

Facility Information Summary	
AER Reporting Year	2018
Licence Register Number	P0886-02
Name of site	Rottapharm Limited
Site Location	Damastown Industrial Estate, Mulhuddart, Dublin 15
NACE Code	2110
Class/Classes of Activity	5.16, 12.2.1
National Grid Reference (6E, 6 N)	305430E, 241178N

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.**

Rottapharm Ltd. continues to primarily sell and market sachets of Glucosamine Sulphate (CGS) and Plantaben via its sachet lines. Organic solvent coating occurs in Area 2 where Tromalyt capsules are the main product while capsules of CGS are also manufactured. Production at the facility increased by 13.5 percent from 2017 to 2018. There were no environmental complaints received by the site. There were 2 environmental incidents on site during 2018. One incident related to the malfunction of a one of the pH probes at SE1. This was reported to the agency but following investigation, it was confirmed no parameter was impacted. The second was caused by the failure of an alarm to be routed through the IT system. This resulted in a pH exceedence at SE1. Products manufactured in 2018 were Dona, Ananase, Desunin, Extranase, Lunelax, Macrogol, Plantaben, Thioctacid, Tromalyt, Vi-Siblin, ZymaDuo, Zymaflour.

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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)	19/12 March 2019 Date
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AIR-summary template Lic No: P0886-02 Year 2018

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? [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
A2-1	volumetric flow	Quarterly	18900	All 1-hour averages < ELV	10513	m ³ /hour	yes	OTH		2018 Q1
A2-1	Total Organic Carbon (as C)	Quarterly	20	In one monitoring exercise, the average of all readings shall not exceed the ELV; and none of the hourly averages shall exceed the ELV by more than a factor of 1.5.	8.81	mg/Nm ³	yes	EN 12619: 2013	138.96	2018 Q1-1 , The annual mass emission load is calculated using the average of the monitoring data for TOC emissions in 2018 and the operational hours of spraying and drying processes in the year.
A2-1	Total Organic Carbon (as C)	Quarterly	20	In one monitoring exercise, the average of all readings shall not exceed the ELV; and none of the hourly averages shall exceed the ELV by more than a factor of 1.5.	11.51	mg/Nm ³	yes	EN 12619: 2013		2018 Q1-2
A2-1	Total Organic Carbon (as C)	Quarterly	20	In one monitoring exercise, the average of all readings shall not exceed the ELV; and none of the hourly averages shall exceed the ELV by more than a factor of 1.5.	15.63	mg/Nm ³	yes	EN 12619: 2013		2018 Q1-3

AIR-summary template			Lic No: P0886-02		Year: 2018						
A2-1	Nitrogen oxides (NOx/NO2)	Quarterly	100	No 30min mean can exceed the ELV	2.51	mg/Nm3	yes	EN 14792: 2017	67.21	2018 Q1-1, The annual mass emission load is calculated using the average of the monitoring data for NOx emissions in 2018 and the operational hours of spraying and drying processes in the year.	
A2-1	Nitrogen oxides (NOx/NO2)	Quarterly	100	No 30min mean can exceed the ELV	2.38	mg/Nm3	yes	EN 14792: 2017		2018 Q1-2	
A2-1	Nitrogen oxides (NOx/NO2)	Quarterly	100	No 30min mean can exceed the ELV	9.19	mg/Nm3	yes	EN 14792: 2017		2018 Q1-3	
A2-1	Carbon monoxide (CO)	Quarterly	100	No 30min mean can exceed the ELV	6.75	mg/Nm3	yes	EN 15058:2017	83.29	2018 Q1-1, The annual mass emission load is calculated using the average of the monitoring data for CO emissions in 2018 and the operational hours of spraying and drying processes in the year.	
A2-1	Carbon monoxide (CO)	Quarterly	100	No 30min mean can exceed the ELV	8.05	mg/Nm3	yes	EN 15058:2017		2018 Q1-2	
A2-1	Carbon monoxide (CO)	Quarterly	100	No 30min mean can exceed the ELV	5.11	mg/Nm3	yes	EN 15058:2017		2018 Q1-3	
A2-1	volumetric flow	Quarterly	18900	All 1-hour averages < ELV	10469	M3/hour	yes	OTH		2018 Q2	
A2-1	Total Organic Carbon (as C)	Quarterly	20	In one monitoring exercise, the average of all readings shall not exceed the ELV; and none of the hourly averages shall exceed the ELV by more than a factor of 1.5.	12.96	mg/Nm3	yes	EN 12619: 2013		2018 Q2-1	
A2-1	Total Organic Carbon (as C)	Quarterly	20	In one monitoring exercise, the average of all readings shall not exceed the ELV; and none of the hourly averages shall exceed the ELV by more than a factor of 1.5.	12.44	mg/Nm3	yes	EN 12619: 2013		2018 Q2-2	
A2-1	Total Organic Carbon (as C)	Quarterly	20	In one monitoring exercise, the average of all readings shall not exceed the ELV; and none of the hourly averages shall exceed the ELV by more than a factor of 1.5.	11.56	mg/Nm3	yes	EN 12619: 2013		2018 Q2-3	
A2-1	Nitrogen oxides (NOx/NO2)	Quarterly	100	No 30min mean can exceed the ELV	3.61	mg/Nm3	yes	EN 14792: 2017		2018 Q2-1	
A2-1	Nitrogen oxides (NOx/NO2)	Quarterly	100	No 30min mean can exceed the ELV	0.65	mg/Nm3	yes	EN 14792: 2017		2018Q2-2	
A2-1	Nitrogen oxides (NOx/NO2)	Quarterly	100	No 30min mean can exceed the ELV	1.44	mg/Nm3	yes	EN 14792: 2017		2018 Q2-3	

