



PORT KEMBLA COAL TERMINAL LTD.



Licencee:	Port Kembla Coal Terminal Limited
Environment Protection Licence:	1625
Licence URL:	http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=106587&SYSUID=1&LICID=1625
PKCT EPA Public Register	https://apps.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=1625&id=1625&option=licence&searchrange=general&range=POEOlicence&prp=no&status=Issued
Location:	Port Kembla Road, Port Kembla Inner Harbour, Wollongong
Postal Address:	PO Box 823, Wollongong East 2502





PORT KEMBLA COAL TERMINAL LTD.



EPL MONITORING SITES- INDUSTRIAL			Calendar Year 2022																	Annual average: grams per square metre.month	
Monthly Analysis		MONTH	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Samples collected	MIN	MEAN	MAX			
EPL No.	Location Gauge Number	analysis: grams/square metre.month																	rolling 12 month average	PKCT assessment criteria	
1	P1	Insoluble Solids														0	0.0	#DIV/0!	0.0		
	25m South	Ash														0	0.0	#DIV/0!	0.0		
	BPB Coal Berth	Combustible Matter														0	0.0	#DIV/0!	0.0		
2	P2	Insoluble Solids														0	0.0	#DIV/0!	0.0		
	40m South of BPB Stockyard	Ash														0	0.0	#DIV/0!	0.0		
		Combustible Matter														0	0.0	#DIV/0!	0.0		
3	P3	Insoluble Solids	14.7	7.6	11.9	9.9	26.2	57.4	14.4	13.5	9.2	13.0	21.6	8.4	12	7.6	17.3	57.4	17.3	15.0	
	40m East of BPB Stockyard	Ash	11.5	5.9	1.9	7.8	22.5	51.2	11.5	10.2	7.1	10.5	17.9	6.4	12	1.9	13.7	51.2			
		Combustible Matter	3.2	1.7	2.8	2.1	3.7	6.2	2.9	3.3	21.0	2.5	3.7	2.0	12	1.7	4.6	21.0	4.6	12.0	
4	P4	Insoluble Solids	3.8	3.8	3.7	4.1	5.7	6.5	3.7	4.3	3.2	2.6	11.2	3.8	12	2.6	4.7	11.2	4.7	15.0	
	40m East Coal Berth Stockyard	Ash	2.0	2.2	2.2	2.4	3.0	3.2	2.2	2.3	1.5	1.0	3.2	2.0	12	1.0	2.3	3.2			
		Combustible Matter	1.8	1.6	1.5	1.7	2.7	3.3	1.5	2.0	1.7	1.6	8.0	1.8	12	1.5	2.4	8.0	2.4	12.0	
5	P5	Insoluble Solids	6.5	8.8	5.4	7.2	4.5	6.1	5.2	8.5	7.5	13.2	6.0	7.8	12	4.5	7.2	13.2	7.2	15.0	
	Northern Pond (No.1)	Ash	2.3	3.0	2.1	2.9	2.0	2.2	2.1	2.4	3.3	5.3	2.2	2.0	12	2.0	2.7	5.3			
		Combustible Matter	4.2	5.8	3.3	4.3	2.5	3.9	3.1	6.1	4.2	7.9	3.8	5.8	12	2.5	4.6	7.9	4.6	12.0	
6	P6	Insoluble Solids	6.7	5.5	4.6	7.7	20.7	9.2	6.7	8.4	5.7	4.5	6.6	4.4	12	4.4	7.6	20.7	7.6	15.0	
	40m West Coal Berth Stockyard	Ash	3.6	2.4	2.2	3.5	5.0	3.7	3.0	4.3	2.1	1.3	2.4	1.9	12	1.3	3.0	5.0			
		Combustible Matter	3.1	3.1	2.4	4.2	15.7	5.5	3.7	4.1	3.6	3.2	4.2	2.5	12	2.4	4.6	15.7	4.6	12.0	
7	P7	Insoluble Solids	8.4	7.1	10.9	2.0	2.5	6.5	10.0	8.0	4.5	2.3	11.1	27.4	12	2.0	8.4	27.4	8.4	15.0	
	260m West No.2 Coalberth	Ash	5.1	3.5	8.1	1.5	1.3	5.0	7.3	5.1	2.3	1.0	8.9	23.7	12	1.0	6.1	23.7			
		Combustible Matter	3.3	3.6	2.8	0.5	1.2	1.5	2.7	2.9	2.2	1.3	2.2	3.7	12	0.5	2.3	3.7	2.3	12.0	
