2016	
W0081-04	
Kilcullen Landfill Ltd	
Brownstown, Kilcullen, Co Kildare.	
1,5,11,13 & 3,4,9	
284865E, 211310N	
KLL operates the Kilcullen Landfill under Waste Licence Register Number W0081-04. KTK Landfill was granted a Waste	te
Licence (W0081-01) by the Environmental Protection Agency (EPA) in April 1999. In July 2001, KTK Landfill submitted	σ
an application for a Review of Waste Licence W0081-01. An amended Licence, No. W0081-02 was granted by the	
Agency on 8 April 2002. In November 2004 an application for revision of Waste Licence W0081-02 was submitted. An	L
amended Licence, No. W0081-03 was granted on 16 February 2006. This licence was replaced on the 25th of July	
2011 by waste Licence W0081-04. In March 2014 the Waste Licence was transferred from KTK Landfill Ltd to Kilcullen	L
Landfill Ltd.	
Acceptance of waste material ceased in December 2011 and the site entered its closure, restoration and aftercare	
phase. During 2012, the final capping works were brought to practical completion. In 2015 final capping and	
topsoil/reseeding works were completed at the landfill. The facility is now managed in an aftercare capacity. The	
facility is a full containment landfill, which is designed to accept treated waste for final disposal. The landfill is now	_
closed and fully capped. No waste for disposal was accepted on site in 2016.	
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	2016       2016         20081-04       MO081-04         Scounstown, Klicullen, Lanfill Ltd       Moleculan Lanfill Ltd         Brownstown, Klicullen, Co Kildare.       Moleculan Lanfill Ltd         Scounstown, Klicullen, Lanfill under Waste Licence Register Number W0081-04. KTK Landfill was granted a Wast Licence (W0081-01) by the Environmental Protection Agency (EPA) in April 1999. In July 2001, KTK Landfill submitte an application for a Review of Waste Licence Ru0081-01. An amended Licence, No. W0081-02 was granted by the Agency on 8 April 2002. In November 2004 an application for revision of Waste Licence woo81-02. An amended Licence, No. W0081-03 was granted on 16 February 2006. This licence was replaced on the 25th of July 2011 by waste Licence, No. W0081-03. Waste Licence was transferred from KTK Landfill Ltd o.         Agency on 8 April 2002. In November 2004 an application for revision of Waste Licence was replaced on the 25th of July 2011 by waste Licence, No. W0081-03. Waste Licence was transferred from KTK Landfill Ltd.         Amended Licence, No. W0081-03. Waste Licence was transferred from KTK Landfill Ltd.         Acceptance of waste material ceased in December 2011 and the site entered its closure, restoration and aftercare closure, not completed at the landfill. The facility is a full containment landfill, which is designed to accept treated waste for fissoal. The landfill is now closed and fully capped. No waste for disposal was accepted on site in 2016.

# Declaration:

All the data and information presented in this report has been checked and certified as being accurate. The quality of

the information is assured to meet licence requirements. 2102 Date Prov 261 (or nominated, suitably qualified and Group/Facility manager experienced deputy) Bingly Signature Swo

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AIR-summary template	Lic No:	W0081-04	Year	2016
Answer all questions and complete all tables where relevant			Additional information	
Does your site have licensed air emissions? If yes please complete table A1 and A2 below for the current reporting year and answer further questions. If you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you <u>do not</u> need to complete the tables	Yes	Landfill gas monitoring was conducted reporting period and the results subm forwarded to the Agency not later tha Potential Landfill Gas is monitored at t system. No measured landfill gas level	f at 14 monitoring well locations on a monthly basis during the iitted to the Agency. Category 3 non-urgent incident reports were n 24 hours after a landfill gas emission level value was breeched. the facility offices and buildings by an onsite continuous monitoring in any of the facility buildings exceeded the above limits during 2016	

#### Periodic/Non-Continuous Monitoring

2	Are there any results in breach of licence requirements? If yes please TableA1 below	provide brief details in the com	Yes		
3	Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist?	Basic air monitoring checklist	AGN2	Yes	

#### Table A1: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous)

Emission reference no:	Parameter/ Substance	Frequency of Monitoring	ELV in licence or any revision therof	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence limit	Method of analysis	Annual mass load (kg)	Comments - reason for change in % mass load from previous year if applicable
Flare 1	Nitrogen Oxides (Nox/NO2)	annual	150	SELECT	81.68	mg/m3	yes	Chemiluminesence	18.57	
Flare 1	Sulphur oxides (Sox/SO2)	annual	-	SELECT	981.25	mg/m3	yes	NDIR Adsorption	223.07	
GE01	Nitrogen oxides (NOx)	annual	500	SELECT	440	mg/m3	yes	Chemiluminescence	2173.63	
GE01	Carbon Monoxide (CO)	annual	1,400	SELECT	1284	mg/m3	yes	NCIR By Horiba PG-250	6343.05	
GE01	TA Luft organic substances class 1	annual	75	SELECT	<0.11	mg/m3	yes	Thermal Desorption	0.00	
GE01	Sulphur dioxide (SO <sub>x</sub> )	annual	-	SELECT	1113	mg/m3	yes	NDIR Absorption	5498.30	

Note 1: Volumetric flow shall be included as a reportable parameter

AIR-summary template	Lic No:	W0081-04	Year	2016
Continuous Monitoring				
4 Does your site carry out continuous air emissions monitoring?	Yes			
If yes please review your continuous monitoring data and report the required fields below in Table A2 and compare it to its relevant Emission Limit Value (ELV)				
<sup>5</sup> Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	No			
6 Do you have a proactive service agreement for each piece of continuous monitoring equipment?	Yes			
7 Did your site experience any abatement system bypasses? If yes please detail them in table A3 below Table A2: Summary of average emissions -continuous monitoring	No			

Emission	Parameter/ Substance		Averaging Period	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring Equipment downtime (hours)	Number of ELV	Comments
reference no:					measurement				exceedences in	
		ELV in licence or							current reporting	
		any revision therof							year	
		500	Annual	All 30-minutes averages < 2 x						T
Flare 1	Carbon monoxide (CO)			ELV	mg/m3					
	SELECT				SELECT					
	SELECT				SELECT					
	SELECT				SELECT					
	SELECT				SELECT					

note 1: Volumetric flow shall be included as a reportable parameter.

#### Table A3: Abatement system bypass reporting table Bypass protocol

Date*	Duration** (hours)	Location	Reason for bypass	Impact magnitude	Corrective action							

\* this should include all dates that an abatement system bypass occurred

\*\* an accurate record of time bypass beginning and end should be logged on site and maintained for future Agency inspections please refer to bypass protocol link

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)		Lic No: W0081-04	Year	2016
		Additional information		
Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions. If you do not have licenced emissions you <u>only</u> need to complete table W1 and or W2 for storm water analysis and visual inspections	Yes	Kilculien Landfill operates two reverse osmosis treatment plants R0-2) on-site which treat landfill leachate before discharging it t Water sever. The treated leachate is referred to as permeate discharge limit is 150m3/day. Concentrate from the units is re- within the waster mass, as per the agreement with the Agency. R0-2 was non-operational for the second round of monitoring co December 2016. 6,871 m3 discharged to the sever in 20	s (RO-1 and to the irish e and the c-irculated The Plant Off.	
Was it a requirement of your licence to carry out visual inspections on any surface water discharges or watercourses on or near your site? If yes please complete table W2 below summarising <u>only any</u> evidence of contamination noted during visual inspections	Yes	The surface water monitoring was conducted bi-annually at t monitoring locations specified in the Licence and reported to the a bi-annual basis. The sampling was carried out in accordan internationally accepted technologes and control procedures, th were completed by a laboratory using standard and internat accepted procedures. The 2016 results are generally consiste previous years of monitoring.	the four e Agency on nce with te analyses tionally ent with	
Table W/1 Storm water monitoring		• • • • •		

