

Facility Information Summary	
AER Reporting Year	2018
Licence Register Number	W0146-02
Name of site	Knockharley Landfill
Site Location	Knockharley , Navan, Co, Meath
NACE Code	3821
Class/Classes of Activity	11.1, 11.5
National Grid Reference (6E, 6 N)	297532E, 267363N
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 <b>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.</b>	<p>Knockharley Landfill is an operational landfill facility. A section 56 was issued in November 2017 in relation to the remediation of an unauthorised landfill in Timoole, Co. Meath. 67,185 tonnes of waste were accepted from Timoole in 2018 plus additional cover/engineering material to manage the waste. When calculating tonnages against planning/licence conditions these tonnages should not be considered against the facilities planning/licence conditions as they are authorised separately under the S56.</p> <p>All emissions are compliant with the licence requirements. There are no discharges of process effluent to water or sewer.</p>

**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.

Signature Group/Facility manager (or nominated, suitably qualified and experienced deputy)	<i>D. Holman</i>	Date	<i>29/3/19</i>
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Answer all questions and complete all tables where relevant

Additional information

1 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

Yes	
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**Periodic/Non-Continuous Monitoring**

2 Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of TableA1 below

No	
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3 Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic [air monitoring checklist](#) [AGN2](#)

Yes	
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**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	Carbon monoxide (CO)	annual	50	No 30min mean can exceed the ELV	3.03	mg/m3	yes	NCIR by Horiba PG-250	<2.09508	
Flare 1	Nitrogen Oxides (Nox/NO2)	annual	150	SELECT	113.7	mg/m3	yes	Chemiluminescence	140.12388	
Flare 1	Volatile organic compounds (as TOC)	annual	10	SELECT	3.81	mg/m3	yes	FID	4.695444	
Flare 1	Chlorine and inorganic compounds (as HCl)	annual	50	SELECT	6.15	mg/m3	yes	Ion chromatopography	7.57926	
Flare 1	Fluorine and inorganic compounds (s HF)	annual	5	SELECT	<0.46	mg/m3	yes	Ion chromatopography	<0.542256	
Flare 1	Sulphur oxides (Sox/SO2)	annual	50	SELECT	2240.5	mg/m3		NDIR Adsorption	2,761.19	
Flare 2	Carbon monoxide (CO)	annual	50	SELECT	2	mg/m3	yes	NCIR by Horiba PG-250	<4.00554	
Flare 2	Nitrogen Oxides (Nox/NO2)	annual	150	SELECT	69.19	mg/m3	yes	Chemiluminescence	163.025478	
Flare 2	Volatile organic compounds (as TOC)	annual	10	SELECT	4.03	mg/m3	yes	FID	9.495486	
Flare 2	Chlorine and inorganic compounds (as HCl)	annual	50	SELECT	<0.45	mg/m3	yes	Ion chromatopography	<1.013166	
Flare 2	Fluorine and inorganic compounds (s HF)	annual	5	SELECT	<0.43	mg/m3	yes	Ion chromatopography	#VALUE!	
Flare 2	Sulphur oxides (Sox/SO2)	annual	50	SELECT	5926.32	mg/m3		NDIR Adsorption	13,963.59518	
KHO1 Engine	Total Particulates	annual	130	SELECT	6.32	mg/m3	yes	Gravimetric	42.26690	
KHO1 Engine	Carbon monoxide (CO)	annual	1400	SELECT	1047.98	mg/m3	yes	NCIR by Horiba PG-250	7,008.68	
KHO1 Engine	Nitrogen Oxides (Nox/NO2)	annual	500	SELECT	326.52	mg/m3	yes	Chemiluminescence	2,183.70	
KHO1 Engine	Chlorine and inorganic compounds (as HCl)	annual	50	at mass flows >0.05kg/h	8.04	mg/m3	yes	Ion chromatopography	53.77	
KHO1 Engine	Fluorine and inorganic compounds (s HF)	annual	5	at mass flows >0.3kg/h	<0.34	mg/m3	yes	Ion chromatopography	#VALUE!	
KHO1 Engine	TA Luft orgainc substances class 1	annual	20	at mass flows >0.1kg/h	<17.51	mg/m3	yes	Thermal desorption	#VALUE!	
KHO1 Engine	Sulphur oxides (Sox/SO2)	annual	50	SELECT	2543.51	mg/m3		NDIR Adsorption	17,010.49	
KHO1 Engine	Volumetric flow	annual	3000	SELECT	2483	mg/m3	yes	Pitot	6,687,800.00	
KHO2 Engine	Total Particulates	annual	130	SELECT	2.77	mg/m3	yes	Gravimetric	2.882462	
KHO2 Engine	Carbon monoxide (CO)	annual	1400	SELECT	1045	mg/m3	yes	NCIR by Horiba PG-250	1087.427	
KHO2 Engine	Nitrogen Oxides (Nox/NO2)	annual	500	SELECT	258	mg/m3	yes	Chemiluminescence	268.4748	
KHO2 Engine	Chlorine and inorganic compounds (as HCl)	annual	50	at mass flows >0.05kg/h	<0.31	mg/m3	yes	Ion chromatopography	<0.322586	
KHO2 Engine	Fluorine and inorganic compounds (s HF)	annual	5	at mass flows >0.3kg/h	<0.29	mg/m3	yes	Ion chromatopography	<0.301774	
KHO2 Engine	TA Luft orgainc substances class 1	annual	20	at mass flows >0.1kg/h	<0.07	mg/m3	yes	Thermal desorption	<0.072842	
KHO2 Engine	Sulphur oxides (Sox/SO2)	annual	50	SELECT	1353	mg/m3		NDIR Adsorption	1407.9318	
KHO2 Engine	volumetric flow	annual	3000	SELECT	2466	mg/m3	yes	Pitot	1040600	

