



PORT KEMBLA COAL TERMINAL LTD.



Licencee:	Port Kembla Coal Terminal Limited
Environment Protection Licence:	1625
Licence URL:	http://www.environment.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=30847&SYSUID=1&LICID=1625
Location:	Port Kembla Road, Port Kembla Inner Harbour, Wollongong
Postal Address:	PO Box 823, Wollongong East 2502

PORT KEMBLA COAL TERMINAL DUST & WEATHER MONITOR LOCATIONS

16th October 2015



EPL No.	PKCT No.	Dust Monitor Location Description
1	P1	25m south of Bulk Products Berth (BPB)
2	P2	40m south of Bulk Products Berth stockyard
3	P3	40m east of Bulk Products Berth stockyard
4	P4	40m east Coal Berth stockyard
5	P5	Northern Pond (Pond No.1)
6	P6	40m west Coal Berth stockyard
7	P7	250m west of Coal Berth stockyard
8	P8	PKCT north truckwash
9	P9	Wollongong Wastewater Treatment Plant
15	P10	North of PKCT Planning Office
17	P11	Entry Gate to BlueScope Ro Ro (Berth 109)
12	R1	157 Church Street (two gauges)
19	R2	Vikings Oval, Wollongong (two gauges)
TBA	R3	Links Seaside Apartments
20	C1	Continuous Dust Monitor 1
21	C2	Continuous Dust Monitor 2

- # refer PKCT Environment Protection Licence(EPL) No. 1625 (EPA ID No.)
- Dust Gauges- Environment Protection Licence monitoring sites
Sites denoted "P": industrial; "R": residential
- Continuous Dust Monitor Sites- additional
- (a) BlueScope High Volume Sampler & dust gauge
(b) PKCT EPL Monitoring Site R2 (2 gauges)
- Weather stations
 - (a) at each continuous dust monitor site ●
 - (b) PKCT Main Control Room ●



PORT KEMBLA COAL TERMINAL LTD.