Table	W1 Storm Wat	ermonitoring								
Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments
SW4	onsite	SELECT	Boron	2016 Round 1	2,000	N/A	39	ug/l	yes	
SW4	onsite	SELECT	Cadmium	2016 Round 1	5	N/A	<0.5	ug/l	yes	
SW4	onsite	SELECT	Calcium	2016 Round 1	-	N/A	113.6	mg/l	yes	
SW4	onsite	SELECT	Copper	2016 Round 1	30	N/A	<7	ug/l	yes	
SW4	onsite	SELECT	Iron	2016 Round 1	1,000	N/A	<20	ug/l	yes	
SW4	onsite	SELECT	Lead	2016 Round 1	10	N/A	<5	ug/l	yes	
SW4	onsite	SELECT	Magnesium	2016 Round 1	-	N/A	8.8	mg/l	yes	
SW4	onsite	SELECT	Manganese	2016 Round 1	300	N/A	<2	ug/l	yes	
SW4	onsite	SELECT	Mercury	2016 Round 1	1	N/A	<1	ug/l	yes	
SW4	onsite	SELECT	Nickel	2016 Round 1	50	N/A	2	ug/l	yes	
SW4	onsite	SELECT	Potassium	2016 Round 1	-	N/A	1.5	mg/l	yes	
SW4	onsite	SELECT	Sodium	2016 Round 1		N/A	17.7	mg/l	yes	
SW4	onsite	SELECT	Zinc	2016 Round 1	100	N/A	<3	ug/l	yes	
SW4	onsite	SELECT	Dissolved Phosphorus	2016 Round 1		N/A	<5	ug/I	yes	
SW4	onsite	SELECT	Total Chromium	2016 Round 1	30	N/A	<1.5	ug/l	yes	
SW4	onsite	SELECT	Chloride	2016 Round 1	250	N/A	21.4	mg/l	yes	
SW4	onsite	SELECT	Nitrate (NO3)	2016 Round 1	50	N/A	3.9	mg/l	yes	
SW4	onsite	SELECT	Nitrite (NO2)	2016 Round 1	0	N/A	<0.02	mg/l	yes	
SW4	onsite	SELECT	Ortho Phosphate	2016 Round 1		N/A	<0.06	mg/l	yes	
SW4	onsite	SELECT	Ammoniacal Nitrogen	2016 Round 1	0.065	N/A	0.04	mg/l	yes	
SW4	onsite	SELECT	Total Alkalinity	2016 Round 1		N/A	288	mg/l	yes	
SW4	onsite	SELECT	BOD	2016 Round 1	1.5	N/A	2	mg/l	no (if no please enter details in comments box)	Exceeds EQS
SW4	onsite	SELECT	COD	2016 Round 1		N/A	23	mg/l	yes	
SW4	onsite	SELECT	Electrical Conductivity	2016 Round 1	1,000	N/A	604	μS/cm	yes	
SW4	onsite	SELECT	pH	2016 Round 1	< 6.0 & >9.0	N/A	7.75	pH units	yes	
SW4	onsite	SELECT	TOC	2016 Round 1		N/A	<2	mg/l	yes	
SW4	onsite	SELECT	Total Suspended Solids	2016 Round 1		N/A	12	mg/l	yes	
SW4	onsite	SELECT	Sulphate	2016 Round 1		N/A	-	mg/l	yes	
SW4	onsite	SELECT	Dissolved Oxygen	2016 Round 1	-	N/A	-	mg/l	yes	
SW4	onsite	SELECT	SVOCs except	2016 Round 1		N/A	-	μg/I	yes	
SW4	onsite	SELECT	4-Methylphenol	2016 Round 1	-	N/A		μg/l	yes	
SW4	onsite	SELECT	Phenol	2016 Round 1	8	N/A	-	μg/I	yes	
SW4	onsite	SELECT	VOC's	2016 Round 1	-	N/A		μg/l	yes	
SW4	onsite	SELECT	Total Coliforms	2016 Round 1	-	N/A	-	cfu/100ml	yes	
SW4	onsite	SELECT	E-Coli	2016 Round 1	-	N/A		cfu/100ml	yes	
SW4	onsite	SELECT	Boron	2016 Round 2	2,000	N/A	25	ug/l	yes	
SW4	onsite	SELECT	Cadmium	2016 Round 2	5	N/A	<0.5	ug/l	yes	
SW4	onsite	SELECT	Calcium	2016 Round 2	-	N/A	130.5	mg/l	yes	
SW4	onsite	SELECT	Copper	2016 Round 2	30	N/A	<7	ug/l	yes	
SW4	onsite	SELECT	Iron	2016 Round 2	1,000	N/A	87	ug/l	yes	
SW4	onsite	SELECT	Lead	2016 Round 2	10	N/A	<5	ug/l	yes	
SW4	onsite	SELECT	Magnesium	2016 Round 2	-	N/A	10.4	mg/l	yes	
SW4	onsite	SELECT	Manganese	2016 Round 2	300	N/A	1352	ug/l	no (if no please enter details in comments box)	Exceeds EQS
SW4	onsite	SELECT	Mercury	2016 Round 2	1	N/A	<1	ug/l	yes	
SW4	onsite	SELECT	Nickel	2016 Round 2	50	N/A	<2	ug/l	yes	
SW4	onsite	SELECT	Potassium	2016 Round 2	-	N/A	3.4	mg/l	yes	
SW4	onsite	SELECT	Sodium	2016 Round 2	-	N/A	16.2	mg/l	yes	
SW4	onsite	SELECT	Zinc	2016 Round 2	100	N/A	<3	ug/l	yes	
SW4	onsite	SELECT	Dissolved Phosphorus	2016 Round 2		N/A	167	ug/I	yes	
SW4	onsite	SELECT	Total Chromium	2016 Round 2	30	N/A	<1.5	ug/l	yes	
SW4	onsite	SELECT	Chloride	2016 Round 2	250	N/A	23.8	mg/l	yes	
SW4	onsite	SELECT	Nitrate (NO3)	2016 Round 2	50	N/A	<0.2	mg/l	yes	
SW4	onsite	SELECT	Nitrite (NO2)	2016 Round 2	0	N/A	<0.02	mg/l	yes	
SW4	onsite	SELECT	Ortho Phosphate	2016 Round 2	-	N/A	<0.06	mg/l	yes	
SW4	onsite	SELECT	Ammoniacal Nitrogen	2016 Round 2	0.065	N/A	0.1	mg/l	no (if no please enter details in comments box)	Exceeds EQS
SW4	onsite	SELECT	Total Alkalinity	2016 Round 2	-	N/A	360	mg/l	yes	
SW4	onsite	SELECT	BOD	2016 Round 2	1.5	N/A	5	mg/l	no (if no please enter details in comments box)	Exceeds EQS
SW4	onsite	SELECT	COD	2016 Round 2	-	N/A	38	mg/l	yes	
SW4	onsite	SELECT	Electrical Conductivity	2016 Round 2	1,000	N/A	861	μS/cm	yes	
SW4	onsite	SELECT	pH	2016 Round 2	< 6.0 & >9.0	N/A	7.26	pH units	yes	
SW4	onsite	SELECT	TOC	2016 Round 2		N/A	<2	mg/l	yes	
SW4	onsite	SELECT	Total Suspended Solids	2016 Round 2	-	N/A	<10	mg/l	yes	

