



Environmental Monitoring Summary Report

Port Kembla Gas Terminal

Infrastructure Approval **SSI-9471**
EPL Licence Number: **21529**

Reporting period: **1 July 2021 – 31 July 2021**

Date published: **24 August 2021**

1 Project background

AIE is developing a Liquefied Natural Gas (LNG) import terminal at Port Kembla, south of Wollongong, NSW (the Project). The Project will be the first of its kind in NSW and will provide a simple and flexible solution to the state's gas supply challenges.

The Project has been declared Critical State Significant Infrastructure (CSSI) in accordance with Section 5.13 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) (NSW) and Schedule 5 of the *State Environmental Planning Policy State and Regional Development* (SRD SEPP). The Project received Infrastructure Approval (the Approval) from the Minister for Planning and Public Spaces on 29 of April 2019, approval SSI-9471.

The construction of the Project is primarily associated with the establishment of a new berth facility at Port Kembla to enable an LNG Carrier to berth alongside the Floating Storage and Re-gasification Unit (FSRU) and new infrastructure to connect the terminal to the existing gas network. The location of the Project is shown on the Environmental Monitoring Location Plan provided as Appendix A.

An Environment Protection Licence (EPL No. 21529) was issued for the Project by the NSW Environment Protection Authority (EPA) on 2 June 2021. The details of the EPL are provided below in Table 1-1.

Table 1-1 EPL Details

EPL No.	21529
Anniversary Date:	2 June
Licensee:	Australian Industrial Energy Pty Ltd
	PO Box 3155 Broadway
	Nedlands WA 6009
Premises:	Port Kembla Gas Terminal, Port Kembla NSW 2505
Scheduled Activity	Chemical storage
	Contaminated soil treatment
	Crushing, grinding or separating

2 Report purpose

This Monthly Environmental Monitoring Report has been prepared to satisfy the monitoring data reporting requirements of the approval and environmental management plans as detailed further below in Table 2-1 for the reporting month of July 2021 (the reporting month).

Table 2-1 Environmental monitoring reporting requirements

Document	Clause or section	Requirement	Addressed:
DPIE SSI-9471	Sch. 4 Cond. 8	Regular Reporting – The Proponent must provide regular reporting on the environmental performance of the development on its website in accordance with the reporting requirements in any strategies, plans or programs approved under the conditions of this approval.	This report to be made available on the Project Website.
	Sch. 4 Cond. 12	Access to information – From the commencement of development under this approval, the Proponent shall: (a) Make copies of the following information publicly available on its website: - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this approval, or any approved plans and programs	
AIE Air Quality Management Plan	Section 8.3	A summary of monthly data will be published on the Project's webpage, noting any exceedance of EPL trigger value, investigation, and response.	This report
AIE Water Quality Management Plan	Section 8.5	Regular reporting A summary of monthly data will be published on the PKGT AIE website in the form of a report. The report will note details for:	This report which will be made available on the Project Website.
		- Any exceedance of COC trigger values, the subsequent investigation and response/resolution	Section 4 and Appendix B
		- Complaint summary (if applicable)	Section 5
		- Statistics related to productivity of work (actual workflow vs planned) including details on any delays encountered	Section 3.1
		- Forecasting for future works	Section 3.3
		- Activities completed for the month	Section 3.2
		- Activities planner for the next month	Section 3.3
		- Current risks and issues, including impact level and mitigation measures.	Section 0

3 Project activities

3.1 Project status

Early Enabling works are scheduled for approximately 6 months and include:

- Excavation to allow removal of existing structures and services and facilitate construction of the quay wall
- Demolition/removal of Berth 101 and aboveground structures
- Demolition/removal of aboveground and underground services
- Relocation of existing stockpiles onsite
- Transport of spoil via road from the Marine Berth and Dredging Site Compound to the Emplacement Cell Construction Site in the Outer Harbour
- Platform excavation and stockpiling
- Processing demolished materials (for re-use or recycling) by others.
- Cone Penetration Testing in the Outer Harbour

3.2 Project activities for the reporting month

- Removal of above ground structures
- Concrete processing
- Operation of the site water treatment plant (WTP) where required
- Removal of bound slag
- Berth 101 deck removal
- Cone Penetration Testing in the Outer Harbour