AIR-summary template				Lic No:	P0886-02	Year	2018			
A2-1	Carbon monoxide (CO)	Quarterly	100	No 30min mean can exceed the ELV	2.77	mg/Nm3	yes	EN 15058:2017		2018 Q2-1
A2-1	Carbon monoxide (CO)	Quarterly	100	No 30min mean can exceed the ELV	3.66	mg/Nm3	yes	EN 15058:2017		2018 Q2-2
A2-1	Carbon monoxide (CO)	Quarterly	100	No 30min mean can exceed the ELV	5.57	mg/Nm3	yes	EN 15058:2017		2018 Q2-3
A2-1	volumetric flow	Quarterly	18900	All 1-hour averages < ELV	12649	M3/hour	yes	OTH		2018 Q3
A2-1	Total Organic Carbon (as C)	Quarterly	20	In one monitoring exercise, the average of all readings shall not exceed the ELV; and none of the hourly averages shall exceed the ELV by more than a factor of 1.5.	1.14	mg/Nm3	yes	EN 12619: 2013		2018 Q3-1
A2-1	Total Organic Carbon (as C)	Quarterly	20	In one monitoring exercise, the average of all readings shall not exceed the ELV; and none of the hourly averages shall exceed the ELV by more than a factor of 1.5.	2.07	mg/Nm3	yes	EN 12619: 2013		2018 Q3-2
A2-1	Total Organic Carbon (as C)	Quarterly	20	In one monitoring exercise, the average of all readings shall not exceed the ELV; and none of the hourly averages shall exceed the ELV by more than a factor of 1.5.	4.02	mg/Nm3	yes	EN 12619: 2013		2018 Q3-3
A2-1	Nitrogen oxides (NOx/NO2)	Quarterly	100	No 30min mean can exceed the ELV	0.26	mg/Nm3	yes	EN 14792: 2017		2018 Q3-1
A2-1	Nitrogen oxides (NOx/NO2)	Quarterly	100	No 30min mean can exceed the ELV	0.24	mg/Nm3	yes	EN 14792: 2017		2018 Q3-2
A2-1	Nitrogen oxides (NOx/NO2)	Quarterly	100	No 30min mean can exceed the ELV	0.86	mg/Nm3	yes	EN 14792: 2017		2018 Q3-3
A2-1	Carbon monoxide (CO)	Quarterly	100	No 30min mean can exceed the ELV	0.98	mg/Nm3	yes	EN 15058:2017		2018 Q3-1
A2-1	Carbon monoxide (CO)	Quarterly	100	No 30min mean can exceed the ELV	1.38	mg/Nm3	yes	EN 15058:2017		2018 Q3-2

AIR-summary template				Lic No: P0886-02		Year		2018	
A2-1	Carbon monoxide (CO)	Quarterly	100	No 30min mean can exceed the ELV	8.26	mg/Nm3	yes	EN 15058:2017	2018 Q3-3
A2-1	volumetric flow	Quarterly	18900	All 1-hour averages < ELV	12546	M3/hour	yes	OTH	2018 Q4
A2-1	Total Organic Carbon (as C)	Quarterly	20	In one monitoring exercise, the average of all readings shall not exceed the ELV; and none of the hourly averages shall exceed the ELV by more than a factor of 1.5.	3.64	mg/Nm3	yes	EN 12619: 2013	2018 Q4-1
A2-1	Total Organic Carbon (as C)	Quarterly	20	In one monitoring exercise, the average of all readings shall not exceed the ELV; and none of the hourly averages shall exceed the ELV by more than a factor of 1.5.	9	mg/Nm3	yes	EN 12619: 2013	2018 Q4-2
A2-1	Total Organic Carbon (as C)	Quarterly	20	In one monitoring exercise, the average of all readings shall not exceed the ELV; and none of the hourly averages shall exceed the ELV by more than a factor of 1.5.	7.39	mg/Nm3	yes	EN 12619: 2013	2018 Q4-3
A2-1	Nitrogen oxides (NOx/NO2)	Quarterly	100	No 30min mean can exceed the ELV	8.58	mg/Nm3	yes	EN 14792: 2017	2018 Q4-1
A2-1	Nitrogen oxides (NOx/NO2)	Quarterly	100	No 30min mean can exceed the ELV	8.21	mg/Nm3	yes	EN 14792: 2017	2018 Q4-2
A2-1	Nitrogen oxides (NOx/NO2)	Quarterly	100	No 30min mean can exceed the ELV	10.52	mg/Nm3	yes	EN 14792: 2017	2018 Q4-3
A2-1	Carbon monoxide (CO)	Quarterly	100	No 30min mean can exceed the ELV	6.03	mg/Nm3	yes	EN 15058:2017	2018 Q4-1
A2-1	Carbon monoxide (CO)	Quarterly	100	No 30min mean can exceed the ELV	5.64	mg/Nm3	yes	EN 15058:2017	2018 Q4-2
A2-1	Carbon monoxide (CO)	Quarterly	100	No 30min mean can exceed the ELV	5.84	mg/Nm3	yes	EN 15058:2017	2018 Q4-3

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

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Continuous Monitoring		

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)	No	
5 Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	N/A	
6 Do you have a proactive service agreement for each piece of continuous monitoring equipment?	N/A	
7 Did your site experience any abatement system bypasses? If yes please detail them in table A3 below	Yes	

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 exceedances in current reporting year	Comments
	SELECT			SELECT	SELECT					
	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
27/02/2018	Max. 1 minute	A2-1	Hot gas damper run time fault open.	Maximum 1.17kg Solvent released	Process shutdown and RTO serviced by Engineering dept.
27/02/2018	Max. 1 minute	A2-1	Hot gas damper run time fault open.	Maximum 1.17kg Solvent released	Process shutdown and RTO serviced by Engineering dept.
27/02/2018	Max. 1 minute	A2-1	Hot gas damper run time fault open.	Maximum 1.17kg Solvent released	Process shutdown and RTO serviced by Engineering dept.

* 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

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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

Yes

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 Fugitive emissions to Air from site (kg)	Fugitive emissions as %of solvent input	Total Emission Limit Value (ELV) in licence or any revision therof	Compliance
2018	24609	801.91	3.26	Fugitive emission shall not exceed 5 % of total solvent input, where solvent consumption is greater than 50 tonnes per calendar year.	N/A - as solvent consumption for 2018 was not above the threshold of 50 tonnes for 2018

Table A5: Solvent Mass Balance summary								
	(I) Inputs (kg)	(O) Outputs (kg)						
Solvent	(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 emission of Solvent to air (kg)
Isopropyl Alcohol	12210	66.29	0	1706	801.91	3.52	22031.6	871.72
Acetone	9456							
Ethanol	774							
Eudragit (Isopropyl Alcohol)	2169.48							
Total	24609						Total	871.72

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		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	There are two storm water licensed emission points (SW1 and SW2). There is one sewer licensed emission point (SE1).
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	There was no contamination observed during weekly visual inspections of the storm water retention pond on site or SW1 and SW2.