8	P8	Insoluble Solids	7.3	4.4	3.6	13.9	9.0	22.5	5.5	8.9	8.9	11.0	20.6	8.3	12	3.6	10.3	22.5	10.3	15.0	
	PKCT North Truckwash	Ash	2.6	1.6	1.3	4.1	4.1	4.9	2.1	2.9	1.9	2.4	4.2	2.2	12	1.3	2.9	4.9			
		Combustible Matter	4.7	2.8	2.3	9.8	4.9	17.6	3.4	6.0	7.0	8.6	16.4	6.1	12	2.3	7.5	17.6	7.5	12.0	
9	P9	Insoluble Solids	3.6	2.9	0.7	4.6	5.5	3.5	2.0	3.8	4.0	5.0	5.0	4.3	12	0.7	3.7	5.5	3.7	6.0	
	Wollongong Wastewater TP.	Ash	1.7	1.5	0.4	2.6	4.3	2.0	1.1	2.0	1.1	0.9	1.9	1.8	12	0.4	1.8	4.3			
		Combustible Matter	1.9	1.4	0.3	2.0	1.2	1.5	0.9	1.8	2.9	4.1	3.1	2.5	12	0.3	2.0	4.1	2.0	4.0	
15	P10	Insoluble Solids	14.8	7.2	6.0	8.6	0.4	14.0	6.5	10.0	5.5	6.4	6.9	7.5	12	0.4	7.8	14.8	7.8	15.0	
	North of PKCT Planning Office	Ash	4.8	4.0	2.6	5.2	0.3	6.3	4.2	5.3	2.5	2.3	2.7	4.1	12	0.3	3.7	6.3			
		Combustible Matter	1.9	3.2	3.4	3.4	0.1	7.7	2.3	4.7	3.0	4.1	4.2	3.4	12	0.1	3.5	7.7	3.5	12.0	
17	P11	Insoluble Solids	14.8	4.0	0.7	10.8	5.5	4.2	3.4	7.1	5.8	4.3	4.3	3.9	12	0.7	5.7	14.8	5.7	6.0	
	Entry Gate BlueScope	Ash	4.8	3.3	0.6	8.5	4.3	3.3	2.5	5.7	4.4	3.4	3.2	3.1	12	0.6	3.9	8.5			
	RO.RO Berth (109)	Combustible Matter	10.0	0.7	0.1	2.3	4.9	0.9	0.9	1.4	1.4	0.9	1.1	0.8	12	0.1	2.1	10.0	2.1	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 2022	7/01/2022	20/02/2022	28/02/2022	P7 result is due to outliers from June & July 2021 due to excessive grain dust
February 2022	4/02/2022	23/03/2022	23/03/2022	P7 result is due to outliers from June & July 2021 due to excessive grain dust
March 2022	10/03/2022	27/04/2022	2/05/2022	P7 result is due to outliers from June & July 2021 due to excessive grain dust
April 2022	5/04/2022	17/05/2022	18/05/2022	P7 result is due to outliers from June & July 2021 due to excessive grain dust
May 2022	6/05/2022	23/06/2022	24/06/2022	P7 result is due to outliers from June & July 2021 due to excessive grain dust
June 2022	4/06/2022	15/07/2022	15/07/2022	P7 result is due to outliers from June & July 2021 due to excessive grain dust
July 2022	4/07/2022	17/08/2022	22/08/2022	P7 result is due to outliers from June & July 2021 due to excessive grain dust
August 2022	5/08/2022	20/09/2022	27/09/2022	P7 result is due to outliers from June & July 2021 due to excessive grain dust
September 2022	5/09/2022	26/10/2022	26/10/2022	P7 result is due to outliers from June & July 2021 due to excessive grain dust
October 2022	7/10/2022	28/11/2022	29/11/2022	P7 result is due to outliers from June & July 2021 due to excessive grain dust
November 2022	9/11/2022	21/12/2022	22/12/2022	P7 result is due to outliers from June & July 2021 due to excessive grain dust
December 2022	10/12/2022	30/01/2023	30/01/2023	P7 result is due to outliers from June & July 2021 due to excessive grain dust