In line with NSW Public Health Orders, work on the site was paused for the period 19 July – 30 July due to the COVID-19 escalation in greater Sydney. During this time, personnel were available to maintain and respond to environmental compliance activities. Work recommenced on 2 August in accordance with NSW Public health orders

3.3 Project activities for the upcoming month

- Continued removal of remaining above ground structures
- Continued bulk excavation
- Continued concrete processing
- Outer Harbour laydown area works mobilisation
- Continued Berth 101 demolition
- Continued Cone Penetration Testing in the Outer Harbour

3.4 Current project environmental risks and controls

The identified environmental risk and proposed mitigation measures and controls for the current and foreseeable construction activities are presented in Table 3-1.

Table 3-1 Project environmental risks

Ref.	Environmental risk		Associated activity	Mitigation measure
	Aspect	Impact		
2106_01	Water quality	Water pollution	Construction works adjacent to the Port Kembla Harbour	Implementation of the Construction Water Quality Monitoring Plan (CWQMP)
				Water quality monitoring and reporting
				Implementation of water discharge permit procedure for sediment basin discharge.
2106_02	Air quality	Generation of nuisance dust levels	Demolition works	Implementation of the Air Quality Management Plan
				Continuous air quality monitoring
2106_03	Environmental compliance	Breach of legislation and or Management Plan requirements	Commencement of and ongoing works	Establishment and implementation of environmental procedures and processes
				Liaisons with regulatory authorities and seek clarification where required
				Regular site inspections and coordination meetings with contractor

4 Environmental monitoring data

The following sections present a summary of the air quality, water quality and weather monitoring data.

A copy of this report will be made available on the Project website at the following web-address:

<https://ausindenergy.com/environmental-information/>

4.1 Air quality

4.1.1 Air quality monitoring locations and frequency

Air quality monitoring equipment is installed to the north and south of the demolition area (Berth 101), and to the east, west and central portion of the Outer Harbour stockpile area.

A summary of the air quality monitoring locations are provided below in Table 4-1 and a monitoring location plan is provided in Appendix A.

Table 4-1 Air quality monitoring locations

EPL Ref.	Monitoring location	Monitoring type	Monitoring parameter	Monitoring frequency
8	Northern boundary of the premises, adjacent the southern boundary of Port Kembla Coal Terminal	Dust Deposition Gauge	Particulates - Deposited Matter (gm/m ² /month)	Monthly
10	Southern boundary of Berth 101	and		
12	Southern side of emplacement area, Outer Harbour		and	Special Frequency 1 (24-hour period every 6 days)
14	Eastern side of emplacement area, Outer Harbour	Ambient Air Monitoring - High Volume Air Sampler	Total Suspended Particles (TSP)	
22	Northern side of emplacement area, Outer Harbour			
9	Northern boundary of the premises, adjacent the southern boundary of Port Kembla Coal Terminal	Real time dust monitoring	PM ₁₀ (ug/m ³)	Continuous
11	Southern boundary of Berth 101			
13	Southern side of emplacement area, Outer Harbour			
15	Eastern side of emplacement area, Outer Harbour			
23	Northern side of emplacement area, Outer Harbour			



4.1.2 Air Quality Monitoring Results

The air quality monitoring results for the reporting month are presented below in **Error! Reference source not found.**