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
SW1	downstream	Total organic carbon (TOC) (as total C or COD/3)	Total Organic Carbon (as C)	26/02/2018	N/A	N/A	3.8	mg/L	N/A	
SW1	downstream	pH	pH	26/02/2018	N/A	N/A	7.9	pH units	N/A	
SW2	upstream	Total organic carbon (TOC) (as total C or COD/3)	Total Organic Carbon (as C)	26/02/2018	N/A	N/A	3.8	mg/L	N/A	
SW2	upstream	pH	pH	26/02/2018	N/A	N/A	8	pH units	N/A	
SW1	downstream	Total organic carbon (TOC) (as total C or COD/3)	Total Organic Carbon (as C)	20/06/2018	N/A	N/A	34.7	mg/L	N/A	Low flow due to extremely dry period.
SW1	downstream	pH	pH	20/06/2018	N/A	N/A	6.44	pH units	N/A	
SW2	upstream	Total organic carbon (TOC) (as total C or COD/3)	Total Organic Carbon (as C)	20/06/2018	N/A	N/A	58.6	mg/L	N/A	Low flow due to extremely dry period.
SW2	upstream	pH	pH	20/06/2018	N/A	N/A	6.53	pH units	N/A	
SW1	downstream	Total organic carbon (TOC) (as total C or COD/3)	Total Organic Carbon (as C)	21/09/2018	N/A	N/A	6	mg/L	N/A	
SW1	downstream	pH	pH	21/09/2018	N/A	N/A	6.97	pH units	N/A	
SW2	upstream	Total organic carbon (TOC) (as total C or COD/3)	Total Organic Carbon (as C)	21/09/2018	N/A	N/A	4.8	mg/L	N/A	
SW2	upstream	pH	pH	21/09/2018	N/A	N/A	6.46	pH units	N/A	
SW1	downstream	Total organic carbon (TOC) (as total C or COD/3)	Total Organic Carbon (as C)	07/11/2018	N/A	N/A	3	mg/L	N/A	
SW1	downstream	pH	pH	07/11/2018	N/A	N/A	7.54	pH units	N/A	
SW2	upstream	Total organic carbon (TOC) (as total C or COD/3)	Total Organic Carbon (as C)	07/11/2018	N/A	N/A	0.8	mg/L	N/A	
SW2	upstream	pH	pH	07/11/2018	N/A	N/A	7.44	pH units	N/A	

*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	N/A	N/A	N/A	NA	*Note - Visual inspections carried out by Facilities. No evidence of contamination reported.

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
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	Yes

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AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)	Lic No: P0886-02	Year 2018
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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 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	
SE1	Wastewater/Sewer	BOD	composite	Monthly	24 hour	2000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	59	mg/L	yes	Electrometry	Other	113	1865.86	Jan	Annual mass load for each parameter calculated using monthly average volumetric flow of 411.5m ³
SE1	Wastewater/Sewer	COD	composite	Monthly	24 hour	4000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	311	mg/L	yes	Spectrophotometry (Colorimetry)	Other	107	3540.36	Jan	
SE1	Wastewater/Sewer	Fats, Oils and Greases	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	9	mg/L	yes	Gravimetric analysis	Other	101	73.66	Jan	
SE1	Wastewater/Sewer	Sulphate	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	54	mg/L	yes	Spectrophotometry (Colorimetry)	Other	119	257.29	Jan	
SE1	Wastewater/Sewer	Suspended Solids	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	28	mg/L	yes	Gravimetric analysis	Other	106	227.57	Jan	
SE1	Wastewater/Sewer	Chloride	composite	Monthly	24 hour	1000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	867.3	mg/L	yes	Spectrophotometry (Colorimetry)	Other	100	4167.57	Jan	
SE1	Wastewater/Sewer	Detergents (as MBAS)	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	0.174	mg/L	yes	Spectrophotometry (Colorimetry)	Other	116	1.60	Jan	
SE1	Wastewater/Sewer	BOD	composite	Monthly	24 hour	2000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	150	mg/L	yes	Electrometry	Other	113	See above	Feb	
SE1	Wastewater/Sewer	COD	composite	Monthly	24 hour	4000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	287	mg/L	yes	Spectrophotometry (Colorimetry)	Other	107	See above	Feb	
SE1	Wastewater/Sewer	Fats, Oils and Greases	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	12	mg/L	yes	Gravimetric analysis	Other	101	See above	Feb	
SE1	Wastewater/Sewer	Sulphate	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	82	mg/L	yes	Spectrophotometry (Colorimetry)	Other	119	See above	Feb	
SE1	Wastewater/Sewer	Suspended Solids	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	53	mg/L	yes	Gravimetric analysis	Other	106	See above	Feb	
SE1	Wastewater/Sewer	Chloride	composite	Monthly	24 hour	1000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	974	mg/L	yes	Spectrophotometry (Colorimetry)	Other	100	See above	Feb	
SE1	Wastewater/Sewer	Detergents (as MBAS)	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	0.17	mg/L	yes	Spectrophotometry (Colorimetry)	Other	116	See above	Feb	
SE1	Wastewater/Sewer	BOD	composite	Monthly	24 hour	2000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	225	mg/L	yes	Electrometry	Other	113	See above	March	
SE1	Wastewater/Sewer	COD	composite	Monthly	24 hour	4000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	410	mg/L	yes	Spectrophotometry (Colorimetry)	Other	107	See above	March	
SE1	Wastewater/Sewer	Fats, Oils and Greases	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	16	mg/L	yes	Gravimetric analysis	Other	101	See above	March	
SE1	Wastewater/Sewer	Sulphate	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	60	mg/L	yes	Spectrophotometry (Colorimetry)	Other	119	See above	March	
SE1	Wastewater/Sewer	Suspended Solids	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	29	mg/L	yes	Gravimetric analysis	Other	106	See above	March	

