

Annual Groundwater Results

May 2023

City of Newcastle - Summerhill Waste Management Centre

141 Minmi Road, Wallsend, NSW

Environment Protection Licence 5897 - Condition M2 - Water Monitoring Grab Samples

Parameter	CN ID		GW33	GW34	GW35	GW42	GW46	GW48	GW49	GW51
	Units	LOR	33	34	35	42	46	48	49	51
Ammonia	mg/L	0.01	0.72	0.75	NR	NR	0.97	0.05	NR	0.17
Aluminium	mg/L	0.01	6.17	0.13	NR	NR	0.19	7.11	NR	5.78
Arsenic	mg/L	0.001	0.004	0.002	NR	NR	<0.001	0.007	NR	0.006
Barium	mg/L	0.001	0.090	0.045	NR	NR	0.031	0.059	NR	0.056
Benzene	mg/L	0.001	<0.001	<0.001	NR	NR	<0.001	<0.001	NR	<0.001
Cadmium	mg/L	0.0001	0.0002	0.0004	NR	NR	<0.0001	0.0016	NR	0.0004
Calcium	mg/L	1	364	173	NR	NR	57	67	NR	8
Chloride	mg/L	1	1940	3040	NR	NR	2920	111	NR	210
Chromium (Hexavalent)	mg/L	0.01	<0.01	<0.01	NR	NR	<0.01	<0.01	NR	<0.01
Chromium (Total)	mg/L	0.001	0.003	0.002	NR	NR	<0.001	0.011	NR	0.004
Cobalt	mg/L	0.001	0.090	<0.001	NR	NR	0.004	0.004	NR	0.017
Copper	mg/L	0.001	0.014	0.008	NR	NR	0.004	0.051	NR	0.013
Electrical Conductivity	µS/cm	1	10500	10500	NR	NR	9850	1380	NR	1680
Ethyl benzene	mg/L	0.002	<0.002	<0.002	NR	NR	<0.002	<0.002	NR	<0.002
Fluoride	mg/L	0.1	0.2	0.8	NR	NR	0.4	0.6	NR	0.8
Iron	mg/L	0.05	56.3	3.92	NR	NR	1.03	6.77	NR	3.47
Lead	mg/L	0.001	0.013	0.004	NR	NR	<0.001	0.013	NR	0.012
Magnesium	mg/L	1	499	219	NR	NR	136	42	NR	21
Manganese	mg/L	0.001	12.4	0.851	NR	NR	0.283	1.10	NR	1.3.2
Mercury	mg/L	0.0001	<0.0001	<0.0001	NR	NR	<0.0001	<0.0001	NR	<0.0001
Nitrate as N	mg/L	0.01	0.02	0.12	NR	NR	0.45	0.46	NR	<0.01
Organochlorine pesticides	mg/L	0.0005	<0.0005	<0.0005	NR	NR	<0.0005	<0.0005	NR	<0.0005
Organophosphate pesticides	mg/L	0.0005	<0.0005	<0.0005	NR	NR	<0.0005	<0.0005	NR	<0.0005
pH Value	pH Unit	0.01	5.92	7.00	NR	NR	7.01	6.74	NR	6.32
Polycyclic aromatic hydrocarbons	mg/L	0.001	<0.001	<0.001	NR	NR	<0.001	<0.001	NR	<0.001

Annual Groundwater Results May 2023

Potassium	mg/L	1	32	22	NR	NR	28	7	NR	9
Sodium	mg/L	1	1220	1810	NR	NR	1630	195	NR	313
Sulfate	mg/L	1	3570	518	NR	NR	574	137	NR	320
Toluene	mg/L	0.002	<0.002	<0.002	NR	NR	<0.002	<0.002	NR	<0.002
Total Petroleum Hydrocarbons	mg/L	0.050	<0.050	<0.050	NR	NR	<0.050	<0.050	NR	<0.050
Total Alkalinity as CaCO ₃	mg/L	1	88	436	NR	NR	373	461	NR	285
Total Dissolved Solids	mg/L	10	9020	6080	NR	NR	5670	839	NR	1140
Total Organic Carbon	mg/L	1	3	<1	NR	NR	5	4	NR	6
Total Phenolics	mg/L	0.05	<0.05	<0.05	NR	NR	<0.05	<0.05	NR	<0.05
Zinc	mg/L	0.005	0.237	0.125	NR	NR	0.032	0.099	NR	0.115
Standing Water Level	mAHD	0.01	24.33	28.345	6.46	NR	22.33	36.39	37.41	35.49

Notes:

CN = City of Newcastle

EPL = Environment Protection Licence

LOR = limit of reporting

mAHD = metres above Australian Height Datum

Results preceded by < indicate that the results were below the limit of detection for that analysis

NR = no result (non-compliant sample, insufficient water to sample, damaged well, etc)

EPL Monitoring point 42 was not sampled as the well is damaged

A copy of the Environmental Protection Licence can be viewed at: <http://app.epa.nsw.gov.au/prpoeoapp/>

A map showing the location of monitoring points can be viewed at: <http://www.newcastle.nsw.gov.au/Living/Waste-recycling/Summerhill-Waste-management-Centre/Environmental-Monitoring-Data>

Date sampled: 22 May 2023

Final data obtained: 6 June 2023

Date published: 15 June 2023