

Reporting of leachate monitoring for the period from 01-Jul-2020 to 30-Sep-2020

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ^{(1) (4)}	Unit ⁽⁵⁾
Cell 1/2 Sump	Base of well/borehole/sump	Field	06/07/2020		14.73	m
			10/08/2020		14.72	m
			08/09/2020		14.73	m
	Groundwater level/dip		06/07/2020		14.26	m
			10/08/2020		14.39	m
			08/09/2020		14.4	m
	Leachate level above base of sump/pit base		06/07/2020	3m above base	0.47	m
			10/08/2020	3m above base	0.33	m
			08/09/2020	3m above base	0.33	m
	Total Alkalinity as CaCO3	TM043	13/07/2020		8770	mg/l
	Biological oxygen demand	TM045	13/07/2020		134	mg/l
	Total organic carbon	TM090	13/07/2020		816	mg/l
	Ammoniacal Nitrogen as N	TM099	13/07/2020	<3,640 mg/l	2450	mg/l
			12/08/2020	<3,640 mg/l	621	mg/l
			14/09/2020	<3,640 mg/l	701	mg/l
	Chemical oxygen demand (unfiltered)	TM107	13/07/2020		3070	mg/l
	Electrical conductivity @20°C (lab)	TM120	13/07/2020		39800	µS/cm
			12/08/2020		13300	µS/cm
			14/09/2020		9110	µS/cm
	Cadmium (filtered)	TM152	13/07/2020	<0.105 mg/l	<0.0008	mg/l
	Calcium (filtered)		13/07/2020		32.3	mg/l
	Chromium (filtered)		13/07/2020		0.195	mg/l

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ^{(1) (4)}	Unit ⁽⁵⁾
Cell 1/2 Sump	Copper (filtered)	TM152	13/07/2020		0.0271	mg/l
	Iron (filtered)		13/07/2020		4.33	mg/l
	Lead (filtered)		13/07/2020		0.0171	mg/l
	Magnesium (filtered)		13/07/2020		55.7	mg/l
	Manganese (filtered)		13/07/2020		0.0986	mg/l
	Nickel (filtered)		13/07/2020		0.29	mg/l
	Potassium (filtered)		13/07/2020		2880	mg/l
	Sodium (filtered)		13/07/2020		4090	mg/l
	Zinc (filtered)		13/07/2020		0.153	mg/l
	4-Methylphenol	TM176	13/07/2020	<1.6 mg/l	<0.05	mg/l
	Diethyl phthalate		13/07/2020	<0.44 mg/l	<0.05	mg/l
	Chloride	TM184	13/07/2020	<19,000 mg/l	11700	mg/l
			12/08/2020	<19,000 mg/l	3220	mg/l
			14/09/2020	<19,000 mg/l	1070	mg/l
	Sulphate		13/07/2020		<20	mg/l
	Total Oxidised Nitrogen as N		13/07/2020		1.61	mg/l
	Dichloromethane	TM208	13/07/2020	<0.033 mg/l	<0.003	mg/l
	Mecoprop	TM411	13/07/2020	<0.071 mg/l	0.129	mg/l
Cell 3/4 Sump	Base of well/borehole/sump	Field	06/07/2020		11.3	m
			10/08/2020		11.3	m
			08/09/2020		11.3	m
	Groundwater level/dip		06/07/2020		10.84	m
			10/08/2020		10.75	m
			08/09/2020		10.71	m
	Leachate level above base of sump/pit base		06/07/2020	2.8m above base	0.46	m
			10/08/2020	2.8m above base	0.55	m
			08/09/2020	2.8m above base	0.59	m
	Total Alkalinity as CaCO3	TM043	13/07/2020		2050	mg/l
	Biological oxygen demand	TM045	13/07/2020		21.6	mg/l

