

Environmental Protection Licence 1967

2023 Stormwater Monitoring Data

Point 1 - Berth K2 Outlet

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

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 1 (Google Maps, accessed 2022)

Analyte	Units	January 2023	February 2023	March 2023	April 2023	May 2023	June 2023
Date sampled	-	4/01/2023	14/02/2023	14/03/2023	13/04/2023	17/05/2023	23/06/2023
Date results received	-	3/03/2023	3/03/2023	5/05/2023	5/05/2023	11/7/2023	11/07/2023
Date published	-	16/03/2023	16/03/2023	10/05/23	10/05/23	20/07/2023	20/07/2023
Ammonia as N	mg/L	31.3	669	755	584	161	746
Dissolved Aluminium, Al	mg/L	<0.10	<0.01	<0.01	0.13	0.02	0.23
Dissolved Arsenic, As**	mg/L	<0.010	0.011	0.011	0.003	0.01	0.002
Dissolved Cadmium, Cd	mg/L	<0.0010	<0.0001	<0.0001	<0.0001	<0.0001	0.0002
Dissolved Lead, Pb	mg/L	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001
Dissolved Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Dissolved Zinc, Zn	mg/L	<0.050	0.036	0.018	0.026	0.009	0.174
Filterable Reactive Phosphorus	mg/L	14.3	227	83.2	0.43	47.1	0.52
Nitrate as N	mg/L	2.06	<0.05	<0.05	0.75	0.67	2.61
Nitrite as N	mg/L	1.2	<0.05	<0.05	2.37	0.8	2.37
pH	pH unit	7.65	7.77	7.11	7.25	8.13	8.79
Sulfate	mg/L	1520	906	844	1570	379	1340
Total Aluminium	mg/L	<0.10	3.03	2	23.8	2.44	3.8
Total Arsenic**	mg/L	0.01	0.037	0.027	0.059	0.012	0.01
Total Cadmium	mg/L	<0.0010	0.001	0.0013	0.0074	0.0009	0.0016
Total Kjeldahl Nitrogen	mg/L	28.3	748	744	1240	212	3300
Total Lead	mg/L	<0.010	0.014	0.012	0.16	0.013	0.023
Total Mercury	mg/L	<0.0001	<0.0001	<0.0001	0.0002	<0.0001	<0.0001
Total Nitrogen (calc)	mg/L	30.4	748	744	1240	213	3300
Total Phosphate	mg/L	43.8	805	325	125	260	39.4
Total Phosphorus	mg/L	14.3	263	106	40.8	84.8	12.8
Total Sulphide	mg/L	<0.1	8.3	10	21.6	4.3	0.8
Total Sulphur, S	mg/L	1560	840	850	1420	460	1400
Total Suspended Solids	mg/L	83	178	137	137	2400	669
Total Zinc	mg/L	<0.052	0.846	0.669	4.42	0.777	0.883

* insufficient rainfall for sample collection

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

Results are continued on next page.

Analyte	Units	July 2023	August 2023	Sept 2023	Oct 2023	Nov 2023*	Dec 2023
Date sampled	-	24/07/2023	6/08/2023	8/09/2023	27/10/2023	-	20/12/2023
Date results received	-	01/09/2023	26/09/2023	26/09/2023	13/11/2023	-	16/01/2024
Date published	-	15/09/2023	29/09/2023	29/09/2023	17/11/2023	-	22/01/2024
Ammonia as N	mg/L	319	49.6	456	69.7	-	30.9
Dissolved Aluminium, Al	mg/L	0.14	<0.01	0.37	<0.01	-	0.12
Dissolved Arsenic, As**	mg/L	0.002	0.003	0.006	0.007	-	0.004
Dissolved Cadmium, Cd	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	-	<0.0001
Dissolved Lead, Pb	mg/L	<0.001	<0.001	<0.001	<0.001	-	<0.001
Dissolved Mercury	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	-	<.001
Dissolved Zinc, Zn	mg/L	0.054	0.062	0.042	<0.005	-	0.023
Filterable Reactive Phosphorus	mg/L	1.09	16.9	2.24	22.3	-	16.8
Nitrate as N	mg/L	0.56	0.18	<0.05	0.98	-	<0.05
Nitrite as N	mg/L	1.28	0.48	<0.05	0.44	-	0.18
pH	pH unit	8.85	8.72	8.36	7.95	-	8.61
Sulfate	mg/L	509	75	582	281	-	113
Total Aluminium	mg/L	6.15	6.73	8.61	19.6	-	0.12
Total Arsenic**	mg/L	0.036	0.03	0.032	0.098	-	0.038
Total Cadmium	mg/L	0.0025	0.0028	0.0019	0.0043	-	0.0029
Total Kjeldahl Nitrogen	mg/L	456	158	590	87.9	-	33
Total Lead	mg/L	0.032	0.044	0.031	0.071	-	0.068
Total Mercury	mg/L	<0.0001	0.0001	<0.0001	0.0002	-	<0.001
Total Nitrogen (calc)	mg/L	457	159	590	89.3	-	0.2
Total Phosphate	mg/L	271	903	1190	1070	-	871
Total Phosphorus	mg/L	88.5	294	390	348	-	284
Total Sulphide	mg/L	1.2	1	6.5	2.3	-	1.3
Total Sulphur, S	mg/L	700	70	970	330	-	220
Total Suspended Solids	mg/L	1329	1720	2980	48	-	843
Total Zinc	mg/L	1.32	1.5	1.43	3.13	-	1.89

* insufficient rainfall for sample collection.

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