PORT KEMBLA COAL TERMINAL LTD.



EPL MONITORING SITES- RESIDENTIAL			Calendar Year 2022												Monthly Analysis				annual average: grams per square metre.month	
		MONTH	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22						
EPL No.	Location Gauge Number	Analysis: grams/square metre.month													No. samples collected	MIN	MEAN	MAX	rolling 12 month average	PKCT assessment criteria
12	R1	Insoluble Solids	1.2	1.0	0.5	0.7	0.4	0.7	0.5	0.8	0.6	1.1	1.1	1.1	12	0.4	0.8	1.2	0.7	4.0
	157 Church St	Ash	0.8	0.6	0.4	0.4	0.3	0.4	0.2	0.5	0.3	0.4	0.7	0.7	12	0.2	0.5	0.8		
	Wollongong	Combustible Matter	0.4	0.4	0.1	0.3	0.1	0.3	0.3	0.3	0.3	0.7	0.4	0.4	12	0.1	0.3	0.7	0.3	2.0
19	R2	Insoluble Solids	2.2	1.3	1.0	0.9	0.4	2.2	1.0	1.0	0.5	0.6	1.6	1.7	12	0.4	1.2	2.2	1.3	4.0
	Vikings Oval	Ash	1.0	0.8	0.3	0.4	0.2	0.7	0.4	0.5	0.2	0.2	0.5	0.6	12	0.2	0.5	1.0		
	Wollongong	Combustible Matter	1.2	0.5	0.7	0.5	0.2	1.5	0.6	0.5	0.3	0.4	1.1	1.1	12	0.2	0.7	1.5	0.7	2.0
TBA	R3	Insoluble Solids	2.0	9.2	9.7	1.8	6.6	0.7	1.1	1.8	3.5	2.6	1.2	5.4	12	0.7	3.8	9.7	4.3	4.0
	Ross Street	Ash	1.3	2.5	1.3	1.0	2.0	0.6	0.7	1.1	1.0	0.9	0.7	3.3	12	0.6	1.4	3.3		
	Wollongong	Combustible Matter	0.7	6.7	8.4	0.8	4.6	0.1	0.4	0.7	2.5	1.7	0.5	2.1	12	0.1	2.4	8.4	3.0	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 2022	7/01/2022	20/02/2022	28/02/2022	All sites within assessment criteria.
February 2022	4/02/2022	23/03/2022	23/03/2022	All sites within assessment criteria.
March 2022	10/03/2022	27/04/2022	2/05/2022	All sites within assessment criteria except R3 at 2.7 (12 month average). Site "R3" had very high levels (95%) of polysaccharide slime and vegetation matter causing the higher than normal measurement in the gauge, there have been several (5) similar results across the 12 month period causing the average to be high. Polysaccharide slime is associated with organic matter.
April 2022	5/04/2022	17/05/2022	18/05/2022	All sites within assessment criteria except R3 at 2.7 (12 month average). Site "R3" had very high levels (95%) of polysaccharide slime and vegetation matter causing the higher than normal measurement in the gauge, there have been several (5) similar results across the 12 month period causing the average to be high. Polysaccharide slime is associated with organic matter.
May 2022	6/05/2022	23/06/2022	24/06/2022	All sites within assessment criteria except R3 at 2.7 (12 month average). Site "R3" had very high levels (95%) of polysaccharide slime and vegetation matter causing the higher than normal measurement in the gauge, there have been several (5) similar results across the 12 month period causing the average to be high. Polysaccharide slime is associated with organic matter.
June 2022	4/06/2022	15/07/2022	15/07/2022	All sites within assessment criteria except R3 at 2.7 (12 month average). Site "R3" had very high levels (95%) of polysaccharide slime and vegetation matter causing the higher than normal measurement in the gauge, there have been several (5) similar results across the 12 month period causing the average to be high. Polysaccharide slime is associated with organic matter.
July 2022	4/07/2022	17/08/2022	22/08/2022	All sites within assessment criteria except R3 at 2.7 (12 month average). Site "R3" had very high levels (95%) of polysaccharide slime and vegetation matter causing the higher than normal measurement in the gauge, there have been several (5) similar results across the 12 month period causing the average to be high. Polysaccharide slime is associated with organic matter.
August 2022	5/08/2022	20/09/2022	27/09/2022	All sites within assessment criteria except R3 at 2.7 (12 month average). Site "R3" had very high levels (95%) of polysaccharide slime and vegetation matter causing the higher than normal measurement in the gauge, there have been several (5) similar results across the 12 month period causing the average to be high. Polysaccharide slime is associated with organic matter.
September 2022	5/09/2022	26/10/2022	26/10/2022	All sites within assessment criteria except R3 at 2.7 (12 month average). Site "R3" had very high levels (95%) of polysaccharide slime and vegetation matter causing the higher than normal measurement in the gauge, there have been several (5) similar results across the 12 month period causing the average to be high. Polysaccharide slime is associated with organic matter.
October 2022	7/10/2022	28/11/2022	29/11/2022	All sites within assessment criteria except R3 at 2.7 (12 month average). Site "R3" had very high levels (95%) of polysaccharide slime and vegetation matter causing the higher than normal measurement in the gauge, there have been several (5) similar results across the 12 month period causing the average to be high. Polysaccharide slime is associated with organic matter.
November 2022	9/11/2022	21/12/2022	22/12/2022	All sites within assessment criteria except R3 at 2.7 (12 month average). Site "R3" had very high levels (95%) of polysaccharide slime and vegetation matter causing the higher than normal measurement in the gauge, there have been several (5) similar results across the 12 month period causing the average to be high. Polysaccharide slime is associated with organic matter.
December 2022	10/12/2022	30/01/2023	30/01/2023	All sites within assessment criteria except R3 at 2.7 (12 month average). Site "R3" had very high levels (95%) of polysaccharide slime and vegetation matter causing the higher than normal measurement in the gauge, there have been several (5) similar results across the 12 month period causing the average to be high. Polysaccharide slime is associated with organic matter.