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Cell 3/4 Sump	Total organic carbon	TM090	13/07/2020		137	mg/l
	Ammoniacal Nitrogen as N	TM099	13/07/2020	<3,640 mg/l	443	mg/l
			12/08/2020	<3,640 mg/l	157	mg/l
			14/09/2020	<3,640 mg/l	1020	mg/l
	Chemical oxygen demand (unfiltered)	TM107	13/07/2020		505	mg/l
	Electrical conductivity @20°C (lab)	TM120	13/07/2020		6010	µS/cm
			12/08/2020		2410	µS/cm
			14/09/2020		11600	µS/cm
	Cadmium (filtered)	TM152	13/07/2020	<0.105 mg/l	<0.00008	mg/l
	Calcium (filtered)		13/07/2020		52.1	mg/l
	Chromium (filtered)		13/07/2020		0.0308	mg/l
	Copper (filtered)		13/07/2020		0.00387	mg/l
	Iron (filtered)		13/07/2020		1.28	mg/l
	Lead (filtered)		13/07/2020		0.00182	mg/l
	Magnesium (filtered)		13/07/2020		15.9	mg/l
	Manganese (filtered)		13/07/2020		0.453	mg/l
	Nickel (filtered)		13/07/2020		0.0586	mg/l
	Potassium (filtered)		13/07/2020		349	mg/l
	Sodium (filtered)		13/07/2020		631	mg/l
	Zinc (filtered)		13/07/2020		0.0747	mg/l
	4-Methylphenol	TM176	13/07/2020	<1.6 mg/l	<0.01	mg/l
	Diethyl phthalate		13/07/2020	<0.44 mg/l	<0.01	mg/l
	Chloride	TM184	13/07/2020	<19,000 mg/l	997	mg/l
			12/08/2020	<19,000 mg/l	368	mg/l
			14/09/2020	<19,000 mg/l	1490	mg/l
	Sulphate		13/07/2020		<10	mg/l
	Total Oxidised Nitrogen as N		13/07/2020		0.194	mg/l
	Dichloromethane	TM208	13/07/2020	<0.033 mg/l	<0.003	mg/l
	Mecoprop	TM411	13/07/2020	<0.071 mg/l	0.00752	mg/l

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Cell 5 Sump	Base of well/borehole/sump	Field	06/07/2020		5.8	m
			10/08/2020		5.8	m
			08/09/2020		5.8	m
	Groundwater level/dip		06/07/2020		5.41	m
			10/08/2020		5.4	m
			08/09/2020		5.38	m
	Leachate level above base of sump/pit base		06/07/2020	2m above base	0.39	m
			10/08/2020	2m above base	0.4	m
			08/09/2020	2m above base	0.42	m
	Total Alkalinity as CaCO3	TM043	13/07/2020		5900	mg/l
	Biological oxygen demand	TM045	13/07/2020		130	mg/l
	Total organic carbon	TM090	13/07/2020		514	mg/l
	Ammoniacal Nitrogen as N	TM099	13/07/2020	<3,640 mg/l	1560	mg/l
			12/08/2020	<3,640 mg/l	1300	mg/l
			14/09/2020	<3,640 mg/l	1180	mg/l
	Chemical oxygen demand (unfiltered)	TM107	13/07/2020		1800	mg/l
	Electrical conductivity @20°C (lab)	TM120	13/07/2020		26500	µS/cm
			12/08/2020		22300	µS/cm
			14/09/2020		19100	µS/cm
	Cadmium (filtered)	TM152	13/07/2020	<0.105 mg/l	<0.0008	mg/l
	Calcium (filtered)		13/07/2020		37	mg/l
	Chromium (filtered)		13/07/2020		0.14	mg/l
	Copper (filtered)		13/07/2020		0.0201	mg/l
	Iron (filtered)		13/07/2020		3.16	mg/l
	Lead (filtered)		13/07/2020		0.0114	mg/l
	Magnesium (filtered)		13/07/2020		42.1	mg/l
	Manganese (filtered)		13/07/2020		0.208	mg/l
	Nickel (filtered)		13/07/2020		0.208	mg/l
	Potassium (filtered)		13/07/2020		2070	mg/l