AIR-summary template				Lic No:	W0146-02	Year	2018		
KHO3 Engine	Total Particulates	annual	130	SELECT	1.38	mg/m3	yes	Gravimetric	2.4305664
KHO3 Engine	Carbon monoxide (CO)	annual	1400	SELECT	1038	mg/m3	yes	NCIR by Horiba PG-250	1828.20864
KHO3 Engine	Nitrogen Oxides (Nox/NO2)	annual	500	SELECT	239	mg/m3	yes	Chemiluminescence	420.94592
KHO3 Engine	Chlorine and inorganic compounds (as HCl)	annual	50	at mass flows >0.05kg/h	<0.32	mg/m3	yes	Ion chromatopography	<0.5636096
KHO3 Engine	Fluorine and inorganic compounds (s HF)	annual	5	at mass flows >0.3kg/h	3.04	mg/m3	yes	Ion chromatopography	5.3542912
KHO3 Engine	TA Luft orgainc substances class 1	annual	20	at mass flows >0.1kg/h	<0.07	mg/m3	yes	Thermal desorption	<0.1232896
KHO3 Engine	Sulphur oxides (Sox/SO2)	annual		SELECT	1332	mg/m3		NDIR Adsorption	2346.02496
KHO3 Engine	volumetric flow	annual	3000	SELECT	2606	mg/m3	yes	Pitot	1761280
KHO4 Engine	Total Particulates	annual	130	SELECT	2.3	mg/m3	yes	Gravimetric	14.115054
KHO4 Engine	Carbon monoxide (CO)	annual	1400	SELECT	1033	mg/m3	yes	NCIR by Horiba PG-250	6339.50034
KHO4 Engine	Nitrogen Oxides (Nox/NO2)	annual	500	SELECT	221	mg/m3	yes	Chemiluminescence	1356.27258
KHO4 Engine	Chlorine and inorganic compounds (as HCl)	annual	50	at mass flows >0.05kg/h	<0.31	mg/m3	yes	Ion chromatopography	<1.9024638
KHO4 Engine	Fluorine and inorganic compounds (s HF)	annual	5	at mass flows >0.3kg/h	2.32	mg/m3	yes	Ion chromatopography	14.2377936
KHO4 Engine	TA Luft orgainc substances class 1	annual	20	at mass flows >0.1kg/h	<0.06	mg/m3	yes	Thermal desorption	<0.3682188
KHO4 Engine	Sulphur oxides (Sox/SO2)	annual		SELECT	1312	mg/m3		NDIR Adsorption	8051.71776
KHO4 Engine	volumetric flow	annual	3000	SELECT	2606	mg/m3	yes	Pitot	6136980

5  
6 Note 1: Volumetric flow shall be included as a reportable parameter

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Continuous Monitoring			
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	No		
Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	Yes		
Do you have a proactive service agreement for each piece of continuous monitoring equipment?	No		
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**

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 1	Carbon monoxide (CO)	500	Annual	All 30-minute averages < 2 x ELV	mg/m3	<1.7				
Flare 2	Carbon monoxide (CO)	1400	Annual	No 30min mean can exceed the ELV	mg/m3	<1.7				
KH01	Carbon monoxide (CO)	1400	Annual	No 30min mean can exceed the ELV	mg/m3	1,088				
KH02	Carbon monoxide (CO)	1400	Annual	No 30min mean can exceed the ELV	mg/m3	1,045				
KH03	Carbon monoxide (CO)	1400	Annual	No 30min mean can exceed the ELV	mg/m4	1,038				
KH04	Carbon monoxide (CO)	1400	Annual	No 30min mean can exceed the ELV	mg/m3	1,033				

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**

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

SELECT

**Table A4: Solvent Management Plan Summary Total VOC Emission limit value**

[Solvent regulations](#) Please refer to linked solvent regulations to complete table 5 and 6

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**

Solvent	(I) Inputs (kg)		(O) Outputs (kg)					Total emission of Solvent to air (kg)
	(I) Inputs (kg)	Organic solvent emission in waste gases(kg)	Solvents lost in water (kg)	Collected waste solvent (kg)	Fugitive Organic Solvent (kg)	Solvent released in other ways e.g. by-passes (kg)	Solvents destroyed onsite through physical reaction e.g. incineration(kg)	
								Total

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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.  
 1 If you do not have licensed emissions you only need to complete table W1 and or W2 for storm water analysis and visual inspections

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

Additional information	
No	There are eight surface water monitoring points at the facility. It is assumed that only data for SW-9, the outlet from the storm water pond is required here.
Yes	Weekly visual inspections are required at each of the nine surface water monitoring points as per the licence. There was no visual evidence of contamination to any of the surface water courses throughout 2018.