AED 84			ATED AMACTEMATED CON	(50)						
ALK Monitori	ing returns sun	nmary template-W	ATER/WASTEWATER(SEW	2016 David 2	-	LIC NO:	WUU81-04	w - 0	Year	2016
5W4 5W4	onsite	SELECT SELECT	Dissolved Oxygen	2016 Round 2 2016 Round 2		N/A N/A	3	mg/i mg/i	yes yes	
SW4	onsite	SELECT	SVOCs except	2016 Round 2	-	N/A	N.D	μg/I	yes	
SW4	onsite	SELECT	4-Methylphenol	2016 Round 2	-	N/A	<1	μg/l	yes	
SW4	onsite	SELECT	Phenol	2016 Round 2	8	N/A	<1	μg/l	yes	
5W4 5W4	onsite	SELECT SELECT	Total Coliforms	2016 Round 2 2016 Round 2		N/A N/A	N.U 71	μg/l cfu/100ml	yes	
SW4	onsite	SELECT	E-Coli	2016 Round 2		N/A	71	cfu/100ml	yes	
SW5	onsite	SELECT	Boron	2016 Round 1	2,000	N/A	<12	ug/l	yes	
SW5	onsite	SELECT	Cadmium	2016 Round 1	5	N/A	<0.5	ug/l	yes	
SW5	onsite	SELECT	Calcium	2016 Round 1	-	N/A	119.3	mg/l	yes	
SW5	onsite	SELECT	Iron	2016 Round 1 2016 Round 1	1.000	N/A N/A	27	ug/l	ves	
SW5	onsite	SELECT	Lead	2016 Round 1	10	N/A	<5	ug/l	yes	
SW5	onsite	SELECT	Magnesium	2016 Round 1	-	N/A	8.8	mg/l	yes	
SW5	onsite	SELECT	Manganese	2016 Round 1	300	N/A	<2	ug/l	yes	
SW5	onsite	SELECT	Nickel	2016 Round 1 2016 Round 1	50	N/A	<2	ug/l	ves	
SW5	onsite	SELECT	Potassium	2016 Round 1	-	N/A	<0.1	mg/l	yes	
SW5	onsite	SELECT	Sodium	2016 Round 1	-	N/A	9.6	mg/l	yes	
5W5	onsite	SELECT SELECT	Dissolved Phosphorum	2016 Round 1 2016 Round 1	100	N/A N/A	<3	ug/I	yes	
SW5	onsite	SELECT	Total Chromium	2016 Round 1	30	N/A	<1.5	ug/l	yes	
SW5	onsite	SELECT	Chloride	2016 Round 1	250	N/A	18.3	mg/l	yes	
SW5	onsite	SELECT	Nitrate (NO3)	2016 Round 1	50	N/A	6.9	mg/l	yes	
5W5	onsite	SELECT SELECT	Ortho Phosphate	2016 Round 1 2016 Round 1	U	N/A N/A	<0.02	mg/l	yes	
SW5	onsite	SELECT	Ammoniacal Nitrogen	2016 Round 1	0.065	N/A	0.05	mg/l	yes	
SW5	onsite	SELECT	Total Alkalinity	2016 Round 1	-	N/A	284	mg/I	yes	
SW5	onsite	SELECT	BOD	2016 Round 1	1.5	N/A	1	mg/l	yes	
5W5	onsite	SELECT	COD Electrical Conductivity	2016 Round 1	- 1 000	N/A N/A	18	mg/I	yes	
SW5	onsite	SELECT	pH	2016 Round 1	< 6.0 & >9.0	N/A	7.6	pH units	yes	
SW5	onsite	SELECT	TOC	2016 Round 1		N/A	4	mg/I	yes	
SW5	onsite	SELECT	Total Suspended Solids	2016 Round 1	-	N/A	112	mg/l	yes	
5W5	onsite	SELECT SELECT	Dissolved Ovugen	2016 Round 1 2016 Round 1	-	N/A N/A		mg/l	yes	
SW5	onsite	SELECT	SVOCs except	2016 Round 1		N/A		μg/l	yes	
SW5	onsite	SELECT	4-Methylphenol	2016 Round 1	-	N/A		μg/l	yes	
SW5	onsite	SELECT	Phenol	2016 Round 1	8	N/A		μg/l	yes	
SW5	onsite	SELECT	VOC's	2016 Round 1	-	N/A		μg/l	yes	
SW5	onsite	SELECT	E-Coli	2016 Round 1 2016 Round 1		N/A		cfu/100ml	yes yes	
SW5	onsite	SELECT	Boron	2016 Round 2	2,000	N/A	<12	ug/l	yes	
SW5	onsite	SELECT	Cadmium	2016 Round 2	5	N/A	<0.5	ug/l	yes	
SW5	onsite	SELECT	Calcium	2016 Round 2	-	N/A	142	mg/l	yes	
SW5	onsite	SELECT	Iron	2016 Round 2 2016 Round 2	1.000	N/A N/A	682	ug/i	yes ves	
SW5	onsite	SELECT	Lead	2016 Round 2	10	N/A	<5	ug/l	yes	
SW5	onsite	SELECT	Magnesium	2016 Round 2		N/A	10.3	mg/l	yes	
SW5	onsite	SELECT	Manganese	2016 Round 2	300	N/A	16560	ug/l	no (if no please enter details in comments box)	Exceeds EQS
5W5 5W5	onsite	SELECT SELECT	Niercury	2016 Round 2 2016 Round 2	1 50	N/A N/A	0	ug/l	yes	-
SW5	onsite	SELECT	Potassium	2016 Round 2	-	N/A	12.5	mg/l	yes	
SW5	onsite	SELECT	Sodium	2016 Round 2	-	N/A	11.4	mg/l	yes	
SW5	onsite	SELECT	Zinc	2016 Round 2	100	N/A	3	ug/l	yes	
SW5	onsite	SELECT SELECT	Dissolved Phosphorus Total Chromium	2016 Round 2 2016 Round 2	30	N/A N/A	2421	ug/l	yes	
SW5	onsite	SELECT	Chloride	2016 Round 2	250	N/A	27.5	mg/l	yes	
SW5	onsite	SELECT	Nitrate (NO3)	2016 Round 2	50	N/A	<0.2	mg/l	yes	
SW5	onsite	SELECT	Nitrite (NO2)	2016 Round 2	0	N/A	<0.02	mg/l	yes	
SW5	onsite	SELECT	Ortho Phosphate	2016 Round 2	-	N/A	<0.06	mg/l	yes	Eveneda FOS
SW5 SW5	onsite	SELECT	Total Alkalinity	2016 Round 2 2016 Round 2	-	N/A N/A	380	mg/l	yes	EXCEEDS EQS
SW5	onsite	SELECT	BOD	2016 Round 2	1.5	N/A	22	mg/l	yes	
SW5	onsite	SELECT	COD	2016 Round 2	-	N/A	102	mg/l	yes	
SW5	onsite	SELECT	Electrical Conductivity	2016 Round 2	1,000	N/A	846	μS/cm	yes	
5W5 SW5	onsite	SELECT	рн	2016 Round 2 2016 Round 2	< 6.0 & >9.0	N/A N/A	4	pH units mg/l	yes ves	
SW5	onsite	SELECT	Total Suspended Solids	2016 Round 2	-	N/A	139	mg/l	yes	
SW5	onsite	SELECT	Sulphate	2016 Round 2	-	N/A	44.2	mg/I	yes	
SW5	onsite	SELECT	Dissolved Oxygen	2016 Round 2	-	N/A	2	mg/l	yes	
5W5 5W5	onsite	SELECT SELECT	4-Methylphenol	2016 Round 2 2016 Round 2		N/A N/A	N.U 25	μg/I	yes	
SW5	onsite	SELECT	Phenol	2016 Round 2	8	N/A	5	μg/I	yes	
SW5	onsite	SELECT	VOC's	2016 Round 2	-	N/A	N.D	μg/l	yes	
SW5	onsite	SELECT	Total Coliforms	2016 Round 2	-	N/A	0	cfu/100ml	yes	
SW5	onsite	SELECT	E-Coli Boron	2016 Round 2 2016 Round 1	- 2 000	N/A	0	ctu/100ml	yes	
SW6	onsite	SELECT	Cadmium	2016 Round 1 2016 Round 1	2,000	N/A N/A	<0.5	ug/l	yes yes	
SW6	onsite	SELECT	Calcium	2016 Round 1	-	N/A	128.6	mg/l	yes	
SW6	onsite	SELECT	Copper	2016 Round 1	30	N/A	<7	ug/l	yes	
SW6	onsite	SELECT	Iron	2016 Round 1	1,000	N/A	<20	ug/l	yes	
SW6	onsite	SELECT	Magnesium	2016 Round 1 2016 Round 1	- 10	N/A N/A	7.9	ug/I me/I	yes yes	
SW6	onsite	SELECT	Manganese	2016 Round 1	300	N/A	<2	ug/l	yes	
SW6	onsite	SELECT	Mercury	2016 Round 1	1	N/A	<1	ug/l	yes	
CIAIC	oncito	CELECT	Mielcol	1 2016 Downed 1	50	N1/A			1000	

