

BARGO WASTE MANAGEMENT CENTRE ANTHONY ROAD BARGO - SAMPLING RESULTS

SAMPLING ON 17TH FEBRUARY 2022

EPALICENCE NUMBER 6061

<http://www.environment.nsw.gov.au/irp0000/>

WOLLONDILLY SHIRE COUNCIL

82-84 Menangle Street PICTON NSW 2571

SAMPLING LOCATIONS				EPA Point 1	EPA Point 2	EPA Point 3	EPA Point 4	EPA Point 5	EPA Point 6	EPA Point 7	EPA Point 8	DTC	EP4A	EP4B	RL01	
Pollutant	Unit of Measure	Monitoring Frequency	Concentration Limits for Sampling Point	Well located south of pond	Sediment pond	Near Bargo site entrance, directly in creek upstream of landfill	Directly in creek downstream of landfill	Sediment pond	Leachate discharge	Well located next to road outside the Bargo site	Well located south eastern corner	Additional surface water location - directly in creek downstream of leachate flow	Dog Trap Creek downstream of landfill	Dog Trap Creek downstream of landfill	Seepage Point 3 - Rock Leachate	
Alkalinity (as calcium carbonate)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not tested (Note 1)
Aluminium	milligrams per litre	Annual / Quarterly		<0.01	Not required	0.18	0.04	Not required	0.01	Not required	Not required	0.02	0.04	0.12	0.02	
Ammonia (as nitrogen)	milligrams per litre	Quarterly	0.9 milligrams per litre for Points 2 & 5 only	111	0.12	0.02	0.02	Quillets sample (litre)	0.74	0.66	0.06	<0.01	0.01	0.01	21.5	
Arsenic	milligrams per litre	Annual / Quarterly		0.001	Not required	<0.001	<0.001	Not required	<0.001	Not required	Not required	<0.001	<0.001	<0.001	0.001	
Barium	milligrams per litre	Annual / Quarterly		0.370	Not required	0.036	0.063	Not required	0.246	Not required	Not required	0.094	0.078	0.031	0.135	
Benzene	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Biological Oxygen Demand (BOD)	milligrams per litre	Quarterly		4	<2	<2	<2	Quillets sample (litre)	<2	Not required	Not required	<2	<2	<2	Not required	
Cadmium	milligrams per litre	Annual / Quarterly		<0.0001	Not required	<0.0001	<0.0001	Not required	0.0015	Not required	Not required	<0.0001	<0.0001	<0.0001	<0.0001	
Calcium	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not tested (Note 1)
Chemical Oxygen Demand (COD)	milligrams per litre	Quarterly		343	37	10	35	Quillets sample (litre)	55	Not required	Not required	46	33	25	Not required	
Chloride (Cl)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not tested (Note 1)
Chlorinated Volatile Compounds (CVCs)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Chromium (hexavalent)	milligrams per litre	Annual / Quarterly		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Chromium (total)	milligrams per litre	Annual / Quarterly		0.005	Not required	<0.001	<0.001	Not required	<0.001	Not required	Not required	<0.001	<0.001	<0.001	0.003	
Cobalt	milligrams per litre	Annual / Quarterly		0.002	Not required	<0.001	<0.001	Not required	<0.001	Not required	Not required	<0.001	<0.001	<0.001	0.002	
Copper	milligrams per litre	Annual / Quarterly		<0.001	Not required	<0.001	<0.001	Not required	0.015	Not required	Not required	0.004	0.011	<0.001	<0.001	
Ethylbenzene	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Fluoride	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Lead	milligrams per litre	Annual / Quarterly		<0.001	Not required	<0.001	<0.001	Not required	<0.001	Not required	Not required	<0.001	<0.001	<0.001	<0.001	
Magnesium	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not tested (Note 1)
Manganese	milligrams per litre	Annual / Quarterly		0.345	Not required	0.026	0.010	Not required	0.677	Not required	Not required	0.010	0.013	0.026	1.03	
Mercury	milligrams per litre	Annual / Quarterly		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	<0.0001	<0.0001	<0.0001	
Nitrate (as Nitrogen)	milligrams per litre	Annual / Quarterly		0.05	Not required	0.04	5.30	N/A	10.2	Not required	Not required	7.71	Not required	Not required	Not required	
Nitrite (as Nitrogen)	milligrams per litre	Annual / Quarterly		<0.01	Not required	<0.01	0.01	N/A	0.17	Not required	Not required	<0.01	Not required	Not required	Not required	
Organochlorine Pesticides (OCP)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Organophosphorus Pesticides (OPP)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Polycyclic Aromatic Hydrocarbons (PAH)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Perfluorocane sulfonic acid (PFDS)	milligrams per litre	Quarterly		0.00066	0.00002	<0.00001	0.00034	Quillets sample (litre)	0.00029	<0.00001	<0.00001	0.00039	0.00017	0.00002	0.00049	
Perfluorocaneic acid (PFOA)	milligrams per litre	Quarterly		0.00114	0.00007	<0.00001	0.00038	Quillets sample (litre)	0.00053	<0.00001	<0.00001	0.00055	0.00029	0.00005	0.0005	
Sum of PFHxS and PFOS	milligrams per litre	Quarterly		0.00248	0.0001	0.00002	0.00080	Quillets sample (litre)	0.00082	<0.00001	0.00001	0.00083	0.00063	0.00009	0.00133	
Potassium	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not tested (Note 1)
Semi-volatile Organic Compounds (SVOC)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Sodium	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not tested (Note 1)
Sulphate (as SO ₄)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not tested (Note 1)
Toluene	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Total Dissolved Solids (TDS)	milligrams per litre	Quarterly		1,560	302	131	607	Quillets sample (litre)	996	355	158	1,070	520	234	Not tested (Note 1)	
Total Iron	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Total Kjeldahl Nitrogen	milligrams per litre	Quarterly		100	Not required	0.3	0.9	Not required	2.9	Not required	Not required	1.5	Not required	Not required	Not required	
Total Nitrogen	milligrams per litre	Quarterly		100	Not required	0.3	6.2	Not required	13.3	Not required	Not required	9.2	Not required	Not required	Not required	
Total Organic Carbon (TOC)	milligrams per litre	Quarterly		63	16	7	15	Quillets sample (litre)	16	5	6	16	14	11	Not tested (Note 1)	
Total Petroleum Hydrocarbons (TPH)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Total Phenolics	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Total Phosphorus	milligrams per litre	Annual / Quarterly		0.73	Not required	<0.01	<0.01	Not required	0.01	Not required	Not required	<0.01	Not required	Not required	Not required	
Total Suspended Solids (TSS)	milligrams per litre	Quarterly	50 milligrams per litre for Points 2 & 5 only	Not required	8	<5	<5	Quillets sample (litre)	Not required	Not required	Not required	6	<5	6	Not tested (Note 1)	
Volatile Organic Compounds (VOC)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Xylenes	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Zinc	milligrams per litre	Annual / Quarterly		<0.005	Not required	<0.005	0.006	Not required	0.883	Not required	Not required	0.030	0.015	0.005	<0.005	