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 Baseline Data / Reg Limits as appropriate listed below
SW-9	onsite	SELECT	Temperature	26/02/2018	No	N/A	3.4	degrees C		
SW-9	onsite	SELECT	pH (Field)	26/02/2018	No	N/A	8.09	pH units		
SW-9	onsite	SELECT	Conductivity (Field)	26/02/2018	No	N/A	934	µS/cm@25oC		
SW-9	onsite	SELECT	Chloride	26/02/2018	No	N/A	18.7	mg/L		
SW-9	onsite	SELECT	Ammonia (as N)	26/02/2018	No	N/A	0.08	mg/L		
SW-9	onsite	SELECT	BOD	26/02/2018	No	N/A	2	mg/L		
SW-9	onsite	SELECT	COD	26/02/2018	No	N/A	20	mg/L		
SW-9	onsite	SELECT	Suspended Solids	26/02/2018	35	All values < ELV	<10	mg/L	yes	
SW-9	onsite	SELECT	Dissolved Oxygen	26/02/2018	No	N/A	10	mg/L		
SW-9	onsite	SELECT	Temperature	05/04/2018	No	N/A	6.9	degrees C		
SW-9	onsite	SELECT	pH (Field)	05/04/2018	No	N/A	7.4	pH units		
SW-9	onsite	SELECT	Conductivity (Field)	05/04/2018	No	N/A	968	µS/cm@25oC		
SW-9	onsite	SELECT	Chloride	05/04/2018	No	N/A	27.5	mg/L		
SW-9	onsite	SELECT	Ammonia (as N)	05/04/2018	No	N/A	0.06	mg/L		
SW-9	onsite	SELECT	BOD	05/04/2018	No	N/A	2	mg/L		
SW-9	onsite	SELECT	COD	05/04/2018	No	N/A	9	mg/L		
SW-9	onsite	SELECT	Suspended Solids	05/04/2018	35	All values < ELV	<10	mg/L	yes	
SW-9	onsite	SELECT	Dissolved Oxygen	05/04/2018	No	N/A	9	mg/L		
SW-9	onsite	SELECT	Temperature	10/09/2018	No	N/A	13.3	degrees C		
SW-9	onsite	SELECT	pH (Field)	10/09/2018	No	N/A	7.41	pH units		
SW-9	onsite	SELECT	Conductivity (Field)	10/09/2018	No	N/A	846	µS/cm@25oC		
SW-9	onsite	SELECT	Chloride	10/09/2018	No	N/A	23.4	mg/L		
SW-9	onsite	SELECT	Ammonia (as N)	10/09/2018	No	N/A	0.05	mg/L		
SW-9	onsite	SELECT	BOD	10/09/2018	No	N/A	1	mg/L		
SW-9	onsite	SELECT	COD	10/09/2018	No	N/A	21	mg/L		
SW-9	onsite	SELECT	Suspended Solids	10/09/2018	35	All values < ELV	<10	mg/L	yes	
SW-9	onsite	SELECT	Dissolved Oxygen	10/09/2018	No	N/A	8	mg/L		
SW-9	onsite	SELECT	Total Alkalinity	10/09/2018	No	N/A	110	mg/L		
SW-9	onsite	SELECT	Sulphate	10/09/2018	No	N/A	393.5	mg/L		
SW-9	onsite	SELECT	Total Phosphorus	10/09/2018	No	N/A	52	µg/L		
SW-9	onsite	SELECT	Cadmium	10/09/2018	No	N/A	<0.5	µg/L		
SW-9	onsite	SELECT	Calcium	10/09/2018	No	N/A	129.9	mg/L		
SW-9	onsite	SELECT	Total Chromium	10/09/2018	No	N/A	<1	µg/L		
SW-9	onsite	SELECT	Copper	10/09/2018	No	N/A	54	µg/L		
SW-9	onsite	SELECT	Iron	10/09/2018	No	N/A	54	µg/L		
SW-9	onsite	SELECT	Lead	10/09/2018	No	N/A	<5	µg/L		
SW-9	onsite	SELECT	Magnesium	10/09/2018	No	N/A	26.4	mg/L		
SW-9	onsite	SELECT	Manganese	10/09/2018	No	N/A	52	µg/L		
SW-9	onsite	SELECT	Mercury	10/09/2018	No	N/A	<1	µg/L		
SW-9	onsite	SELECT	Potassium	10/09/2018	No	N/A	1.1	mg/L		
SW-9	onsite	SELECT	Sodium	10/09/2018	No	N/A	16.7	mg/L		
SW-9	onsite	SELECT	Zinc	10/09/2018	No	N/A	<3	µg/L		
SW-9	onsite	SELECT	Temperature	23/10/2018	No	N/A	9.7	degrees C		
SW-9	onsite	SELECT	pH (Field)	23/10/2018	No	N/A	7.39	pH units		
SW-9	onsite	SELECT	Conductivity (Field)	23/10/2018	No	N/A	880	µS/cm@25oC		
SW-9	onsite	SELECT	Chloride	23/10/2018	No	N/A	21.4	mg/L		
SW-9	onsite	SELECT	Ammonia (as N)	23/10/2018	No	N/A	0.04	mg/L		
SW-9	onsite	SELECT	BOD	23/10/2018	No	N/A	<1	mg/L		
SW-9	onsite	SELECT	COD	23/10/2018	No	N/A	17	mg/L		
SW-9	onsite	SELECT	Suspended Solids	23/10/2018	35	All values < ELV	<10	mg/L	yes	
SW-9	onsite	SELECT	Dissolved Oxygen	23/10/2018	No	N/A	11	mg/L		

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AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)						Lic No:	W0146-02	Year	2018
SW Pond Inlet	onsite	SELECT	pH	Q1 2018	9.5 - 6.5	No flow value shall exceed the specific limit.	8.32	pH units	
SW Pond Inlet	onsite	SELECT	TOC	Q1 2018	20	No flow value shall exceed the specific limit.	2.65	mg/L	Yes
SW Pond Inlet	onsite	SELECT	Conductivity	Q1 2018	2100	No flow value shall exceed the specific limit.	1,375	µS/cm@25oC	
SW Pond Inlet	onsite	SELECT	pH	Q2 2018	9.5 - 6.5	No flow value shall exceed the specific limit.	8.45	pH units	
SW Pond Inlet	onsite	SELECT	TOC	Q2 2018	20	No flow value shall exceed the specific limit.	2.48	mg/L	Yes
SW Pond Inlet	onsite	SELECT	Conductivity	Q2 2018	2100	No flow value shall exceed the specific limit.	1,007	µS/cm@25oC	
SW Pond Inlet	onsite	SELECT	pH	Q3 2018	9.5 - 6.5	No flow value shall exceed the specific limit.	8.54	pH units	
SW Pond Inlet	onsite	SELECT	TOC	Q3 2018	20	No flow value shall exceed the specific limit.	1.1	mg/L	Yes
SW Pond Inlet	onsite	SELECT	Conductivity	Q3 2018	2100	No flow value shall exceed the specific limit.	1,376	µS/cm@25oC	
SW Pond Inlet	onsite	SELECT	pH	Q4 2018	9.5 - 6.5	No flow value shall exceed the specific limit.	8.6	pH units	
SW Pond Inlet	onsite	SELECT	TOC	Q4 2018	20	No flow value shall exceed the specific limit.	1.24	mg/L	Yes
SW Pond Inlet	onsite	SELECT	Conductivity	Q4 2018	2100	No flow value shall exceed the specific limit.	1,190	µS/cm@25oC	

\*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
SW-9	Weekly	No Contamination Identified throughout 2018	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

No  Additional information

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

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

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

Emission reference no:	Emission released to	Parameter/ SubstanceNote 1	Type of sample	Frequency of monitoring	Averaging period	ELV or trigger values in licence or any revision there <sup>Note 2</sup>	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

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

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**Continuous monitoring**  
 5 Does your site carry out continuous emissions to water/sewer monitoring? Additional Information

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

**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

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

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**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)

Additional information	
Yes	
3 years	
Yes	
10	
10	
8	
Yes	
4	
0	
n/a	
N/A	
SELECT	
SELECT	

- 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?