SETTLEMENT LAGOON OVERFLOW: ENVIRONMENT PROTECTION LICENCE MONITORING: Licenced Discharge POINT 16						
Environment Protection Licence: 1625 Type of Monitoring: water quality Frequency: daily grab sample when discharging			water quality parameter		EPL Limit (100 percentile)	
			pH		monitoring only	
			total suspended solids (mg/L)		less than 50	
			oil/ grease (milligrams per litre)		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
6/01/2022	20/01/2022	28/02/2022	6.7	<5	not visible	EPL compliant
7/01/2022	20/01/2022	28/02/2022	6.8	<5	not visible	EPL compliant
8/01/2022	20/01/2022	28/02/2022	7.7	<5	not visible	EPL compliant
9/01/2022	20/01/2022	28/02/2022	7.6	<5	not visible	EPL compliant
10/01/2022	20/01/2022	28/02/2022	7.2	9	not visible	EPL compliant
13/01/2022	20/01/2022	28/02/2022	6.9	<5	not visible	EPL compliant
14/01/2022	20/01/2022	28/02/2022	7.5	5	not visible	EPL compliant
15/01/2022	20/01/2022	28/02/2022	7.5	<5	not visible	EPL compliant
16/01/2022	20/01/2022	28/02/2022	7.5	16	not visible	EPL compliant
17/01/2022	20/01/2022	28/02/2022	6.3	7	not visible	EPL compliant
18/01/2022	20/01/2022	28/02/2022	6.6	<5	not visible	EPL compliant
23/01/2022	20/01/2022	28/02/2022	7.4	<5	not visible	EPL compliant
24/01/2022	20/01/2022	28/02/2022	7.4	5	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.



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SETTLEMENT LAGOON OVERFLOW: ENVIRONMENT PROTECTION LICENCE MONITORING: Licenced Discharge POINT 16

Environment Protection Licence: 1625 Type of Monitoring: water quality Frequency: daily grab sample when discharging			water quality parameter		EPL Limit (100 percentile)	
			pH		monitoring only	
			total suspended solids (mg/L)		less than 50	
			oil/ grease (milligrams per litre)		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
1/03/2022	27/04/2022	2/05/2022	8.0	<5	<5	EPL compliant
2/03/2022	27/04/2022	2/05/2022	7.4	8	<5	EPL compliant
3/03/2022	27/04/2022	2/05/2022	7.5	<5	<5	EPL compliant
4/03/2022	27/04/2022	2/05/2022	7.0	7	<5	EPL compliant
5/03/2022	27/04/2022	2/05/2022	7.1	<5	<5	EPL compliant
6/03/2022	27/04/2022	2/05/2022	7.4	<5	<5	EPL compliant
7/03/2022	27/04/2022	2/05/2022	7.3	24	<5	EPL compliant
8/03/2022	27/04/2022	2/05/2022	7.6	46	<5	EPL compliant
9/03/2022	27/04/2022	2/05/2022	7.5	10	<5	EPL compliant
10/03/2022	27/04/2022	2/05/2022	7.5	<5	<5	EPL compliant
11/03/2022	27/04/2022	2/05/2022	7.8	<5	<5	EPL compliant
12/03/2022	27/04/2022	2/05/2022	8.0	<5	<5	EPL compliant
13/03/2022	27/04/2022	2/05/2022	7.9	<5	<5	EPL compliant
14/03/2022	27/04/2022	2/05/2022	8.1	<5	<5	EPL compliant
15/03/2022	27/04/2022	2/05/2022	8.0	<5	<5	EPL compliant
16/03/2022	27/04/2022	2/05/2022	7.9	<5	<5	EPL compliant
17/03/2022	27/04/2022	2/05/2022	7.9	<5	<5	EPL compliant
18/03/2022	27/04/2022	2/05/2022	7.8	<5	<5	EPL compliant
19/03/2022	27/04/2022	2/05/2022	7.8	25	<5	EPL compliant
20/03/2022	27/04/2022	2/05/2022	7.9	11	<5	EPL compliant
21/03/2022	27/04/2022	2/05/2022	8.0	<5	<5	EPL compliant
23/03/2022	27/04/2022	2/05/2022	8.2	<5	<5	EPL compliant
25/03/2022	27/04/2022	2/05/2022	7.9	5	<5	EPL compliant
26/03/2022	27/04/2022	2/05/2022	7.7	44	<5	EPL compliant
27/03/2022	27/04/2022	2/05/2022	7.8	59	<5	EPL compliant (Excessive rain event 96.2mm rain in 72 hour period)
28/03/2022	27/04/2022	2/05/2022	8.0	22	<5	EPL compliant
29/03/2022	27/04/2022	2/05/2022	7.5	6	<5	EPL compliant
30/03/2022	27/04/2022	2/05/2022	7.3	23	<5	EPL compliant
31/03/2022	27/04/2022	2/05/2022	7.4	<5	<5	EPL compliant

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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.



