

Stormwater Monitoring Data – EPL 1967

Year: 2022 calendar year

Licensee Name and Address: Port of Newcastle Operations Pty Ltd; Newcastle Bulk Terminal, Heron Road Kooragang NSW 2304.

Location: Point 3 (Berth K3 Outlet discharge to biofiltration pit)

Type of Monitoring: Discharge water quality monitoring.

Frequency required: Monthly during discharge with exceptions noted below table.

Notes: No limits are specified in EPL 1967.

EPL Link: [Link to EPL 1967](#) on EPA POEO Register

Monitoring location:



Figure: Location of EPL 1967 Point 3 (Google Maps, accessed 2022, approximate)

Analyte	Units	January 2022	February 2022	March 2022	April 2022	May 2022	June 2022
Date sampled	-	19/01/2022	4/02/2022	1/03/2022	8/04/2022	23/05/2022	20/06/2022
Date results received	-	25/02/2022	07/03/2022	29/03/2022	12/05/2022	15/07/2022	15/07/2022
Date published	-	02/03/2022	09/03/2022	01/04/2022	17/05/2022	18/07/2022	18/07/2022
pH	pH	7.57	7.73	7.6	7.01	7.59	7.63
Aluminium (dissolved)	mg/L	<0.10	0.03	<0.1	<0.01	<0.1	<0.1
Aluminium (total)	mg/L	0.12	0.59	1.2	0.8	34	47.4
Ammonia	mg/L	<0.05	1.21	0.32	0.1	0.23	0.72
Arsenic ** (dissolved)	mg/L	<0.010	0.001	<0.01	0.005	<0.01	<0.01
Arsenic ** (total)	mg/L	<0.010	<0.001	<0.01	0.001	<0.01	0.014
Cadmium (dissolved)	mg/L	<0.0010	<0.0010	<0.001	<0.0001	<0.001	<0.001
Cadmium (total)	mg/L	<0.0010	<0.0001	<0.001	0.0001	<0.001	<0.001
Lead (dissolved)	mg/L	<0.010	<0.010	<0.01	<0.001	<0.01	<0.01
Lead (total)	mg/L	<0.010	0.001	<0.01	<0.001	0.047	0.075
Mercury (dissolved)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Mercury (total)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	0.0001	0.0002
Nitrate	mg/L	1	12.1	1.76	0.35	1.4	0.77
Nitrite	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Nitrogen	mg/L	1.3	13.3	2.4	0.8	2.8	2.8
Total Kjeldahl Nitrogen	mg/L	0.3	1.2	0.6	0.5	1.3	2.1
Phosphate (total)	mg/L	0.55	0.81	1.08	0.66	3.54	2.11
Phosphorus (dissolved reactive)	mg/L	0.22	0.2	0.39	0.24	0.3	0.13
Phosphorus (total)	mg/L	0.18	0.26	0.35	0.22	1.15	0.69
Sulphate	mg/L	2170	1890	1940	671	2420	2210
Sulphide (total)	mg/L	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
Sulphur (total)	mg/L	2330	1790	1940	680	2310	2570
Total Suspended Solids	mg/L	25	14	122	20	763	295
Zinc (dissolved)	mg/L	0.207	0.024	<0.05	0.011	<0.05	<0.05
Zinc (total)	mg/L	0.11	0.028	<0.052	0.028	0.55	0.86

* insufficient rainfall for sample collection

** only required to be monitored following Sulphate of Ammonia operation

Results are continued on next page.

Analyte	Units	July 2022	August 2022	Sept 2022	Oct 2022	Nov 2022	Dec 2022
Date sampled	-	04/07/2022	10/08/2022	05/09/2022	7/10/2022	14/11/2022	13/12/2022
Date results received	-	15/07/2022	16/09/2022	07/10/2022	24/10/2022	16/11/2022	13/01/2022
Date published	-	18/07/2022	5/10/2022 ¹	19/10/2022	28/10/2022	11/01/2023 ³	31/01/2022
pH	pH	7.68	7.53	7.49	7.76	7.66	7.61
Aluminium (dissolved)	mg/L	<0.1	0.02	<0.10	<0.10	0.04	<0.10
Aluminium (total)	mg/L	2.58	11.4	<0.10	5.21	16.9	8.32
Ammonia	mg/L	0.17	0.14	602	1.86	0.67	0.13
Arsenic ** (dissolved)	mg/L	<0.01	0.001	<0.010	<0.010	0.001	<0.010
Arsenic ** (total)	mg/L	<0.01	0.004	<0.010	<0.010	0.005	<0.010
Cadmium (dissolved)	mg/L	<0.001	<0.0001	<0.0010	<0.0010	<0.0001	<0.0010
Cadmium (total)	mg/L	<0.001	0.0001	<0.0010	<0.0010	0.0001	<0.0010
Lead (dissolved)	mg/L	<0.01	<0.001	<0.010	<0.010	<0.001	<0.010
Lead (total)	mg/L	<0.01	0.014	<0.010	<0.010	0.018	0.016
Mercury (dissolved)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	NR
Mercury (total)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nitrate	mg/L	3.69	0.54	0.06	0.73	0.52	0.2
Nitrite	mg/L	<0.05	<0.05	<0.05	0.16	<0.05	0.11
Total Nitrogen	mg/L	3.9	0.9	810	18.8	1.7	0.8
Total Kjeldahl Nitrogen	mg/L	0.2	0.4	810	17.9	1.2	0.5
Phosphate (total)	mg/L	0.71	0.8	108	1.38	1.82	1.24
Phosphorus (dissolved reactive)	mg/L	0.13	0.12	3.77	0.2	0.16	0.14
Phosphorus (total)	mg/L	0.23	0.26	35.2	0.45	0.6	0.4
Sulphate	mg/L	1920	1520	35	1610	1560	2300
Sulphide (total)	mg/L	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1
Sulphur (total)	mg/L	2450	1490	1870	1730	1860	2370
Total Suspended Solids	mg/L	53	56	45	128	29	215
Zinc (dissolved)	mg/L	<0.05	0.016	<0.050	<0.050	0.02	<0.050
Zinc (total)	mg/L	0.06	0.17	<0.052	0.098	0.28	0.256

* insufficient rainfall for sample collection

** only required to be monitored following Sulphate of Ammonia operation

NR No result due to sampling or laboratory error

1. August 2022 data published more than 14 days after receipt due to school holidays and personnel on leave.

2. November 2022 data published more than 14 days after receipt due to holiday period over New Year with personnel on leave.