**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)
Diesel Bund 1: Diesel Storage Compound	reinforced concrete		diesel	6m3	6.6m3	Hydraulic test	Visual Assessment & partial hydrostatic test	8 & 9 /3/2017	Yes	Pass		SELECT		
Bund B2: Mobile Bund	prefabricated		oil	1m3	1.1m3	Hydraulic test	Visual Assessment & partial hydrostatic test	24 & 25/2/2017	Yes	Pass		SELECT		
Bund B3: Mobile Bund	prefabricated		oil	1m3	1.14m3	Hydraulic test	Visual Assessment & partial hydrostatic test	24 & 25/2/2017	Yes	Pass		SELECT		
Bund B4: Mobile Bund	prefabricated			0.22m3	0.25m3	Hydraulic test	Visual Assessment & partial hydrostatic test	24 & 25/2/2017	Yes	Pass		SELECT		
Bund B5: Mobile Bund	prefabricated		oil	0.22m3	0.25m3	Hydraulic test	Visual Assessment & partial hydrostatic test	24 & 25/2/2017	Yes	Pass		SELECT		
Bunded Storage Container (B6)	other (please specify)	Steel constructed bund with a storage container in the base	hydraulic oils	1.6m3	1.8m3	Hydraulic test	Visual Assessment & partial hydrostatic test	24 & 25/2/2017	Yes	Pass		SELECT		
Bund B7: Mobile Bund	prefabricated			0.04m3	0.05m3	Hydraulic test	Visual Assessment & partial hydrostatic test	24 & 25/2/2017	Yes	Pass		SELECT		
Bund B8: Mobile Bund	prefabricated			0.22m3	0.25m3	Hydraulic test	Visual Assessment & partial hydrostatic test	24 & 25/2/2017	Yes	Pass		SELECT		
Bund B9: Mobile Bund	prefabricated			0.22m3	0.25m3	Hydraulic test	Visual Assessment & partial hydrostatic test	24 & 25/2/2017	Yes	Pass		SELECT		
Bund B10: Mobile Bund	prefabricated		oil	0.22m3	0.25m3	Hydraulic test	Visual Assessment & partial hydrostatic test	24 & 25/2/2017	Yes	Pass		SELECT		

\* Capacity required should comply with 25% or 110% containment rule as detailed in your licence

- 15 Has integrity testing been carried out in accordance with licence requirements and are all structures tested in line with bunding 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?

Yes	
SELECT	
SELECT	

**Pipeline/underground structure testing**

- 1 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 all underground structures
  - 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	
SELECT	

**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



<b>Groundwater/Soil monitoring template</b>	Lic No:	W0146-02	Year	2018
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		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?	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 AND answer questions 5-12 below.	no
5	Is the contamination related to operations at the facility (either current and/or historic)	N/A
6	Have actions been taken to address contamination issues? If yes please summarise remediation strategies proposed/undertaken for the site	N/A
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
9	Has any type of risk assessment been carried out for the site?	yes
10	Has a Conceptual Site Model been developed for the site?	yes
11	Have potential receptors been identified on and off site?	yes
12	Is there evidence that contamination is migrating offsite?	no

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 interpretation as an additional section in this AER

Groundwater monitoring at Knockharley is compared to Groundwater Trigger Levels approved by the Agency in December 2011. None of the results exceed the IG / GTVs and any of the upward trends are very slight, generally caused by one or two peaks and one or two results of zero or less than the limit of detection and therefore a groundwater risk assessment is not deemed to be required at this time.

**Table 1: Upgradient Groundwater monitoring results**

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration++	Average Concentration+	unit	GTVs*	SELECT**	Upward trend in pollutant concentration over last 5 years of monitoring data
2017	MW1D	Temperature	Field Probe	Quarterly	14.1	10.375	°C	25	site GTL	No
2017	MW1D	pH (Field)	Field Probe	Quarterly	8.03	7.7325	pH Units	6.5 - 9.5	IGV	No
2017	MW1D	Electrical Conductivity (Field)	Field Probe	Quarterly	724	656.5	µS/cm	1000	IGV	Yes
2017	MW1D	Dissolved Oxygen		Quarterly	8	6.25	mg/l	NAC	IGV	Yes
2017	MW1D	Ammoniacal Nitrogen as N	Kone Spectrophotometric Analyser	Quarterly	0.43	0.165	mg/l	1.96	site GTL	No
2017	MW1D	Chloride	Kone Spectrophotometric Analyser	Quarterly	24.7	23.375	mg/l	31.28	site GTL	No
2017	MW1D	Iron	ICP-OES	Quarterly	<0.02	<0.02	mg/l	0.2	IGV	No
2017	MW1D	Sodium	ICP-OES	Quarterly	45.9	42.85	mg/l	112.3	site GTL	Yes
2017	MW1D	Potassium	ICP-OES	Quarterly	3.5	3.3	mg/l	6.25	site GTL	No
2017	MW1D	Total Oxidised Nitrogen	Kone Spectrophotometric Analyser	Quarterly	0.3	<0.2	mg/l	NAC	site GTL	No
2017	MW1D	Total Organic Carbon	Colorimetry	Quarterly	<2	<2	mg/l	12.99	site GTL	No
2017	MW1D	Phenols	HPLC	Quarterly	<0.15	<0.15	mg/l	0.02	site GTL	No
2017	MW1D	Total Coliforms	Colilert System	Quarterly	>100	25	cfu/100mls	0	IGV	No
2017	MW1D	Faecal Coliforms	Membrane Filtration	Quarterly	1	0.25	cfu/100mls	0	IGV	No