Bund/Pipeline test	ting template				Lic No:	W0081-04		Year	201	6				
														-
Bund testing		dropdown menu cli	ick to see options				Additional information	7						
							Killcullen Landfill Ltd have engaged							
							Golder and associates to undertake							
Are you required by you	ur licence to undertake i	ntegrity testing on bunds and cor	ntainment structures ? if yes	please fill out table B1 belo	ow listing all new bunds		tank, bund and pipe line testing							
and containment struct	tures on site, in addition	to all bunds which failed the inte	egrity test-all bunding struct	ires which failed including	mobile bunds must be		scheduled for April 2017, the							
listed in the table below	w, please include all bun	as outside the licenced testing pe	eriod (mobile bunds and che	mstore included)			finalised report will be on file and							
							available for inspection.							
1						Yes		-						
2 Please provide integrity	y testing frequency perio	d				SELECT		_						
Does the site maintain	a register of bunds, und	erground pipelines (including sto	rmwater and foul), Tanks, su	mps and containers? (containers?	ainers refers to									
3 "Chemstore" type units	s and mobile bunds)					SELECT								
4 How many bunds are or	n site?													
5 How many of these bun	nds have been tested wit	thin the required test schedule?						_						
6 How many mobile bund	ds are on site?	- she dida 2				CELECT		_						
7 Are the mobile bunds in	ncluded in the bund test	schedule?	-4-4-2			SELECT		_						
8 How many of these mor	bile bunds have been te	sted within the required test sche	equier					-						
9 How many sumps on sit	te are included in the int	within the test schedule?						-						
Please list any sump int	tegrity failures in table B	Mithin the test schedule?												
11 Do all sumps and chamb	bers have high level liqui	id alarms?				SELECT		٦						
12 If yes to 011 are these f	failsafe systems includer	d in a maintenance and testing or	rogramme?			SELECT		-						
13 Is the Fire Water Retent	tion Pond included in vo	ur integrity test programme?	ogramme.			SELECT		-						
	,,-													
Table	e B1: Summary details of	f bund /containment structure int	tegrity test	T										
														Results of
									Integrity reports					retest(if in
Bund/Containment									maintained on		Integrity test failure		Scheduled date	current
structure ID	Туре	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	site?	Results of test	explanation <50 words	Corrective action taken	for retest	reporting year
	SELECT					SELECT			SELECT	SELECT		SELECT		
Connection consistent should complete the second	SELECT	de as detailed in your linease				SELECT	Commenter		SELECI	SELECT		SELECI		
Has integrity testing be	en carried out in accorda	ance with licence requirements a	nd are all structures tested				Commentary	٦						
15 in line with BS8007/FPA	A Guidance?			bunding and storage guide	lines	SELECT								
16 Are channels/transfer s	systems to remote contai	inment systems tested?				SELECT		-						
17 Are channels/transfer s	systems compliant in bot	th integrity and available volume	?			SELECT								
Pipeline/undergrou	und structure testing							_						
Are you required by you	ur licence to undertake i	ntegrity testing* on underground	d structures e.g. pipelines or	sumps etc ? if yes please fil	Il out table 2 below listing									
1 all underground structu	ures and pipelines on site	which failed the integrity test a	nd all which have not been t	ested withing the integrity	test period as specified	SELECT								
2 Please provide integrity	y testing frequency perio	d				SELECT		1						
*please note integrity to	testing means water tigh	tness testing for process and foul	I pipelines (as required unde	r your licence)										
Table I	B2. Summany details of a	ineline/underground structures	integrity test	Т										
Table	Let sommary details of p	spenne, underground structures i	Incontry test									1		
				Type of secondary										
				containment				Integrity test						
			Does this structure have			Integrity reports		failure explanation	Corrective action	Scheduled date	Results of retest(if in current			
Structure ID	Type system	Material of construction:	Secondary containment?		Type integrity testing	maintained on site?	Results of test	<50 words	taken	for retest	reporting year)			
	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT			1	SELECT	1		

\_

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Please use commentary for additional details not answered by tables/ questions above

undwater	/Soil	monitoring	template
anavacci	,	into into int <sub>b</sub>	template

			Comments	
1	Are you required to carry out groundwater monitoring as part of your licence requirements?	yes		
2	Are you required to carry out soil monitoring as part of your licence requirements	i no		During 2016, two (2 No.) private groundwater well samples were collected and analysed. This sampling event took place in December 2016. The results of the analysis were reported in the Q-4 quarterly report. All residents received copies of the results from their respective wells. All the parameters were lower that the IGV or GTV. Groundwater quality in the private wells
3	Do you extract groundwater for use on site? If yes please specify use in comment section	no		was good and consistent with previous rounds. Groundwater quality was monitored in the on-site monitoring wells and reported to the Agency at quarterly intervals. The sampling was carried out in accordance with internationally accepted techniques and control procedures and the analyses were completed by a laboratory using standard and internationally accepted procedures
4	Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there an upward trend in results for a substance? If yes, please complete the Groundwater Monitoring Guideline Template Report (link in cell G8) and submit separately through ALDER as a licensee return AND answer questions 5-12 below.	no		The results from the on-site monitoring wells are consistent with previous
5	Is the contamination related to operations at the facility (either current and/or historic)	yes		results. The groundwater quality at the facility is influenced by an ongoing groundwater contamination plume emanating from the adjacent partially
6	Have actions been taken to address contamination issues?If yes please summarise remediation strategies proposed/undertaken for the site	yes		lined Silliot Hill landfill.
7	Please specify the proposed time frame for the remediation strategy	N/A		
8	Is there a licence condition to carry out/update ELRA for the site?	yes		The quality of the water in both private wells is generally good and shows no
9	Has any type of risk assesment been carried out for the site?	yes		impacts associated with the landfill facility.
10	Has a Conceptual Site Model been developed for the site?	yes		Please enter interpretation of data here.
11	Have potential receptors been identified on and off site?	yes		
12	Is there evidence that contamination is migrating offsite?	no		

