

Facility Information Summary	
AER Reporting Year	2014
Licence Register Number	W0059-03
Name of site	Ballaghaderreen Landfill
Site Location	Aghalustia Townland, Ballaghaderreen, County Roscommon
NACE Code	3821
Class/Classes of Activity	Treatment and disposal of non-hazardous waste
National Grid Reference (6E, 6 N)	163350 292800
A description of the activities/processes at the site for the reporting year. This should include information such as production increases or decreases on site, any infrastructural changes, environmental performance which was measured during the reporting year and an overview of compliance with your licence listing all exceedances of licence limits (where applicable) and what they relate to e.g. air, water, noise.	The landfill site stopped accepting waste for disposal to landfill in July 2010. There were no activities or process at the site during 2014, except for monitoring as required by the Licence. During 2014, there were exceedances of the Licence limits for carbon dioxide in most of the perimeter boreholes and the groundwater ammoniacal nitrogen GTV and DWS in the downgradient borehole BH103, although the headworks of this borehole are severely damaged and pending repair. Annual flare monitoring and noise monitoring were not carried out in 2014; noise monitoring has not been carried out since the landfill ceased accepting waste in 2010.

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.

John Mockler	30/03/2015
Signature	Date
Group/Facility manager	
(or nominated, suitably qualified and experienced deputy)	

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Answer all questions and complete all tables where relevant

- 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 do not need to complete the tables

Additional information	
Yes	For the landfill gas flare and perimeter monitoring boreholes as per Condition 6 of the Licence.

Periodic/Non-Continuous Monitoring		
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- 2 Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of [Basic air monitoring checklist](#) AGN2
- 3 Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist?

Yes	Carbon dioxide in perimeter boreholes.
Yes	Flare monitoring not carried out in 2014.

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 thereof	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
Perimeter monitoring boreholes GM201-GM208	Methane (CH4)	Monthly	1.0% v/v	100 % of values < ELV	Max 0.1% v/v (GM207, September 2014)	SELECT	yes	SELECT	0	Method of analysis for methane and carbon dioxide in perimeter monitoring boreholes is in accordance with Site Operating Procedure SOP17.
Perimeter monitoring boreholes GM201-GM208	Carbon dioxide (CO2)	Monthly	1.5% v/v	100 % of values < ELV	Max 8.2% v/v (GM208, November 2014)	SELECT	no (if no please enter details in comments box)	SELECT	Cannot calculate as flow rates not recorded.	Given that there are no corresponding elevated methane levels within the perimeter monitoring boreholes then landfill gas is unlikely to be the source of the carbon dioxide. Elevated carbon dioxide concentrations could occur as a result of decomposition processes within the peat into which the monitoring boreholes are installed. It is recommended that the EPA are consulted on increasing the carbon dioxide trigger levels to 1.5% v/v above the 95th percentile carbon dioxide level for each borehole.
Flare Outlet	volumetric flow	Annually	-		177	Nm3/hour	SELECT	SELECT	N/A	Flow monitoring completed on monthly basis - measured value is average from available data.
Flare Outlet	Nitrogen oxides (NOx/NO2)	Annually	<150 mg/Nm ³	100 % of values < ELV	N/A - see comments	SELECT	SELECT	SELECT	N/A - see comments	Flare monitoring not completed in 2014.
Flare Outlet	Total Organic Carbon (as C)	Annually	<10 mg/Nm ³	100 % of values < ELV	N/A - see comments	SELECT	SELECT	SELECT	N/A - see comments	Flare monitoring not completed in 2014.
Flare Outlet	Total acids	Annually	Hydrochloric acid - <50 mg/Nm ³ >0.3 kg/hr	100 % of values < ELV	N/A - see comments	SELECT	SELECT	SELECT	N/A - see comments	Flare monitoring not completed in 2014.
Flare Outlet	Total acids	Annually	Hydrogen fluoride - <5 mg/Nm ³ >0.05 kg/hr	100 % of values < ELV	N/A - see comments	SELECT	SELECT	SELECT	N/A - see comments	Flare monitoring not completed in 2014.

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

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Continuous Monitoring		

<p>4 Does your site carry out continuous air emissions monitoring? 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)</p>	Yes	Continuous carbon monoxide monitoring required from flow outlet in Table D.7 of Licence
<p>5 Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below</p>	Yes	See Table A2
<p>6 Do you have a proactive service agreement for each piece of continuous monitoring equipment?</p>	Yes	
<p>7 Did your site experience any abatement system bypasses? If yes please detail them in table A3 below</p>	No	

Table A2: Summary of average emissions -continuous monitoring

Emission reference no:	Parameter/ Substance	ELV in licence or any revision thereof	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission	Annual maximum	Monitoring Equipment downtime (hours)	Number of ELV exceedences in current reporting year	Comments
Flare Outlet	Carbon monoxide (CO)	<50 mg/Nm ³	Daily	Daily average < ELV	mg/Nm ³	N/A	N/A	N/A	N/A	Flare monitoring not completed in 2014.
	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

Solvent use and management on site

8 Do you have a total Emission Limit Value of direct and fugitive emissions on site? if yes please fill out tables A4 and A5