.\* where average indicates arithmetic mean

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

Table 2: Downgradient Groundwater monitoring results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit	GTV's*	SELECT**	Upward trend in yearly average pollutant concentration over last 5 years of monitoring data
2017	MW6D	Temperature	Field Probe	Quarterly	11.3	9.95	°C	25	site GTL	No
2017	MW6D	pH (Field)	Field Probe	Quarterly	8.15	7.66	pH Units	6.5 - 9.5	IGV	No
2017	MW6D	Electrical Conductivity (Field)	Field Probe	Quarterly	725	637.75	µS/cm	1000	IGV	Yes
2017	MW6D	Dissolved Oxygen		Quarterly	10	7.75	mg/l	NAC	IGV	Yes
2017	MW6D	Ammoniacal Nitrogen as N	Kone Spectrophotometric Analyser	Quarterly	1.05	0.59	mg/l	1.96	site GTL	No
2017	MW6D	Chloride	Kone Spectrophotometric Analyser	Quarterly	16.9	15.70	mg/l	31.28	site GTL	No
2017	MW6D	Iron	ICP-OES	Quarterly	<0.02	<0.02	mg/l	0.2	IGV	No
2017	MW6D	Sodium	ICP-OES	Quarterly	35.4	27.58	mg/l	112.3	site GTL	Yes
2017	MW6D	Potassium	ICP-OES	Quarterly	4.2	2.95	mg/l	6.25	site GTL	No
2017	MW6D	Total Oxidised Nitrogen	Kone Spectrophotometric Analyser	Quarterly	0.3	<0.2	mg/l	NAC	site GTL	No
2017	MW6D	Total Organic Carbon	Colorimetry	Quarterly	<2	<2	mg/l	12.99	site GTL	No
2017	MW6D	Phenols	HPLC	Quarterly	<0.15	<0.15	mg/l	0.02	site GTL	No
2017	MW6D	Total Coliforms	Collert System	Quarterly	14	3.50	cfu/100mls	0	IGV	No
2017	MW6D	Faecal Coliforms	Membrane Filtration	Quarterly	14	3.50	cfu/100mls	0	IGV	Yes

\*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 [Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites \(EPA 2013\)](#) in the EPA published guidance (see the link in G31)

\*\*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](#) [Drinking water](#) [Surface water EQS](#) [regulations](#) [\(private supply\)](#) [Drinking water \(public supply\) standards](#) [Interim Guideline Values \(IGV\)](#)

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

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

			Commentary
1	ELRA initial agreement status	Submitted and agreed by EPA	Insurance in place to cover Environmental Liabilities
2	ELRA review status	SELECT	
3	Amount of Financial Provision cover required as determined by the latest ELRA	Specify	
4	Financial Provision for ELRA status	SELECT	
5	Financial Provision for ELRA - amount of cover	Specify	
6	Financial Provision for ELRA - type	SELECT	
7	Financial provision for ELRA expiry date	Enter expiry date	
8	Closure plan initial agreement status	SELECT	
9	Closure plan review status	SELECT	
10	Financial Provision for Closure status	SELECT	
11	Financial Provision for Closure - amount of cover	Specify	
12	Financial Provision for Closure - type	SELECT	
13	Financial provision for Closure expiry date	Enter expiry date	

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<b>Environmental Management Programme/Continuous Improvement Programme template</b>		Lic No:	W0146-02	Year	2018
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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
Reduction of emissions to Air	Hold bi-annual gas management meetings to review existing infrastructure, discuss maintenance and upgrades as required	Ongoing	Meetings held and documented	Section Head	Increased compliance with licence conditions
Reduction of emissions to Air	In accordance with Condition 6.10.5 of the IED Licence , the site will aim to reduce the number of fugitive VOC emissions from the landfill at each survey. Records are kept showing the survey results.	Ongoing	Progressive final and intermediate capping, continuous gas extraction.	Individual	Reduced emissions
Reduction of emissions to Air	All waste filled to final levels during 2015 to have final cap within 24 months	Ongoing	Structured capping program due for completion in 2017	Section Head	Reduced emissions
Reduction of emissions to Air	Maintain O2 level at 2.5% or below for optimal running and output of generators.	Ongoing	Regular landfill infrastructure checks and field balancing	Individual	Reduced emissions
Reduction of emissions to Air	Continue with placement of Geo Hess temporary capping along the outer flanks of the landfill	Ongoing	Placement of geohess on outer flank of landfill	Section Head	Reduced emissions
Reduction of emissions to Air	Increase use of double lifts and horizontal wells along exposed outer flanks of landfill	Ongoing	As per Target	Section Head	Increased compliance with licence conditions

Environmental Management Programme/Continuous Improvement Programme template				Lic No:	W0146-02	Year	2018
Reduction of emissions to Wastewater	Continue to monitor and control leachate through quarterly leachate quality monitoring and weekly leachate level checks	Ongoing	Weekly and quarterly checks completed	Section Head		Increased compliance with licence conditions	
Reduction of emissions to Wastewater	Implement recirculation of leachate at the landfill	Ongoing	Approved by the Agency. Now implemented in Cells 3 and 4.	Section Head		Reduced emissions	
Reduction of emissions to Wastewater	Continually assess and upgrade infrastructure as necessary. Cells are filled on an individual basis, which decreases leachate volume.	Ongoing	Cells filled on individual basis, on site checks are completed during cell construction	Section Head		Reduced emissions	
Reduction of emissions to Water	Construct leachate processing plant on site. Investigations under way to source new WWTP's within 100kms of the landfill which has the capacity to accept leachate in tankers from the site.	Plans on hold	Plans on hold			Reduced emissions	
Reduction of emissions to Wastewater	Install permanent capping to all finished areas of landfill and extra clay capping on intermediate areas. Geo Hess flanks of Cell 11.	Ongoing	Start geo hess placement in 2016	Individual		Reduced emissions	
Additional improvements	Maintain and continue to improve all on site landscaping and the wetland area.	Ongoing (seasonal)	Carried out in-house	Section Head		Improved Environmental Management Practices	
Additional improvements	Employ a landscape contractor to assess plantations, replace failed trees/plants and improve the overall general appearance of the landfill site.	Ongoing (seasonal)	Carried out in-house	Individual		Improved Environmental Management Practices	
Additional improvements	Implement planting of fruit and nut trees as part of landscaping in planning application.	Plans on hold	Planning application withdrawn	Section Head		Improved Environmental Management Practices	