FIELD MEASUREMENTS

BARGO WASTE MANAGEMENT CENTRE ANTHONY ROAD BARGO - SAMPLING RESULTS
 SAMPLING ON 17TH FEBRUARY 2022
 EPALICENCE NUMBER 6061

<http://www.environment.nsw.gov.au/infocepp/>

WOLLONDILLY SHIRE COUNCIL
 63-64 Menangle Street PICTON NSW 2571

SAMPLING LOCATIONS				EPA Point 1	EPA Point 2	EPA Point 3	EPA Point 4	EPA Point 5	EPA Point 6	EPA Point 7	EPA Point 8	DTC	EPAAA	EP4B	RL01
Pollutant	Unit of Measure	Monitoring Frequency	Concentration Limits for Sampling Point	Well located south of pond	Sediment pond	Near Bargo site entrance, directly in creek upstream of landfill	Directly in creek downstream of landfill	Sediment pond	Leachate discharge	Well located next to road outside the Bargo site	Well located south eastern corner	Additional surface water location - directly in creek downstream of leachate flow	Dog Trap Creek downstream of landfill	Dog Trap Creek downstream of landfill	Seepage Point 3 - Rock Leachate
Standing Water Level	metres below top of casing (TOC)	Quarterly	N/A	1.34	N/A	N/A	N/A	N/A	N/A	37.5	12.45	N/A	N/A	N/A	N/A
Electrical Conductivity	microsiemens per centimetre	Quarterly	30-350	2862	452	236	967	N/A	1811	638	228	1523	821.0	383.1	N/A
pH	pH Units	Quarterly	8.5-8	6.98	7.74	6.8	7.85	N/A	7.23	5.95	6.76	7.8	7.76	7.65	N/A
Temp	Degree C	Quarterly	-	21.6	25.6	25.9	25.2	N/A	22.6	17.3	19	21.2	25.4	27.3	N/A

Table Notes

Note 1: Sample RL01 not tested for selected parameters due to insufficient sample volume during February 2022 monitoring rounds.