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Cell 5 Sump	Sodium (filtered)	TM152	13/07/2020		2510	mg/l
	Zinc (filtered)		13/07/2020		0.138	mg/l
	4-Methylphenol	TM176	13/07/2020	<0.126 mg/l	<0.02	mg/l
	Diethyl phthalate		13/07/2020	<0.36 mg/l	<0.02	mg/l
	Chloride	TM184	13/07/2020	<19,000 mg/l	7160	mg/l
			12/08/2020	<19,000 mg/l	6300	mg/l
			14/09/2020	<19,000 mg/l	4510	mg/l
	Sulphate		13/07/2020		<10	mg/l
	Total Oxidised Nitrogen as N		13/07/2020		0.187	mg/l
	Dichloromethane	TM208	13/07/2020	<0.066 mg/l	<0.003	mg/l
	Mecoprop	TM411	13/07/2020	<0.14 mg/l	0.0776	mg/l
Cell 6 Sump	Base of well/borehole/sump	Field	06/07/2020		24.6	m
			10/08/2020		24.6	m
			08/09/2020		24.6	m
	Groundwater level/dip		06/07/2020		24.21	m
			10/08/2020		24.36	m
			08/09/2020		24.1	m
	Leachate level above base of sump/pit base		06/07/2020	1.5m above base	0.39	m
			10/08/2020	1.5m above base	0.24	m
			08/09/2020	1.5m above base	0.5	m
	Ammoniacal Nitrogen as N	TM099	12/08/2020	<3,640 mg/l	885	mg/l
			14/09/2020	<3,640 mg/l	1080	mg/l
	Electrical conductivity @20°C (lab)	TM120	12/08/2020		13000	µS/cm
			14/09/2020		13500	µS/cm
	Chloride	TM184	12/08/2020	<19,000 mg/l	2720	mg/l
			14/09/2020	<19,000 mg/l	1660	mg/l
Cell 7 Sump	Base of well/borehole/sump	Field	06/07/2020		23	m
			10/08/2020		23	m
			08/09/2020		23	m

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Cell 7 Sump	Groundwater level/dip	Field	06/07/2020		22.58	m
			10/08/2020		22.61	m
			08/09/2020		22.6	m
	Leachate level above base of sump/pit base		06/07/2020	1.5m above base	0.42	m
			10/08/2020	1.5m above base	0.39	m
			08/09/2020	1.5m above base	0.4	m
	Total Alkalinity as CaCO3	TM043	13/07/2020		455	mg/l
	Biological oxygen demand	TM045	13/07/2020		<10	mg/l
	Total organic carbon	TM090	13/07/2020		47.8	mg/l
	Ammoniacal Nitrogen as N	TM099	13/07/2020	<3,640 mg/l	96.4	mg/l
			12/08/2020	<3,640 mg/l	435	mg/l
			14/09/2020	<3,640 mg/l	1740	mg/l
	Chemical oxygen demand (unfiltered)	TM107	13/07/2020		193	mg/l
	Electrical conductivity @20°C (lab)	TM120	13/07/2020		1860	µS/cm
			12/08/2020		6590	µS/cm
			14/09/2020		17600	µS/cm
	Cadmium (filtered)	TM152	13/07/2020	<0.105 mg/l	<0.00008	mg/l
	Calcium (filtered)		13/07/2020		41.1	mg/l
	Chromium (filtered)		13/07/2020		0.019	mg/l
	Copper (filtered)		13/07/2020		0.0149	mg/l
	Iron (filtered)		13/07/2020		0.671	mg/l
	Lead (filtered)		13/07/2020		0.00188	mg/l
	Magnesium (filtered)		13/07/2020		9.87	mg/l
	Manganese (filtered)		13/07/2020		0.117	mg/l
	Nickel (filtered)		13/07/2020		0.0166	mg/l
	Potassium (filtered)		13/07/2020		105	mg/l
	Sodium (filtered)		13/07/2020		155	mg/l
	Zinc (filtered)		13/07/2020		0.127	mg/l
	4-Methylphenol	TM176	13/07/2020	<0.126 mg/l	<0.01	mg/l

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Cell 7 Sump	Diethyl phthalate	TM176	13/07/2020	<0.36 mg/l	<0.01	mg/l
	Chloride	TM184	13/07/2020	<19,000 mg/l	271	mg/l
			12/08/2020	<19,000 mg/l	873	mg/l
			14/09/2020	<19,000 mg/l	2340	mg/l
	Sulphate		13/07/2020		<20	mg/l
	Total Oxidised Nitrogen as N		13/07/2020		29.1	mg/l
	Dichloromethane	TM208	13/07/2020	<0.066 mg/l	<0.003	mg/l
	Mecoprop	TM411	13/07/2020	<0.14 mg/l	<0.008	mg/l
Lechate Holding Lagoon	Base of well/borehole/sump	Field	06/07/2020		8.5	m
			10/08/2020		8.5	m
			08/09/2020		8.5	m
	Groundwater level/dip		06/07/2020		6.5	m
			10/08/2020		6.78	m
			08/09/2020		7.3	m
	Total Alkalinity as CaCO3	TM043	13/07/2020		5430	mg/l
	Biological oxygen demand	TM045	13/07/2020		87.4	mg/l
	Total organic carbon	TM090	13/07/2020		464	mg/l
	Ammoniacal Nitrogen as N	TM099	13/07/2020	<3,640 mg/l	1160	mg/l
			12/08/2020	<3,640 mg/l	1190	mg/l
			14/09/2020	<3,640 mg/l	1230	mg/l
	Chemical oxygen demand (unfiltered)	TM107	13/07/2020		1470	mg/l
	Electrical conductivity @20°C (lab)	TM120	13/07/2020		19200	µS/cm
			12/08/2020		19700	µS/cm
			14/09/2020		19400	µS/cm
	Cadmium (filtered)	TM152	13/07/2020		0.000192	mg/l
	Calcium (filtered)		13/07/2020		122	mg/l
	Chromium (filtered)		13/07/2020		0.121	mg/l
	Copper (filtered)		13/07/2020		0.00688	mg/l
	Iron (filtered)		13/07/2020		2.89	mg/l