Environmental Management Programme/Continuous Improvement Programme template			Lic No:	W0146-02	Year	2018
Additional improvements	Review relationships with neighbours and interested parties on a continual basis and review communications programme annually.	Ongoing	Assess communications programme annually.	Section Head	Improved Environmental Management Practices	
Additional improvements	Review the number and composition of complaints to determine any trends.	100%	Monthly assessment of complaints.	Section Head	Less complaints	
Additional improvements	Extend litter picking to include inner boundary road as illegal dumping appears to occur here occasionally.	Ongoing	As per Target	Individual	Increased compliance with licence conditions	
Additional improvements	Continue to hold regular meetings with local residents.	Ongoing	Meetings held and documented	Section Head	Improved Environmental Management Practices	
Additional improvements	Finish cell 11 and go into cell 14 where visual aspect can be minimised. When Cell 14 is full, filling of Cell 13 will commence.	Ongoing	As per development of Landfill	Individual	Increased compliance with licence conditions	
Additional improvements	Continue with litter patrols and litter picking	Ongoing	Done weekly	Individual	Increased compliance with licence conditions	
Additional improvements	Actively encourage site visits from interested parties i.e. local community groups, schools, clubs, etc.	Ongoing	Ongoing	Section Head	Improved Environmental Management Practices	
Additional improvements	Continue distribution of newsletter to local people at regular intervals.	On Hold		Section Head	Improved Environmental Management Practices	
Additional improvements	Continue to provide sponsorship of interested local parties, clubs, etc.	Ongoing	Ongoing	Section Head	Improved Environmental Management Practices	
Additional improvements	Keep Public Information Room updated and current.	Ongoing	Ongoing in 2016	Section Head	Less complaints	
Additional improvements	Review Communications Programme	Complete	Jan-16	Section Head	Less complaints	
Energy Efficiency/Utility conservation	Continual monitoring of annual usage, reported in AER	Ongoing	Ongoing	Section Head	Reduced emissions	

Environmental Management Programme/Continuous Improvement Programme template		Lic No:	W0146-02	Year	2018
Reduction of emissions to Air	Cap in progressive, small sections to reduce of potential fugitive emissions. Coordinate with the contractor on this and include nuisance issues in regular construction meetings	Ongoing	As per target	Individual	Reduced emissions
Materials Handling/Storage/Bunding	Construction of an extension to the concrete plinth of the diesel storage area, to include a berm on the bund.	Complete	Apr-16	Individual	Increased compliance with licence conditions
Additional improvements	Development of a new 'evaluation of legal compliance' tool. Implementation of Pegasus (Register of Legislation)	Complete	Apr-16	Section Head	Increased compliance with licence conditions
Additional improvements	Develop and implement environmental training for all staff	100%	Ongoing on an annual basis	Section Head	Improved Environmental Management Practices

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**Noise monitoring summary report** Lic No: W0146-02 Year 2018

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?  
[Noise Guidance note NG4](#)

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?

Yes

Yes

No

Enter date

No

**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 site compliant with noise limits (day/evening/night)?
25/01/2018	Daytime	N1		39				No		Passing traffic dominant. Distant N2 traffic continuously audible. Plant noise audible on breeze.	Yes
25/01/2018	Daytime	N2		45				No		Plant noise audible & occasional truck movements on access road.	Yes
25/01/2018	Daytime	N3		45				No		Plant and truck noise audible	Yes
25/01/2018	Daytime	N4		42				No		Passing traffic dominant. Distant N2 traffic continuously audible. Plant noise audible on breeze.	Yes
12/04/2018	Daytime	N1		<45				No		Passing traffic dominant. Distant N2 traffic continuously audible. Plant noise audible on breeze.	Yes
12/04/2018	Daytime	N2		26				No		Several truck movements on access road audible.	Yes
12/04/2018	Daytime	N3		<46				No		Plant noise audible.	Yes
12/04/2018	Daytime	N4		<43				No		Passing traffic dominant. Distant N2 traffic continuously audible. Cell construction plant activity was discernible but masked by traffic noise.	Yes
04/09/2018	Daytime	N1		<36				No		Passing traffic dominant. Distant N2 traffic continuously audible. No Plant noise audible.	Yes
04/09/2018	Daytime	N2		<40				No		Plant engines and reversing alarms regularly audible. Truck movements on access road also audible.	Yes
04/09/2018	Daytime	N3		<42				No		Leachate Tanker Pump audible. Occasional plant audible.	Yes
04/09/2018	Daytime	N4		<34				No		Passing traffic dominant. Distant N2 traffic continuously audible. No Plant noise audible.	Yes
24/10/2018	Daytime	N1		<47				No		Passing traffic dominant. Distant N2 traffic continuously audible. Plant noise (Dump trucks) audible on breeze.	Yes
24/10/2018	Daytime	N2		<42				No		Plant engines and reversing alarms audible at low level. Truck movements on access road also slightly audible.	Yes
24/10/2018	Daytime	N3		<40				No		Plant engines and reversing alarms audible at low level. Truck movements on access road also slightly audible.	Yes
24/10/2018	Daytime	N4		<49				No		Passing traffic dominant. Distant N2 traffic continuously audible. Plant noise (Dump trucks) audible on breeze.	Yes

\*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:

W0146-02

Year

2018

## Additional information

- 1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below
- 2 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
- 3 Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

Sep-10	
No	
SELECT	Not Applicable

Table R1 Energy usage on site				
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)				
Electricity Consumption (MWHrs)	169.7	145	96.26%	
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	426.426	372.23	139.41%	
Natural gas (m3)				
Coal/Solid fuel (metric tonnes)				
Peat (metric tonnes)				
Renewable Biomass				
Renewable energy generated on site				