Table 4-2 Air quality monitoring results

Monitoring Location (EPL Reference)		Monitoring parameter							
		Particulates Deposited Matter (Depositional dust gauge) ²	Total Suspended Particles (High Volume Air Sampler)			PM10 (Real-time tracker)			Events above criteria ¹
			Average	Minimum	Maximum	Average	Minimum	Maximum	
			Unit	ug/m ³	ug/m ³	ug/m ³	ug/m ³ /24 hours	ug/m ³ /24 hours	
Criteria	NA	NA	NA	NA	NA	NA	50	NA	
Berth 101 North	EPL 8	8.9	0.07	0.03	0.13	No PM10 monitoring required at this EPL Point			NA
	EPL 9	No Dust Deposition Gauge or HiVol required at this EPL Point				44.86	21.92	98.21	10
Berth 101 South	EPL 10	3.3	0.11	0.03	0.16	No PM10 monitoring required at this EPL Point			NA
	EPL 11	No dust gauge or HiVol required at this EPL Point				58.63	22.04	119.08	17
Outer Harbour South	EPL 12	1.4	0.03	0.02	0.06	No PM10 monitoring required at this EPL Point			NA
	EPL 13	No dust gauge or HiVol required at this EPL Point				13.53	3.61	27.78	Background ³
Outer Harbour East	EPL 14	1.4	0.03	0.01	0.05	No PM10 monitoring required at this EPL Point			NA
	EPL 15	No dust gauge or HiVol required at this EPL Point				14.18	4.31	37.49	Background ³
Outer Harbour North	EPL 22	0.7	0.03	0.02	0.06	No PM10 monitoring required at this EPL Point			NA
	EPL 23	No dust gauge or HiVol required at this EPL Point				19.79	4.49	61.79	Background ³

¹Includes individual number of times results recorded above criteria. Refer to Appendix B for event above criteria reports.

² Assessed as Total Insoluble

³No activities occurring at Outer Harbour during this monitoring period, background monitoring only.

NS = Not sampled this reporting period



4.2 Water quality

4.2.1 Water quality monitoring locations and frequency

Water quality monitoring is undertaken at five (5) locations within the Port Kembla harbour. Each water quality monitoring location is securely anchored/moored in its location. Details of each of the water quality monitoring locations and corresponding EPL licence reference is provided below in Table 4-3.

Table 4-3 Harbour water quality monitoring locations

EPL Ref.	Monitoring location	Type of monitoring	Parameters	
			Continuous monitoring at 15 min intervals	Weekly grab sample
1	WQM1 - North of Berth 101	Primary- impact works area receiver	<ul style="list-style-type: none"> - Turbidity - Temperature - pH - Electrical Conductivity - Dissolved oxygen 	<ul style="list-style-type: none"> - Aluminium - Arsenic - Cadmium - Chromium (total) - Cobalt - Copper - Lead - Mercury - Nickel - Tributyltin - TSS - Zinc - PAH
16	WQM2 - North of the emplacement cell, Outer Harbour. No more than 20m from emplacement cell silt curtain	Primary- impact works area receiver		
17	WQM3 - South West of Berth 101	Primary- impact works area receiver		
18	WQM4 - Near the Pacific Ocean entrance to Outer Harbour	Background water quality		
19	WQM5 - Near entrance to Allans Creek, near Bluescope Steel	Background water quality		

In addition to the monitoring requirements listed above for the harbour, monitoring is also required for any discharge event from the on-site sedimentation basin located at the southern end of Berth 101. Details of the monitoring requirements associated with the sediment basin discharge point are included below in Table 4-4.

Table 4-4 Sediment basin discharge monitoring

EPL Ref.	Monitoring location	Type of monitoring	Parameters	
			Prior to discharge	Daily grab sample during discharge
20	Sediment basin discharge point at the southern end of Berth 101	Wet weather discharge quality	<ul style="list-style-type: none"> - Oil and grease (visual) - Total suspended solids (TSS) 	<ul style="list-style-type: none"> - Aluminium - Arsenic - Cadmium - Chromium - Cobalt - Copper - Lead - Mercury - Nickel - Oil and grease (visual) - pH - PAHs - Tributyltin - TSS - Zinc

4.2.2 Continuous water quality monitoring results

A summary of the results for the continuous water quality monitoring in the harbour is presented below in Table 4-5. Further details for events above criteria as indicated below are provided in Appendix B.