pgradient Groundwater monitoring results

ater/Soil monite	oring templa	ate			Lic No:	W0081-04		Year	2016		
Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration++	Average Concentration+	unit	GTV's*	IGV	Upward trend in pollutant concentration over last 5 years of monitoring data	
2016	BH-11D	Dissolved Arsenic	ICP-OES	Quarterly	<2.5	<2.5	μg/l	7.5	SELECT**	No obviuos trend evident	
2016	BH-11D	Dissolved Barium	ICP-OES	Quarterly	53	48.75	μg/I	-	SELECT**	No obviuos trend evident	
2016	BH-11D	Dissolved Boron	ICP-OES	Quarterly	15	15	μg/I	750	SELECT**	No obviuos trend evident	
2016	BH-11D	Dissolved Cadmium	ICP-OES	Quarterly	<0.5	<0.5	μg/l	5	SELECT**	No obviuos trend evident	
2016	BH-11D	Dissolved Calcium	ICP-OES	Quarterly	136.3	131.025	mg/l	200	SELECT**	No obviuos trend evident	
2016	BH-11D	Total Dissolved Chromium	ICP-OES	Quarterly	<1.5	<1.5	μg/I	37.5	SELECT**	No obviuos trend evident	
2016	BH-11D	Dissolved Copper	ICP-OES	Quarterly	<7	<7	μg/I	1500	SELECT**	No obviuos trend evident	
2016	BH-11D	Total Dissolved Iron	ICP-OES	Quarterly	<20	<20	μg/I	50	IGV	No obviuos trend evident	
2016	BH-11D	Dissolved Lead	ICP-OES	Quarterly	<5	<5	μg/I	18.75	SELECT**	No obviuos trend evident	
2016	BH-11D	Dissolved Magnesium	ICP-OES	Quarterly	17.3	16.475	mg/l	50	IGV	No obviuos trend evident	
2016	BH-11D	Dissolved Manganese	ICP-OES	Quarterly	<2	<2	μg/I	0.05	IGV	No obviuos trend evident	
2016	BH-11D	Dissolved Mercury	ICP-OES	Quarterly	<0.01	<0.01	μg/I	1	IGV	No obviuos trend evident	
2016	BH-11D	Dissolved Nickel	ICP-OES	Quarterly	<2	<2	μg/I	15	SELECT**	No obviuos trend evident	
2016	BH-11D	Dissolved Potassium	ICP-OES	Quarterly	0.9	0.85	mg/l	5	IGV	No obviuos trend evident	
2016	BH-11D	Dissolved Sodium	ICP-OES	Quarterly	8.3	7.675	mg/l	150	SELECT**	No obviuos trend evident	ļ
2016	BH-11D	Dissolved Zinc	ICP-OES	Quarterly	<3	<3	μg/I	0.1	IGV	No obviuos trend evident	
2016	BH-11D	Phosphorus	ICP-OES	Quarterly	91	50.975	μg/I	-	SELECT**	evident	
2016	BH-11D	Total Phenols	HPLC	Quarterly	<0.1	<0.1	mg/l	500	IGV	evident	
2016	BH-11D	Fluoride	Chromatography ).	Quarterly	<0.3	<0.3	mg/l	1	IGV	No obviuos trend evident	

E	Environmental Liabilities template	Lic No:	W0081-04	Year 2016
	Click here to access EPA guidance on Environmental Liabilities and Financial			
	provision			
			Commentary As part of Condition 12.3.2, the Licensee has completed a fully costed Environmental Liabilities Risk Assessment for the site. This document outlines	
1	ELRA initial agreement status	Submitted and agreed by EPA	the potential unknown environmental liabilities associated with the landfill and estimates the possible cost of these liabilities. An environmental liability insurance policy has been taken out for ¢10M which is more than sufficient to cover any unforescen event contemplated within the ELRA.	
2	ELRA review status			
3	Amount of Financial Provision cover required as determined by the latest ELRA			
4	Financial Provision for ELRA status			
5	Financial Provision for ELRA - amount of cover			
6	Financial Provision for ELRA - type			
7	Financial provision for ELRA expiry date			
			Under condition 12.3.3 of the site licence Kilcullen Landfill is required to	
			maintain a financial provision that is sufficient to cover all liabilities incurred	
			whilst carrying on the activities to which this licence relates. As part of the	
			licence transfer from KTK Landini Lid to Kitcunen landini Lid, the CKAMP	
			Inability was recalculated and agreed with the Office for Environmental Enforcement as being $62.42M$ as at 1 January 2012. Einengial provision to the	
			satisfaction of the Board of the EPA, was then put in place sufficient to cover the	
8	Closure plan initial agreement status	Closure plan submitted and agreed by EPA	cost of this CRAMP liability.	
9	Closure plan review status	Review required and completed		
10	Financial Provision for Closure status	Submitted and agreed by EPA		
11	Financial Provision for Closure - amount of cover	10mn		
12	Financial Provision for Closure - type	Public Liability Insurance with Environmental Impairment Liability cover,		
13	Financial provision for Closure expiry date	N/A		

	Environmental Management Programme/Continuous Improvement Programme	template	Lic No:	W0081-04	Year	2016
	Highlighted cells contain dropdown menu click to view		Additional Information			
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional information	Yes				
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	Yes				
3	Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance with the licence requirements	Yes				
4	Do you maintain an environmental documentation/communication system to inform the public on environmental performance of the facility, as required by the licence	Yes				

Environmental Management Programme (EMP) report											
Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes						
CRAMP	Complete installation of the permanent Surface Water Management System	before autumn 2017	Meetings held and documented	Facility Manager	Complete installation of the permanent Surface Water Management System						
	Removal of surplus equipment and materials etc. on site	ongoing	Progressive final and intermediate capping, continuous gas extraction.	Facility Manager	Removal of surplus equipment and materials etc. on site						
Minimise the amount of natural resources (water, power etc.) consumed at the Facility.	Conduct Energy Audit of Facility and identify opportunities for improved energy efficiency in aftercare phase.	before autumn 2017	Structured capping program due for completion in 2017	Site Manager	Conduct Energy Audit of Facility and identify opportunities for improved energy efficiency in aftercare phase.						
Training	Continue to train staff on a regular basis in EMS system, waste licence and Emergency Response.	Ongoing Annual Basis	Regular landfill infrastructure checks and field balancing	Site Manager	Continue to train staff on a regular basis in EMS system, waste licence and Emergency Response.						
СКАМР	Complete installation of the permanent Surface Water Management System	before autumn 2017	Placement of geohess on outer flank of landfill	Facility Manager	Complete installation of the permanent Surface Water Management System						
	Removal of surplus equipment on site (Wheel wash and weighbridge)	End 2017	As per Target	Facility Manager	Removal of surplus equipment on site (Wheel wash and weighbridge)						
Minimise the amount of natural resources (water, power etc.) consumed at the Facility.	Conduct Energy Audit of Facility and identify opportunities for improved energy efficiency in aftercare phase.	Sep-17	Weekly and quarterly checks completed	Facility and Assistant Manager	Conduct Energy Audit of Facility and identify opportunities for improved energy efficiency in aftercare phase.						
Training	Continue to train staff on a regular basis in EMS system, waste licence and Emergency Response.	Ongoing Annual Basis	Approved by the Agency. Now implemented in Cells 3 and 4.	Facility and Assistant Manager	Continue to train staff on a regular basis in EMS system, waste licence and Emergency Response.						
IMS System	Review and amend IMS system in accordance with the new AGB landfills IMS systems	End 2017	Cells filled on individual basis, on site checks are completed during cell construction Plans on hold	Facility and Assistant and H&S Manager	Review and amend IMS system in accordance with the new AGB landfills IMS systems						