\* 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					Water Emissions	Water Consumption	
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*	Volume Discharged back to environment(m <sup>3</sup> yr):	Volume used i.e not discharged to environment e.g. released as steam m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply	4,180	4286	78.66%				
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

<b>Resource Usage/Energy efficiency summary</b>	Lic No: W0146-02	Year	2018
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Table R3 Waste Stream Summary					
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)					
Non-Hazardous (Tonnes)					

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
Sep-10			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					

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**Complaints and Incidents summary template** Lic No: W0146-02 Year 2018

Complaints

Additional information

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

Yes

Table 1 Complaints summary

Date	Category	Other type (please specify)	Brief description of complaint (Free txt <20 words) / EPA Complaint Ref	Corrective action< 20 words	Resolution status	Resolution date	Further information
1	19/01/2018	Noise	Noise/Vibration	Investigated	Complete	19/01/2018	
2	22/01/2018	Noise	Noise/Vibration	Investigated	Complete	22/01/2018	
3	14/02/2018	Odour	Odour	Investigated	Complete	14/02/2018	
4	21/02/2018	Noise	Noise/Vibration	Investigated	Complete	21/02/2018	
5	22/03/2018	Odour	Odour	Investigated	Complete	22/03/2018	COM007186
6	26/03/2018	Noise	Noise and Odour	Investigated	Complete	26/03/2018	COM007196
7	19/04/2018	Odour	Odour	Investigated	Complete	19/04/2018	
8	21/04/2018	Odour	Odour	Investigated	Complete	21/04/2018	
9	18/05/2018	Odour	Odour	Investigated	Complete	18/05/2018	
10	28/05/2018	Odour	Odour	Investigated	Complete	28/05/2018	
11	31/05/2018	Odour	Odour	Investigated	Complete	31/05/2018	
12	26/07/2018	Odour	Odour	Investigated	Complete	26/07/2018	
13	30/07/2018	Odour	Odour	Investigated	Complete	30/07/2018	COM007822
14	31/07/2018	Odour	Odour	Investigated	Complete	31/07/2018	COM007837 Non compliance for odour
15	16/08/2018	Odour	Odour	Investigated	Complete	16/08/2018	
16	24/09/2018	Odour	Odour	Investigated	Complete	24/09/2018	
17	30/11/2018	Odour	Odour	Investigated	Complete	30/11/2018	
Total complaints open at start of reporting year		0					
Total new complaints received during reporting year		17					
Total complaints closed during reporting year		17					
Balance of complaints end of reporting year		0					

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**Complaints and Incidents summary template** Lic No: W0146-02 Year 2018

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

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

Table 2 Incidents summary

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
22/01/2018	Trigger level reached	Perimeter gas monitoring	1. Minor	Air	Operational controls		Normal activities	EPA	Recurring	Incident reported to EPA under INCI013733	Continued monitoring	Complete	08/01/2019	Low
27/06/2018	Trigger level reached	Surface VOC emission	1. Minor	Air	Operational controls		Normal activities	EPA	New	Incident reported to EPA under INCI014814	Additional over placed on slopes and more suction applied to gas field	Complete	17/07/2018	Low
01/11/2018	Trigger level reached	Surface VOC emission	1. Minor	air	Operational controls		Normal activities	EPA	New	Incident reported to EPA under INCI015564	Additional over placed on slopes and more suction applied to gas field	Complete	03/12/2018	Low
Total number of incidents current year	3													
Total number of incidents previous year	6													
% reduction/increase	%													

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WASTE SUMMARY		Lic No:	W0146-02	Year	2017
SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES			PRTR facility login	dropdown list click to see options	

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

Additional Information

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 is to be captured through PRTR reporting)

If yes please enter details in table 1 below

Yes	
-----	--

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	
----	--

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

No	
----	--

**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	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 -
	<a href="#">European Waste Catalogue EWC codes</a>		<a href="#">European Waste Catalogue EWC codes</a>								
	EWC 191004	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	Auto Shredder Sesidue	198.94	0	-100%			D5- Specially engineered landfill		
	EWC 08 03 15	08- WASTES FORM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS,) ADHESIVES, SEALANTS AND PRINTING INKS	Ink sludges other than those mentioned in 08 03 14	58.88	54.4	-15%	Market Forces		D5- Specially engineered landfill		
	EWC 08 03 18	08- WASTES FORM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS,) ADHESIVES, SEALANTS AND PRINTING INKS	waste printing toner other than tonse mentioned in 08 03 17	226.12	196.46	769%	Market Forces		D5- Specially engineered landfill		
	EWC 17 06 04	17- CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)	Insulation Materials	171.86	22.26	100%	Market Forces				
	EWC 19 05 01 (Disposal Levy Exempt)		Non composted Fraction of municipal and similar wastes	0	420.96	-7%			D5- Specially engineered landfill		
	EWC 19 05 99 (Disposal Levy Exempt)		Stabilised Waste - Residual Fraction	0	0	-100%			D5- Specially engineered landfill		

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EWC 19 08 01	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	Screenings from waste water treatment plants	798.5	740.74	28%	Market Forces	D5- Specially engineered landfill		
EWC 19 08 02	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	Waste from desanding	286.06	146.08	29%		D5- Specially engineered landfill		
EWC 19 12 04	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	PVC	835	829.2	-12%	Market Forces	D5- Specially engineered landfill		
EWC 19 12 12( Disposal Exempt)	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	Fines C&D	33673.04	13175.08	1773%	Market Forces	D5- Specially engineered landfill		
EWC 19 12 12	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	C&I Dry Mixed (residual municipal and commercial waste)	8001.36	9053.88	-30%	Market Forces	D5- Specially engineered landfill		
EWC 19 12 12	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	Residual municipal and commercial waste	0	0	-100%		D5- Specially engineered landfill		
EWC 19 12 12 (Disposal Exempt)	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	C&I Fines	0	0	-100%		D5- Specially engineered landfill		
EWC 19 12 12 (Disposal Exempt)	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	Mechanically treated Fines	440.94	1462.82	-76%		D5- Specially engineered landfill		