EPL MONITORING SITES- INDUSTRIAL			Calendar Year 2016												Annual average: grams per square metre.month					
			MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	rolling 12 month average	PKCT assessment criteria			
EPL No.	Location Gauge Number	analysis: grams/square metre.month																		
1	P1 25m South BPB Coal Berth	Insoluble Solids	BB	4.9	4.5	5.4	2.5	34.7	3.1	0.9	5.9	2.1	BB	3.3	10	0.9	6.7	34.7	6.7	15.0
		Ash	BB	2.4	1.7	2.8	1.2	4.2	0.8	0.2	3.4	0.8	BB	1.1	10	0.2	1.9	4.2		
		Combustible Matter	BB	2.5	2.8	2.6	1.3	30.5	2.3	0.7	2.5	1.3	BB	2.2	10	0.7	4.9	30.5	4.9	12.0
2	P2 40m South of BPB Stockyard	Insoluble Solids	1.8	3.6	BB	4.4	0.5	2.1	10.2	4.9	2.8	4.9	4.2	3.7	11	0.5	3.9	10.2	3.9	15.0
		Ash	0.7	2.0	BB	2.8	0.2	0.6	7.0	2.9	1.6	2.3	1.9	1.5	11	0.2	2.1	7.0		
		Combustible Matter	1.1	1.6	BB	1.6	0.3	1.5	3.2	2.0	1.2	2.6	2.3	2.2	11	0.3	1.8	3.2	1.8	12.0
3	P3 40m East of BPB Stockyard	Insoluble Solids	1.7	4.7	4.2	6.6	4.1	BF	18.7	12.7	10.3	13.6	4.2	4.6	11	1.7	7.8	18.7	7.8	15.0
		Ash	0.7	2.9	2.0	4.4	2.2	BF	12.2	6.5	6.3	8.4	2.4	2.6	11	0.7	4.6	12.2		
		Combustible Matter	1.0	1.8	2.2	2.2	1.9	BF	6.5	6.2	4.0	5.2	1.8	2.0	11	1.0	3.2	6.5	3.2	12.0
4	P4 40m East Coal Berth Stockyard	Insoluble Solids	BB	6.9	5.7	3.0	4.2	1.7	4.5	7.1	9.9	10.2	5.4	6.6	11	1.7	5.9	10.2	5.9	15.0
		Ash	BB	2.2	1.4	0.8	1.2	0.8	1.2	1.6	2.6	1.9	1.6	1.7	11	0.8	1.5	2.6		
		Combustible Matter	BB	4.7	4.3	2.2	3.0	0.9	3.3	5.5	7.3	8.3	3.8	4.9	11	0.9	4.4	8.3	4.4	12.0
5	P5 Northern Pond (No.1)	Insoluble Solids	3.6	17.2	2.8	3.8	5.2	6.7	19.1	2.8	5.6	6.1	4.0	5.7	12	2.8	6.9	19.1	6.9	15.0
		Ash	0.8	8.8	0.5	1.5	1.8	2.4	7.5	1.0	2.2	1.8	1.1	1.4	12	0.5	2.6	8.8		
		Combustible Matter	2.8	8.4	2.3	2.3	3.4	4.3	11.6	1.8	3.4	4.3	2.9	4.3	12	1.8	4.3	11.6	4.3	12.0
6	P6 40m West Coal Berth Stockyard	Insoluble Solids	9.1	8.6	7.0	5.1	4.7	8.9	11.0	4.5	7.4	11.9	16.8	4.2	12	4.2	8.3	16.8	8.3	15.0
		Ash	0.4	3.0	2.4	2.5	1.9	0.6	4.6	1.7	3.0	3.0	1.9	0.7	12	0.4	2.1	4.6		
		Combustible Matter	8.7	5.6	4.6	2.6	2.8	8.3	6.4	2.8	4.4	8.9	14.8	3.5	12	2.6	6.1	14.8	6.1	12.0
7	P7 260m West No.2 Coalberth	Insoluble Solids	0.8	4.6	2.1	10.1	15.5	2.7	3.9	2.0	2.0	2.9	13.9	6.2	12	0.8	5.6	15.5	5.6	15.0
		Ash	0.2	3.5	1.2	8.8	13.8	1.7	2.4	1.1	1.1	1.5	0.5	2.4	12	0.2	3.2	13.8		
		Combustible Matter	0.6	1.1	0.9	1.3	1.7	1.0	1.5	0.9	0.9	1.4	13.4	3.8	12	0.6	2.4	13.4	2.4	12.0
8	P8 PKCT North Truckwash	Insoluble Solids	2.8	2.3	1.5	10.4	47.0	25.4	10.7	8.4	38.6	22.9	8.5	7.8	12	1.5	15.5	47.0	15.5	15.0
		Ash	0.6	0.6	0.2	2.9	6.3	5.0	1.7	2.1	12.1	5.6	2.1	1.8	12	0.2	3.4	12.1		
		Combustible Matter	2.2	1.7	1.3	7.5	40.7	20.4	9.0	6.3	26.5	17.3	6.4	6.0	12	1.3	12.1	40.7	12.1	12.0
9	P9 Wollongong Wastewater TP.	Insoluble Solids	3.1	1.9	1.3	5.2	3.0	2.5	1.3	1.8	1.3	2.3	1.1	3.1	12	1.1	2.3	5.2	2.3	6.0
		Ash	0.9	0.8	0.5	3.0	1.3	1.2	0.4	0.9	0.6	1.0	0.3	1.1	12	0.3	1.0	3.0		
		Combustible Matter	2.2	1.1	0.8	2.2	1.7	1.3	0.9	0.9	0.7	1.3	0.8	2.0	12	0.7	1.3	2.2	1.3	4.0
15	P10 North of PKCT Planning Office	Insoluble Solids	1.1	12.7	15.4	5.3	7.6	3.1	10.1	BB	5.4	9.0	5.2	8.0	11	1.1	7.5	15.4	7.5	15.0
		Ash	0.7	4.5	3.7	1.9	2.5	0.7	4.2	BB	1.3	3.9	1.6	2.3	11	0.7	2.5	4.5		
		Combustible Matter	0.4	8.2	11.7	3.4	5.1	2.4	5.9	BB	4.1	5.1	3.6	5.7	11	0.4	5.1	11.7	5.1	12.0
17	P11 Entry Gate BlueScope RO.RO Berth (109)	Insoluble Solids	BB	4.6	3.7	2.4	BB	1.1	4.1	1.8	2.4	5.1	1.2	2.5	10	1.1	2.9	5.1	2.9	6.0
		Ash	BB	3.3	1.8	1.6	BB	0.4	2.6	1.2	1.7	1.9	0.5	1.5	10	0.4	1.7	3.3		
		Combustible Matter	BB	1.3	1.9	0.8	BB	0.7	1.5	0.6	0.7	3.2	0.7	1.0	10	0.6	1.2	3.2	1.2	4.0