1       Was noise monitoring a licence requirement for the AER period?       No         If yes please fill in table N1 noise summary below       Noise         2       Was noise monitoring carried out using the EPA Guidance note, including completion of the Guidance note as table 6?       No         3       Does your site have a noise reduction plan       No         4       When was the noise reduction plan last updated?       Na         5       Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?       No	1 Was noise monitoring a licence requirement for the AER period?       No         If yes please fill in table N1 noise summary below       Noise         2 Was noise monitoring carried out using the EPA Guidance note, including completion of the "Guidance"       No         2 Was noise measurement report" included in the guidance note as table 6?       note NG4         3 Does your site have a noise reduction plan       No         4 When was the noise reduction plan last updated?       NA         - Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last       No	Noise monitoring summary report	∟ic No:	W0081-04	Year	2016
If yes please fill in table N1 noise summary below  2 Was noise monitoring carried out using the EPA Guidance note, including completion of the Guidance note as table 6?  Checklist for noise measurement report" included in the guidance note as table 6?  Does your site have a noise reduction plan  Does your site have a noise reduction plan  When was the noise reduction plan last updated?  Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise the last noise survey?  No	If yes please fill in table N1 noise summary below  2 Was noise monitoring carried out using the EPA Guidance note, including completion of the Guidance "Checklist for noise measurement report" included in the guidance note as table 6? note NG4 3 Does your site have a noise reduction plan 4 When was the noise reduction plan last updated? A When was the noise relevant to site noise emissions (e.g. plant or operational changes) since the last P Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last	1 Was noise monitoring a licence requirement for the AER period?		No	1	
2       Was noise monitoring carried out using the EPA Guidance note, including completion of the Guidance.       No         "Checklist for noise measurement report" included in the guidance note as table 6?       note NG4         3       Does your site have a noise reduction plan       No         4       When was the noise reduction plan last updated?       NA         5       Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?       No	<ul> <li>2 Was noise monitoring carried out using the EPA Guidance note, including completion of the Guidance note as table 6?</li> <li>3 Does your site have a noise reduction plan</li> <li>4 When was the noise reduction plan last updated?</li> <li>A Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last</li> </ul>	If yes please fill in table N1 noise summary below			1	
2       Was noise monitoring carried out using the EPA Guidance note, including completion of the Guidance note as table 6?       No         "Checklist for noise measurement report" included in the guidance note as table 6?       note NG4         3       Does your site have a noise reduction plan       No         4       When was the noise reduction plan last updated?       NA         5       Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?       No	<ul> <li>2 Was noise monitoring carried out using the EPA Guidance note, including completion of the Guidance note as table 6?</li> <li>3 Does your site have a noise reduction plan</li> <li>4 When was the noise reduction plan last updated?</li> <li>A Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last</li> </ul>	<u>1</u>	Noise_		]	
3 Does your site have a noise reduction plan       No         4 When was the noise reduction plan last updated?       NA         5       Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?       No	3 Does your site have a noise reduction plan       No         4 When was the noise reduction plan last updated?       NA         - Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last       No	2 Was noise monitoring carried out using the EPA Guidance note, including completion of the "Checklist for noise measurement report" included in the guidance note as table 6?	<u>Guidance</u> note NG4	No		
4 When was the noise reduction plan last updated? NA Bave there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey? NO	4 When was the noise reduction plan last updated? - Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last	3 Does your site have a noise reduction plan		No	1	
5 Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?	- Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last	4 When was the noise reduction plan last updated?		NA	1	
	noise survey?	5 Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since noise survey?	No			
	Table N1: Noise monitoring summary	Table N1: Noise monitoring summary				

Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA <sub>eq</sub>	LA <sub>90</sub>	LA <sub>10</sub>	LA <sub>max</sub>	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
								SELECT	SELECT		SELECT

\*Please ensure that a tonal analysis has been carried out as per guidance note NG4. These records must be maintained onsite for future inspection

If noise limits exceeded as a result of noise attributed to site activities, please choose the corrective action from the following options?

SELECT

\*\* please explain the reason for not taking action/resolution of noise issues?

Any additional comments? (less than 200 words)

Resource Usage/Energy efficiency summary	Lic No:	W0081-04	Year	2016

			Additional information
1	When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below	2016	
	<u>SEAI - Large</u>		
2	Is the site a member of any accredited programmes for reducing energy usage/water conservation such as the SEAI Industry Energy programme linked to the right? If yes please list them in additional information Network (LIEN)	No	
	Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional	-	
3	information	SELECT	Not Applicable

Table R1 Energy usage on site	e			
Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)				
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (MWHrs)	8,916	7,423	-16.75%	
Electricity Consumption (MWHrs)	0.1926	0.199603	3.64%	
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)	0.11	0.03	-72.73%	
Light Fuel Oil (m3)	9	0.5	-94.50%	
Natural gas (m3)	NA	NA		
Coal/Solid fuel (metric tonnes)	NA	NA		
Peat (metric tonnes)				
Renewable Biomass				
Renewable energy generated on site				
* where consumption of energy can be compared to	overall site production n	lease enter this inform	ation as nercentage	increase or decrease

\* where consumption of energy can be compared to overall site production please enter this information as percentage increase or decrease compared to the previous reporting year.

\*\* where site production information is available please enter percentage increase or decrease compared to previous year

Table R2 Water usage on site	1			Water Emissions	Water Consumption		
						Volume used i.e not	
			Production +/- %	Energy		discharged to	
			compared to	Consumption +/- %	Volume Discharged	environment e.g.	
	Water extracted	Water extracted	previous	vs overall site	back to	released as steam	
Water use	Previous year m3/yr.	Current year m3/yr.	reporting year**	production*	environment(m <sup>3</sup> yr):	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply	0.661	0.661	0				
Recycled water							
Total							

\* where consumption of water can be compared to overall site production please enter this information as percentage increase or decrease compared to the previous reporting year.

\*\* where site production information is available please enter percentage increase or decrease compared to previous year

6,871

Table R3 Waste Stream Summa					
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)					
Non-Hazardous (Tonnes)					

te usage/ theigy entitlency sum	imary			Lic No:	W0081-04		Year	2016
Table R4: Ene	rgy Audit finding recommendations							
		Description of		Predicted energy				Status and
Date of audit	Recommendations	Measures proposed	Origin of measures	savings %	Implementation date	Responsibility	Completion date	comments
			SELECT					
			SELECT					
			SELECT					
			_					
Table R5: Power Generation: Where po	ower is generated onsite (e.g. power Unit ID	generation facilities/foc Unit ID	d and drink industry Unit ID	)please complete the Unit ID	e following information Station Total			
Table R5: Power Generation: Where po	ower is generated onsite (e.g. power Unit ID	generation facilities/foc Unit ID	d and drink industry Unit ID	)please complete the Unit ID	e following information Station Total			
Table R5: Power Generation: Where po Technology Primary Fuel	Unit ID	generation facilities/foc Unit ID	d and drink industry Unit ID	)please complete the Unit ID	e following information Station Total			
Table R5: Power Generation: Where po Technology Primary Fuel Thermal Efficiency	ower is generated onsite (e.g. power Unit ID	generation facilities/foo	d and drink industry Unit ID	)please complete the	e following information Station Total			
Table R5: Power Generation: Where po Technology Primary Fuel Thermal Efficiency Unit Date of Commission	Unit ID	generation facilities/foc	d and drink industry Unit ID	r)please complete the	e following information Station Total			

Total Starts for year			
Total Running Time			
Total Electricity Generated (GWH)			
House Load (GWH)			
KWH per Litre of Process Water			
KWH per Litre of Total Water used on Site			

Complaints and Incidents summary template		Lic No:	W0081-04	Year	2016
 Complaints					
		Additional information	-		
Have you received any environmental complaints in the current reporting year? If yes please complete summary details of complaints received or site in table 1 below	n No		]		
	10				

1			Table 1 Complaints summar				
			Table 1 Complaints summar			1	
			Brief description of				
Date	Category	Other type (please specify)	complaint (Free txt <20	Corrective action< 20 words	Resolution status	Resolution date	Further information
			words)				
Total complaints							
open at start of							
reporting year	0						
Total new complaints							
received during							
reporting year	12						
Total complaints							
closed during							
reporting year	12						
Balance of complaints							
end of reporting year	0						