WASTE SUMMARY		Lic No: W0146-02		Year 2017					
EWC 19 12 12	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	C&D Mixed	0	1258	180%		D5- Specially engineered landfill		
EWC 20 01 38		Wood other than those mentioned in 20 01 37	0	0	-100%		D5- Specially engineered landfill		
EWC 20 01 39		Plastics	0	0	-100%		D5- Specially engineered landfill		
EWC 20 03 01	20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	Secure Burial	211.74	1087.2	100%		D5- Specially engineered landfill		
EWC 20 03 01 (Licence Exempt)	20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	Mixed Municipal Waste	67185.43	884.3	100%		D5- Specially engineered landfill		SS6 Disposal (Timoole)
EWC 20 03 01	20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	Mixed Municipal Waste	34046.13	51464.55	-54%	Market Forces	D5- Specially engineered landfill		
EWC 20 03 03	20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	Street cleaning waste	5566.76	1155.06	-90%	Market Forces	D5- Specially engineered landfill		
EWC 20 03 07	20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	Municipal Bulky Waste	2072.08	2261.58	-54%	Market Forces	D5- Specially engineered landfill		
EWC 17 05 04	17- CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)	Soil and Stone	12334.05	17937.6	26%	Market Forces	R5-Recycling/reclamation or other inorganic materials which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials		
EWC 17 05 04	17- CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)	Soil & Stone (TOPSOIL)	0.00	4,441.19	-87%	Market Forces	R5-Recycling/reclamation or other inorganic materials which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials		Used for Restoration
EWC 19 01 12	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	Incinerator Bottom Ash	26754.16	13197.94	-13%	Market Forces	R5-Recycling/reclamation or other inorganic materials which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials		

WASTE SUMMARY		Lic No: W0146-02		Year 2017							
	EWC 19 01 12 (Licence Exempt)	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	Incinerator Bottom Ash	6212.12	1192.8	100%	Market Forces		R5-Recycling/reclamation or other inorganic materials which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials		SS6 Recovery (Timoole)
	EWC 10 01 01	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	Bottom Ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)	0	0.00	-100%			R5-Recycling/reclamation or other inorganic materials which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials		
	EWC 19 05 99	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	Residual fraction from Aerobic Treatment (CLO)	11640.42	9562.14	-21%	Market Forces		R3-Recycling/reclamation or organic substances which are not used as solvents(including composting asanother biological transformation processes)which includes gasification and pyrolysis		
	EWC 19 05 99	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	Residual fraction from Aerobic Treatment (CLO)	12066.18	0	-21%	Market Forces		R3-Recycling/reclamation or organic substances which are not used as solvents(including composting asanother biological transformation processes)which includes gasification and pyrolysis		Timoole

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WASTE SUMMARY		Lic No: W0146-02		Year: 2017					
EWC 19 09 02	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	Sludges from water clarification	0	0.00	-100%	Market Forces	R11-Use of waste obtained from any of the operations numbered R1 to R10		
EWC 19 12 07	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	Woodchip	4711.38	1917.78	-64%	Market Forces	R3-Recycling/reclamation or organic substances which are not used as solvents(including composting asanother biological transformation processes)which includes gasification and pyrolysis		
EWC 19 12 07 (Licence Exempt)	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	Woodchip	1116.66	232.36	100%	Market Forces	R3-Recycling/reclamation or organic substances which are not used as solvents(including composting asanother biological transformation processes)which includes gasification and pyrolysis		S56 Recovery (Timoole)
EWC 19 12 09	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	Minerals (including mineral fines)	0	0.00	-100%	Market Forces	R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials		
EWC 19 12 12	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	C&D Fines	10138	25880.00	-33%	Market Forces	R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials		
EWC 19 12 12 (Licence Exempt)	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	C&D Fines	15848.76	4939.02	100%	Market Forces	R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials		S56 Recovery (Timoole)
EWC 19 12 12	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	C&I Fines	32933.92	33315.32	100%	Market Forces	R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials		
EWC 19 12 12 (Licence Exempt)	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	C&I Fines	14143.74	4354.22	100%	Market Forces	R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials		S56 Recovery (Timoole)

WASTE SUMMARY		Lic No:		W0146-02		Year		2017		
	EWC 19 12 12	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	Stone	14570.84	13173.5	38%	Market Forces		R5-Recycling/reclamation or other inorganic materials which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials	
	EWC 19 12 12 (Licence Exempt)	19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	Stone	11377.54	9146.44	100%	Market Forces		R5-Recycling/reclamation or other inorganic materials which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials	S56 Recovery (Timoole)

**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	
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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

N/A	
-----	--

6 Does your facility have relevant nuisance controls in place?

Yes	
-----	--

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

Yes	
-----	--

8 Do you maintain a sludge register on site?

N/A	
-----	--

**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
Municipal Solid Waste	88,000 / 175,000	86,587	1,046,061	88,000 tonnes as per planning Permission, 175,000t as per licence. Additional 67185.43t waste disposed of via Section 56.

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<b>WASTE SUMMARY</b>		Lic No:	W0146-02	Year	2017
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**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
										m2	m2	SELECT UNIT	
Cells 1 - 18	2004	Ongoing	Yes	Private	Non Hazardous	2031	No	No	No	160000	160000	0	1m x 10-9 clay liner and HDPE Geomembrane

**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
Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	

+ 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
m2	m2					
17,000	35,000	108000	0	108000	Final cap to LDstd: gas collection layer, 1mm fully welded LLDPE liner, sub-surface drainage layer, subsoil layer and topsoil layer. Soil thickness of 1m. Other cap: temporary cover and intermediate cap.	

\*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  offsite

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
18823.43						offsite WWTP	

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
20,604,882	18,155	National Grid	Yes	

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## Waste Summary Continued

Please insert a copy of your Waste Management Record for waste transferred off site

No waste was transferred offsite in 2018

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