Table 4-5 Harbour water quality – Continuous monitoring results

Monitoring location	Statistic	Results - based on individual 15-minute median				
		Turbidity (NTU)	Temperature (Deg. C)	pH	Electrical conductivity (uS/cm)	Dissolved Oxygen (%sat)
Criteria		25 ¹	N/A	Background +/- 0.5 pH units	Background +/- 20% (+ baseline)	Background - 20% (+ baseline)
WQM1	Average	1.3	17.1	8.2	53444.5	94.3
	Minimum	0.6	15.3	8.1	49691.9	89.0
	Maximum	9.6	19.1	8.2	53969.6	100.4
	No. Events above Criteria ²	0	-	0	0	0
WQM2	Average	1.1	16.8	8.2	53925.6	97.4
	Minimum	0.6	15.5	8.2	52651.3	92.0
	Maximum	3.5	18.3	8.2	54081.9	105.1
	No. Events above Criteria ²	0	-	0	0	0
WQM3	Average	1.4	17.2	8.2	53620.6	96.1
	Minimum	0.7	16.0	8.1	51579.2	91.7
	Maximum	6.6	19.8	8.2	53958.5	103.0
	No. Events above Criteria ²	0	-	0	0	0
WQM4 (Background)	Average	1.1	16.9	8.2	53777.8	97.0
	Minimum	0.4	15.9	8.2	104.3	93.9
	Maximum	2.8	18.4	8.3	54180.6	104.8
WQM5 (Background)	Average	2.4	19.4	8.1	52722.9	97.8
	Minimum	0.8	16.2	8.0	49212.3	90.8
	Maximum	144.9	23.8	8.2	53891.8	107.3

1 – Indicative value based on previous EPL's issued at Port Kembla indicate that 50 mg/l of suspended sediment is equal to 25 NTU (as per CWQMP). To be modified throughout the project to reflect actual TSS / NTU correlation data as it becomes available.

2 - Includes individual number of times results exceeded background. Refer to Appendix B for report on results above criteria.

4.2.3 Water Quality Monitoring Results – Port Kembla Harbour Grab Samples

A summary of the results for the Port Kembla Harbour weekly grab samples is presented below in Table 4-6. Further details for event above criterias as indicated below are provided in Appendix B.



Table 4-6 Harbour water quality – Weekly grab sample results summary

Monitoring Location	Statistic	Aluminium	Anthracene	Arsenic	Benzo(a)pyrene	Cadmium	Chromium (total)	Cobalt	Copper	Lead	Mercury	Naphthalene	Nickel	Total PAHs	Total Suspended Solids (TSS)	Tributyltin	Zinc
Unit		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L
Criteria ²		BL	0.10	BL	BL	5.50	4.40	1.00	1.3 + BL	4.4 + BL	0.40	70.00	70.00	NA	50 + BG	0.01	15 + BL
WQM1	Average	22.5	<0.1	2.25	<0.1	<0.1	1.33	<1	1.00	<1	<0.05	<0.2	1.00	<0.1	5.25	<0.002	4.00
	Minimum	10.00	<0.1	2.00	<0.1	<0.1	1.00	<1	1.00	<1	<0.05	<0.2	1.00	<0.1	5.00	<0.002	3.00
	Maximum	30.00	<0.1	3.00	<0.1	<0.1	2.00	<1	1.00	<1	<0.05	<0.2	1.00	<0.1	6.00	<0.002	5.00
	Events above criteria ¹	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WQM2	Average	25.00	<0.1	2.00	<0.1	<0.1	1.75	<1	1.00	<1	<0.05	<0.2	1.00	<0.1	6.75	<0.002	2.25
	Minimum	10.00	<0.1	2.00	<0.1	<0.1	1.00	<1	1.00	<1	<0.05	<0.2	1.00	<0.1	5.00	<0.002	2.00
	Maximum	40.00	<0.1	2.00	<0.1	<0.1	2.00	<1	1.00	<1	<0.05	<0.2	1.00	<0.1	10.00	<0.002	3.00
	Events above criteria ¹	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WQM3	Average	30.00	<0.1	2.00	<0.1	<0.1	1.50	<1	1.00	<1	<0.05	<0.2	1.25	<0.1	7.50	<0.002	4.00
	Minimum	10.00	<0.1	1.00	<0.1	<0.1	1.00	<1	1.00	<1	<0.05	<0.2	1.00	<0.1	5.00	<0.002	2.00
	Maximum	40.00	<0.1	3.00	<0.1	<0.1	2.00	<1	1.00	<1	<0.05	<0.2	2.00	<0.1	11.00	<0.002	6.00
	Events above criteria ¹	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WQM4	Average	22.50	<0.1	2.00	<0.1	<0.1	1.50	<1	1.00	<1	<0.05	<0.2	1.00	<0.1	5.00	<0.002	2.75
	Minimum	10.00	<0.1	2.00	<0.1	<0.1	1.00	<1	1.00	<1	<0.05	<0.2	1.00	<0.1	5.00	<0.002	2.00
	Maximum	40.00	<0.1	2.00	<0.1	<0.1	2.00	<1	1.00	<1	<0.05	<0.2	1.00	<0.1	5.00	<0.002	3.00
WQM5	Average	32.50	<0.1	2.00	<0.1	<0.1	1.75	<1	1.00	<1	<0.05	<0.2	1.00	<0.1	8.50	<0.002	4.25
	Minimum	10.00	<0.1	2.00	<0.1	<0.1	1.00	<1	1.00	<1	<0.05	<0.2	1.00	<0.1	8.00	<0.002	4.00
	Maximum	60.00	<0.1	2.00	<0.1	<0.1	2.00	<1	1.00	<1	<0.05	<0.2	1.00	<0.1	10.00	<0.002	5.00