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SETTLEMENT LAGOON OVERFLOW: ENVIRONMENT PROTECTION LICENCE MONITORING: Licenced Discharge POINT 16

Environment Protection Licence: 1625 Type of Monitoring: water quality Frequency: daily grab sample when discharging			water quality parameter		EPL Limit (100 percentile)	
			pH		monitoring only	
			total suspended solids (mg/L)		less than 50	
			oil/ grease (milligrams per litre)		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
1/04/2022	17/05/2022	18/05/2022	7.3	<5	<5	EPL compliant
2/04/2022	17/05/2022	18/05/2022	6.7	<5	<5	EPL compliant
3/04/2022	17/05/2022	18/05/2022	6.9	<5	<5	EPL compliant
4/04/2022	17/05/2022	18/05/2022	7.1	<5	<5	EPL compliant
5/04/2022	17/05/2022	18/05/2022	8.2	<5	<5	EPL compliant
6/04/2022	17/05/2022	18/05/2022	6.8	8	<5	EPL compliant
7/04/2022	17/05/2022	18/05/2022	6.8	40	<5	EPL compliant
8/04/2022	17/05/2022	18/05/2022	6.5	30	<5	EPL compliant
9/04/2022	17/05/2022	18/05/2022	6.8	17	<5	EPL compliant
10/04/2022	17/05/2022	18/05/2022	7.3	12	<5	EPL compliant
11/04/2022	17/05/2022	18/05/2022	8.0	11	<5	EPL compliant
12/04/2022	17/05/2022	18/05/2022	7.3	6	<5	EPL compliant
13/04/2022	17/05/2022	18/05/2022	7.1	<5	<5	EPL compliant
14/04/2022	17/05/2022	18/05/2022	6.9	6	<5	EPL compliant
15/04/2022	17/05/2022	18/05/2022	7.4	<5	<5	EPL compliant
16/04/2022	17/05/2022	18/05/2022	7.6	<5	<5	EPL compliant
17/04/2022	17/05/2022	18/05/2022	7.4	<5	<5	EPL compliant
18/04/2022	17/05/2022	18/05/2022	7.5	<5	<5	EPL compliant
19/04/2022	17/05/2022	18/05/2022	7.0	<5	<5	EPL compliant
20/04/2022	17/05/2022	18/05/2022	7.9	<5	<5	EPL compliant
21/04/2022	17/05/2022	18/05/2022	7.3	<5	<5	EPL compliant
22/04/2022	17/05/2022	18/05/2022	7.4	<5	<5	EPL compliant
23/04/2022	17/05/2022	18/05/2022	7.4	<5	<5	EPL compliant
24/04/2022	17/05/2022	18/05/2022	7.6	7	<5	EPL compliant
25/04/2022	17/05/2022	18/05/2022	7.2	<5	<5	EPL compliant
26/04/2022	17/05/2022	18/05/2022	7.2	<5	<5	EPL compliant
27/04/2022	17/05/2022	18/05/2022	7.5	5	<5	EPL compliant
28/04/2022	17/05/2022	18/05/2022	8.2	8	<5	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.



SETTLEMENT LAGOON OVERFLOW: ENVIRONMENT PROTECTION LICENCE MONITORING: Licenced Discharge POINT 16						
Environment Protection Licence: 1625 Type of Monitoring: water quality Frequency: daily grab sample when discharging			water quality parameter		EPL Limit (100 percentile)	
			pH		monitoring only	
			total suspended solids (mg/L)		less than 50	
			oil/ grease (milligrams per litre)		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
1/05/2022	17/05/2022	18/05/2022	7.7	7	<5	EPL compliant
10/05/2022	17/05/2022	18/05/2022	6.9	16	<5	EPL compliant
11/05/2022	17/05/2022	18/05/2022	7.8	<5	<5	EPL compliant
12/05/2022	17/05/2022	18/05/2022	7.6	16	<5	EPL compliant
13/05/2022	17/05/2022	18/05/2022	6.9	23	<5	EPL compliant
14/05/2022	17/05/2022	18/05/2022	7.2	11	<5	EPL compliant
15/05/2022	17/05/2022	18/05/2022	7.1	16	<5	EPL compliant
16/05/2022	17/05/2022	18/05/2022	7.3	12	<5	EPL compliant
17/05/2022	17/05/2022	18/05/2022	7.8	7	<5	EPL compliant
20/05/2022	17/05/2022	18/05/2022	8.2	<5	<5	EPL compliant
21/05/2022	17/05/2022	18/05/2022	7.8	<5	<5	EPL compliant
22/05/2022	17/05/2022	18/05/2022	7.7	12	<5	EPL compliant
23/05/2022	17/05/2022	18/05/2022	7.3	49	<5	EPL compliant
24/05/2022	17/05/2022	18/05/2022	7.1	9	<5	EPL compliant
25/05/2022	17/05/2022	18/05/2022	7.2	8	<5	EPL compliant
26/05/2022	17/05/2022	18/05/2022	7.5	14	<5	EPL compliant
27/05/2022	17/05/2022	18/05/2022	7.8	<5	<5	EPL compliant
28/05/2022	17/05/2022	18/05/2022	6.7	<5	<5	EPL compliant
29/05/2022	17/05/2022	18/05/2022	6.9	<5	<5	EPL compliant
30/05/2022	17/05/2022	18/05/2022	7.0	<5	<5	EPL compliant
31/05/2022	17/05/2022	18/05/2022	7.1	<5	<5	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.

