

Environmental Protection Licence 1967

2024 Stormwater Monitoring Data

Point 3 - Berth K3 Outlet (discharge to biofiltration pit)

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 in the table below.

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 2024 | February 2024 | March 2024 | April 2024 | May 2024 | June 2024 |
|--------------------------------|---------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|
| Date sampled | - | 18/01/2024 | 08/02/2024 | 25/03/2024 | 22/04/2024 | 10/5/2024 | 07/06/2024 |
| Ammonia as N | mg/L | 0.32 | 0.26 | 0.93 | 0.1 | 0.1 | 2.69 |
| Dissolved Aluminium, Al | mg/L | <0.1 | <0.10 | <0.1 | <0.1 | <0.1 | <0.1 |
| Dissolved Arsenic, As** | mg/L | <0.01 | <0.10 | <0.01 | <0.01 | 0.002 | <0.01 |
| Dissolved Cadmium, Cd | mg/L | <0.001 | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.001 |
| Dissolved Lead, Pb | mg/L | <0.01 | <0.010 | <0.010 | <0.010 | <0.001 | <0.01 |
| Dissolved Mercury | mg/L | <0.0001 | <0.010 | <0.010 | <0.01 | <0.001 | <0.01 |
| Dissolved Zinc, Zn | mg/L | <0.05 | <0.050 | <0.050 | <0.050 | 0.016 | <0.05 |
| Filterable Reactive Phosphorus | mg/L | 1.17 | 0.58 | 8.06 | 0.46 | 0.55 | 0.80 |
| Nitrate as N | mg/L | 0.13 | 0.93 | 1.76 | 0.29 | 0.33 | 0.94 |
| Nitrite as N | mg/L | <0.05 | <0.05 | 0.01 | <0.05 | <0.05 | 0.27 |
| pH | pH unit | 8.01 | 7.9 | 7.51 | 7.7 | 7.9 | 7.71 |
| Sulfate | mg/L | 2,000 | 2070 | 2530 | 1840 | 1960 | 1730 |
| Total Aluminium | mg/L | 2.81 | 7.22 | 5.41 | .84 | 1.79 | 7.95 |
| Total Arsenic** | mg/L | <0.010 | <0.010 | <0.010 | 0.002 | 0.003 | <0.010 |
| Total Cadmium | mg/L | <0.0010 | <0.0010 | <0.0010 | <0.0001 | 0.0002 | <0.001 |
| Total Kjeldahl Nitrogen | mg/L | 0.7 | 0.06 | 5.1 | 0.3 | 0.3 | 3 |
| Total Lead | mg/L | <0.010 | <0.010 | <0.010 | 0.006 | <0.010 | <0.010 |
| Total Mercury | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Total Nitrogen (calc) | mg/L | 0.8 | 1.5 | 6.9 | 0.6 | 0.6 | 4.2 |
| Total Phosphate | mg/L | 3.76 | 0.84 | 9.73 | 0.67 | 1.34 | 2.23 |
| Total Phosphorus | mg/L | 1.23 | 0.27 | 3.17 | 0.22 | 0.44 | 0.73 |
| Total Sulphide | mg/L | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| Total Sulphur, S | mg/L | 2,760 | 2550 | 2410 | 3010 | 2300 | 1900 |
| Total Suspended Solids | mg/L | 146 | 108 | 140 | 146 | 52 | 73 |
| Total Zinc | mg/L | 0.065 | 0.184 | 0.179 | 0.083 | 0.128 | 0.116 |

* insufficient rainfall for sample collection

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

Results are continued on next page.

| Analyte | Units | July 2024 | August 2024 | September 2024 | October 2024 | November 2024 | December 2024 |
|--------------------------------|---------|-----------|-------------|----------------|--------------|---------------|---------------|
| Date sampled | - | 3/07/2024 | 15/08/2024 | 16/09/2024 | 25/10/2024 | | |
| Ammonia as N | mg/L | 0.38 | 0.13 | 0.67 | 0.13 | | |
| Dissolved Aluminium, Al | mg/L | <0.1 | <0.1 | <0.10 | <0.1 | | |
| Dissolved Arsenic, As** | mg/L | <0.01 | <0.01 | <0.01 | <0.01 | | |
| Dissolved Cadmium, Cd | mg/L | <0.001 | <0.001 | <0.001 | <0.001 | | |
| Dissolved Lead, Pb | mg/L | <0.010 | <0.010 | <0.010 | <0.001 | | |
| Dissolved Mercury | mg/L | <0.01 | <0.01 | 0.011 | <0.01 | | |
| Dissolved Zinc, Zn | mg/L | <0.05 | <0.05 | <0.050 | <0.05 | | |
| Filterable Reactive Phosphorus | mg/L | 0.46 | 0.43 | 0.43 | 0.52 | | |
| Nitrate as N | mg/L | 3.16 | 1.94 | 2.38 | 0.71 | | |
| Nitrite as N | mg/L | 0.14 | <0.05 | <0.05 | <0.05 | | |
| pH | pH unit | 7.71 | 7.35 | 7.8 | 7.86 | | |
| Sulfate | mg/L | 2060 | 2040 | 2180 | 2350 | | |
| Total Aluminium | mg/L | 1.47 | 2.66 | 5.39 | 1.1 | | |
| Total Arsenic** | mg/L | <0.010 | <0.010 | <0.010 | <0.01 | | |
| Total Cadmium | mg/L | <0.001 | <0.0010 | <0.0010 | <0.001 | | |
| Total Kjeldahl Nitrogen | mg/L | 1.4 | 0.6 | 1 | 0.2 | | |
| Total Lead | mg/L | <0.010 | <0.010 | 0.01 | <0.010 | | |
| Total Mercury | mg/L | <0.0001 | <0.0001 | <0.0001 | <0.0001 | | |
| Total Nitrogen (calc) | mg/L | 4.7 | 2.54 | 3.38 | 0.91 | | |
| Total Phosphate | mg/L | 1.3 | 1.18 | 2.52 | 0.62 | | |
| Total Phosphorus | mg/L | 0.42 | 0.39 | 0.82 | 0.2 | | |
| Total Sulphide | mg/L | <0.1 | <0.1 | <0.1 | <0.1 | | |
| Total Sulphur, S | mg/L | 2280 | 2680 | 1960 | 2930 | | |
| Total Suspended Solids | mg/L | 277 | 154 | 122 | 40 | | |
| Total Zinc | mg/L | 0.082 | 0.074 | 0.101 | <0.052 | | |

* insufficient rainfall for sample collection

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