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Lechate Holding Lagoon	Lead (filtered)	TM152	13/07/2020		0.00319	mg/l
	Magnesium (filtered)		13/07/2020		85.1	mg/l
	Manganese (filtered)		13/07/2020		1.05	mg/l
	Nickel (filtered)		13/07/2020		0.143	mg/l
	Potassium (filtered)		13/07/2020		1630	mg/l
	Sodium (filtered)		13/07/2020		2640	mg/l
	Zinc (filtered)		13/07/2020		0.0625	mg/l
	4-Methylphenol	TM176	13/07/2020		<0.02	mg/l
	Diethyl phthalate		13/07/2020		<0.02	mg/l
	Chloride	TM184	13/07/2020	<19,000 mg/l	4550	mg/l
			12/08/2020	<19,000 mg/l	4800	mg/l
			14/09/2020	<19,000 mg/l	4740	mg/l
	Sulphate		13/07/2020		<20	mg/l
	Total Oxidised Nitrogen as N		13/07/2020		0.176	mg/l
	Dichloromethane	TM208	13/07/2020		<0.003	mg/l
	Mecoprop	TM411	13/07/2020		0.0342	mg/l
LMP5a	Base of well/borehole/sump	Field	06/07/2020		8.5	m
			10/08/2020		8.5	m
			08/09/2020		8.5	m
			06/07/2020		8.43	m
			10/08/2020		8.4	m
			08/09/2020		8.42	m
			06/07/2020	1.5m above base	0.07	m
			10/08/2020	1.5m above base	0.1	m
			08/09/2020	1.5m above base	0.08	m
LMP5b	Base of well/borehole/sump		06/07/2020		6.8	m
			10/08/2020		6.8	m
			08/09/2020		6.8	m
			06/07/2020		6.72	m

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LMP5b	Groundwater level/dip	Field	10/08/2020		6.74	m
			08/09/2020		6.7	m
	Leachate level above base of sump/pit base		06/07/2020	1.5m above base	0.08	m
			10/08/2020	1.5m above base	0.06	m
			08/09/2020	1.5m above base	0.1	m
LMP6a	Base of well/borehole/sump		06/07/2020		11.4	m
			10/08/2020		11.4	m
			08/09/2020		11.4	m
	Groundwater level/dip		06/07/2020		11.2	m
			10/08/2020		11.3	m
			08/09/2020		11.31	m
	Leachate level above base of sump/pit base		06/07/2020	1.5m above base	0.2	m
			10/08/2020	1.5m above base	0.1	m
			08/09/2020	1.5m above base	0.09	m
LMP7a	Base of well/borehole/sump		06/07/2020		10.48	m
			10/08/2020		10.47	m
			08/09/2020		10.48	m
	Groundwater level/dip		06/07/2020		10.32	m
			10/08/2020		10.28	m
			08/09/2020		10.3	m
	Leachate level above base of sump/pit base		06/07/2020	1.5m above base	0.16	m
			10/08/2020	1.5m above base	0.19	m
			08/09/2020	1.5m above base	0.18	m
LMP7b	Base of well/borehole/sump		06/07/2020		4	m
			10/08/2020		4	m
			08/09/2020		4	m
	Groundwater level/dip		06/07/2020		3.94	m
			10/08/2020		4	m
			08/09/2020		4	m