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)							Lic No:	P0886-02	Year	2018					
SE1	Wastewater/Sewer	Chloride	composite	Monthly	24 hour	1000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	845	mg/L	yes	Spectrophotometry (Colorimetry)	Other	100	See above	March
SE1	Wastewater/Sewer	Detergents (as MBAS)	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	0.353	mg/L	yes	Spectrophotometry (Colorimetry)	Other	116	See above	March
SE1	Wastewater/Sewer	BOD	composite	Monthly	24 hour	2000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	210	mg/L	yes	Electrometry	Other	113	See above	April
SE1	Wastewater/Sewer	COD	composite	Monthly	24 hour	4000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	565	mg/L	yes	Spectrophotometry (Colorimetry)	Other	107	See above	April
SE1	Wastewater/Sewer	Fats, Oils and Greases	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	18	mg/L	yes	Gravimetric analysis	Other	101	See above	April
SE1	Wastewater/Sewer	Sulphate	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	49	mg/L	yes	Spectrophotometry (Colorimetry)	Other	119	See above	April
SE1	Wastewater/Sewer	Suspended Solids	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	51	mg/L	yes	Gravimetric analysis	Other	106	See above	April
SE1	Wastewater/Sewer	Chloride	composite	Monthly	24 hour	1000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	725	mg/L	yes	Spectrophotometry (Colorimetry)	Other	100	See above	April
SE1	Wastewater/Sewer	Detergents (as MBAS)	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	0.454	mg/L	yes	Spectrophotometry (Colorimetry)	Other	116	See above	April
SE1	Wastewater/Sewer	BOD	composite	Monthly	24 hour	2000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	285	mg/L	yes	Electrometry	Other	113	See above	May
SE1	Wastewater/Sewer	COD	composite	Monthly	24 hour	4000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	515	mg/L	yes	Spectrophotometry (Colorimetry)	Other	107	See above	May
SE1	Wastewater/Sewer	Fats, Oils and Greases	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	17	mg/L	yes	Gravimetric analysis	Other	101	See above	May
SE1	Wastewater/Sewer	Sulphate	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	20	mg/L	yes	Spectrophotometry (Colorimetry)	Other	119	See above	May
SE1	Wastewater/Sewer	Suspended Solids	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	42	mg/L	yes	Gravimetric analysis	Other	106	See above	May
SE1	Wastewater/Sewer	Chloride	composite	Monthly	24 hour	1000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	945	mg/L	yes	Spectrophotometry (Colorimetry)	Other	100	See above	May
SE1	Wastewater/Sewer	Detergents (as MBAS)	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	0.402	mg/L	yes	Spectrophotometry (Colorimetry)	Other	116	See above	May
SE1	Wastewater/Sewer	BOD	composite	Monthly	24 hour	2000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	380	mg/L	yes	Electrometry	Other	113	See above	June
SE1	Wastewater/Sewer	COD	composite	Monthly	24 hour	4000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	744	mg/L	yes	Spectrophotometry (Colorimetry)	Other	107	See above	June
SE1	Wastewater/Sewer	Fats, Oils and Greases	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	19	mg/L	yes	Gravimetric analysis	Other	101	See above	June
SE1	Wastewater/Sewer	Sulphate	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	44.2	mg/L	yes	Spectrophotometry (Colorimetry)	Other	119	See above	June
SE1	Wastewater/Sewer	Suspended Solids	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	31	mg/L	yes	Gravimetric analysis	Other	106	See above	June
SE1	Wastewater/Sewer	Chloride	composite	Monthly	24 hour	1000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	811.8	mg/L	yes	Spectrophotometry (Colorimetry)	Other	100	See above	June
SE1	Wastewater/Sewer	Detergents (as MBAS)	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	0.441	mg/L	yes	Spectrophotometry (Colorimetry)	Other	116	See above	June

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)							Lic No:	P0886-02	Year	2018					
SE1	Wastewater/Sewer	BOD	composite	Monthly	24 hour	2000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	800	mg/L	yes	Electrometry	Other	113	See above	July
SE1	Wastewater/Sewer	COD	composite	Monthly	24 hour	4000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	1200	mg/L	yes	Spectrophotometry (Colorimetry)	Other	107	See above	July
SE1	Wastewater/Sewer	Fats, Oils and Greases	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	18	mg/L	yes	Gravimetric analysis	Other	101	See above	July
SE1	Wastewater/Sewer	Sulphate	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	14	mg/L	yes	Spectrophotometry (Colorimetry)	Other	119	See above	July
SE1	Wastewater/Sewer	Suspended Solids	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	44	mg/L	yes	Gravimetric analysis	Other	106	See above	July
SE1	Wastewater/Sewer	Chloride	composite	Monthly	24 hour	1000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	927	mg/L	yes	Spectrophotometry (Colorimetry)	Other	100	See above	July
SE1	Wastewater/Sewer	Detergents (as MBAS)	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	0.454	mg/L	yes	Spectrophotometry (Colorimetry)	Other	116	See above	July
SE1	Wastewater/Sewer	BOD	composite	Monthly	24 hour	2000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	155	mg/L	yes	Electrometry	Other	113	See above	Aug
SE1	Wastewater/Sewer	COD	composite	Monthly	24 hour	4000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	340	mg/L	yes	Spectrophotometry (Colorimetry)	Other	107	See above	Aug
SE1	Wastewater/Sewer	Fats, Oils and Greases	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	20	mg/L	yes	Gravimetric analysis	Other	101	See above	Aug
SE1	Wastewater/Sewer	Sulphate	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	38	mg/L	yes	Spectrophotometry (Colorimetry)	Other	119	See above	Aug
SE1	Wastewater/Sewer	Suspended Solids	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	64	mg/L	yes	Gravimetric analysis	Other	106	See above	Aug
SE1	Wastewater/Sewer	Chloride	composite	Monthly	24 hour	1000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	850	mg/L	yes	Spectrophotometry (Colorimetry)	Other	100	See above	Aug
SE1	Wastewater/Sewer	Detergents (as MBAS)	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	0.185	mg/L	yes	Spectrophotometry (Colorimetry)	Other	116	See above	Aug
SE1	Wastewater/Sewer	BOD	composite	Monthly	24 hour	2000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	1400	mg/L	yes	Electrometry	Other	113	See above	Sept
SE1	Wastewater/Sewer	COD	composite	Monthly	24 hour	4000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	2815	mg/L	yes	Spectrophotometry (Colorimetry)	Other	107	See above	Sept
SE1	Wastewater/Sewer	Fats, Oils and Greases	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	14	mg/L	yes	Gravimetric analysis	Other	101	See above	Sept
SE1	Wastewater/Sewer	Sulphate	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	69	mg/L	yes	Spectrophotometry (Colorimetry)	Other	119	See above	Sept
SE1	Wastewater/Sewer	Suspended Solids	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	79	mg/L	yes	Gravimetric analysis	Other	106	See above	Sept
SE1	Wastewater/Sewer	Chloride	composite	Monthly	24 hour	1000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	880	mg/L	yes	Spectrophotometry (Colorimetry)	Other	100	See above	Sept
SE1	Wastewater/Sewer	Detergents (as MBAS)	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	0.174	mg/L	yes	Spectrophotometry (Colorimetry)	Other	116	See above	Sept
SE1	Wastewater/Sewer	BOD	composite	Monthly	24 hour	2000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	375	mg/L	yes	Electrometry	Other	113	See above	Oct
SE1	Wastewater/Sewer	COD	composite	Monthly	24 hour	4000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	555	mg/L	yes	Spectrophotometry (Colorimetry)	Other	107	See above	Oct