MONTHLY REPORT: COMMENTARY ON RESULTS

Note 1: there are no EPL air quality limits in the EPL for industrial monitoring sites. Historical information provides baseline data and assessment criteria has been adopted to assess against actual results to facilitate performance improvement.

SAMPLE PERIOD	Date Sampled	Date Results Obtained	Date Published	COMMENTARY ON RESULTS
January 2016	02/02/2016	23/02/2016	26/02/2016	All sites within assessment criteria. Broken bottles found at P1, P4 and P11.
February 2016	03/03/2016	15/03/2016	15/03/2016	All sites within assessment criteria.
March 2016	11/04/2016	13/04/2016	14/04/2016	All sites within assessment criteria. Broken bottle found at site P2.
April 2016	02/05/2016	11/05/2016	11/05/2016	All sites within assessment criteria.
May 2016	31/05/2016	07/06/2016	08/06/2016	All sites within assessment criteria. Bottle base was found broken at P11 when collected. All bottles will be replaced for new during next round of sampling.
June 2016	04/07/2016	13/07/2016	13/07/2016	All sites within assessment criteria. Sample P3 which is located along the Sewall Road, adjacent to the ocean was contaminated by a fish carcass after the large swells in early June and was not able to be analysed.
July 2016	02/08/2016	16/08/2016	16/08/2016	All sites within assessment criteria.
August 2016	06/09/2016	15/09/2016	15/09/2016	All sites within assessment criteria. Broken bottle at Site P10 when collected. All bottles have now been replaced with
September 2016	05/10/2016	13/10/2016	17/10/2016	All sites within assessment criteria.
October 2016	03/11/2016	14/11/2016	14/11/2016	One site "P8" outside annual average assessment criteria for insoluble solids and combustible matter. September and October were windy months. Dust controls will be monitored across November.
November 2016	02/12/2016	15/12/2016	15/12/2016	One site "P8" outside annual average assessment criteria for insoluble solids and combustible matter. November dust levels were low. Annual average remains outside criteria as a result of some high monthly readings earlier in the year. Broken bottle at site "P1", suspected vandalism.
December 2016	05/01/2017	13/01/2017	13/01/2017	One site "P8" outside annual average assessment criteria for insoluble solids and combustible matter. December dust levels were low. Annual average remains outside criteria as a result of some high monthly readings earlier in the year.



PORT KEMBLA COAL TERMINAL LTD.