No

Table A4: Solvent Management Plan Summary		Solvent regulations	Please refer to linked solvent regulations to complete table 5 and 6
Total VOC Emission limit value			

Reporting year	Total solvent input on site (kg)	Total VOC emissions to Air from entire site (direct and fugitive)	Total VOC emissions as %of solvent input	Total Emission Limit Value (ELV) in licence or any revision thereof	Compliance
					SELECT
					SELECT

Table A5: Solvent Mass Balance summary								
	(I) Inputs (kg)				(O) Outputs (kg)			
Solvent	(I) Inputs (kg)	Organic solvent emission in waste	Solvents lost in water (kg)	Collected waste solvent (kg)	Fugitive Organic Solvent (kg)	Solvent released in other ways e.g.	Solvents destroyed onsite through	Total emission of Solvent to air (kg)

Total

Additional information

1 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** licensed emissions you **only** need to complete table W1 and or W2 for storm water analysis and visual inspections

2 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 **only** any evidence of contamination noted during visual inspections

Yes	The lagoon provides buffer storage for leachate pumped from the lined cells, before it is pumped to the public sewer to discharge to Ballaghaderreen STW.
Yes	Table D.5.1 requires weekly visual inspection of surface water.

Table W1 Storm water monitoring

Location reference	Location relative to site activities	PRTR Parameter	Licensed 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
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	

*trigger values may be agreed by the Agency outside of licence conditions

Table W2 Visual inspections-Please only enter details where contamination was observed.

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
N/A - no contamination observed			SELECT		
			SELECT		

Licensed Emissions to water and /or wastewater(sewer)-periodic monitoring (non-continuous)

3 Was there any result in breach of licence requirements? If yes please provide brief details in the comment section of Table W3 below

4 Was all monitoring carried out in accordance with EPA guidance and checklists for Quality of Aqueous Monitoring Data Reported to the EPA? If no please detail what areas require improvement in additional information box

[External /Internal Lab Quality Assessment of results checklist](#)

SELECT	Additional information
Yes	

Table W3: Licensed Emissions to water and /or wastewater (sewer)-periodic monitoring (non-continuous)

Emission reference no:	Emission released to	Parameter/ Substance ^{Note 1}	Type of sample	Frequency of monitoring	Averaging period	ELV or trigger values in licence or any revision thereof ^{Note 2}	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Method of analysis	Procedural reference source	Procedural reference standard number	Annual mass load (kg)	Comments
LS-1	Wastewater/Se wer	volumetric flow	discrete	Daily	24 hour	NA	No flow value shall exceed the specific limit.	Total 25822m3 for 2014	m3/day	yes	INSTRUMENTAL METHODS	Other (please specify)	Standard Operating Procedure SOP16	25822000	
LS-1	Wastewater/Se wer	Volatile organic compounds (as TOC)	discrete	Frequency and method are still to be agreed with EPA		0.14 mg/l			mg/L				NA	NA	This relates to methane, which could not be selected from dropdown box.

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

Note 2: Where Emission Limit Values (ELV) do not apply to your licence please compare results against EQS for Surface water or relevant receptor quality standards

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)

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Continuous monitoring

Additional Information

Does your site carry out continuous emissions to water/sewer monitoring?

5

No

Table D.8.1 in the Licence requires daily flow monitoring and methane monitoring at a frequency 'to be agreed'. We have assumed that daily flow monitoring is not classified as continuous monitoring.

If yes please summarise your continuous monitoring data below in Table W4 and compare it to its relevant Emission Limit Value (ELV)

6 Did continuous monitoring equipment experience downtime? If yes please record downtime in table W4 below

7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site?

8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 below

No

NA

No

NA

No

Table W4: Summary of average emissions -continuous monitoring

Emission reference no:	Emission released to	Parameter/ Substance	ELV or trigger values in licence or any revision thereof	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission for current reporting year (kg)	% change +/- from previous reporting year	Monitoring Equipment downtime (hours)	Number of ELV exceedences in reporting year	Comments
	SELECT	SELECT		SELECT	SELECT	SELECT					
	SELECT	SELECT		SELECT	SELECT	SELECT					

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

Table W5: Abatement system bypass reporting table

Date	Duration (hours)	Location	Resultant emissions	Reason for bypass	Corrective action*	Was a report submitted to the EPA?	When was this report submitted?
						SELECT	

*Measures taken or proposed to reduce or limit bypass frequency

Bund testing dropdown menu click to see options

Are you required by your licence to undertake integrity testing on bunds and containment structures? If yes please fill out table B1 below listing all **new bunds and containment structures** on site, in addition to **all bunds which failed the integrity test-all bunding structures which failed including mobile bunds must be listed in the table below, please include all bunds outside the licenced testing period** (mobile bunds and chemstore included)

- 1 Please provide integrity testing frequency period
- 2 Does the site maintain a register of bunds, underground pipelines (including stormwater and foul), Tanks, sumps and containers? (containers refers to "Chemstore" type units and mobile bunds)
- 3 How many bunds are on site?
- 4 How many of these bunds have been tested within the required test schedule?
- 5 How many mobile bunds are on site?
- 6 Are the mobile bunds included in the bund test schedule?
- 7 How many of these mobile bunds have been tested within the required test schedule?
- 8 How many sumps on site are included in the integrity test schedule?
- 9 How many of these sumps are integrity tested within the test schedule?