[illegible]

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SETTLEMENT LAGOON OVERFLOW: ENVIRONMENT PROTECTION LICENCE MONITORING: Licenced Discharge POINT 16

Environment Protection Licence: 1625 Type of Monitoring: water quality Frequency: daily grab sample when discharging			water quality parameter		EPL Limit (100 percentile)	
			pH		monitoring only	
			total suspended solids (mg/L)		less than 50	
			oil/ grease (milligrams per litre)		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
1/07/2022	17/08/2022	22/08/2022	7.1	<5	<5	EPL compliant
2/07/2022	17/08/2022	22/08/2022	7.1	110	<5	EPL compliant
3/07/2022	17/08/2022	22/08/2022	7.2	15	<5	EPL compliant
4/07/2022	17/08/2022	22/08/2022	7.1	5	<5	EPL compliant
5/07/2022	17/08/2022	22/08/2022	6.9	12	<5	EPL compliant
6/07/2022	17/08/2022	22/08/2022	7.8	8	<5	EPL compliant
7/07/2022	17/08/2022	22/08/2022	7.3	<5	<5	EPL compliant
8/07/2022	17/08/2022	22/08/2022	7.9	<5	<5	EPL compliant
9/07/2022	17/08/2022	22/08/2022	7.7	<5	<5	EPL compliant
10/07/2022	17/08/2022	22/08/2022	8.1	<5	<5	EPL compliant
11/07/2022	17/08/2022	22/08/2022	7.5	<5	<5	EPL compliant
12/07/2022	17/08/2022	22/08/2022	7.8	<5	<5	EPL compliant
13/07/2022	17/08/2022	22/08/2022	7.8	6	<5	EPL compliant
14/07/2022	17/08/2022	22/08/2022	8.1	6	<5	EPL compliant
15/07/2022	17/08/2022	22/08/2022	7.5	<5	<5	EPL compliant
16/07/2022	17/08/2022	22/08/2022	7.8	<5	<5	EPL compliant
18/07/2022	17/08/2022	22/08/2022	7.9	<5	<5	EPL compliant
17/07/2022	17/08/2022	22/08/2022	7.7	<5	<5	EPL compliant
19/07/2022	17/08/2022	22/08/2022	8.0	<5	<5	EPL compliant
20/07/2022	17/08/2022	22/08/2022	8.1	<5	<5	EPL compliant
21/07/2022	17/08/2022	22/08/2022	7.9	10	<5	EPL compliant
22/07/2022	17/08/2022	22/08/2022	8.1	<5	<5	EPL compliant
23/07/2022	17/08/2022	22/08/2022	8.1	<5	<5	EPL compliant
24/07/2022	17/08/2022	22/08/2022	8.1	<5	<5	EPL compliant
25/07/2022	17/08/2022	22/08/2022	8.1	<5	<5	EPL compliant
26/07/2022	17/08/2022	22/08/2022	8.0	<5	<5	EPL compliant
27/07/2022	17/08/2022	22/08/2022	7.9	<5	<5	EPL compliant
29/07/2022	17/08/2022	22/08/2022	7.1	<5	<5	EPL compliant
30/07/2022	17/08/2022	22/08/2022	7.9	<5	<5	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.



EPL compliant

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[illegible]

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.



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SETTLEMENT LAGOON OVERFLOW: ENVIRONMENT PROTECTION LICENCE MONITORING: Licenced Discharge POINT 16