EPL MONITORING SITES- RESIDENTIAL			Calendar Year 2016												annual average: grams per square metre.month					
MONTH			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	No. samples collected	MIN	MEAN	MAX	rolling 12 month average	PKCT assessment criteria
EPL No.	Location Gauge Number	Analysis: grams/square metre.month																		
12	R1	Insoluble Solids	1.1	0.3	1.8	0.8	0.9	0.9	1.4	1.0	1.8	1.6	1.0	1.6	12	0.3	1.2	1.8	1.2	4.0
	157 Church St	Ash	0.5	0.2	0.7	0.4	0.5	0.3	0.7	0.6	1.2	0.9	0.4	0.8	12	0.2	0.6	1.2		
	Wollongong	Combustible Matter	0.6	0.1	1.1	0.4	0.4	0.6	0.7	0.4	0.6	0.7	0.6	0.8	12	0.1	0.6	1.1	0.6	2.0
19	R2	Insoluble Solids	1.1	2.8	1.6	0.2	1.0	3.0	2.3	1.0	0.8	1.2	1.4	1.8	12	0.2	1.5	3.0	1.5	4.0
	Vikings Oval	Ash	0.5	1.7	0.9	0.0	0.5	2.0	1.3	0.4	0.3	0.6	0.6	0.8	12	0.0	0.8	2.0		
	Wollongong	Combustible Matter	0.6	1.1	0.7	0.2	0.5	1.0	1.0	0.6	0.5	0.6	0.8	1.0	12	0.2	0.7	1.1	0.7	2.0
TBA	R3	Insoluble Solids	0.3	1.1	0.4	1.2	1.5	0.9	2.8	3.1	1.0	1.3	0.8	2.2	12	0.3	1.4	3.1	1.4	4.0
	Ross Street	Ash	0.1	0.5	0.0	0.8	0.8	0.2	1.5	2.2	0.3	0.7	0.3	1.1	12	0.0	0.7	2.2		
	Wollongong	Combustible Matter	0.2	0.6	0.4	0.4	0.7	0.7	1.3	0.9	0.7	0.6	0.5	1.1	12	0.2	0.7	1.3	0.7	2.0

MONTHLY REPORT: COMMENTARY ON RESULTS

Note 1: Assessment criteria is based on an EPA guideline of annual average of 4 grams per square metre per month for residential areas. PKCT has adopted a level of 2 grams per square metre for combustible matter for assessment purposes.

SAMPLE PERIOD	Date Sampled	Date Results Obtained	Date Published	COMMENTARY
January 2016	02/02/2016	23/02/2016	26/02/2016	All sites within assessment criteria.
February 2016	03/03/2016	15/03/2016	15/03/2016	All sites within assessment criteria.
March 2016	11/04/2016	13/04/2016	14/04/2016	All sites within assessment criteria.
April 2016	02/05/2016	11/05/2016	11/05/2016	All sites within assessment criteria.
May 2016	31/05/2016	07/06/2016	08/06/2016	All sites within assessment criteria.
June 2016	04/07/2016	13/07/2016	13/07/2016	All sites within assessment criteria.
July 2016	02/08/2016	16/08/2016	16/08/2016	All sites within assessment criteria.
August 2016	06/09/2016	15/09/2016	15/09/2016	All sites within assessment criteria.
September 2016	05/10/2016	13/10/2016	17/10/2016	All sites within assessment criteria.
October 2016	03/11/2016	14/11/2016	14/11/2016	All sites within assessment criteria.
November 2016	02/12/2016	15/12/2016	15/12/2016	All sites within assessment criteria.
December 2016	05/01/2017	13/01/2017	13/01/2017	All sites within assessment criteria.



PORT KEMBLA COAL TERMINAL LTD.