BARGO WASTE MANAGEMENT CENTRE ANTHONY ROAD BARGO - SAMPLING RESULTS
 SAMPLING ON 17TH MAY 2022
 EPA LICENCE NUMBER 6061
<http://www.environment.nsw.gov.au/prcoppp/>
 WOLLONDILLY SHIRE COUNCIL
 62-64 Menangle Street PICTON NSW 2571

SAMPLING LOCATIONS				EPA Point 1	EPA Point 2	EPA Point 3	EPA Point 4	EPA Point 5	EPA Point 6	EPA Point 7	EPA Point 8	DTC	EPA4A	EPA4B	RL01
Pollutant	Unit of Measure	Monitoring Frequency	Concentration Limits for Sampling Point	Well located south of pond	Sediment pond	Near Bargo site entrance, directly in creek upstream of landfill	Directly in creek downstream of landfill	Sediment pond	Leachate discharge	Well located next to road outside the Bargo site	Well located south eastern corner	Additional surface water location -directly in creek downstream of leachate flow	Dog Trap Creek downstream of landfill	Dog Trap Creek downstream of landfill	Seepage Point 3 - Rock Leachate
Alkalinity (as calcium carbonate)	milligrams per litre	Annual		1,270	Not required	Not required	Not required	Not required	603	Not required	Not required	Not required	77	73	695
Aluminium	milligrams per litre	Annual / Quarterly		7.51	Not required	0.12	0.17	Not required	<0.01	Not required	Not required	0.12	0.26	0.19	1.55
Ammonia (as nitrogen)	milligrams per litre	Quarterly	0.9 milligrams per litre for Points 2 & 5 only	84.4	5.50	<0.01	0.09	1.36	10.8	0.10	0.07	0.05	0.04	0.03	47.0
Arsenic	milligrams per litre	Annual / Quarterly		0.016	Not required	<0.001	<0.001	Not required	<0.001	Not required	Not required	<0.001	<0.001	<0.001	0.004
Barium	milligrams per litre	Annual / Quarterly		0.577	Not required	0.021	0.029	Not required	0.148	Not required	Not required	0.068	0.025	0.025	0.353
Benzene	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Biological Oxygen Demand (BOD)	milligrams per litre	Quarterly		4	<2	<2	<2	2	2	Not required	Not required	<2	Not required	Not required	Not required
Cadmium	milligrams per litre	Annual / Quarterly		0.0008	Not required	<0.0001	<0.0001	Not required	0.0022	Not required	Not required	0.0004	<0.0001	<0.0001	0.0001
Calcium	milligrams per litre	Annual		266	Not required	Not required	Not required	Not required	204	Not required	Not required	Not required	19.9	19.0	230
Chemical Oxygen Demand (COD)	milligrams per litre	Quarterly		332	180	<10	15	83	88	Not required	Not required	45	Not required	Not required	Not required
Chloride (Cl)	milligrams per litre	Annual		168	Not required	Not required	Not required	Not required	193	Not required	Not required	Not required	31	31	146
Chlorinated Volatile Compounds (CVCs)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Chromium (hexavalent)	milligrams per litre	Annual / Quarterly		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Chromium (total)	milligrams per litre	Annual / Quarterly		0.017	Not required	<0.001	<0.001	Not required	0.001	Not required	Not required	<0.001	<0.001	<0.001	0.009
Cobalt	milligrams per litre	Annual / Quarterly		0.006	Not required	<0.001	<0.001	Not required	0.004	Not required	Not required	<0.001	<0.001	<0.001	0.004
Copper	milligrams per litre	Annual / Quarterly		0.018	Not required	<0.001	<0.001	Not required	0.028	Not required	Not required	0.008	0.003	<0.001	0.004
Ethylbenzene	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Fluoride	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Lead	milligrams per litre	Annual / Quarterly		0.040	Not required	<0.001	<0.001	Not required	<0.001	Not required	Not required	<0.001	<0.001	<0.001	0.002
Magnesium	milligrams per litre	Annual		67.5	Not required	Not required	Not required	Not required	59.5	Not required	Not required	Not required	9.2	8.8	66.4
Manganese	milligrams per litre	Annual / Quarterly		2.08	Not required	0.034	0.013	Not required	1.60	Not required	Not required	0.312	0.009	0.005	4.39
Mercury	milligrams per litre	Annual / Quarterly		<0.0001	Not required	Not required	Not required	Not required	<0.0001	Not required	Not required	Not required	<0.0001	<0.0001	<0.0001
Nitrate (as Nitrogen)	milligrams per litre	Annual / Quarterly		0.01	Not required	0.14	2.34	N/A	11.8	Not required	Not required	8.77	Not required	Not required	13.6
Nitrite (as Nitrogen)	milligrams per litre	Annual / Quarterly		0.03	Not required	<0.01	0.03	N/A	0.39	Not required	Not required	0.35	Not required	Not required	0.47
Organochlorine Pesticides (OCP)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Organophosphorus Pesticides (OPP)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Polycyclic Aromatic Hydrocarbons (PAH)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Perfluorooctane sulfonic acid (PFOS)	milligrams per litre	Quarterly		0.00064	0.00037	<0.00001	0.00004	0.00012	0.00042	<0.00001	<0.00001	0.00006	0.00004	0.00004	0.00038
Perfluorooctanoic acid (PFOA)	milligrams per litre	Quarterly		0.00092	0.00065	<0.00001	0.00005	0.00021	0.00064	<0.00001	<0.00001	0.00009	0.00006	0.00006	0.00088
Sum of PFHxS and PFOS	milligrams per litre	Quarterly		0.0021	0.0008	<0.00001	0.00012	0.00027	0.00103	<0.00001	<0.00001	0.00015	0.00012	0.00011	0.00164
Potassium	milligrams per litre	Annual		73.5	Not required	Not required	Not required	Not required	62.3	Not required	Not required	Not required	0.0086	0.0092	0.0655
Semi-volatile Organic Compounds (SVOCs)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Sodium	milligrams per litre	Annual		147	Not required	Not required	Not required	Not required	129	Not required	Not required	Not required	24.1	23.1	132
Sulphate (as SO ₄)	milligrams per litre	Annual		129	Not required	Not required	Not required	Not required	223	Not required	Not required	Not required	25	25	191
Toluene	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Total Dissolved Solids (TDS)	milligrams per litre	Quarterly		1,640	1,070	118	228	776	1,410	360	116	600	217	216	1,480
Total Iron	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Total Kjeldahl Nitrogen	milligrams per litre	Quarterly		136	Not required	0.4	0.5	Not required	12.9	Not required	Not required	2.2	Not required	Not required	47.0
Total Nitrogen	milligrams per litre	Quarterly		136	Not required	0.5	3.0	Not required	25.1	Not required	Not required	11.3	Not required	Not required	61.1
Total Organic Carbon (TOC)	milligrams per litre	Quarterly		69	36	8	10	32	37	12	8	21	10	11	60
Total Petroleum Hydrocarbons (TPH)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Total Phenolics	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Total Phosphorus	milligrams per litre	Annual / Quarterly		0.84	Not required	0.25	0.01	Not required	0.02	Not required	Not required	0.03	Not required	Not required	0.05
Total Suspended Solids (TSS)	milligrams per litre	Quarterly	50 milligrams per litre for Points 2 & 5 only	Not required	7	<5	<5	11	Not required	Not required	Not required	8	<5	<5	79
Volatile Organic Compounds (VOCs)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required