Please list any sump integrity failures in table B1

11 Do all sumps and chambers have high level liquid alarms?

12 If yes to Q11 are these failsafe systems included in a maintenance and testing programme?

13 Is the Fire Water Retention Pond included in your integrity test programme?

Additional information	
Yes	Condition 10.4 c) of Licence
3 years	Condition 3.10.5 of the Licence
Yes	
1	Leachate lagoon bund
0	Due September 2012
0	
SELECT	NA
NA	
0	
NA	
Yes	High level alarms installed in pump sumps and leachate lagoon.
Yes	In accordance with Site Operating Procedures.
N/A	No fire water retention pond.

Table B1: Summary details of bund /containment structure integrity test

Bund/Containment structure ID	Type	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	Integrity reports maintained on site?	Results of test	Integrity test failure explanation <50 words	Corrective action taken	Scheduled date for retest	Results of retest(if in current reporting year)
Leachate lagoon bund	other (please specify) SELECT	Granular basal support layer, BES layer, HDPE layer, geotextile protection layer and granular layer supported by geoweb on side slopes.	Leachate	Approximately 800 cubic metres	N/A: bund walls form the structure of the lagoon (i.e. it is not a bund containing a tank or similar)	Structural assessment		09/09/2009	Yes	Pass		SELECT	Sep-12	NA - see above
* Capacity required should comply with 25% or 110% containment rule as detailed in your licence														
Commentary														
Lagoon integrity tested every 3 years in accordance with Licence, although now overdue.														
Connecting pipework to lagoon was tested following installation in 2003.														
Connecting pipework to lagoon was tested following installation in 2003.														

15 Has integrity testing been carried out in accordance with licence requirements and are all structures tested in line with BS8007/EPA Guidance?

[bundings and storage guidelines](#)

16 Are channels/transfer systems to remote containment systems tested?

17 Are channels/transfer systems compliant in both integrity and available volume?

Pipeline/underground structure testing

Are you required by your licence to undertake integrity testing* on underground structures e.g. pipelines or sumps etc? If yes please fill out table 2 below listing

1 all underground structures and pipelines on site **which failed the integrity test and all which have not been tested within the integrity test period as specified**

2 Please provide integrity testing frequency period

*please note integrity testing means water tightness testing for process and foul pipelines (as required under your licence)

No	Pipework installed under CQA
Other (please specify)	NA

Table B2: Summary details of pipeline/underground structures integrity test

Structure ID	Type system	Material of construction:	Does this structure have secondary containment?	Type of secondary containment	Type integrity testing	Integrity reports maintained on site?	Results of test	Integrity test failure explanation <50 words	Corrective action taken	Scheduled date for retest.	Results of retest(if in current reporting year)
	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT				SELECT

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

Groundwater/Soil monitoring template	Lic No:	W0059-03	Year	2014
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		Comments	
1	Are you required to carry out groundwater monitoring as part of your licence requirements?	yes	Schedule D of Licence.
2	Are you required to carry out soil monitoring as part of your licence requirements?	no	
3	Do you extract groundwater for use on site? If yes please specify use in comment section	no	
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 Groundwater monitoring template AND answer questions 5-12 below.	yes	See interpretation box to the right. The text is lifted from the quarterly site monitoring reports produced by Amec Foster Wheeler.
5	Is the contamination related to operations at the facility (either current and/or historic)	yes	Cells 1 to 5 at the site were designed and operated on the principles of 'dilute and disperse' and are therefore unlined.
6	Have actions been taken to address contamination issues? If yes please summarise remediation strategies proposed/undertaken for the site	yes	Capping and landfill gas/leachate management of Cells 1 to 5.

Please provide an interpretation of groundwater monitoring data in the interpretation box below or if you require additional space please include a groundwater/contaminated land monitoring results interpretaion as an additional section in this AER

March 2014 (Q1): The reported monitoring results for March 2014 from the limestone aquifer boreholes are almost all below the trigger levels for the site, with the exception of ammoniacal nitrogen in borehole BH103, which is hydraulically down-gradient of the site. The ammoniacal nitrogen concentration of 9.33 mg/l recorded in borehole BH103 is comparable to the result from November 2013 (7.47 mg/l) but much lower than the result of 38.28 mg/l measured in September 2013. The rest of the results for the other typical landfill leachate indicator parameters (chloride, dissolved oxygen and electrical conductivity) are generally within the range of previous results.

April 2014 (Q2): Samples were also submitted from boreholes BH3, BH102 and BH04/1 for 'list I/II' analysis, which includes a suite of volatile organic compounds, semi volatile organic compounds and organochlorine pesticides. All analysed parameters in this suite were below the limit of detection (BLD) in each of the above three samples. The reported monitoring results for April 2014 from the limestone aquifer boreholes are all below the trigger levels for the site. The ammoniacal nitrogen concentration of 0.2 mg/l recorded in borehole BH103 is much lower than other results of the previous year (1.39 mg/l to 38.28 mg/l) and represents the first time that the concentration in borehole BH103 has been below the trigger level (3 mg/l) since Q2 of 2013.

