

Kurnell Landfill Environmental Monitoring Locations

EPA ID No.	Monitoring Location	Easting	Northing
3	BH3A	331557.559	6233612.570
4	BH4A	331555.149	6233531.497
5	BH5A	331325.514	6233723.575
6	BH6A	331588.552	6233160.367
7	BH7A	331293.2	6233053.87
8	BH8A	331005.488	6233233.894
9	BH9C	331540.67	6233420.14
11	BH10A	331819.08	6233299.27
12	BH11A	331350.35	6233170.05
13	BH12A	331166.433	6233699.572
14	BH13A	331447.247	6233662.638
15	BH14	331997.150	6233370.046
16	BH15	332482.813	6233510.587
17	BH16	332149.279	6233032.038
18	BH17	331432.560	6233696.015
19	BH18	330761.63	6233399.46
26	BH19B	332003	6233379
27	BH20	332200.120	6233439.830
28	BH22	332446.162	6233300.895
29	BH23	332254.027	6233075.673
30	BH24	331709.001	6232960.575
31	BH25	330974	6233693
1	LB02	331246	6233411

Kurnell Landfill Quarterly Ground Water Analytical Results - October 2022

Monitoring Location:			BH3A	BH4A	BH5A	BH6A	BH7A	BH8A	BH9C	BH10B	BH11A	BH12A	BH13A	
Sample Id:			BH3A	BH4A	BH5A	BH6A	BH7A	BH8A	BH9C	BH10B	BH11A	BH12A	BH13A	
Laboratory Report Number:			308789	308504	308789	308504	308504	308504	308504	308504	308789	308789	308789	
Laboratory:			Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	
Date Sampled:			24 Oct 22	24 Oct 22	24 Oct 22	24 Oct 22	24 Oct 22	24 Oct 22	24 Oct 22	24 Oct 22	24 Oct 22	24 Oct 22	24 Oct 22	
Parameters	PQL	Units	3rd Quarter		3rd Quarter		3rd Quarter		3rd Quarter		3rd Quarter		3rd Quarter	
			2022/2023	2022/2023	2022/2023	2022/2023	2022/2023	2022/2023	2022/2023	2022/2023	2022/2023	2022/2023	2022/2023	2022/2023
Standing Water Level	0.01	mBTOC	2.94	2.95	6.75	14.05	1.32	15.50	3.69	3.45	22.10	9.61	3.44	
pH (field)	0.1	pH units	7.48	6.79	7.47	6.86	5.74	5.21	6.88	6.81	6.07	7.85	6.34	
Electrical Conductivity (field)	1	µS/cm	1,300	1,155	1,640	2,097	822	502.3	1110	1474	2,273	626	1624	
pH	0.1	pH units	7.5	7.5	7.0	7.1	6	5.8	7.5	7.0	6.4	7.7	6.8	
Total Dissolved Solids	5	mg/L	930	780	990	1,100	420	6	650	760	2,100	590	1,100	
Total Organic Carbon	1	mg/L	29	38	150	190	130	230	50	170	91	37	120	
Carbonate Alkalinity (CO3-2)	1	mg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Chloride	20	mg/L	49	36	200	200	29	17	38	60	20	67	50	
Sulphate	5	mg/L	430	230	6	8	12	9	92	130	1200	56	38	
Ammonia as N	0.1	mg/L	0.93	0.043	13	13	0.23	0.026	1.9	1.4	0.63	0.17	8.2	
Sodium (Na)	0.03	mg/L	41	34	130	150	20	18	39	72	23	32	100	
Potassium (I) Ion	0.03	mg/L	11	9.6	14	17	3	1	8	15	14	7.6	18	
Calcium (II) Ion	0.03	mg/L	170	180	130	120	120	72	140	340	480	140	190	
Magnesium (II) Ion	0.03	mg/L	18	15	30	29	17	7.6	27	63	13	14	22	

NOTES:
 nt = Not Tested
 nt_i = No field data or samples obtainable as groundwater wells were found to be entirely inundated at time of monitoring event