BARGO WASTE MANAGEMENT CENTRE ANTHONY ROAD BARGO - SAMPLING RESULTS

SAMPLING ON 17TH MAY 2022

EPA LICENCE NUMBER 6061

<http://www.environment.nsw.gov.au/epo/epoapp/>

WOLLONDILLY SHIRE COUNCIL

62-64 Menangle Street PICTON NSW 2571

SAMPLING LOCATIONS				EPA Point 1	EPA Point 2	EPA Point 3	EPA Point 4	EPA Point 5	EPA Point 6	EPA Point 7	EPA Point 8	DTC	EPA4A	EPA4B	RL01	
Pollutant	Unit of Measure	Monitoring Frequency	Concentration Limits for Sampling Point	Well located south of pond	Sediment pond	Near Bargo site entrance, directly in creek upstream of landfill.	Directly in creek downstream of landfill.	Sediment pond	Leachate discharge	Well located next to road outside the Bargo site	Well located south eastern corner	Additional surface water location - directly in creek downstream of leachate flow	Dog Trap Creek downstream of landfill	Dog Trap Creek downstream of landfill	Seepage Point 3 - Rock Leachate	
Xylenes	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Zinc	milligrams per litre	Annual / Quarterly		3.02	Not required	<0.005	0.012	Not required	1.02	Not required	Not required	0.183	0.008	0.010	0.013	
FIELD MEASUREMENTS																
Standing Water Level	metres below top of casing (TOC)	Quarterly		1.17	Not required	Not required	Not required	Not required	Not required	37.57	12.36	Not required	Not required	Not required	Not required	Not required
Electrical Conductivity	microsiemens per centimetre	Quarterly		2896	1408	321.6	414.8	1024	2036	641	235.8	842	323.7	348.5	2332	
PH	PH Units	Quarterly		5.26	6.8	6.79	5.28	5.99	6.43	5.61	5.84	6.39	5.14	5.04	6.21	
Temp	Degree C	Quarterly		17.3	20.8	22.5	21.1	107.2	247.3	50.1	79.3	25.5	22.8	20.2	19.7	