1. Includes individual number of times results reported above criteria. Refer to Appendix B for report on results on criteria.
 2. BL = Baseline BG = Background (WQM4 / WQM5)



4.2.4 Water quality monitoring results – sediment basin discharge

During the reporting month, there were two (2) authorised discharge event and zero (0) discharge events as a result of excessive rainfall (>43.5 mm in any 5-day period). Refer to Section 4.3 for site weather monitoring details. The date of the discharge event is provided below in Table 4-7.

A summary of the water quality results for the authorised discharge event from the sediment basin is included below in Table 4-7.

Table 4-7 Sediment basin discharge water quality – Pre-discharge and daily grab sample results

Date of discharge/ sampling	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b,j,k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-c,d)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene	Benzo(a)pyrene TEQ	Total PAH
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Criteria	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/07/2021	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<5	<2
19/07/2021	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1	<1	<1	<5	<2

Date of discharge/ sampling	Aluminium	Arsenic	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Nickel	Zinc	Tributyltin	TSS	pH	Oil & Grease
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	-	-
Criteria	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50	NA	Visible
9/07/2021	40.00	<1	<0.1	1.00	<1	5.00	<1	<0.05	1.00	19.00	<0.002	<5	7.90	<5
19/07/2021	50.00	<1	<0.1	1.00	<1	11.00	3.00	<0.05	2.00	30.00	<0.002	<5	7.66 ³	<5

1. NA = No licence limit, monitoring requirement only
2. NS = Not Sampled
3. Field measurement

4.3 Weather station results

Under the EPL (Condition M5), AIE is required to monitor and record temperature, humidity, wind direction, wind velocity and rainfall at either a project weather station, or through analysis of equivalent weather information obtained from the Australian Bureau of Meteorology.

AIE established and maintains a weather station for the project site located at the southern point of Berth 101 (EPL monitoring point 21) as shown in the Monitoring Location Plan in Appendix A. The monthly data obtained from the onsite weather station is provided below in Table 4-8.

Table 4-8 Site weather station monitoring results summary

Parameter	Unit of measure	Monthly statistic	Result EPL Point 21
Wind velocity	m/s (15min average)	Average	4.28
		Minimum	0.17
		Maximum	15.60
Wind direction at 10m	Degrees (1hr average)	Average	246.27
Rainfall rate	mm/hr (1hr average)	Average	0.34
		Minimum	0.00
		Maximum	29.38
Rainfall (Total)	mm	Monthly total	252.82
Temperature	Degrees Celsius	Average	14.05
		Maximum	7.90
		Minimum	23.50
Humidity	%	Average	60.26
		Minimum	26.40
		Maximum	92.90



5 Environmental complaints

A summary of environmental complaints received during the reporting month and follow-up close-out and or corrective actions are presented below in Table 5-1.