The rest of the results for the other typical landfill leachate indicator parameters (chloride, dissolved oxygen and electrical conductivity) are similar to previous results. Chloride concentrations within all monitored boreholes remain relatively low at below 100 mg/l, dissolved oxygen concentrations remain acceptable at between 8.4 mg/l and 14.67 mg/l and electrical conductivity results are around, or below, 1 000 µS/cm.

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7	Please specify the proposed time frame for the remediation strategy	yes	Ongoing.	Concentrations of boron and cyanide were BLD in all sampled boreholes, and concentrations of cadmium and chromium were also BLD in all three samples from the limestone aquifer. Most of the other parameters analysed were recorded at concentrations similar to previous results, although the copper concentrations recorded in BH3, GW301 and BH04/1, at 3-33 µg/l, are several orders of magnitude higher than results from the last round of annual monitoring (up to 0.008 µg/l) although are still considered low. It is anticipated that the results from the last monitoring round were in fact mg/l, i.e. the copper results from last year were up to 8 µg/l which is comparable with results from this year.	
8	Is there a licence condition to carry out/update ELRA for the site?	yes	Condition 12.4.2 of the Licence.	No odours were recorded in any of the samples taken in April 2014, with the exception of borehole BH12, where a 'moderate' odour was recorded (no other detail is available). Samples from the limestone aquifer were clear, as was the sample from BH3. The other boreholes had cloudy or murky water. September 2014 (Q3): The reported monitoring results for September 2014 from the limestone aquifer boreholes are all below the trigger levels for the site, with ammoniacal nitrogen results ranging from 0.03 mg/l (BH04/1) to 1.03 mg/l (BH103). Concentrations are higher in the boreholes installed within the superficial deposits, at between 5.79 mg and 8.6 mg/l, although similar results have been recorded historically. The rest of the results for the other typical landfill leachate indicator parameters (chloride, dissolved oxygen and electrical conductivity) are similar to previous results. Chloride concentrations within all monitored boreholes remain relatively low at below 100 mg/l and electrical conductivity results are around, or below, 1000 µS/cm. Dissolved oxygen concentrations are however lower than results over the past year at between 1.8 mg/l and 6.7mg/l.	
9	Has any type of risk assessment been carried out for the site?	yes	Please refer to Waste Licence Review application, Entec ref: 00966rr529i2 dated March 2002. Also updated Groundwater Risk Screening and Technical Assessment from 2014 produced by Amec Foster Wheeler.	A slight odour was noted in the samples from the superficial deposits (BH3 and BH12) and the BH12 sample was noted as being 'murky'. Samples from the limestone aquifer were clear, with no odour noted. November 2014 (Q4): The reported monitoring results for November 2014 from the limestone aquifer boreholes are all below the trigger levels for the site, with ammoniacal nitrogen results ranging from 0.01 mg/l (BH102) to 0.92 mg/l (BH103). Concentrations are higher in the boreholes installed within the superficial deposits, at between 0.18 mg/l and 7.76 mg/l, although similar results have been recorded historically. The rest of the results for the other typical landfill leachate indicator parameters (chloride, dissolved oxygen and electrical conductivity) are similar to previous results. Chloride concentrations within all monitored boreholes remain relatively low at below 100 mg/l and electrical conductivity results are below, 1000 µS/cm. Dissolved oxygen concentrations are however lower than results over the past year at	
10	Has a Conceptual Site Model been developed for the site?	yes	Please refer to EMS, latest version is 2010 update, Entec (now Amec Foster Wheeler) ref: 15951rr689i1 and Waste Licence Review application, Entec reference 00966rr529i2 dated March 2002.		

Groundwater/Soil monitoring template		Lic No:	W0059-03	Year	2014
11	Have potential receptors been identified on and off site?	yes	Please refer to EMS, latest version is 2010 update, Entec (now Amec Foster Wheeler) ref: 15951rr689i1 and Waste Licence Review application, Entec reference 00966rr529i2 dated March 2002.	between 1.7 mg/l and 6.5 mg/l. The dissolved oxygen concentrations were recorded as being lower in Q3, as well as Q4 compared to the past year. Note that the dissolved oxygen results were reported in % saturation and have been converted to mg/l for consistency with previous results. A moderate odour was noted in the samples from the superficial deposits in BH12 which was also noted as being 'cloudy'. Boreholes BH11 and GW301, which are also installed within superficial deposits were noted as being murky. Samples from the limestone aquifer were clear, with no odour noted.	
12	Is there evidence that contamination is migrating offsite?	yes	See interpretation box to the right. The text is lifted from the quarterly site monitoring reports produced by Amec Foster Wheeler.	The borehole BH103 headworks have been severely damaged, allowing surface water to enter the borehole. This borehole is outside the landfill boundary to the west of the perimeter ditch and in an area where there has been reported recent peat cutting (i.e. a peat bog). From discussion with RCC in June 2014, it is understood that borehole BH103 has not been repaired yet and previously in January 2014 RCC advised that there is tyre around the borehole with a stake and piece of ducting pipe placed around it. It is assumed that this has been done as a temporary measure to protect the well headworks from further damage. Recent communications from RCC indicate that it is intended for the repairs to be undertaken soon.	