SETTLEMENT LAGOON OVERFLOW: ENVIRONMENT PROTECTION LICENCE MONITORING: POINT 16

Environment Protection Licence: 1625 Type of Monitoring: water quality Frequency: daily grab sample when			water quality parameter		EPL Limit (100 percentile)	
			pH	total suspended solids (milligrams per litre)	monitoring only less than 50 not visible	
Sample Date	Date Results Obtained	Date Published	pH (pH units)	total suspended solids (milligrams per litre)	oil/ grease (milligrams per litre)	Commentary on Results
04/01/2016	23/02/2016	26/02/2016	9.8	13	not visible	EPL compliant
05/01/2016	23/02/2016	26/02/2016	9.3	15	not visible	EPL compliant
06/01/2016	23/02/2016	26/02/2016	9.2	12	not visible	EPL compliant
07/01/2016	23/02/2016	26/02/2016	8.4	13	not visible	EPL compliant
11/01/2016	23/02/2016	26/02/2016	10.1	15	not visible	EPL compliant
15/01/2016	23/02/2016	26/02/2016	8.4	19	not visible	EPL compliant
19/01/2016	23/02/2016	26/02/2016	9.8	15	not visible	EPL compliant
22/01/2016	23/02/2016	26/02/2016	7.9	12	not visible	EPL compliant
23/01/2016	23/02/2016	26/02/2016	7.8	13	not visible	EPL compliant
24/01/2016	23/02/2016	26/02/2016	8.2	12	not visible	EPL compliant
27/01/2016	23/02/2016	26/02/2016	9.9	11	not visible	EPL compliant
26/01/2016	23/02/2016	26/02/2016	9.3	13	not visible	EPL compliant
01/02/2016	15/03/2016	15/03/2016	9.4	13	not visible	EPL compliant
02/02/2016	15/03/2016	15/03/2016	8.8	13	not visible	EPL compliant
04/02/2016	15/03/2016	15/03/2016	8.7	15	not visible	EPL compliant
15/03/2016	13/04/2016	14/04/2016	7	<5	not visible	EPL compliant
17/03/2016	13/04/2016	14/04/2016	7.1	<5	not visible	EPL compliant
22/03/2016	13/04/2016	14/04/2016	7.6	8	not visible	EPL compliant
28/03/2016	13/04/2016	14/04/2016	7.6	<5	not visible	EPL compliant
29/03/2016	13/04/2016	14/04/2016	8.5	<5	not visible	EPL compliant
No overflows from LDP16 during April 2016						
24/05/2016	07/06/2016	08/06/2016	9.0	9.0	not visible	EPL compliant
01/06/2016	13/07/2016	13/07/2016	7.8	17.0	not visible	EPL compliant
02/06/2016	13/07/2016	13/07/2016	8.4	18.0	not visible	EPL compliant
04/06/2016	13/07/2016	13/07/2016	8.7	19.0	not visible	EPL compliant
05/06/2016	13/07/2016	13/07/2016	7.7	<5	not visible	EPL compliant
06/06/2016	13/07/2016	13/07/2016	7.8	30.0	not visible	EPL compliant
07/06/2016	13/07/2016	13/07/2016	8.1	<5	not visible	EPL compliant
09/06/2016	13/07/2016	13/07/2016	7.3	<5	not visible	EPL compliant
19/06/2016	13/07/2016	13/07/2016	7.1	23.0	not visible	EPL compliant
20/06/2016	13/07/2016	13/07/2016	7.4	27.0	not visible	EPL compliant
27/06/2016	13/07/2016	13/07/2016	7.7	<5	not visible	EPL compliant
07/07/2016	16/08/2016	16/08/2016	7.7	8.0	not visible	EPL compliant
08/07/2016	16/08/2016	16/08/2016	7.7	16.0	not visible	EPL compliant
20/07/2016	16/08/2016	16/08/2016	7.3	8.0	not visible	EPL compliant

* "Date Published" refers to this report.

NB TSS (total suspended solids) - under EPL, a TSS water quality limit of 50mg/litre pertains. Exceedance of this limit is permitted when discharge occurs solely as a result of rainfall measured at the premises. For discharge to be considered to occur solely as a result of rainfall, the rainfall must exceed a 5 day rainfall depth value of 90 mm over a consecutive 5 day period.

Water Collection System- Aerial View



Nb South, Tower 3, Central, Workshop, North, TS1 pond and C7 pump collect site runoff for transfer to the settlement lagoon for treatment, reuse and harbour discharge.