Table B1 - Surface water and groundwater - EPA Website publishing

BARGO WASTE MANAGEMENT CENTRE ANTHONY ROAD BARGO - SAMPLING RESULTS

SAMPLING ON 18TH AUGUST 2022

EPA LICENCE NUMBER 0061

<http://www.environment.nsw.gov.au/epa00600000/>

WOLLONDILLY SHIRE COUNCIL

62-64 Menangle Street PICTON NSW 2571

SAMPLING LOCATIONS				EPA1	EPA2	EPA3	EPA4	EPAS	EPA6	EPA7	EPA8	DTC	EPA4A	EPA4B	RL01
Pollutant	Unit of Measure	Monitoring Frequency	Concentration Limits for Sampling Point	Well located south of pond	Sediment pond	Near Bargo site entrance, directly in creek upstream of landfill	Directly in creek downstream of landfill	Sediment pond	Leachate discharge	Well located next to road outside the Bargo site	Well located south eastern corner	Additional surface water location - directly in creek downstream of leachate flow	Dog Trap Creek downstream of landfill	Dog Trap Creek downstream of landfill	Geopage Point 3 - Rock Leachate
Alkalinity (as calcium carbonate)	milligrams per litre	Annual		1160	383	Not required	Not required	616	501	14	16	Not required	144	170	1060
Aluminium	milligrams per litre	Annual / Quarterly		<0.01	0.08	0.07	0.08	0.55	<0.01	<0.01	0.02	0.04	0.05	0.15	0.22
Ammonia (as nitrogen)	milligrams per litre	Quarterly	0.9 milligrams per litre for Points 2 & 5 only	69.5	4.34	<0.01	0.06	3.06	0.02	0.08	0.06	0.21	<0.01	<0.01	66.9
Arsenic	milligrams per litre	Annual / Quarterly		0.001	0.001	<0.001	<0.001	0.007	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.002
Barium	milligrams per litre	Annual / Quarterly		0.278	0.106	0.014	0.048	0.162	0.133	0.183	0.059	0.08	0.045	0.046	0.217
Benzene	milligrams per litre	Annual		<0.001	<0.001	Not required	Not required	Not required	<0.001	<0.001	<0.001	Not required	Not required	Not required	Not required
Biological Oxygen Demand (BOD)	milligrams per litre	Quarterly		3	<2	<2	<2	2	<2	Not required	Not required	<2	Not required	Not required	Not required
Cadmium	milligrams per litre	Annual / Quarterly		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0012	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Calcium	milligrams per litre	Annual		228	150	Not required	Not required	Not required	160	2.6	1.8	Not required	49.1	47.9	234
Chemical Oxygen Demand (COD)	milligrams per litre	Quarterly		250	95	15	36	208	77	Not required	Not required	64	Not required	Not required	Not required
Chloride (Cl)	milligrams per litre	Annual		139	70	Not required	Not required	Not required	191	127	25	Not required	63	65	156
Chlorinated Volatile Compounds (CVCs)	milligrams per litre	Annual		<LOR	<LOR	<LOR	<LOR	<LOR	<LOR	<LOR	<LOR	<LOR	Not required	Not required	Not required
Chromium (hexavalent)	milligrams per litre	Annual / Quarterly		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	Not required
Chromium (total)	milligrams per litre	Annual / Quarterly		0.006	0.002	<0.001	0.001	0.014	0.001	<0.001	<0.001	0.001	<0.001	<0.001	0.007
Cobalt	milligrams per litre	Annual / Quarterly		0.004	0.001	<0.001	<0.001	0.004	0.001	0.029	0.006	<0.001	<0.001	<0.001	0.002
Copper	milligrams per litre	Annual / Quarterly		<0.001	0.004	<0.001	0.001	0.003	0.024	<0.001	<0.001	0.01	0.001	0.001	<0.001
Ethylbenzene	milligrams per litre	Annual		<0.002	<0.002	Not required	Not required	Not required	<0.002	<0.002	<0.002	Not required	Not required	Not required	Not required
Fluoride	milligrams per litre	Annual		0.2	0.2	Not required	Not required	Not required	0.02	0.1	<0.1	Not required	Not required	Not required	Not required
Lead	milligrams per litre	Annual / Quarterly		<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium	milligrams per litre	Annual		60	48.5	Not required	Not required	Not required	59.4	11.8	3.3	Not required	20	18.6	68.3
Manganese	milligrams per litre	Annual / Quarterly		2.26	0.064	0.016	0.005	0.818	0.418	0.947	0.417	0.028	0.003	0.003	0.786
Mercury	milligrams per litre	Annual / Quarterly		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nitrate (as Nitrogen)	milligrams per litre	Annual / Quarterly		<0.01	Not required	0.09	10.8	Not required	22.8	0.02	0.04	17.5	8.67	8.64	Not required