Table 5-1 Environmental complaints summary

Date	Complaint No.	Nature of the complaint	Follow-up close-out and or corrective action
NA	NA	No environmental complaints received for the reporting month	NA



Appendices

Appendix A - Monitoring location plan



<p>Paper Size ISO A4</p>  <p>Kilometers</p> <p>Map Projection: Transverse Mercator Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 56</p>			<p>Australian Industrial Energy Port Kembla Gas Terminal</p>	<p>Project No. 21-27477 Revision No. - Date 04/06/2021</p>
<p>EPL Licence Premises Stage 1</p>			<p>FIGURE 1</p>	

Data sources: Aerial imagery - nearmap 2021 (image date 16/04/2018, data extracted 18/02/2018); General topo - NSW LPI DTDS 2017 & 2015; Cadastre - NSW LPI DCDS 2017. Created by: jfof35

Appendix B – Summary of Events Above Criteria

Air Monitoring Events Above Criteria

Date	Location	Exceedance value (ug/m ³)	Immediate Actions	Investigation Outcomes
2/07/2021	EPL 11	64.50	Initial Investigation, Evaluate wind direction and site contribution at time of event. Dust prevention controls assessed upon return to work. No further action required.	SW and Westerly wind direction. Consistent with background readings.
3/07/2021	EPL 11	70.92	Initial Investigation, Evaluate wind direction and site contribution at time of event. Dust prevention controls assessed upon return to work. No further action required.	SW to NE wind direction. Consistent with background readings.
4/07/2021	EPL 11	68.92	Initial Investigation, Evaluate wind direction and site contribution at time of event. Dust prevention controls assessed upon return to work. No further action required.	Westerly wind direction, 7m/s wind speed. Consistent with background readings.
5/07/2021	EPL 11	100.92	Initial Investigation, Evaluate wind direction and site contribution at time of event. Dust prevention controls assessed upon return to work. No further action required.	Westerly wind direction, up to 9m/s wind speed. Consistent with background readings.
6/07/2021	EPL 9	51.75	Initial Investigation, Evaluate wind direction and site contribution at time of event. Dust prevention controls assessed upon return to work. No further action required.	WSW wind direction, up to 4m/s wind speed. Consistent with background readings.
6/07/2021	EPL 11	92.13	Initial Investigation, Evaluate wind direction and site contribution at time of event. Dust prevention controls assessed upon return to work. No further action required.	WSW wind direction, up to 4m/s wind speed. Consistent with background readings.
7/07/2021	EPL 9	53.92	Initial Investigation, Evaluate wind direction and site contribution at time of event. Dust prevention controls assessed upon return to work. No further action required.	WSW to WNW wind direction. Consistent with background readings. Elevated levels also recorded at publicly available monitors to the NW and SW of site.
7/07/2021	EPL 11	119.08	Initial Investigation, Evaluate wind direction and site	WSW to WNW wind direction. Consistent with background

Date	Location	Exceedance value (ug/m3)	Immediate Actions	Investigation Outcomes
			contribution at time of event. Dust prevention controls assessed upon return to work. No further action required.	readings. Elevated levels also recorded at publicly available monitors to the NW and SW of site.
8/07/2021	EPL 9	78.96	Initial Investigation, Evaluate wind direction and site contribution at time of event. Dust prevention controls assessed upon return to work. No further action required.	WSW wind direction. Consistent with background readings. Elevated levels also recorded at publicly available monitors to the NW and SW of site.
8/07/2021	EPL 11	117.63	Initial Investigation, Evaluate wind direction and site contribution at time of event. Dust prevention controls assessed upon return to work. No further action required.	WSW wind direction. Consistent with background readings. Elevated levels also recorded at publicly available monitors to the NW and SW of site.
11/07/2021	EPL 9	50.63	Initial Investigation, Evaluate wind direction and site contribution at time of event. Dust prevention controls assessed upon return to work. No further action required.	SSW to W wind direction. Consistent with background readings Elevated levels also recorded at publicly available monitors to the NW and SW of site.
11/07/2021	EPL 11	76.00	Initial Investigation, Evaluate wind direction and site contribution at time of event. Dust prevention controls assessed upon return to work. No further action required.	SSW to W wind direction. Consistent with background readings.
16/07/2021	EPL 9	98.21	Initial Investigation, Evaluate wind direction, comparison of upwind and downwind monitors and site contribution at time of event. Dust prevention controls assessed.	Very high reading at 1pm. Westerly wind direction, 15m/s wind speed and strong gusts. Works were suspended at this time and Liberty industrial were advised to seal stockpiles to prevent further dust emissions. Once the storm front had passed and the wind died down works recommenced.
16/07/2021	EPL 11	71.75	Initial Investigation, Evaluate wind direction, comparison of upwind and downwind monitors and site contribution at time of event. Dust prevention controls assessed.	Very high reading at 1pm. Westerly wind direction, 15m/s wind speed and strong gusts. Elevated levels also recorded at publicly available monitors to the NW and SW of site. Works were suspended at this time and Liberty industrial were advised to seal stockpiles to prevent further dust emissions. Once the stormfront had passed