Environment Protection Licence: 1625 Type of Monitoring: water quality Frequency: daily grab sample when discharging			water quality parameter		EPL Limit (100 percentile)	
			pH		monitoring only	
			total suspended solids (mg/L)		less than 50	
			oil/ grease (milligrams per litre)		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
1/10/2022	28/11/2022	29/11/2022	7.7	<5	<5	EPL compliant
2/10/2022	28/11/2022	29/11/2022	7.8	<5	<5	EPL compliant
3/10/2022	28/11/2022	29/11/2022	7.7	<5	<5	EPL compliant
4/10/2022	28/11/2022	29/11/2022	7.8	<5	<5	EPL compliant
5/10/2022	28/11/2022	29/11/2022	7.5	6	<5	EPL compliant
6/10/2022	28/11/2022	29/11/2022	7.6	<5	<5	EPL compliant
9/10/2022	28/11/2022	29/11/2022	6.7	19	<5	EPL compliant
8/10/2022	28/11/2022	29/11/2022	6.9	6	<5	EPL compliant
7/10/2022	28/11/2022	29/11/2022	7.1	12	<5	EPL compliant
10/10/2022	28/11/2022	29/11/2022	8.0	8	<5	EPL compliant
11/10/2022	28/11/2022	29/11/2022	7.4	6	<5	EPL compliant
12/10/2022	28/11/2022	29/11/2022	7.3	<5	<5	EPL compliant
13/10/2022	28/11/2022	29/11/2022	7.8	<5	<5	EPL compliant
14/10/2022	28/11/2022	29/11/2022	7.7	<5	<5	EPL compliant
16/10/2022	28/11/2022	29/11/2022	7.7	<5	<5	EPL compliant
15/10/2022	28/11/2022	29/11/2022	7.0	<5	<5	EPL compliant
17/10/2022	28/11/2022	29/11/2022	7.3	<5	<5	EPL compliant
18/10/2022	28/11/2022	29/11/2022	7.8	<5	<5	EPL compliant
19/10/2022	28/11/2022	29/11/2022	8.1	<5	<5	EPL compliant
20/10/2022	28/11/2022	29/11/2022	8.0	<5	<5	EPL compliant
21/10/2022	28/11/2022	29/11/2022	7.8	<5	<5	EPL compliant
22/10/2022	28/11/2022	29/11/2022	7.8	5	<5	EPL compliant
23/10/2022	28/11/2022	29/11/2022	7.9	<5	<5	EPL compliant
24/10/2022	28/11/2022	29/11/2022	7.9	<5	<5	EPL compliant
25/10/2022	28/11/2022	29/11/2022	7.2	10	<5	EPL compliant
26/10/2022	28/11/2022	29/11/2022	7.7	10	<5	EPL compliant
27/10/2022	28/11/2022	29/11/2022	7.6	<5	<5	EPL compliant
28/10/2022	28/11/2022	29/11/2022	7.1	<5	<5	EPL compliant
29/10/2022	28/11/2022	29/11/2022	7.6	<5	<5	EPL compliant
30/10/2022	28/11/2022	29/11/2022	7.7	<5	<5	EPL compliant
31/10/2022	28/11/2022	29/11/2022	7.8	<5	<5	EPL compliant

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.

[illegible]

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.

[illegible]

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.



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2022 PKCT Sedimentation Pond Overflows - EPL 1625

Ponds location/names: TS1 pond: DP22, Central Pond: DP23, Tower 3 pond: DP24, South Pond: DP25, Workshop Pond DP26, Berth 102 DP27.

Sample Location	Sample Date	Date Results Obtained	Date Results Published	pH (pH units) Criteria: Monitoring only	Total Suspended Solids (milligrams per litre) Criteria: Monitoring only	Oil/ Grease (milligrams per litre) Criteria: Monitoring only	Commentary on Results
DP26 - WorkShop Pond	16/01/2021	20/02/2022	28/02/2022	6.11	6	not visible	Overflow of WorkShop Pond occurred after a storm / heavy rain (22.8mm) in a short period on the 16-1-22. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.
No overflows from any satellite ponds in February 2022							
DP22 - TS1 Pond	6/03/2022	27/04/2022	2/05/2022	7.57	155	not visible	Overflow of TS1 Pond occurred after a heavy rain period (70.2mm) in the 5 day period leading upto the overflow. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.
DP26 - Workshop Pond	6/03/2022	27/04/2022	2/05/2022	8.71	<5	not visible	Overflow of Workshop Pond occurred after a heavy rain period (70.2mm) in the 5 day period leading upto the overflow. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.
DP22 - TS1 Pond	8/03/2022	27/04/2022	2/05/2022	7.72	52	not visible	Overflow of TS1 Pond occurred after a storm / heavy rain (98.4mm) in a short period on the 08-03-22. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.
DP23 - Central Pond	8/03/2022	27/04/2022	2/05/2022	7.66	145	not visible	Overflow of Central Pond occurred after a storm / heavy rain (98.4mm) in a short period on the 08-03-22. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.
DP26 - WorkShop Pond	8/03/2022	27/04/2022	2/05/2022	7.44	>5	not visible	Overflow of Workshop Pond occurred after a storm / heavy rain (98.4mm) in a short period on the 08-03-22. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.
DP22 - TS1 Pond	27/03/2022	27/04/2022	2/05/2022	7.91	50	not visible	Overflow of TS1 Pond occurred after a heavy rain period (96.2mm) in the 3 day period leading upto the overflow. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.