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LMP7b	Leachate level above base of sump/pit base	Field	06/07/2020	1.5m above base	0.06	m
			10/08/2020	1.5m above base	0	m
			08/09/2020	1.5m above base	0	m
M1A	Base of well/borehole/sump		06/07/2020		16.4	m
			10/08/2020		16.4	m
			08/09/2020		16.4	m
	Groundwater level/dip		06/07/2020		15.93	m
			10/08/2020		16	m
			08/09/2020		15.89	m
	Leachate level above base of sump/pit base		06/07/2020	2m above base	0.47	m
			10/08/2020	2m above base	0.4	m
			08/09/2020	2m above base	0.51	m
M1B	Base of well/borehole/sump		06/07/2020		10.5	m
			10/08/2020		10.5	m
			08/09/2020		10.5	m
	Groundwater level/dip		06/07/2020		10.15	m
			10/08/2020		10.23	m
			08/09/2020		10.2	m
	Leachate level above base of sump/pit base		06/07/2020	2m above base	0.35	m
			10/08/2020	2m above base	0.27	m
			08/09/2020	2m above base	0.3	m
M2A	Base of well/borehole/sump		06/07/2020		21	m
			10/08/2020		20.98	m
			08/09/2020		21	m
	Groundwater level/dip		06/07/2020		20.64	m
			10/08/2020		20.68	m
			08/09/2020		20.5	m
	Leachate level above base of sump/pit base		06/07/2020	2m above base	0.36	m
			10/08/2020	2m above base	0.3	m

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M2A	Leachate level above base of sump/pit base	Field	08/09/2020	2m above base	0.5	m
M2B	Base of well/borehole/sump		06/07/2020		19.8	m
			10/08/2020		19.8	m
			08/09/2020		19.8	m
	Groundwater level/dip		06/07/2020		19.42	m
			10/08/2020		19.45	m
			08/09/2020		19.4	m
	Leachate level above base of sump/pit base		06/07/2020	2m above base	0.38	m
			10/08/2020	2m above base	0.35	m
			08/09/2020	2m above base	0.4	m
M3A	Base of well/borehole/sump		06/07/2020		21.5	m
			10/08/2020		21.5	m
			08/09/2020		21.5	m
	Groundwater level/dip		06/07/2020		21.16	m
			10/08/2020		21.23	m
			08/09/2020		21.18	m
	Leachate level above base of sump/pit base		06/07/2020	1.8m above base	0.34	m
			10/08/2020	1.8m above base	0.27	m
			08/09/2020	1.8m above base	0.32	m
M3B	Base of well/borehole/sump		06/07/2020		15.54	m
			10/08/2020		15.53	m
			08/09/2020		15.53	m
	Groundwater level/dip		06/07/2020		15.26	m
			10/08/2020		15.15	m
			08/09/2020		15.2	m
	Leachate level above base of sump/pit base		06/07/2020	1.8m above base	0.28	m
			10/08/2020	1.8m above base	0.38	m
			08/09/2020	1.8m above base	0.33	m
M4A	Base of well/borehole/sump		06/07/2020		19	m

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ^{(1) (4)}	Unit ⁽⁵⁾
M4A	Base of well/borehole/sump	Field	10/08/2020		19	m
			08/09/2020		19	m
			06/07/2020		18.62	m
	Groundwater level/dip		10/08/2020		18.6	m
			08/09/2020		18.53	m
			06/07/2020	1.8m above base	0.38	m
	Leachate level above base of sump/pit base		10/08/2020	1.8m above base	0.4	m
			08/09/2020	1.8m above base	0.47	m
			06/07/2020		17	m
M4B	Base of well/borehole/sump		10/08/2020		17	m
			08/09/2020		17	m
			06/07/2020		16.64	m
	Groundwater level/dip		10/08/2020		16.52	m
			08/09/2020		16.5	m
			06/07/2020	1.8m above base	0.36	m
	Leachate level above base of sump/pit base		10/08/2020	1.8m above base	0.48	m
			08/09/2020	1.8m above base	0.5	m
			06/07/2020			

(1) The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

(2) Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.

(3) For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

(4) The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated; refer to laboratory data sheets for specific uncertainty.

(5) Depths reported as metres (m) are metres below ground level unless are labelled as leachate head above base of sump.

(6) For details of the sampling method, frequency and parameters measured / analysed for, refer to the site Environmental Monitoring Management Plan (EMMP).

(7) Where blank, there is no defined compliance limit specified for the monitoring location / parameter.



Signature:.....

Date: 29 September 2020

(Authorised to sign as representative of
Operator)