



TABLE 2: LITHGOW SOLID WASTE FACILITY - RESULTS OF LABORATORY ANALYSIS  
APRIL 2021

GROUNDWATER



Group	Analyte	LOR	Units	Criteria	Sample ID	MB4	MB5	MB9	MB10	MB12	MB14
					Sample Date	20/04/2021	05/07/2021	20/04/2021	20/04/2021	20/04/2021	20/04/2021
						PS	PS	PS	PS	PS	PS
Physical Parameters	pH (Lab)	0	No unit	6.0 - 8.5		5.7	6.1	6.5	6.1	3.4	6.8
	Electrical Conductivity (Lab)	2	µS/cm	4478		790	1400	760	110	1300	690
	Total Dissolved Solids	10	mg/L	3000		480	800	380	62	720	420
	Chemical Oxygen Demand	10	mg/L	-		28	25	16	< 10	31	< 10
Alkalinity	Total Alkalinity as CaCO3	5	mg/L	350		120	220	340	22	< 5	300
Anions	Chloride	1	mg/L	350		170	-	47	11	290	33
	Chloride	0.05	mg/L	350		-	250	-	-	-	-
	Fluoride	0.1	mg/L	1		< 0.1	< 0.1	0.12	< 0.1	0.19	< 0.1
	Sulfate (SO4)	1	mg/L	-		24	37	3.3	9.1	150	43
Cations	Calcium (Ca)	0.1	mg/L	1000		66	96	63	5.1	11	96
	Magnesium (Mg)	0.1	mg/L	-		37	32	17	4.2	12	29
	Potassium (K)	0.2	mg/L	-		6.7	58	39	1.9	18	9.3
	Sodium (Na)	0.1	mg/L	230		36	120	40	6.9	140	20
Forms of Carbon	Total Organic Carbon	0.2	mg/L	-		2.6	6.6	5.9	1.5	9.7	3.6
Nutrients	Ammonia (NH3) as N	0.01	mg/L	-		0.24	3.9	15	0.02	13	0.21
	Nitrate (NO3) as N	0.005	mg/L	-		0.022	4.2	0.071	0.26	0.007	< 0.005
	Total Phosphorus	0.02	mg/L	0.05		1.8	0.12	0.07	0.08	0.05	< 0.02
Trace Metals	Aluminium (Al)	0.005	mg/L	5		< 0.005	0.031	< 0.005	0.013	15	< 0.005
	Chromium (Cr)	0.001	mg/L	-		0.023	0.003	0.001	0.002	0.002	< 0.001
	Hexavalent Chromium (Cr-VI)	0.004	mg/L	0.1		< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	Iron (Fe)	0.005	mg/L	0.2		21	0.22	0.071	0.13	20	1.2
	Manganese (Mn)	0.001	mg/L	0.2		1.1	1.2	4.4	0.01	0.55	0.084
Phenolics	Total Phenols	0.01	mg/L	-		< 0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01



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					Sample Date	20/04/2021	05/07/2021	20/04/2021	20/04/2021	20/04/2021	20/04/2021
OP Pesticides	Azinphos-methyl	0.2	µg/L	-	PS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	Bromophos Ethyl	0.2	µg/L	-	PS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	Chlorpyrifos (Chlorpyrifos Ethyl)	0.2	µg/L	-	PS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	Diazinon (Dimpylate)	0.5	µg/L	-	PS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Dichlorvos	0.5	µg/L	-	PS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Dimethoate	0.5	µg/L	-	PS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	Ethion	0.2	µg/L	-	PS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	Fenitrothion	0.2	µg/L	-	PS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	Malathion	0.2	µg/L	-	PS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	Parathion-ethyl (Parathion)	0.2	µg/L	-	PS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	Methidathion	0.5	µg/L	-	PS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Total Petroleum Hydrocarbons	TRH C6-C9	40	µg/L	-	PS	< 40	< 40	< 40	< 40	<b>97</b>	< 40
	TRH C10-C14	50	µg/L	-	PS	< 50	< 50	< 50	< 50	< 50	< 50
	TRH C15-C28	200	µg/L	-	PS	< 200	< 200	< 200	< 200	<b>310</b>	< 200
	TRH C29-C36	200	µg/L	-	PS	< 200	< 200	< 200	< 200	< 200	< 200
	TRH C37-C40	200	µg/L	-	PS	< 200	< 200	< 200	< 200	< 200	< 200
Total Recoverable Hydrocarbons	TRH C6-C10	50	µg/L	-	PS	< 50	< 50	< 50	< 50	<b>100</b>	< 50
	TRH C6-C10 minus BTEX (F1)	50	µg/L	-	PS	< 50	< 50	< 50	< 50	<b>100</b>	< 50
	TRH >C10-C16	60	µg/L	-	PS	< 60	< 60	< 60	< 60	< 60	< 60
	TRH >C10-C16 minus Naphthalene (F2)	60	µg/L	-	PS	< 60	< 60	< 60	< 60	< 60	< 60
	TRH >C16-C34 (F3)	500	µg/L	-	PS	< 500	< 500	< 500	< 500	< 500	< 500
	TRH >C34-C40 (F4)	500	µg/L	-	PS	< 500	< 500	< 500	< 500	< 500	< 500
	TRH C10-C40	320	µg/L	-	PS	< 320	< 320	< 320	< 320	<b>500</b>	< 320
BTEXN Analytes	Benzene (F0)	0.5	µg/L	-	PS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

- mg/L milligrams per litre
- µg/L micrograms per litre
- µS/cm microsiemens per centimetre
- LOR limit of reporting
- PS primary sample
- Criteria Criteria adopted from *Australian and New Zealand Environment and Conservation Council (ANZECC) Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ) Australian and New Zealand Guidelines for Fresh and Marine Water Quality - 'Primary Industries: Water quality for irrigation and general water use', 2000*
- within criteria
- criteria exceeded