Date	Location	Exceedance value (ug/m3)	Immediate Actions	Investigation Outcomes
				and the wind died down works recommenced.
17/07/2021	EPL 9	85.08	Initial Investigation, Evaluate wind direction, comparison of upwind and downwind monitors and site contribution at time of event. Dust prevention controls assessed.	Elevated levels began to occur as westerly wind speed increase to 10m/s and continued through afternoon. Westerly wind direction, 10+m/s wind speed and strong gusts. Elevated levels also recorded at publicly available monitors to the NW and SW of site.
17/07/2021	EPL 11	112.71	Initial Investigation, Evaluate wind direction, comparison of upwind and downwind monitors and site contribution at time of event. Dust prevention controls assessed.	Elevated levels began to occur as westerly wind speed increase to 10m/s and continued through afternoon. Westerly wind direction, 10+m/s wind speed and strong gusts. Elevated levels also recorded at publicly available monitors to the NW and SW of site.
18/07/2021	EPL 11	50.83	Initial Investigation, Evaluate wind direction and site contribution at time of event. Dust prevention controls assessed upon return to work. No further action required.	Westerly wind speed 6-8m/s and continued throughout day.
20/07/2021	EPL 9	54.67	Initial Investigation, Evaluate wind direction, comparison of upwind and downwind monitors and site contribution at time of event. Dust prevention controls assessed.	Elevated levels between 10am and noon, as westerly wind speed increased from 5 to 10m/s. No works being undertaken during this time due to Covid related construction pause across Greater Sydney. Prior to site shutdown, all stockpiles have been sealed to ensure dust generation on site was minimised during the site shutdown. Therefore, this high reading was considered not associated from site activities. Elevated levels also recorded at publicly available monitors to the NW and SW of site.
20/07/2021	EPL 11	59.58	Initial Investigation, Evaluate wind direction, comparison of upwind and downwind monitors and site contribution at time of event. Dust prevention controls assessed.	Elevated levels between 10am and noon, as westerly wind speed increased from 5 to 10m/s. No works being undertaken during this time due to Covid related construction pause across Greater Sydney. Prior to site

Date	Location	Exceedance value (ug/m3)	Immediate Actions	Investigation Outcomes
				<p>shutdown, all stockpiles have been sealed to ensure dust generation on site was minimised during the site shutdown. Therefore, this high reading was considered not associated from site activities.</p> <p>Elevated levels also recorded at publicly available monitors to the NW and SW of site.</p>
21/07/2021	EPL 9	51.13	Initial Investigation, Evaluate wind direction, comparison of upwind and downwind monitors and site contribution at time of event. Dust prevention controls assessed.	<p>Elevated levels from previous night continuing throughout day, as wind direction SSW turning S, and wind speed increased from 5 to 10m/s.</p> <p>No works being undertaken during this time due to Covid related construction pause across Greater Sydney. Prior to site shutdown, all stockpiles have been sealed to ensure dust generation on site was minimised during the site shutdown. Therefore, this high reading was considered not associated from site activities.</p> <p>Elevated levels also recorded at publicly available monitors to the NW and SW of site.</p>
21/07/2021	EPL 11	72.00	Initial Investigation, Evaluate wind direction, comparison of upwind and downwind monitors and site contribution at time of event. Dust prevention controls assessed.	<p>Elevated levels from previous night continuing throughout day, as wind direction SSW turning S, and wind speed increased from 5 to 10m/s.</p> <p>No works being undertaken during this time due to Covid related construction pause across Greater Sydney. Prior to site shutdown, all stockpiles have been sealed to ensure dust generation on site was minimised during the site shutdown. Therefore, this high reading was considered not associated from site activities.</p> <p>Elevated levels also recorded at publicly available monitors to the NW and SW of site.</p>