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DP22 - TS1 Pond	7/04/2022	17/05/2022	18/05/2022	6.58	402	not visible	Overflow of TS1 Pond occurred after a heavy rain period (109.8mm) in the 3 day period leading upto the overflow. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.
DP23 - Central Pond	7/04/2022	17/05/2022	18/05/2022	6.89	216	not visible	Overflow of Central Pond occurred after a heavy rain period (109.8mm) in the 3 day period leading upto the overflow. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.
DP26 - Workshop Pond	7/04/2022	17/05/2022	18/05/2022	6.55	15	not visible	Overflow of Workshop Pond occurred after a heavy rain period (109.8mm) in the 3 day period leading upto the overflow. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.
No overflows from any satellite ponds in May 2022							
No overflows from any satellite ponds in June 2022							



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DP22 - TS1 Pond	2/07/2022	17/08/2022	22/08/2022	9.75	1350	not visible	Overflow of TS1 Pond occurred after a heavy rain period (159.4mm) in the 5 day period leading upto the overflow. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.
DP23 - Central Pond	2/07/2022	17/08/2022	22/08/2022	9.13	692	not visible	Overflow of Central Pond occurred after a heavy rain period (159.4mm) in the 5 day period leading upto the overflow. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.
DP22 - TS1 Pond	3/07/2022	17/08/2022	22/08/2022	8.64	776	not visible	Overflow of TS1 Pond occurred after a heavy rain period (203.6mm) in the 5 day period leading upto the overflow. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.
DP23 - Central Pond	3/07/2022	17/08/2022	22/08/2022	8.56	170	not visible	Overflow of Central Pond occurred after a heavy rain period (203.6mm) in the 5 day period leading upto the overflow. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.
DP22 - TS1 Pond	5/07/2022	17/08/2022	22/08/2022	6.52	650	not visible	Overflow of TS1 Pond occurred after a heavy rain period (263.2mm) in the 5 day period leading upto the overflow. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.
DP23 - Central Pond	5/07/2022	17/08/2022	22/08/2022	5.45	72	not visible	Overflow of Central Pond occurred after a heavy rain period (263.2mm) in the 5 day period leading upto the overflow. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.
No overflows from any satellite ponds in August 2022							



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DP22 - TS1 Pond	29/09/2022	26/10/2022	26/10/2022	7.39	140	not visible	Overflow of TS1 Pond occurred after a heavy rain period (91.6mm) in the 5 day period leading upto the overflow. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.
DP23 - Central Pond	29/09/2022	26/10/2022	26/10/2022	7.13	202	not visible	Overflow of Central Pond occurred after a heavy rain period (91.6mm) in the 5 day period leading upto the overflow. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.
DP26 - Workshop Pond	29/09/2022	26/10/2022	26/10/2022	6.69	>5	not visible	Overflow of Workshop Pond occurred after a heavy rain period (91.6mm) in the 5 day period leading upto the overflow. Pond sediment levels were below the required 20% and no pump failures occurred. Pond and pump capacity could not keep up with the inflows. Discharge is permitted under PKCT's licence conditions.
No overflows from any satellite ponds in October 2022							
No overflows from any satellite ponds in November 2022							
No overflows from any satellite ponds in December 2022							



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PKCT Water Collection System Discharge Points



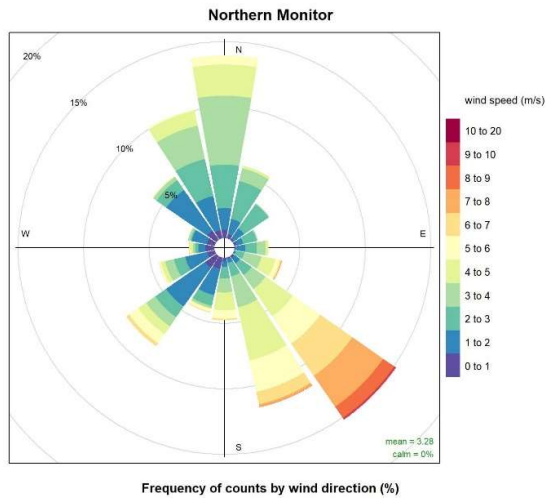


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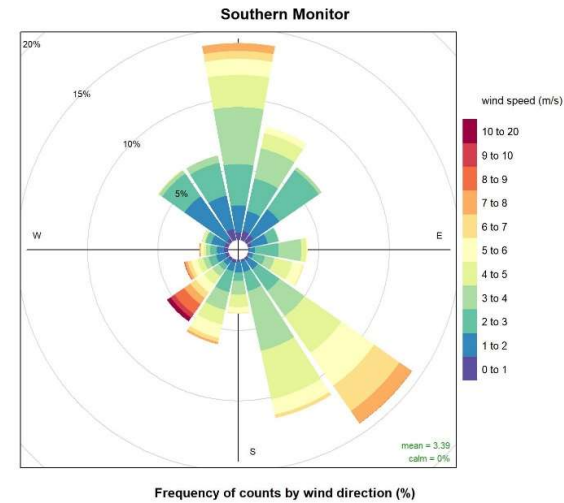


Wind Roses – December 2022

North Wind Rose



South Wind Rose





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RAINFALL (PKCT site gauge)