Nitrite (as Nitrogen)	milligrams per litre	Annual / Quarterly		0.06	Not required	<0.01	0.06	Not required	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	Not required
Organochlorine Pesticides (OCP)	milligrams per litre	Annual		<LOR	<LOR	<LOR	<LOR	<LOR	<LOR	<LOR	<LOR	<LOR	Not required	Not required	Not required
Organophosphorus Pesticides (OPP)	milligrams per litre	Annual		<LOR	<LOR	Not required	Not required	Not required	<LOR	<LOR	<LOR	Not required	Not required	Not required	Not required
Polycyclic Aromatic Hydrocarbons (PAH)	milligrams per litre	Annual		0.0001	<LOR	<LOR	<LOR	<LOR	<LOR	<LOR	<LOR	<LOR	Not required	Not required	Not required
Perfluorooctane sulfonic acid (PFOS)	milligrams per litre	Quarterly		0.00048	0.00009	<0.00001	0.0001	0.00019	0.00042	<0.00001	<0.00001	0.0003	0.00008	0.00009	0.00042
Perfluorooctanoic acid (PFOA)	milligrams per litre	Quarterly		0.00083	0.00039	<0.00001	0.00025	0.00076	0.00072	<0.00001	<0.00001	0.00053	0.0002	0.00021	0.00089
Sum of PFHxS and PFOA	milligrams per litre	Quarterly		0.0017	0.00044	<0.00001	0.00044	0.0005	0.00104	<0.00001	<0.00001	0.00043	0.00036	0.00042	0.00186
Potassium	milligrams per litre	Annual		60.2	22.4	Not required	Not required	Not required	64.4	2.4	2.3	Not required	18	18	66.8
Semi-volatile Organic Compounds (SVOCs)	milligrams per litre	Annual		<LOR	Not required	Not required	Not required	Not required	<LOR	<LOR	<LOR	Not required	Not required	Not required	Not required
Sodium	milligrams per litre	Annual		126	73.1	Not required	Not required	Not required	136	57.4	17	Not required	49.9	48	132
Sulphate (as SO ₄)	milligrams per litre	Annual		76	278	Not required	Not required	Not required	210	5	5	Not required	61	61	90
Toluene	milligrams per litre	Annual		<0.002	<0.002	Not required	Not required	Not required	<0.002	<0.002	<0.002	Not required	Not required	Not required	Not required
Total Dissolved Solids (TDS)	milligrams per litre	Quarterly		1.370	1.010	79	491	1.640	1.420	236	89	1.080	413	399	1420
Total Iron	milligrams per litre	Annual		Not required	0.14	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Total Kjeldahl Nitrogen	milligrams per litre	Quarterly		72	8	0.2	2.2	Not required	4.2	Not required	Not required	3.8	2.1	1.5	Not required
Total Nitrogen	milligrams per litre	Quarterly		73	11.1	0.3	13.1	Not required	27	Not required	Not required	21.3	10.8	10.1	Not required
Total Organic Carbon (TOC)	milligrams per litre	Quarterly		63	33	4	15	75	35	2	5	27	12	12	60
Total Petroleum Hydrocarbons (TPH)	milligrams per litre	Annual		0.32	0.14	Not required	Not required	Not required	0.19	<LOR	<LOR	Not required	Not required	Not required	Not required
Total Phenolics	milligrams per litre	Annual		<LOR	<LOR	Not required	Not required	Not required	<LOR	<LOR	<LOR	Not required	Not required	Not required	Not required
Total Phosphorus	milligrams per litre	Annual / Quarterly		1	0.02	<0.01	0.05	Not required	0.02	Not required	Not required	0.01	0.02	0.01	Not required
Total Suspended Solids (TSS)	milligrams per litre	Quarterly		Not required	<5	<5	<5	30	<5	Not required	Not required	<5	<5	<5	31
Volatile Organic Compounds (VOCs)	milligrams per litre	Annual		<LOR	<LOR	<LOR	<LOR	<LOR	<LOR	<LOR	<LOR	<LOR	Not required	Not required	Not required
Xylenes	milligrams per litre	Annual		<0.002	<0.002	Not required	Not required	Not required	<0.002	<0.002	<0.002	Not required	Not required	Not required	Not required
Zinc	milligrams per litre	Annual / Quarterly		0.124	<0.005	<0.005	0.007	0.019	0.565	0.119	0.044	0.029	0.01	0.012	0.032
FIELD MEASUREMENTS															
Standing Water Level	metres below top of casing (TDC)	Quarterly		1.1	-	-	-	-	-	37.4	12.62	-	-	-	-
Electrical Conductivity	microsiemens per centimetre	Quarterly		2731	1756	265.1	790	2229	2231	837	572.1	1424	647.2	640.1	2575
pH	pH Units	Quarterly		6.94	7.07	8.12	6.84	7.7	7.3	5.65	5.63	7.86	8.84	6.83	7.27
Temp	Degree C	Quarterly		16.3	12.3	12.2	9.4	14.7	17.1	18	15.2	14.7	9.9	8.5	13.2