Kurnell Landfill Quarterly Ground Water Analytical Results - October 2022

Sample Location:	BH14	BH15	BH16	BH17	BH18	BH19B	BH20	BH22	BH23	BH24	BH25	LB2
Sample Id:	BH14A	BH15	BH16	BH17	BH18	BH19B	BH20	BH22	BH23	BH24	BH25	LB02
Laboratory Report Number:	308504	308504	NA	308504	308504	308504	NA	308504	308504	NA	307789	307789
Laboratory:	Envirolab	Envirolab	NA	Envirolab	Envirolab	Envirolab	NA	Envirolab	Envirolab	NA	Envirolab	Envirolab
Date Sampled:	24 Oct 22	24 Oct 22	NA	24 Oct 22	24 Oct 22	24 Oct 22	NA	24 Oct 22	24 Oct 22	NA	24 Oct 22	24 Oct 22
Parameters	3rd Quarter 2022/2023	3rd Quarter 2022/2023	3rd Quarter 2022/2023	3rd Quarter 2022/2023	3rd Quarter 2022/2023	3rd Quarter 2022/2023	3rd Quarter 2022/2023	3rd Quarter 2022/2023	3rd Quarter 2022/2023	3rd Quarter 2022/2023	3rd Quarter 2022/2023	3rd Quarter 2022/2023
Standing Water Level	1.95	3.79	nt_i	5.05	26.19	3.47	nt_i	1.79	2.52	nt_i	6.80	13.75
pH (field)	6.93	7.5	nt_i	7.04	6.43	5.26	nt_i	7.27	7.2	nt_i	7.33	7.2
Electrical Conductivity (field)	764	674	nt_i	1203	1,310	531.5	nt_i	1360	535.8	nt_i	1594	5,616
pH	7.4	8.0	nt_i	7.3	7.2	5.6	nt_i	7.7	7.6	nt_i	7.5	nt
Total Dissolved Solids	1,200	410	nt_i	14,000	650	390	nt_i	800	300	nt_i	940	nt
Total Organic Carbon	15	28	nt_i	130	130	190	nt_i	45	48	nt_i	74	nt
Carbonate Alkalinity (CO3-2)	<5	<5	nt_i	<5	<5	<5	nt_i	<5	<5	nt_i	<5	<5
Chloride	98	27	nt_i	150	50	28	nt_i	96	13	nt_i	210	530
Sulphate	570	63	nt_i	240	3	92	nt_i	280	4	nt_i	47	140
Ammonia as N	0.013	0.1	nt_i	15.0	0.009	0.21	nt_i	12	0.016	nt_i	0.57	280
Sodium (Na)	130	23	nt_i	120	40	20	nt_i	94	18	nt_i	110	380
Potassium (I) Ion	14	5.2	nt_i	19	4	4	nt_i	15	2	nt_i	4	110
Calcium (II) Ion	320	99	nt_i	210	190	81	nt_i	140	79	nt_i	140	160
Magnesium (II) Ion	41	15	nt_i	29	26	7.8	nt_i	18	10	nt_i	22	77

NOTES:

nt = Not Tested

nt_i = No field data or samples obtainable as groundwater wells were found to be entirely inundated at time of monitoring event

Kurnell Landfill Quarterly Subsurface Gas Results - 18 October 2022

EPA ID No.	Well ID	Initial well pressure above atmospheric (mb)	Initial vent	Flow Rate L/hr	Initial well concentrations	Maximum vacuum on well (psi)	Recovery time (min)	Total volume purged (L)	Well concentrations following purging
					CH ₄				CH ₄
					(%)				
20	BH4A	1.4	Nil	<0.1	<0.1	-15	<1	24	<0.1
22	BH8B	0.8	Nil	<0.1	<0.1	-15	<1	12	<0.1
23	BH12A	5.6	Nil	<0.1	<0.1	-15	<1	12	<0.1
24	BH13A	0.1	Nil	-0.2	<0.1	No vehicle access			
25	BH18	0.3	Nil	0.1	<0.1	No vehicle access			

BOLD Greater than the assessment criteria of 1.0 % CH₄