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)							Lic No:	P0886-02	Year	2018					
SE1	Wastewater/Sewer	Fats, Oils and Greases	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	12	mg/L	yes	Gravimetric analysis	Other	101	See above	Oct
SE1	Wastewater/Sewer	Sulphate	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	68	mg/L	yes	Spectrophotometry (Colorimetry)	Other	119	See above	Oct
SE1	Wastewater/Sewer	Suspended Solids	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	41	mg/L	yes	Gravimetric analysis	Other	106	See above	Oct
SE1	Wastewater/Sewer	Chloride	composite	Monthly	24 hour	1000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	909	mg/L	yes	Spectrophotometry (Colorimetry)	Other	100	See above	Oct
SE1	Wastewater/Sewer	Detergents (as MBAS)	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	0.458	mg/L	yes	Spectrophotometry (Colorimetry)	Other	116	See above	Oct
SE1	Wastewater/Sewer	BOD	composite	Monthly	24 hour	2000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	240	mg/L	yes	Electrometry	Other	113	See above	Nov
SE1	Wastewater/Sewer	COD	composite	Monthly	24 hour	4000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	301	mg/L	yes	Spectrophotometry (Colorimetry)	Other	107	See above	Nov
SE1	Wastewater/Sewer	Fats, Oils and Greases	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	10	mg/L	yes	Gravimetric analysis	Other	101	See above	Nov
SE1	Wastewater/Sewer	Sulphate	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	57	mg/L	yes	Spectrophotometry (Colorimetry)	Other	119	See above	Nov
SE1	Wastewater/Sewer	Suspended Solids	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	31	mg/L	yes	Gravimetric analysis	Other	106	See above	Nov
SE1	Wastewater/Sewer	Chloride	composite	Monthly	24 hour	1000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	688	mg/L	yes	Spectrophotometry (Colorimetry)	Other	100	See above	Nov
SE1	Wastewater/Sewer	Detergents (as MBAS)	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	0.54	mg/L	yes	Spectrophotometry (Colorimetry)	Other	116	See above	Nov
SE1	Wastewater/Sewer	BOD	composite	Monthly	24 hour	2000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	255	mg/L	yes	Electrometry	Other	113	See above	Dec
SE1	Wastewater/Sewer	COD	composite	Monthly	24 hour	4000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	560	mg/L	yes	Spectrophotometry (Colorimetry)	Other	107	See above	Dec
SE1	Wastewater/Sewer	Fats, Oils and Greases	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	14	mg/L	yes	Gravimetric analysis	Other	101	See above	Dec
SE1	Wastewater/Sewer	Sulphate	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	70	mg/L	yes	Spectrophotometry (Colorimetry)	Other	119	See above	Dec
SE1	Wastewater/Sewer	Suspended Solids	composite	Monthly	24 hour	400	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	60	mg/L	yes	Gravimetric analysis	Other	106	See above	Dec
SE1	Wastewater/Sewer	Chloride	composite	Monthly	24 hour	1000	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	825	mg/L	yes	Spectrophotometry (Colorimetry)	Other	100	See above	Dec
SE1	Wastewater/Sewer	Detergents (as MBAS)	composite	Monthly	24 hour	100	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	0.082	mg/L	yes	Spectrophotometry (Colorimetry)	Other	116	See above	Dec
SE1	Wastewater/Sewer	Arsenic and compounds (as As)	composite	Annually	24 hour	N/A	N/A	0.001	mg/L	N/A	ICP / ICPLMS (Inductively Coupled Plasma - Mass Spectrometry)	Other	177	0.005	Annual testing
SE1	Wastewater/Sewer	Boron	composite	Annually	24 hour	N/A	N/A	0.033	mg/L	N/A	ICP / ICPLMS (Inductively Coupled Plasma - Mass Spectrometry)	Other	177	0.163	Annual testing
SE1	Wastewater/Sewer	Cadmium and compounds (as Cd)	composite	Annually	24 hour	N/A	N/A	<0.001	mg/L	N/A	ICP / ICPLMS (Inductively Coupled Plasma - Mass Spectrometry)	Other	177	0.005	Annual testing

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)													Lic No: P0886-02		Year 2018	
SE1	Wastewater/Sewer	Chromium	composite	Annually	24 hour	N/A	N/A	0.004	mg/L	N/A	ICP / ICPMS (Inductively Coupled Plasma - Mass Spectrometry)	Other	177	0.002	Annual testing	
SE1	Wastewater/Sewer	Chromium (III)	composite	Annually	24 hour	N/A	N/A	<0.01	mg/L	N/A	Spectrophotometry (Colorimetry)	Other	177	0.050	Annual testing	
SE1	Wastewater/Sewer	Chromium (VI)	composite	Annually	24 hour	N/A	N/A	<0.01	mg/L	N/A	Spectrophotometry (Colorimetry)	Other	146	0.050	Annual testing	
SE1	Wastewater/Sewer	Copper and compounds (as Cu)	composite	Annually	24 hour	N/A	N/A	0.078	mg/L	N/A	Spectrophotometry (Colorimetry)	Other	177	0.385	Annual testing	
SE1	Wastewater/Sewer	Lead and compounds (as Pb)	composite	Annually	24 hour	N/A	N/A	0.005	mg/L	N/A	Spectrophotometry (Colorimetry)	Other	177	0.025	Annual testing	
SE1	Wastewater/Sewer	Mercury and compounds (as Hg)	composite	Annually	24 hour	N/A	N/A	0.00012	mg/L	N/A	Spectrophotometry (Colorimetry)	Other	178	0.015	Annual testing	
SE1	Wastewater/Sewer	Nickel and compounds (as Ni)	composite	Annually	24 hour	N/A	N/A	<0.003	mg/L	N/A	Spectrophotometry (Colorimetry)	Other	177	0.015	Annual testing	
SE1	Wastewater/Sewer	Silver	composite	Annually	24 hour	N/A	N/A	<0.00035	mg/L	N/A	Spectrophotometry (Colorimetry)	Other	177	0.002	Annual testing	
SE1	Wastewater/Sewer	Zinc and compounds (as Zn)	composite	Annually	24 hour	N/A	N/A	0.141	mg/L	N/A	Spectrophotometry (Colorimetry)	Other	177	0.696	Annual testing	
SE1	Wastewater/Sewer	Cyanide	composite	Annually	24 hour	N/A	N/A	<0.005	mg/L	N/A	Spectrophotometry (Colorimetry)	Other	138	0.025	Annual testing	

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 - Note 2: Response EQS and EPA document and SI 294/1988 were reviewed against results from site annual tests and they are in compliance.

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Continuous monitoring

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

Additional Information	
Yes	Continuous monitoring of pH, volumetric flow and temperature of wastewater effluent

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

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

No	During calibrations only
No	No - expertise on-site, managed through site Maintenance Management System (PEMAC)
No	

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

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
SE1	Wastewater/Sewer	pH	6-10	30 minutes	No pH value shall deviate from the specified range	pH units	7.09	-0.8%	0	1	Average pH for the year 2018 , downtime was due to calibration of the pH probe
SE1	Wastewater/Sewer	volumetric flow	50 m3/day or 8m3/hour	30 minutes	No flow value shall exceed the .specific limit	m3/day	4938.72m3	-25%	0	0	Average daily flow provided.
SE1	Wastewater/Sewer	Temperature	35		No temperature value shall exceed the limit value.	degrees C	15.72	+0.06%	0	0	Average temperature for the year 2018

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

Additional information

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?