Date	Location	Exceedance value (ug/m3)	Immediate Actions	Investigation Outcomes
24/07/2021	EPL 9	60.83	Initial Investigation, Evaluate wind direction, comparison of upwind and downwind monitors and site contribution at time of event. Dust prevention controls assessed.	<p>Elevated levels between noon and 4pm, as westerly wind speed increased from <2 to >13m/s.</p> <p>No works being undertaken during this time due to Covid related construction pause across Greater Sydney. Prior to site shutdown, all stockpiles have been sealed to ensure dust generation on site was minimised during the site shutdown. Therefore, this high reading was considered not associated from site activities.</p> <p>Elevated levels also recorded at publicly available monitors to the NW and SW of site.</p>
24/07/2021	EPL 11	57.71	Initial Investigation, Evaluate wind direction, comparison of upwind and downwind monitors and site contribution at time of event. Dust prevention controls assessed.	<p>Elevated levels between noon and 4pm, as westerly wind speed increased from <2 to >13m/s.</p> <p>No works being undertaken during this time due to Covid related construction pause across Greater Sydney. Prior to site shutdown, all stockpiles have been sealed to ensure dust generation on site was minimised during the site shutdown. Therefore, this high reading was considered not associated from site activities.</p> <p>Elevated levels also recorded at publicly available monitors to the NW and SW of site.</p>
25/07/2021	EPL 9	50.00	Initial Investigation, Evaluate wind direction and site contribution at time of event. Dust prevention controls assessed upon return to work. No further action required.	<p>Very high reading at 9am. Westerly wind direction, 15+m/s wind speed and strong gusts.</p> <p>No works being undertaken during this time due to Covid related construction pause across Greater Sydney. Prior to site shutdown, all stockpiles have been sealed to ensure dust generation on site was minimised during the site shutdown. Therefore, this high reading was considered not associated from site activities.</p>

Date	Location	Exceedance value (ug/m3)	Immediate Actions	Investigation Outcomes
				Elevated levels also recorded at publicly available monitors to the NW and SW of site.
25/07/2021	EPL 11	68.13	Initial Investigation, Evaluate wind direction and site contribution at time of event. Dust prevention controls assessed upon return to work. No further action required.	<p>Very high reading at 9am. Westerly wind direction, 15+m/s wind speed and strong gusts.</p> <p>No works being undertaken during this time due to Covid related construction pause across Greater Sydney. Prior to site shutdown, all stockpiles have been sealed to ensure dust generation on site was minimised during the site shutdown. Therefore, this high reading was considered not associated from site activities.</p> <p>Elevated levels also recorded at publicly available monitors to the NW and SW of site.</p>
28/07/2021	EPL 11	52.54	Initial Investigation, Evaluate wind direction, comparison of upwind and downwind monitors and site contribution at time of event. Dust prevention controls assessed.	<p>Elevated levels between 2pm and 5pm, as W/NW wind speed reaches 12m/s.</p> <p>No works being undertaken during this time due to Covid related construction pause across Greater Sydney. Prior to site shutdown, all stockpiles have been sealed to ensure dust generation on site was minimised during the site shutdown. Therefore, this high reading was considered not associated from site activities.</p> <p>Elevated levels also recorded at publicly available monitors to the NW and SW of site.</p>
29/07/2021	EPL 11	74.46	Initial Investigation, Evaluate wind direction, comparison of upwind and downwind monitors and site contribution at time of event. Dust prevention controls assessed.	<p>Elevated levels between 2pm and 5pm, as WSW/SSW wind speed reaches 12m/s.</p> <p>No works being undertaken during this time due to Covid related construction pause across Greater Sydney. Prior to site shutdown, all stockpiles have been sealed to ensure dust generation on site was minimised during the site shutdown. Therefore, this high reading was</p>

Date	Location	Exceedance value (ug/m3)	Immediate Actions	Investigation Outcomes
				<p>considered not associated from site activities.</p> <p>Elevated levels also recorded at publicly available monitors to the NW and SW of site.</p>

Water Monitoring Events Above Criteria

Date	Location	Recorded Value	Action Taken	Investigation Outcomes
No events above criteria in reporting period				