Table 1: Upgradient Groundwater monitoring results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration++	Average Concentration+	unit	GTV's*	DWS	Upward trend in pollutant concentration over last 5 years of monitoring data
4 March, 8 April, 24 September and 26 November 2014	BH04/1	Ammoniacal Nitrogen	Site Operating Procedure SOP15	Quarterly	0.27	0.09	mg/l	3	0.3	no
4 March, 8 April, 24 September and 26 November 2014	BH04/1	Chloride	Site Operating Procedure SOP15	Quarterly	34.1	30.95	mg/l	100	250	no
4 March, 8 April, 24 September and 26 November 2014	BH04/1	TOC	Site Operating Procedure SOP15	Quarterly	6.5	5.83	mg/l	80	NA	no

+. where average indicates arithmetic mean

++. maximum concentration indicates the maximum measured concentration from all monitoring results produced during the reporting year

Groundwater/Soil monitoring template

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Table 2: Downgradient Groundwater monitoring results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit	GTV's*	DWS	Upward trend in yearly average pollutant concentration over last 5 years of monitoring data
4 March, 8 April, 24 September and 26 November 2014	BH102	Ammoniacal Nitrogen	Site Operating Procedure SOP15	Quarterly	0.39	0.14	mg/l	3	0.3	no
4 March, 8 April, 24 September and 26 November 2014	BH102	Chloride	Site Operating Procedure SOP15	Quarterly	16.5	15.32	mg/l	100	250	yes
4 March, 8 April, 24 September and 26 November 2014	BH102	TOC	Site Operating Procedure SOP15	Quarterly	5.8	4.43	mg/l	80	NA	no
4 March, 8 April, 24 September and 26 November 2014	BH103	Ammoniacal Nitrogen	Site Operating Procedure SOP15	Quarterly	9.33	2.87	mg/l	3	0.3	no
4 March, 8 April, 24 September and 26 November 2014	BH103	Chloride	Site Operating Procedure SOP15	Quarterly	25.19	16.9	mg/l	100	250	no
4 March, 8 April, 24 September and 26 November 2014	BH103	TOC	Site Operating Procedure SOP15	Quarterly	5.7	5.1	mg/l	80	NA	no

*please note exceedance of generic assessment criteria (GAC) such as a Groundwater Threshold Value (GTV) or an Interim Guideline Value (IGV) or an upward trend in results for a substance indicates that further interpretation of monitoring results is required. In addition to completing the above table, please complete the Groundwater Monitoring Guideline Template Report at the link provided and submit separately through ALDER as a licensee return or as otherwise instructed by the EPA.

[Groundwater monitoring template](#)

More information on the use of soil and groundwater standards/ generic assessment criteria (GAC) and risk assessment tools is available in the EPA published guidance (see the link in G31)

[Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites \(EPA 2013\)](#).

**Depending on location of the site and proximity to other sensitive receptors alternative Receptor based Water Quality standards should be used in addition to the GTV e.g. if the site is close to surface water compare to Surface Water Environmental Quality Standards (SWEQS), If the site is close to a drinking water supply compare results to the Drinking Water Standards (DWS)

[Groundwater regulations](#) [Drinking water \(private supply\) standards](#) [Drinking water \(public supply\) standards](#) [Interim Guideline Values \(IGV\)](#)
[Surface water EQS](#) [GTV's](#) [standards](#)

Groundwater/Soil monitoring template

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Table 3: Soil results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit
							SELECT
							SELECT

Where additional detail is required please enter it here in 200 words or less

Environmental Liabilities template

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[Click here to access EPA guidance on Environmental Liabilities and Financial provision](#)

		Commentary	
1	ELRA initial agreement status	Required but not submitted	
2	ELRA review status	SELECT	ELRA not submitted to date
3	Amount of Financial Provision cover required as determined by the latest ELRA	NA	
4	Financial Provision for ELRA status	Required but not submitted	
5	Financial Provision for ELRA - amount of cover	Not known at this stage.	
6	Financial Provision for ELRA - type	Other please specify	Financial provision will be made available from Central Government funds by way of loans from Central Government.
7	Financial provision for ELRA expiry date	Enter expiry date	No expiry date.
8	Closure plan initial agreement status	Required but not submitted	
9	Closure plan review status	SELECT	NA
10	Financial Provision for Closure status	Required but not submitted	
11	Financial Provision for Closure - amount of cover	Not known at this stage.	
12	Financial Provision for Closure - type	Other please specify	Financial provision will be made available from Central Government funds by way of loans from Central Government.
13	Financial provision for Closure expiry date	Enter expiry date	No expiry date.