Yes	
3 years	
Yes	
12	
12	
6	
Yes	
0	
3	
3	

- 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?

Yes	WWTP Sump has high level alarm and overflow piping
Yes	
N/A	There is no dedicated Firewater Retention Pond required for the site due to its low risk profile.

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)
	SELECT					SELECT			SELECT	SELECT		SELECT		
	SELECT					SELECT			SELECT	SELECT		SELECT		

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

Has integrity testing been carried out in accordance with licence requirements and are all structures tested in line with BSS007/EPA Guidance?

- 15 Are channels/transfer systems to remote containment systems tested?
- 16 Are channels/transfer systems compliant in both integrity and available volume?

Yes	Integrity testing was carried out on all fixed bunds in 2017 with no failures.
N/A	
N/A	

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 all

- 1 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 of all underground pipelines (as required under your licence)

Yes	Underground Pipeline integrity testing was carried out in 2018 with no failures.
3 years	

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

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		Comments
1 Are you required to carry out groundwater monitoring as part of your licence requirements?	yes	Schedule C.6 of the site's IEL requires Groundwater monitoring to be carried out at well nos. GW1, GW2, GW3 and GW4 or alternative monitoring location(s) agreed by the Agency for pH, TOC and Conductivity at a monitoring frequency agreed by the Agency. These monitoring requirements have yet to be agreed with the Agency.
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. Groundwater monitoring template	N/A	
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?	no	
11 Have potential receptors been identified on and off site?	no	
12 Is there evidence that contamination is migrating offsite?	no	N/A

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Table 1: Upgradient 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 pollutant concentration over last 5 years of monitoring data
							SELECT			SELECT
							SELECT			SELECT

+. 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

Groundwater/Soil monitoring template										
					Lic No:	P0886-02		Year	2018	
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
							SELECT			SELECT
							SELECT			SELECT
<p>*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.</p> <p>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)</p>										
<p style="text-align: right;"> Groundwater monitoring template Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (EPA 2013). </p>										
<p>**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)</p>								<p> Groundwater regulations Drinking water (private supply) standards Surface water EQS GTV's Interim Guideline Values (IGV) </p>		

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Groundwater/Soil monitoring template	Lic No: P0886-02	Year: 2018
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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

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Environmental Liabilities template	Lic No:	P0886-02	Year	2018
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[Click here to access EPA guidance on Environmental Liabilities and Financial provision](#)

		Commentary	
1	ELRA initial agreement status	Submitted to the EPA; pending feedback.	ELRA submitted in April 2017 - pending feedback from the Agency.
2	ELRA review status	Review required and completed	ELRA internally reviewed in 2018 - no changes required.
3	Amount of Financial Provision cover required as determined by the latest ELRA	€968,252	
4	Financial Provision for ELRA status	Submitted to the EPA; pending feedback.	
5	Financial Provision for ELRA - amount of cover	€2,550,782	A financial provision proposal to cover the sum of the costed ELRA and Closure Plan was submitted to the Agency in 2017 - pending feedback from the Agency.
6	Financial Provision for ELRA - type	Parent Company Guarantee	Proposal submitted to the Agency in 2017 - pending feedback from the Agency.
7	Financial provision for ELRA expiry date	To Be Confirmed	Pending feedback from the Agency.
8	Closure plan initial agreement status	Closure plan submitted and pending review by EPA	Closure Plan submitted in April 2017 - pending feedback from the Agency.
9	Closure plan review status	Review required and completed	ELRA internally reviewed in 2018 - no changes required.
10	Financial Provision for Closure status	Parent Company Guarantee	Pending feedback from the Agency.
11	Financial Provision for Closure - amount of cover	€2,550,782	A financial provision proposal to cover the sum of the costed ELRA and Closure Plan was submitted to the Agency in 2017 - pending feedback from the Agency.
12	Financial Provision for Closure - type	Parent Company Guarantee	Pending feedback from the Agency.
13	Financial provision for Closure expiry date	To Be Confirmed	

Environmental Management Programme/Continuous Improvement Programme template	Lic No:	P0886-02	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 EMS is in place and incorporates energy efficiency management. This system is reviewed by senior management to ensure suitability and effectiveness on an annual basis.
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 A communications and public awareness programme to ensure that members of the public may obtain information regarding the environmental performance of the site. There is a "Public information folder" and contact details of key site personnel available at Reception for public viewing upon request.

Environmental Management Programme (EMP) report

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Additional improvements	Appointment of a Total Waste Management Contractor to achieve a more streamlined approach and seeking efficiencies in waste management at the site.	100	Company carried out a review of service providers and in 2018 appointed a contractor to act as Total Waste Management Contractor onsite. The work on seeking efficiencies commenced in 2018 and the site supported the contractor in this task.	EHS Manager	Improved Environmental Management Practices
Additional improvements	Revision of all Standard Operating Procedures (SOPs) to ensure they are updated with the procedures implemented at site for compliance with the revised Industrial Emissions Licence (IEL)(P0886-02)	100	All SOP's were revised and updated in accordance with the requirements set out in the conditions of the IEL.	EHS Manager	Increased compliance with licence conditions
Additional improvements	Complete transition to Mylan Corporate online EHS data management system	100	Complete transition to Mylan Corporate online EHS data management system	EHS Manager	Increased compliance with licence conditions

Environmental Management Programme/Continuous Improvement Programme template				Lic No:	P0886-02	Year	2018
2019 Objectives	In 2019 the company will develop and implement an internal auditing program of the environmental management system. An independent internal audit will be conducted in 2019.	New	New	EHS Manager	Improved Environmental Management Practices		
2019 Objectives	Develop and deliver waste management awareness training to cover lifecycle of waste generated, handled, transported and shipped from site.	New	New	EHS Manager	Improved Waste Management Practices		
2019 Objectives	Develop and deliver an overall environmental awareness training focusing on IEL conditions and all equipment associated with environmental protection.	New	New	EHS Manager	Increased awareness of IEL license conditions.		
2019 Objectives	Site will seek to identify improvements in operations and processes onsite with the objective of using energy and resources more efficiently. In addition the site will evaluate all proposals which will enhance compliance.	New	New	EHS Manager	Increased awareness of IEL licence conditions.		

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Noise monitoring summary report

Lic No: P0886-02

Year

2018

1 Was noise monitoring a licence requirement for the AER period?

Yes

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](#)

Yes

3 Does your site have a noise reduction plan

No

4 When was the noise reduction plan last updated?

N/A

5 Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?