•					Additional information									
Have any incide	ents occurred on site in the current i	reporting year? Please list all incidents for current reporting	g year in Table 2 below	Yes										
			1											
*For information on h	now to report and what constitutes													
	an incident	What is an incident												
Table 2 Incidents summ	nary													
Date of occurrence	Incident nature	Location of occurrence	Incident category*please	Recentor	Cause of incident	Other cause/please	Activity in progress at	Communication	Occurrence	Corrective action<20	Preventative	Resolution status	Resolution date	Likelihood of
bate of occurrence	incluent natare	Location of occurrence	refer to guidance	licceptor	eduse of meldene	specify)	time of incident	communication	occurrence	words	words	nesolution status		reoccurence
23/07/2016 08:00	Trigger Level Reached	Plant or equipment maintenance (Not at WWTP)	1. Minor	Air	Trigger Level Reached	INCI011378	Normal activities	EPA	New			Complete	30/01/2017 16:42	Low
27/10/2016 09:30	Trigger Level Reached	Plant or equipment maintenance (Not at WWTP)	1. Minor	Air	Trigger Level Reached	INCI011063	Normal activities	EPA	New			Complete	30/01/2017 16:42	Low
22/09/2016 07:15	Trigger Level Reached	Plant or equipment maintenance (Not at WWTP)	1. Minor	Air	Trigger Level Reached	INCI010897	Normal activities	EPA	New			Complete	30/01/2017 16:42	Low
15/08/2016 13:00	Trigger Level Reached	Plant or equipment maintenance (Not at WWTP)	1. Minor	Air	Trigger Level Reached	INCI010783	Normal activities	EPA	New			Complete	30/01/2017 16:42	Low
29/07/2016 08:30	Trigger Level Reached	Plant or equipment maintenance (Not at WWTP)	1. Minor	Air	Trigger Level Reached	INCI010590	Normal activities	EPA	New			Complete	30/01/2017 16:42	Low
23/06/2016 07:00	Trigger Level Reached	Plant or equipment maintenance (Not at WWTP)	1. Minor	Air	Trigger Level Reached	INCI010354	Normal activities	EPA	New			Complete	30/01/2017 16:42	Low
19/05/2016 08:00	Trigger Level Reached	Plant or equipment maintenance (Not at WWTP)	1. Minor	Air	Trigger Level Reached	INCI010155	Normal activities	EPA	New			Complete	30/01/2017 16:42	Low
19/04/2016 13:00	Trigger Level Reached	Plant or equipment maintenance (Not at WWTP)	1. Minor	Air	Trigger Level Reached	INCI010010	Normal activities	EPA	New			Complete	30/01/2017 16:42	Low
24/03/2016 09:00	Trigger Level Reached	Plant or equipment maintenance (Not at WWTP)	1. Minor	Air	Trigger Level Reached	INCI009865	Normal activities	EPA	New			Complete	30/01/2017 16:42	Low
29/02/2016 14:00	Trigger Level Reached	Plant or equipment maintenance (Not at WWTP)	1. Minor	Air	Trigger Level Reached	INCI009750	Normal activities	EPA	New		1	Complete	30/01/2017 16:42	Low
28/01/2016 12:00	Trigger Level Reached	Plant or equipment maintenance (Not at WWTP)	1. Minor	Air	Trigger Level Reached	INCI009559	Normal activities	EPA	New			Complete	30/01/2017 16:42	Low
% reduction/ increase	100%													

WASTE SUMMARY	Lic No:	W0081-04	Year	2016
SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED	BY ALL IPPC AND WASTE FACILITIES	PRTR facility logon	dropdown l	ist click to see options

SECTION B- WASTE ACCEPTED ONTO SITE-TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES

Were any wastes accepted onto your site for recovery or disposal or treatment prior to recovery or disposal within the boundaries of your facility ?; (waste generated within your 1 boundaries is to be captured through PRTR reporting)

If yes please enter details in table 1 below

3

2 Did your site have any rejected consignments of waste in the current reporting year? If yes please give a brief explanation in the additional information

SELECT

Additional Information

Was waste accepted onto your site that was generated outside the Republic of Ireland? If yes please state the quantity in tonnes in additional information

Table 1 Details of waste accepted onto your site for recovery, disposal or treatment (do not include wastes generated at your site, as these will have been reported in your PRTR workbook)

Licenced annual tonnage limit for your site (total tonnes/annum)	EWC code	Source of waste accepted	Description of waste accepted Please enter an accurate and detailed description - which applies to relevant EWC code <u>European Waste</u> <u>Catalogue EWC codes</u>	Quantity of waste accepted in current reporting year (tonnes)	Quantity of waste accepted in previous reporting year (tonnes)	Reduction/ Increase over previous year +/ - %	Reason for reduction/ increase from previous reporting year	Packaging Content (%)- only applies if the waste has a packaging component	Disposal/Recovery or treatment operation carried out at your site and the description of this operation	Quantity of waste remaining on site at the end of reporting year (tonnes)	Comments -
275,000	19 07 03	20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMURA COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEMARTELY COLLECTED FRACTIONS	Leachate from landfill	1011.56	921.9-	110%	Site generally ceased waste acceptance in December 2011.	N/A	D8-Biological treatment not specified elsewhere which are discarded by means of any of the operations numbered D1 to D12		A limited amoun of leachate was transported to Kikullen Landfill fram Ballynagran Landfill in 2016 for treatment following continous high rainfall events and leachate autlet shortage.

#### SECTION C-TO BE COMPLETED BY ALL WASTE FACILITIES (waste transfer stations, Composters, Material recovery facilities etc) EXCEPT LANDFILL SITES

4 Is all waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list waste processing infrastructure required onsite

5 Is all waste storage infrastructure as required by your licence and approved by the Agency in place? If no please list waste storage infrastructure required on site

6 Does your facility have relevant nuisance controls in place? 7 Do you have an odour management system in place for your facility? If no why? 8 Do you maintain a sludge register on site?

#### SECTION D-TO BE COMPLETED BY LANDFILL SITES ONLY

#### Table 2 Waste type and tonnage-landfill only

Waste types permitted for disposal	Authorised/licenced annual intake for disposal (tpa)	Actual intake for disposal in reporting year (tpa)	Remaining licensed capacity at end of reporting year (m3)	Comments

#### Table 3 General information-Landfill only

Area ID	Date landfilling commenced	Date landfilling ceased	Currently landfilling	Private or Public Operated	Inert or non-hazardous	Predicted date to cease landfilling	Licence permits asbestos	Is there a separate cell for asbestos?	Accepted asbestos in reporting year	Total disposal area occupied by waste	Lined disposal area occupied by waste	Unlined area	Comments on liner type
										SELECT UNIT	SELECT UNIT	SELECT UNIT	
Cell 8													

SELECT	
SELECT	
SELECT	
SELECT	
SELECT	

WASTE SUMMARY	1				Lic No:	W0081-04		Year	2016
Table 4 Environme	ental monitoring-landfill only	Landfill Manual-Monitoring Star	ndards						
Was meterological monitoring in compliance with Landfill Directive (LD) standard in reporting year +	Was leachate monitored in compliance with LD standard in reporting year	Was Landfill Gas monitored in compliance with LD standard in reporting year	Was SW monitored in compliance with LD standard in reporting year	Have GW trigger levels been established	Were emission limit values agreed with the Agency (ELVs)	Was topography of the site surveyed in reporting year	Has the statement under S53(A)(5) of WMA been submitted in reporting year	Comments	
.+ please refer to Landfi	Il Manual linked above for relevant Landfil	Il Directive monitoring standards	5				4		-
Table 5 Capping-La	andfill only								
Area uncapped*	Area with temporary cap			Area with waste that should be permanently					
SELECT UNIT	SELECT UNIT	Area with final cap to LD Standard m2 ha, a	Area capped other	capped to date under licence	What materials are used in the cap	Comments			
*			I	L	1	L	1		
-piease note this includ	nes daily cover area								
I able 6 Leachate-L	Lanunn Only	unt2				SELECT	T		
10 Is leachate released to	surface water? If yes please complete lear	hate mass load information belo	2W			SELECT	t		
							1		
Volume of leachate in reporting year(m3)	Leachate (BOD) mass load (kg/annum)	Leachate (COD) mass load (kg/annum)	Leachate (NH4) mass load (kg/annum)	Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	Specify type of leachate treatment	Comments		
L	.L	L	L	L	1	1	L	l	
	Please ensure that all information renor	ted in the landfill gas section is o	consistent with the Landfil	Gas Survey submitted in	n conjunction with PRTR returns		1		
Table 7 Landfill Ga	s-Landfill only	our could be	Lundi	and a second second			•		
	,	I			T				

Used on-site or to national grid Used on-site or to national grid

SELECT

Gas Captured&Treated by LFG System m3

Power generated (MW / KWh)