Environmental Management Programme/Continuous Improvement Programme template		Lic No:	W0059-03	Year	2014
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	Latest version is 2010 update, Entec (now Amec Foster Wheeler) ref: 15951rr689i1		
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	Yes	See above referenced EMS document.		
3	Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance with the licence requirements	Yes	See above referenced EMS document.		
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	Refer to Roscommon County Council website: http://www.roscommoncoco.ie/en/Services/Environment/Waste_Management,_Disposal_and_Recycling/		

Environmental Management Programme (EMP) report

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
SELECT		SELECT		SELECT	SELECT
SELECT		SELECT		SELECT	SELECT
SELECT		SELECT		SELECT	SELECT

Noise monitoring summary report Lic No: W0059-03 Year 2014

- 1 Was noise monitoring a licence requirement for the AER period?
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 "Checklist for noise measurement report" included in the guidance note as table 6?
- 3 Does your site have a noise reduction plan
- 4 When was the noise reduction plan last updated?
- 5 Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?

[Noise Guidance note NG4](#)

Table N1: Noise monitoring summary

Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}	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)?
Not completed (see below)								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?

**** please explain the reason for not taking action/resolution of noise issues?**
 Noise monitoring is required as per Table D.4.1 of the licence on an annual basis, but was not carried out in 2014 as the landfill site had ceased accepting waste for disposal. Noise monitoring was last carried out on 6 December 2010.

- When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below
 SEAI - Large
 Industry Energy
 Network (LIEN)
- Is the site a member of any accredited programmes for reducing energy usage/water conservation such as the SEAI programme linked to the right? If yes please list them in additional information
- Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

Additional information	
Site energy use reviewed as part of AER, no recommendations made as landfill site is now closed.	
No	The Council is not part of the LIEN
SELECT	N/A - fuel oil not used in boilers on site.

Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	65.106	49.096		N/A - no site production
Total Energy Generated (MWHrs)	0	0	N/A	N/A
Total Renewable Energy Generated (MWHrs)	0	0	N/A	N/A
Electricity Consumption (MWHrs)	65.106	49.096		N/A - no site production
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)	0	0	N/A	N/A
Light Fuel Oil (m3)	0	0	N/A	N/A
Natural gas (m3)	0	0	N/A	N/A
Coal/Solid fuel (metric tonnes)	0	0	N/A	N/A
Peat (metric tonnes)	0	0	N/A	N/A
Renewable Biomass	0	0	N/A	N/A
Renewable energy generated on site	0	0	N/A	N/A

* 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

Water use	Water extracted Previous year m3/yr.	Water extracted Current year m3/yr.	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*	Water Emissions	Water Consumption	Unaccounted for Water:
					Volume Discharged back to environment (m ³ /yr):	Volume used i.e not discharged to environment e.g. released as steam m3/yr	
Groundwater							
Surface water							
Public supply	Estimated at 297	Estimated at 297	0	N/A	Estimated at 297	N/A	N/A
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

	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)					
Non-Hazardous (Tonnes)					

Resource Usage/Energy efficiency summary	Lic No: W0059-03	Year	2014
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Table R4: Energy Audit finding recommendations								
Date of audit	Recommendations	Description of Measures proposed	Origin of measures	Predicted energy savings %	Implementation date	Responsibility	Completion date	Status and comments
			SELECT					
			SELECT					
			SELECT					

Table R5: Power Generation: Where power is generated onsite (e.g. power generation facilities/food and drink industry) please complete the following information

	Unit ID	Unit ID	Unit ID	Unit ID	Station Total
Technology					
Primary Fuel					
Thermal Efficiency					
Unit Date of Commission					
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: W0059-03 Year 2014

Complaints

Have you received any environmental complaints in the current reporting year? If yes please complete summary details of complaints received on site in table 1 below

Additional information

No

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

Incidents

Have any incidents occurred on site in the current reporting year? Please list all incidents for current reporting year in Table 2 below

Additional information

Exceedences of Licence limits for carbon dioxide in perimeter monitoring boreholes and ammoniacal nitrogen GTV/DWS in groundwater monitoring borehole BH103 as per relevant tables of AER template. Exceedences detailed in quarterly reports.

Yes

*For information on how to report and what constitutes an incident [What is an incident](#)

Date of occurrence	Incident nature	Location of occurrence	Incident category*please refer to guidance	Receptor	Cause of incident	Other cause(please specify)	Activity in progress at time of incident	Communication	Occurrence	Corrective action<20 words	Preventative action <20 words	Resolution status	Resolution date	Likelihood of reoccurrence
See above	Breach of ELV	Perimeter boreholes	1. Minor	Air	Operational controls		Normal activities	EPA	Recurring			Ongoing	NA	High
See above	Breach of ELV	Groundwater boreholes	1. Minor	Water	Operational controls		Normal activities	EPA	Recurring			Ongoing	NA	High
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT		SELECT
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT		SELECT
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT		SELECT
Total number of incidents current year	See quarterly reports.													
Total number of incidents previous year	See quarterly reports.													
% reduction/increase														

WASTE SUMMARY	Lic No:	W0059-03	Year	2014
SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES		PRTR facility logon		dropdown list 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 boundaries **1 is to be captured through PRTR reporting**)