BARGO WASTE MANAGEMENT CENTRE ANTHONY ROAD BARGO - SAMPLING RESULTS

SAMPLING ON 8TH NOVEMBER 2022
 EPA LICENCE NUMBER 4961
<http://www.environment.nsw.gov.au/reportsw/>
 WOLLONDILLY SHIRE COUNCIL
 82-84 Menangle Street WOLLONDILLY NSW 2571

Pollutant	SAMPLING LOCATIONS			EPA1	EPA2	EPA3	EPA4	EPA5	EPA6	EPA7	EPA8	OTC	EPA4A	EPA4B	RL01
	Unit of Measure	Monitoring Frequency	Concentration Limits for Sampling Point	Well located south of pond	Sediment pond	Near Bargo site entrance, directly in creek upstream of landfill	Directly in creek downstream of landfill	Sediment pond	Leachate discharge	Well located next to road outside the Bargo site	Well located south eastern corner	Additional surface water location - directly in creek downstream of leachate flow	Dog Trap Creek downstream of landfill	Dog Trap Creek downstream of landfill	Seepage Point 3 - Rock Leachate
Alkalinity (as calcium carbonate)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	186	156	Not required
Aluminium	milligrams per litre	Annual / Quarterly		<0.01	Not required	0.08	0.07	Not required	<0.01	Not required	Not required	0.04	0.05	Not required	0.22
Ammonia (as nitrogen)	milligrams per litre	Quarterly	0.9 milligrams per litre for Points 2 and 5 only	77.6	0.58	<0.01	0.1	2.1	11.4	0.44	0.03	0.08	0.04	0.03	24.2
Arsenic	milligrams per litre	Annual / Quarterly		0.001	Not required	<0.001	<0.001	Not required	Not required	Not required	Not required	<0.001	<0.001	Not required	0.002
Barium	milligrams per litre	Annual / Quarterly		0.366	Not required	0.015	0.058	Not required	0.17	Not required	Not required	0.104	0.065	Not required	0.217
Benzene	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Biochemical Oxygen Demand (BOD)	milligrams per litre	Quarterly		7	9	8	<2	11	6	Not required	Not required	12	<2	8	Not required
Cadmium	milligrams per litre	Annual / Quarterly		<0.0001	Not required	<0.0001	<0.0001	Not required	0.0019	Not required	Not required	<0.0001	<0.0001	Not required	<0.0001
Calcium	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	57.6	45.5	203
Chemical Oxygen Demand (COD)	milligrams per litre	Quarterly		178	54	14	34	80	74	Not required	Not required	70	34	29	115
Chloride (Cl)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	55	49	Not required
Chlorinated Volatile Compounds (CVCs)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Chromium (hexavalent)	milligrams per litre	Annual / Quarterly		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Chromium (total)	milligrams per litre	Annual / Quarterly		0.006	Not required	<0.001	<0.001	Not required	0.001	Not required	Not required	0.001	<0.001	Not required	0.005
Cobalt	milligrams per litre	Annual / Quarterly		0.002	Not required	<0.001	<0.001	Not required	0.002	Not required	Not required	<0.001	<0.001	Not required	0.002
Copper	milligrams per litre	Annual / Quarterly		<0.001	Not required	<0.001	0.001	Not required	0.031	Not required	Not required	0.013	<0.001	Not required	<0.001
Ethylbenzene	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Fluoride	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Lead	milligrams per litre	Annual / Quarterly		<0.001	Not required	<0.001	<0.001	Not required	<0.001	Not required	Not required	<0.001	<0.001	Not required	<0.001
Magnesium	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	21.3	17.9	56
Manganese	milligrams per litre	Annual / Quarterly		1.24	Not required	0.025	0.006	Not required	0.967	Not required	Not required	0.102	0.007	Not required	0.51