### | PRTR# : W0081 | Facility Name : Kilcullen Landfill Limited | Filename : PRTR W0081\_2016.xls | Return Year : 2016 |

Guidance to completing the PRTR workbook

## PRTR Returns Workbook

REFERENCE YEAR 2016

#### **1. FACILITY IDENTIFICATION**

Parent Company Name	Kilcullen Landfill Limited
Facility Name	Kilcullen Landfill Limited
PRTR Identification Number	W0081
Licence Number	W0081-04

**Classes of Activity** 

No. class\_name - Refer to PRTR class activities below

Address 1	Brownstown and Carnalway
Address 2	Kilcullen
Address 3	
Address 4	
	Kildare
Country	Ireland
Coordinates of Location	-6.71785 53.1451
River Basin District	IEEA
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Tomas Fingleton
AER Returns Contact Email Address	tomas.fingleton@landfills.ie
AER Returns Contact Position	Landfill Manager
AER Returns Contact Telephone Number	0867741813
AER Returns Contact Mobile Phone Number	0867741813
AER Returns Contact Fax Number	045 482629
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	3
User Feedback/Comments	
Web Address	

#### 2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
5(d)	Landfills
5(c)	Installations for the disposal of non-hazardous waste
5(d)	Landfills
50.1	General
3. SOLVENTS REGULATIONS (S.I. No. 543 of 20	02)
Is it applicable?	
Have you been granted an exemption ?	
If applicable which activity class applies (as per	
Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being	
used ?	

4. WASTE IMPORTED/ACCEPTED ONTO SITE	Guidance on waste imported/accepted onto site
Do you import/accept waste onto your site for on-	
site treatment (either recovery or disposal	
activities) ?	

#### 4.1 RELEASES TO AIR Link to previous years emissions data

PRTR# : W0081 | Facility Name : Kilcullen Landfill Limited | Filename : PRTR W0081\_2016.xls | Return Year : 2016 |

26/05/2017 12:45

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

	Please enter all quantities in this section in KGs								
POLLUTANT			MET	THOD				QUANTITY	
			Method Used		GE-01	Flare 1			
								A (Accidental)	F (Fugitive)
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	T (Total) KG/Year	KG/Year	KG/Year
02	Carbon monoxide (CO)	С	EN 15058:2004	NCIR By Horiba PG-250	6343.05	11.42	6354.47	0.0	0.0
05	Nitrous oxide (N2O)	С	ISO 11564:1998	Chemiluminescence	2173.63	18.57	2192.2	0.0	0.0
11	Sulphur oxides (SOx/SO2)	С	ALT	TGN 21	5498.3	223.07	5721.37	0.0	0.0
		С			0.0		0.0		0.0
				Gassim model and					
01	Methane (CH4)	С	OTH	monitoring data	0.0	0.0	608406.83	0.0	608406.83

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

#### SECTION B : REMAINING PRTR POLLUTANTS

RELEASES TO AIR			Please enter all quantities in this section in KGs						
POLLUTANT				METHOD	QUANTITY				
		Method Used							
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
					0.0		0.0 0.0	0.0	

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

#### SECTION C : REMAINING POLLUTANT EMISSIONS (As required in your Licence)

	Please enter all quantities in this section in KGs									
POLLUTANT				METHOD	QUANTITY					
				Method Used						
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year		
		С			0.0		0.0 0.0	) 0.0		

Additional Data Requested from Lan	dfill operators									
For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T(total) KGiyr for Section A: Sector specific PRTR pollutants above. Please complete the table below:										
Landfill:	Kilcullen Landfill Limited									
Please enter summary data on the					1					
quantities of methane flared and / or										
utilised			Meth	nod Used						
				Designation or	Facility Total Capacity m3					
	T (Total) kg/Year	M/C/E	Method Code	Description	per hour					
Total estimated methane generation (as per										
site model)	1872183.0	M	OTH	Gassim Lite	N/A					
Methane flared	55596.98	M	OTH	Facility on-site Monitoring	0.0	(Total Flaring Capacity)				
Methane utilised in engine/s	1208179.19	М	OTH	Facility on-site Monitoring	0.0	(Total Utilising Capacity)				
Net methane emission (as reported in Section										
A above)	608406.83	M	OTH	Model and monitoring data	N/A					

4.2 RELEASES TO WATERS	Link to previous years emissions data	PRTR# :	W0081   Facility Nar		26/05/2017 12:45			
SECTION A : SECTOR SPECIFIC PR	TR POLLUTANTS	Data on a	nbient monitoring	of storm/surface water or groundv	water, conducted as part of	your licence requirements	s, should NOT be submitted unde	r AER / PRTR Reporting as
				Please enter all quant	tities in this section in	n KGs		
	POLLUTANT						QUANTITY	
				Method Used				
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Yea	r A (Accidental) KG/Year	F (Fugitive) KG/Year
						0.0	0.0 0.	0 0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

#### SECTION B : REMAINING PRTR POLLUTANTS

		Please enter all quantities in this section in KGs						
PO						QUANTITY		
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	) 0.	0 0.0	0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

#### SECTION C : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

		Please enter all quantities in this section in KGs							
POL		QUANTITY							
			Method Used						
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
					0.	0.0	0.0	0.0	

#### 4.3 RELEASES TO WASTEWATER OR SEWER

#### Link to previous years emissions data | PRTR#: W0081 | Facility Name : Kilcullen Landfill Limited | Filename : PRTR W0081\_2016.xis | Rr 26/05/2017 12:46

#### SECTION A : PRTR POLLUTANTS

OFFSITE TRAN	SFER OF POLLUTANTS DESTINED FOR WASTE-W	ATER TR	EATMENT OR SEWER		Please enter all quantities in this section in KGs				
POLLUTANT			METHO	OD	QUANTITY				
			Me	thod Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year		A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0		0.0	0.0	0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

#### SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

OFFSITE TRANS	FER OF POLLUTANTS DESTINED FOR WASTE-W	ATER TRE	ATMENT OR SEWER		Please enter all quantities in this section in KGs					
POLLUTANT			METHO	)D	QUANTITY					
			Met	hod Used						
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year		A (Accidental) KG/Year	F (Fugitive) KG/	Year
					0.0		0.0	0.0		0.0

#### 4.4 RELEASES TO LAND

Link to previous years emissions data | PRTR# : W0081 | Facility Name : Kilcullen Landfill Limited | Filename : PRTR W0081\_2016.xls | Return Year : 2016 |

26/05/2017 12:46

#### SECTION A : PRTR POLLUTANTS

				Please enter all quantities	S		
POLLUTANT			MET	HOD			QUANTITY
			Ν	Method Used			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Yea
					0.0		0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

#### SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

		RELEASES TO LAND	Please enter all quantities in this section in KGs						
POLLUTANT				ME	THOD		QUANTITY		
					Method Used				
Pollutant No.	Name		M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	
						0	0 (	0 00	

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE   PRTR#: W0081   Facility Name : Kilcullen Landfill Limited   Filename : PRTR W0081_2016.xls   Return Year : 2016											26/05/2017 12:46	
Please enter all quantities on this sheet in Tonnes												3
			Quantity (Tonnes per Year)				Method Used		Licence/Permit No of Next Destination Facility <u>Haz Waste</u> : Name and Licence/Permit No of Recover/Disposer	<u>Haz Waste</u> : Address of Next Destination Facility <u>Non Haz Waste: Address of</u> Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
	European Marsha				Waste			Localian of				
Transfer Destination	European waste	Hazardous		Description of Waste	Operation	M/C/F	Method Lised	Treatment				
Within the Country	19 07 03	No	6871	landfill leachate other than those mentioned in 19 07 02	D8	M	Weighed	Offsite in Ireland	Oberstown wwtp Kildare Coco,D00**	Kildare County Council headquarters,Aras Chill Dara Devoy Park,Naas,Kildare ,Ireland		
		* Select a row	by double-clicking t	the Description of Waste then click the delete button								