No

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 site compliant with noise limits (day/evening/night)?
01/08/2018	Daytime	N/A	NSL1	60	52	63	79	No	N/A	Motorway traffic, Airplane overhead.	Yes
01/08/2018	Evening time	N/A	NSL1	57	52	60	70	No	N/A	N3 traffic.	Yes
01/08/2018	Night-time	N/A	NSL1	57	52	59	65	No	N/A	N3 traffic.	Yes
01/08/2018	Daytime	N/A	NSL2	56	53	57	72	No	N/A	Motorway, crows, airplanes/helicopter overhead.	Yes
01/08/2018	Evening time	N/A	NSL2	53	47	53	70	No	N/A	N3 traffic, light local traffic, airplanes.	Yes
01/08/2018 and 02/08/2018	Night-time	N/A	NSL2	48	44	51	62	No	N/A	N3 traffic, Airplanes	Yes
01/08/2018	Daytime	N/A	NSL3	58	50	61	74	No	N/A	Local traffic, Airplanes overhead, distant traffic	Yes
01/08/2018	Evening time	N/A	NSL3	55	51	58	74	No	N/A	Medium local traffic, heavy traffic on N3	Yes
02/08/2018	Night-time	N/A	NSL3	48	44	50	64	No	N/A	N3 traffic	Yes
If noise limits exceeded as a result of noise attributed to site activities, please choose the corrective action from the following options?										nothing**	

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

Breaches are due to the influence of off-site noise sources, namely traffic - both motor and air, which is in close proximity to each monitoring location. During each noise monitoring survey, no site related noise was audible at any location.

Resource Usage/Energy efficiency summary	Lic No:	P0886-02	Year	2018
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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

[SEAI - Large Industry Energy Network \(LIEN\)](#)

Additional information

27/07/2018	
No	The site is a member of IBEC's Large Energy User group, we take advantage of information on all aspects of energy policy and other useful information on energy efficiency.
N/A	

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)	6960	8557	+13.5% Production Increase from 2017 to 2018	+22.9% increase in Energy Consumption vs. +13.5% Production
Total Energy Generated (MWHrs)	0	0		
Total Renewable Energy Generated (MWHrs)	0	0		
Electricity Consumption (MWHrs)	4005	4538		
Fossil Fuels Consumption:	0	0		
Heavy Fuel Oil (m3)	0.2	0		
Light Fuel Oil (m3)	0	0		
Natural gas (m3)	2954	4019		
Coal/Solid fuel (metric tonnes)	0	0		
Peat (metric tonnes)	0	0		
Renewable Biomass	0	0		
Renewable energy generated on site	0	0		

* 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**	Water Consumption +/- % vs overall site production*	Volume Discharged back to environment(m ³ /yr):	Volume used i.e not discharged to environment e.g. released as steam m3/yr	Unaccounted for Water:	
Groundwater	0	0	+13.5% Production Increase from 2017 to 2018	11.8% Water consumption vs. +13.5% overall site production increase				
Surface water	0	0						
Public supply	8959	10017				10017		0
Recycled water	0	0						
Total	8959	10017			10017		0	

* 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

Resource Usage/Energy efficiency summary

Lic No:

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2018

Table R3 Waste Stream Summary					
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	27.081	0	27.08	0.000259	0
Non-Hazardous (Tonnes)	170.3	13.19	144.47	12.64	0

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Resource Usage/Energy efficiency summary

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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
27/07/2018	LED lighting	Replace lights in Admin block with LEDs	energy audit	80% less energy used by LEDs	on-going	Operational Excellence Team	On-going	As existing fluorescent lights die out they are replaced with LEDs.
27/07/2018	Energy savings	Investigate weekend power consumption to eliminate what is not required.	energy audit	Unknown	Q3 2018	Operational Excellence Team	Q2 2019	Survey and investigation to be complete to determine this.
27/07/2018	Energy savings	Review Boiler Control Strategy	energy audit	Unknown	Q3 2018	Operational Excellence Team	Q2 2019	The boilers set-back temp. will be increased from 60°C to 70°C. This change is as per a contractor's recommendation to reduce thermal stress on the older boiler.

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: P0886-02 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	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		0					
Total new complaints received during reporting year		0					
Total complaints closed during reporting year		0					
Balance of complaints end of reporting year		0					

Incidents	Additional information
Have any incidents occurred on site in the current reporting year? Please list all incidents for current reporting year in Table 2 below	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
20/02/2018	Monitoring equipment offline	Licensed discharge point (SE-1)	1. Minor	Sewer	Plant or equipment issues	N/A	Normal activities	EPA and Local Authority	New	On 20th Feb 2018, there was a warning alarm for a pH reading of 10.3 detected from the effluent discharging at SE-1. This lasted for under 15 minutes. When investigated by Facilities personnell they found that the pneumatic solenoid for the outlet valve was making a rattling sound and the valve was not functioning properly. The Facilities personnell rest the panel and the valve returned to normal operation. The pH returned to normal and the fault cleared. No further high alarms have been detected since.	It was discovered upon investigation that this pH exceedance was due to a faulty pH probe and that the effluent discharged actually had normal pH reading as the pH in the holding tank and effluent treatment tank were within the normal range. The pH probe was replaced by the Facilities personnell and readings were returned to normal.	Complete	22/02/2018	Low
22/11/2018	Breach of ELV	Licensed discharge point (SE-1)	1. Minor	Sewer	Plant or equipment issues	N/A	Normal activities	EPA and Local Authority	New	On 27th November 2018, an elevated pH of the effluent discharging at SE-1 began at 2:30am. The effluent returned to within the limit specification of 6-10pH at approximately 9:15am. During this period, the maximum pH reading was 11.82pH. The total volume of trade effluent discharged to sewer during this period was 9.73m3. The site did not initially discover the elevated pH due to a failure of the BMS and alarming I.T. system. The I.T. System owners then resolved the issue.	Preventative action was taken to ensure the I.T. system is maintained. The frequency of the visual inspections of the Effluent Treatment Plant had been increased to twice daily for the first month following the incident to ensure the system was operating correctly. The BMS Service Provider in conjunction with the Mylan Engineering Department have conducted a review of the communications system to ensure it is effective and in full working order.	Complete	21/12/2018	Low
Total number of incidents current year		2												
Total number of incidents previous year		0												
% reduction/increase		100%												

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WASTE SUMMARY	Lic No:	P0886-02	Year	2018
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	

Please insert details of waste transferred off site in the adjoining Waste Management Record tab.