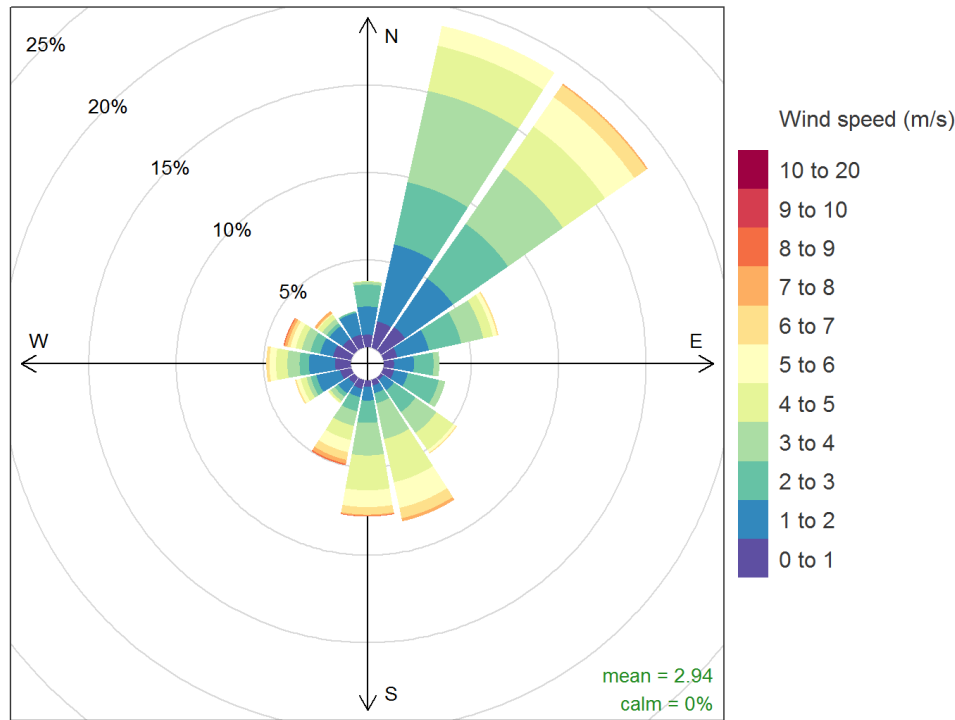


PORT KEMBLA COAL TERMINAL LTD.



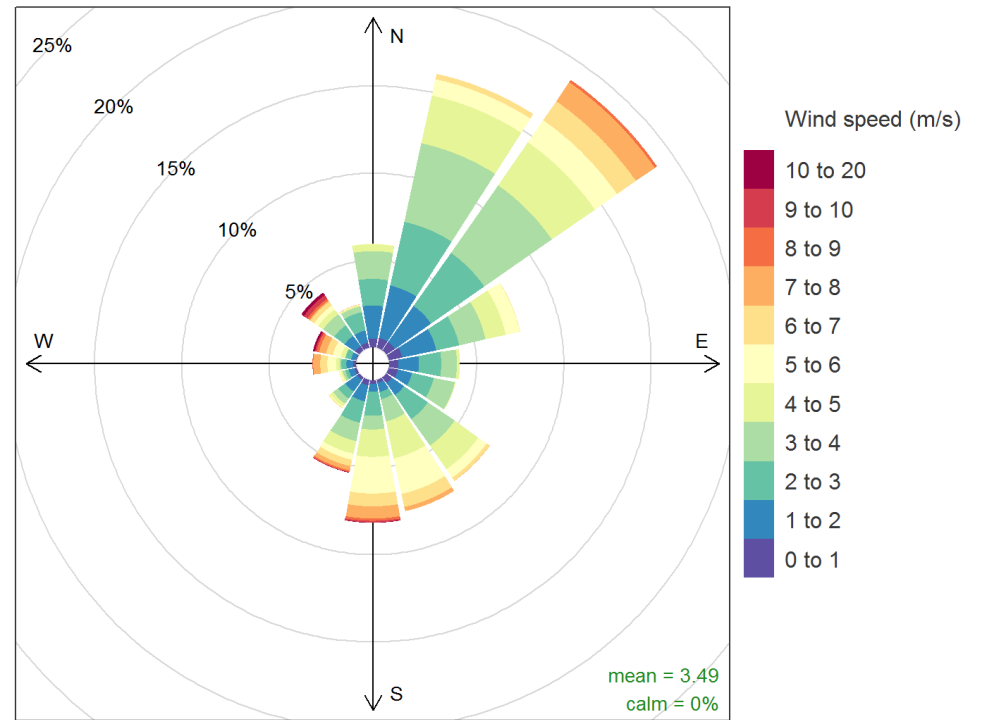
WIND ROSES - December 2016

Northern monitor



Frequency of counts by wind direction (%)

Southern monitor



Frequency of counts by wind direction (%)



PORT KEMBLA COAL TERMINAL LTD.



RAINFALL (PKCT site gauge)

