
10/01/2024	E	35	12:42	Е	9	ENE	26
11/01/2024	SSE	31	15:09	ESE	11	SE	17
12/01/2024	Е	37	17:04	NE	6	Е	28
13/01/2024	SSW	41	22:54	W	4	Е	26
14/01/2024	W	65	13:37	SSW	20	SE	22
15/01/2024	nd	nd	nd	SE	33	ESE	30
16/01/2024	nd	nd	nd	nd	nd	nd	nd

Note: nd = no data available



### Appendix B Noise Monitoring Results

Table 9 Noise Monitoring Results

	Time Works		Activity	Monitoring	NML	Predicted	Recorded		Exceedance	Exceedance	
Date	Time Period	Construction Activity	Location	Location	(dBA)	(dBA)	L <sub>eq, 15min</sub> (dBA)	LAmax	of Predicted (dBA)	of Predicted	Comments
Real time noise and vibration monitoring											
	Continuous	Construction – Noise	Hunter Street	The Ivy (Level 5 External)	*	*	*	*		•	Real time noise and vibration monitoring data is available on request.
	Continuous	Construction – Noise	Hunter Street	The Ivy (Level 2 Office Printer Room)	*	*	*	*	*	*	
	Continuous	Construction – Vibration	Hunter Street	The Ivy (Basement Carpark)	*	*	*	*	*	*	
	Continuous	Construction – Noise	Hunter Street	The Radisson Blu Plaza Hotel (Basement) 27 O'Connell Street, Sydney, 2000		•					
	Continuous	Construction – Noise	Hunter Street	The Radisson Blu Plaza Hotel (Level 1) 27 O'Connell Street, Sydney, 2000	*	•					
	Continuous	Construction – Vibration	Hunter Street	The Radisson Blu Plaza Hotel (Basement) 27 O'Connell Street, Sydney, 2000	•	•					
	Continuous	Construction – Noise	Hunter Street	Tank Stream Hotel (Level 1 Office) 97-99 Pitt Street, Sydney, 2000	•	*					
	Continuous	Construction – Vibration	Hunter Street	Tank Stream Hotel (Basement) 97-99 Pitt Street, Sydney, 2000	•	•					
	Continuous	Construction – Noise	Pyrmont East	63 Edwards Street, Pyrmont, 2009	*	*	*	*	*	*	



Date	Time Works Period	Construction Activity	Activity Location	Monitoring Location	NML (dBA)	Predicted (dBA)	Recorded L <sub>eq, 15min</sub> (dBA)	LAmax	Exceedance of Predicted (dBA)	Exceedance of Predicted	Comments
	Continuous	Construction – Vibration	Pyrmont East	63 Edwards Street, Pyrmont, 2009	*	*	*	*	*	*	
	Continuous	Construction – Noise	Pyrmont West	28 Paternoster Row, Pyrmont, 2009	*		*	*	*	*	
	Continuous	Construction – Vibration	Pyrmont West	28 Paternoster Row, Pyrmont, 2009	*	*	*	*	*	*	
	Continuous	Construction – Vibration	Pyrmont	13A Union Street, Pyrmont, 2009	*	*	*	*	*	*	

<sup>\*</sup> Data is available upon request