Mercury	milligrams per litre	Annual / Quarterly		Not required	Not required	Not required	Not required	Not required	<0.0001	Not required	Not required	Not required	<0.0001	<0.0001	<0.0001
Nitrate (as Nitrogen)	milligrams per litre	Annual / Quarterly		0.01	Not required	0.02	8.6	Not required	14.3	Not required	Not required	16.5	Not required	Not required	Not required
Nitrite (as Nitrogen)	milligrams per litre	Annual / Quarterly		0.01	Not required	0.02	0.1	Not required	0.58	Not required	Not required	2.48	Not required	Not required	Not required
Organochlorine Pesticides (OCP)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Organophosphorus Pesticides (OPP)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Polycyclic Aromatic Hydrocarbons (PAH)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Perfluorooctane sulfonic acid (PFOS)	milligrams per litre	Quarterly		0.00062	0.00009	0.00002	0.00025	0.0001	0.00064	<0.00001	<0.00001	0.0005	0.0002	0.00016	0.00044
Perfluorooctanoic acid (PFOA)	milligrams per litre	Quarterly		0.00102	0.00029	<0.00001	0.00036	0.00021	0.00094	<0.00001	<0.00001	0.00071	0.00034	0.00028	0.0007
Sum of PFHxS and PFOS	milligrams per litre	Quarterly		0.00211	0.00039	0.00003	0.0007	0.00026	0.00146	<0.00001	<0.00001	0.0012	0.00062	0.00051	0.00158
Potassium	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	23.2	19.9	49.6
Semi-volatile Organic Compounds (SVOCs)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Sodium	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	51.9	44.1	114
Sulphate (as SO ₄)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	71	54	Not required
Toluene	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Total Dissolved Solids (TDS)	milligrams per litre	Quarterly		1,410	629	84	456	759	1,270	247	86	1,000	453	374	Not required
Total Iron	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	0.12	Not required
Total Kjeldahl Nitrogen	milligrams per litre	Quarterly		70	Not required	0.3	6	Not required	18.1	Not required	Not required	8.2	Not required	Not required	Not required
Total Nitrogen	milligrams per litre	Quarterly		70	Not required	0.3	14.9	Not required	33	Not required	Not required	27.2	Not required	Not required	Not required
Total Organic Carbon (TOC)	milligrams per litre	Quarterly		66	32	6	15	31	35	13	6	28	15	12	48
Total Petroleum Hydrocarbons (TPH)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Total Phenolics	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Total Phosphorus	milligrams per litre	Annual / Quarterly		0	Not required	0.04	0.04	Not required	0.08	Not required	Not required	0.04	Not required	Not required	Not required
Total Suspended Solids (TSS)	milligrams per litre	Quarterly		50 milligrams per litre for Points 2 & 5 only	6	<5	<5	9	Not required	Not required	Not required	6	<5	<5	Not required
Volatile Organic Compounds (VOCs)	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Xylenes	milligrams per litre	Annual		Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required
Zinc	milligrams per litre	Annual / Quarterly		0.048	Not required	<0.005	0.005	Not required	0.954	Not required	Not required	0.053	<0.005	Not required	0.008

FIELD MEASUREMENTS															
Standing Water Level	metres below top of casing (TOC)	Quarterly	Not required	1.1	-	-	-	-	-	-	37.31	15.56	-	-	-
Electrical Conductivity	microsiemens per centimetre	Quarterly	30-350	2501	997	181.3	755	1323	1895	521.7	217.4	1460	716	637	-
pH	pH Units	Quarterly	6.5-8	6.94	8.1	7.3	7.5	7.16	7.34	6.9	6.53	7.78	7.4	7.05	-
Temp	Degree C	Quarterly	-	18.4	25.4	25.5	18.1	20.4	18.9	18.8	19	24.4	17.3	20.8	-