If yes please enter details in table 1 below

No	Additional Information Landfill ceased accepting waste in 2010
----	---

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

No	Additional Information Landfill ceased accepting waste in 2010
----	---

3 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

N/A	Additional Information Landfill ceased accepting waste in 2010
-----	---

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)

Licensed 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 European Waste Catalogue EWC codes	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 -
<i>SEE PRTR FOR WASTES ACCEPTED AT RECYCLING CENTRE</i>											

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

N/A	No waste processing infrastructure.
-----	-------------------------------------

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

Yes	
-----	--

6 Does your facility have relevant nuisance controls in place?

Yes	Refer to site operating procedure SOP7
-----	--

7 Do you have an odour management system in place for your facility? If no why?

Yes	Refer to site operating procedure SOP29 for odour management
-----	--

8 Do you maintain a sludge register on site?

No	
----	--

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
				Landfill ceased accepting waste in 2010.

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
										ha	ha	ha	
Cells 1-8	1980	2010	No	Public	Non Hazardous	Landfilling complete in 2010	Yes	No	No	5.02	2.27	2.75	0.5m BES and 2mm HDPE

WASTE SUMMARY		Lic No:	W0059-03	Year	2014
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Table 4 Environmental monitoring-landfill only [Landfill Manual-Monitoring Standards](#)

Was meteorological 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
None	Yes	Yes	Yes	Yes	Yes	No	No	There will be no statement for 2014 as it is understood that there are no charges to levy on a closed landfill.

..+ please refer to Landfill Manual linked above for relevant Landfill Directive monitoring standards

Table 5 Capping-Landfill only

Area uncapped*	Area with temporary cap	Area with final cap to LD Standard m2 ha, a	Area capped other	Area with waste that should be permanently capped to date under licence	What materials are used in the cap	Comments
SELECT UNIT	SELECT UNIT					
None	None	5.02 ha	None	None	(Base upwards): regraded waste, then regulating layer, then geosynthetic gas drainage layer, LLDPE geomembrane, geosynthetic drainage layer, restoration soils.	

*please note this includes daily cover area

Table 6 Leachate-Landfill only

9 Is leachate from your site treated in a Waste Water Treatment Plant?

Yes

10 Is leachate released to surface water? If yes please complete leachate mass load information below

No

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

Please ensure that all information reported in the landfill gas section is consistent with the Landfill Gas Survey submitted in conjunction with PRTR returns

Table 7 Landfill Gas-Landfill only

Gas Captured&Treated by LFG System m3	Power generated (MW / KWh)	Used on-site or to national grid	Was surface emissions monitoring performed during the reporting year?	Comments
1505109.606		0 Flared off	No	Estimate of gas captured and treated by landfill gas system using landfill gas survey. Surface emissions monitoring last carried out in 2011 by Odour Monitoring Ireland.



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[Guidance to completing the PRTR workbook](#)

AER Returns Workbook

Version 1.1.18

REFERENCE YEAR	2014
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1. FACILITY IDENTIFICATION

Parent Company Name	Roscommon County Council
Facility Name	Ballaghaderreen Landfill
PRTR Identification Number	W0059
Licence Number	W0059-03

Classes of Activity

No.	class name
-	Refer to PRTR class activities below

Address 1	Aghalustia Townland
Address 2	Ballaghaderreen
Address 3	
Address 4	
Country	Roscommon
Coordinates of Location	Ireland
River Basin District	-6.71294 52.9688
NACE Code	IEGBNISH
Main Economic Activity	3821
AER Returns Contact Name	Treatment and disposal of non-hazardous waste
AER Returns Contact Email Address	Danny Talbot
AER Returns Contact Position	dtalbot@roscommoncoco.ie
AER Returns Contact Telephone Number	Executive Engineer
AER Returns Contact Mobile Phone Number	09066 32525
AER Returns Contact Fax Number	087 6977600
Production Volume	00353949862768
Production Volume Units	0.0
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	1
User Feedback/Comments	Version 1. High variance in methane emissions mainly due to the average measured flow rate at the flare being much lower in 2014 (177m3/hr) compared to 2013 (246 m3/hr). This has a big negative effect on the volume of methane flared, as calculated using the landfill gas survey spreadsheet.
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 2002)

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](#)

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SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

POLLUTANT		METHOD			Please enter all quantities in this section in KGs			
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
01	Methane (CH4)	C	OTH	GasSim V2.5 model and measured data	518468.4	518468.4	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

POLLUTANT		METHOD			Please enter all quantities in this section in KGs				
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
15	Chlorofluorocarbons (CFCs)	C	OTH	GasSim v2.5 model	2.54	0.0	2.54	0.0	0.0
14	Hydrochlorofluorocarbons (HCFCs)	C	OTH	GasSim v2.5 model	2.23	0.0	2.23	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)

POLLUTANT		METHOD			Please enter all quantities in this section in KGs			
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

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

Additional Data Requested from Landfill 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) KG/yr for Section A: Sector specific PRTR pollutants above. Please complete the table below:

T (Total) kg/Year	M/C/E	Method Used		Facility Total Capacity m3 per hour	
		Method Code	Designation or Description		
Total estimated methane generation (as per site model)	858717.4	C	OTH	GasSim v2.5 model	N/A
Methane flared	340249.0	C	OTH	Landfill gas survey	500.0 (Total Flaring Capacity)
Methane utilised in engine/s	0.0	C	OTH	No engine	0.0 (Total Utilising Capacity)
Net methane emission (as reported in Section A above)	518468.4	C	OTH	GasSim v2.5 model and landfill gas survey	N/A

4.2 RELEASES TO WATERS

[Link to previous years emissions data](#)

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SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as t

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT		M/C/E	Method Used		QUANTITY			
No. Annex II	Name		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 PRTR POLLUTANTS

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT		M/C/E	Method Used		QUANTITY			
No. Annex II	Name		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)

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT		M/C/E	Method Used		QUANTITY			
Pollutant No.	Name		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

4.3 RELEASES TO WASTEWATER OR SEWER

[Link to previous years emissions data](#)

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SECTION A : PRTR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					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 TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
Pollutant No.	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					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

4.4 RELEASES TO LAND

[Link to previous years emissions data](#)

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SECTION A : PRTR POLLUTANTS

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

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

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR# : W0059 | Facility Name : Ballaghaderreen Landfill | Filename : w0059_2014.xls | Return Year : 2014 |

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Please enter all quantities on this sheet in Tonnes

3

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility	Haz Waste : Address of Next Destination Facility	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)
						M/C/E	Method Used		Haz Waste : Name and Licence/Permit No of Recover/Disposer	Non Haz Waste: Address of Recover/Disposer		
Within the Country	15 01 01	No	19.709	paper and cardboard packaging	R5	M	Weighed	Offsite in Ireland	Barna Waste,CW074	Carrowbrowne,Headford Road,Galway,.,Ireland		
Within the Country	15 01 04	No	2.773	metallic packaging	R4	M	Weighed	Offsite in Ireland	Barna Waste,CW074	Carrowbrowne,Headford Road,Galway,.,Ireland		
Within the Country	16 06 04	No	0.16	alkaline batteries (except 16 06 03)	R4	M	Weighed	Offsite in Ireland	Enva Portlaoise,W0184-01	Estate,.,.,Co Laois,Ireland		
Within the Country	19 07 03	No	25822.0	landfill leachate other than those mentioned in 19 07 02	D8	M	Volume Calculation	Offsite in Ireland	WWTW,D0123-01	Ballaghaderreen,.,.,Co Roscommon,Ireland		
To Other Countries	20 01 02	No	9.02	glass	R5	M	Weighed	Abroad	Clearcircle Environmental (NI) Ltd t/a Glassdon,LN/08/103	Road,Toomebridge,Co Antrim,BT41 3SE,United Kingdom		
Within the Country	20 01 11	No	2.5	textiles	R5	M	Weighed	Offsite in Ireland	Textile Recycling,CW014	Glen Abbey Complex,Belgarde Road,Tallaght,D24,Ireland		
To Other Countries	20 01 26	Yes	0.0	oil and fat other than those mentioned in 20 01 25	R9	M	Weighed	Abroad	Frylite,WML26/26	Orchard Road,Orchard Road Industrial Estate,Strabane,Co Tyrone BT82 9FR,United Kingdom	Frylite,WML26/26,Orchard Road,Orchard Road Industrial Estate,Strabane,Co Tyrone BT82 9FR,United Kingdom	Orchard Road,Orchard Road Industrial Estate,Strabane,Co Tyrone BT82 9FR,United Kingdom
To Other Countries	20 01 27	Yes	4.199	paint, inks, adhesives and resins containing dangerous substances discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	R6	M	Weighed	Abroad	Indaver Ireland,W36-02	4 Haddington Terrace,Dun Laoighre,Co Dublin,.,Ireland	Nelson,.,Louis-Krages Strasse,1028237,Bremen,.,Germany	Louis-Krages Strasse,1028237,Bremen,.,Germany
Within the Country	20 01 36	No	51.56	01 21, 20 01 23 and 20 01 35	R5	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd,W01113-03	Cappincur,Tullamor,.,Co Offaly,Ireland		
Within the Country	20 01 38	No	21.74	wood other than that mentioned in 20 01 37	R3	M	Weighed	Offsite in Ireland	Barna Waste,CW074	Carrowbrowne,Headford Road,Galway,.,Ireland		
Within the Country	20 01 39	No	7.794	plastics	R5	M	Weighed	Offsite in Ireland	Barna Waste,CW074	Carrowbrowne,Headford Road,Galway,.,Ireland		
Within the Country	20 01 40	No	13.62	metals	R4	M	Weighed	Offsite in Ireland	Barna Waste,CW074	Carrowbrowne,Headford Road,Galway,.,Ireland		
Within the Country	20 03 01	No	70.16	mixed municipal waste	D1	M	Weighed	Offsite in Ireland	Barna Waste,CW074	Carrowbrowne,Headford Road,Galway,.,Ireland		

* Select a row by double-clicking the Description of Waste then click the delete button