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 is **1 to be captured through PRTR reporting**)

If yes please enter details in table 1 below

Additional Information	
N/A	

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

N/A	
-----	--

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	
-----	--

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 -
	European Waste Catalogue EWC codes		European Waste Catalogue EWC codes								
N/A											

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 on site

N/A	
-----	--

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?

N/A	
-----	--

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

N/A	
-----	--

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

Table 3 General information-Landfill only

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

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WASTE SUMMARY	Lic No:	P0886-02	Year	2018
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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

+ 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					

*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?

SELECT
SELECT

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

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
			SELECT	

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Waste Summary Continued

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

EWC Code	Description	Classification	Quantity of waste Tonnes / year	Next destination / Organisation	Waste Treatment Operation	Final destination/ Organisation	Waste Treatment Operation
20 03 01 B	Municipal mixed residual non-household	Non hazardous	9.35	Starrus Eco Holdings Limited - W0039	D01 - Deposit into or on to land (e.g. landfill, etc.)	Not applicable	Not applicable
16 03 04	inorganic wastes other than those mentioned in 16 03 03	Non hazardous	3.84	Advanced Environmental Solutions (Ireland) Limited (Lusk) - W0222	D01 - Deposit into or on to land (e.g. landfill, etc.)	Not applicable	Not applicable
20 03 01 B	Municipal mixed residual non-household	Non hazardous	139.53	Advanced Environmental Solutions (Ireland) Limited (Lusk) - W0222	R01 - Use principally as a fuel or other means to generate energy	Not applicable	Not applicable
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	Non hazardous	0.58	Advanced Environmental Solutions (Ireland) Limited (Lusk) - W0222	R01 - Use principally as a fuel or other means to generate energy	Not applicable	Not applicable
20 01 25	edible oil and fat	Non hazardous	0.2	Advanced Environmental Solutions	R03 - Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)	Not applicable	Not applicable
20 01 08 A	Household biodegradable kitchen & canteen waste	Non hazardous	6.8	Starrus Eco Holdings Limited (Millenium Business Park) - W0183	R03 - Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)	Not applicable	Not applicable

20 03 01 B	Municipal mixed residual non-household	Non hazardous	5.64	Starrus Eco Holdings Limited - W0261	R05 - Recycling/reclamation of other inorganic materials	Not applicable	Not applicable
20 01 21*	Household waste fluorescent lamps and other mercury containing waste	Hazardous	0.05	Irish Lamps Recycling	R05 - Recycling/reclamation of other inorganic materials	Not applicable	Not applicable
16 02 13* E	Non-household other waste electrical and electronic equipment, hazardous	Hazardous	0.21	Irish Lamps Recycling	R04 - Recycling/reclamation of metals and metal compounds	Not applicable	Not applicable
07 05 04*	other organic solvents, washing liquids and mother liquors	Hazardous	0.04	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	R12 - Exchange of waste for submission to any of the operations numbered R 1 to R 11	Recyfuel	R01 - Use principally as a fuel or other means to generate energy
07 05 04*	other organic solvents, washing liquids and mother liquors	Hazardous	2.74	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	R12 - Exchange of waste for submission to any of the operations numbered R 1 to R 11	Avanti Environmental Group	R01 - Use principally as a fuel or other means to generate energy
07 05 04*	other organic solvents, washing liquids and mother liquors	Hazardous	4.65	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	R12 - Exchange of waste for submission to any of the operations numbered R 1 to R 11	Lindenschmidt KG	R01 - Use principally as a fuel or other means to generate energy

13 02 05*	mineral-based non-chlorinated engine, gear and lubricating oils	Hazardous	0.6	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	R12 - Exchange of waste for submission to any of the operations numbered R 1 to R 11	Recyfuel	R01 - Use principally as a fuel or other means to generate energy
15 02 02*	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	Hazardous	0.16	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	R12 - Exchange of waste for submission to any of the operations numbered R 1 to R 11	Afvalstoffen Terminal Moerdijk	R01 - Use principally as a fuel or other means to generate energy
16 05 06*	laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals	Hazardous	0.07	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	R12 - Exchange of waste for submission to any of the operations numbered R 1 to R 11	Lindenschmidt KG	R01 - Use principally as a fuel or other means to generate energy
16 05 07*	discarded inorganic chemicals consisting of or containing hazardous substances	Hazardous	0.45	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	R12 - Exchange of waste for submission to any of the operations numbered R 1 to R 11	Lindenschmidt KG	R01 - Use principally as a fuel or other means to generate energy
16 05 08*	discarded organic chemicals consisting of or containing hazardous substances	Hazardous	0.63	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	R12 - Exchange of waste for submission to any of the operations numbered R 1 to R 11	Lindenschmidt KG	R01 - Use principally as a fuel or other means to generate energy

16 05 08*	discarded organic chemicals consisting of or containing hazardous substances	Hazardous	1.27	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	R12 - Exchange of waste for submission to any of the operations numbered R 1 to R 11	Avanti Environmental Group	R01 - Use principally as a fuel or other means to generate energy
16 05 08*	discarded organic chemicals consisting of or containing hazardous substances	Hazardous	0	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	R12 - Exchange of waste for submission to any of the operations numbered R 1 to R 11	Recyfuel	R01 - Use principally as a fuel or other means to generate energy
16 05 08*	discarded organic chemicals consisting of or containing hazardous substances	Hazardous	0.19	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	R12 - Exchange of waste for submission to any of the operations numbered R 1 to R 11	Fortum	R01 - Use principally as a fuel or other means to generate energy
15 01 10*	packaging containing residues of or contaminated by hazardous substances	Hazardous	0	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	R12 - Exchange of waste for submission to any of the operations numbered R 1 to R 11	Lindenschmidt KG	R01 - Use principally as a fuel or other means to generate energy
15 01 10*	packaging containing residues of or contaminated by hazardous substances	Hazardous	0.02	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	R12 - Exchange of waste for submission to any of the operations numbered R 1 to R 11	Lindenschmidt KG	R01 - Use principally as a fuel or other means to generate energy

15 01 10*	packaging containing residues of or contaminated by hazardous substances	Hazardous	1.94	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	R12 - Exchange of waste for submission to any of the operations numbered R 1 to R 11	Recyfuel	R01 - Use principally as a fuel or other means to generate energy
15 01 10*	packaging containing residues of or contaminated by hazardous substances	Hazardous	0.01	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	R12 - Exchange of waste for submission to any of the operations numbered R 1 to R 11	Fortum	R01 - Use principally as a fuel or other means to generate energy
15 01 10*	packaging containing residues of or contaminated by hazardous substances	Hazardous	0.35	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	R12 - Exchange of waste for submission to any of the operations numbered R 1 to R 11	Avanti Environemntal Group	R01 - Use principally as a fuel or other means to generate energy
18 01 06*	chemicals consisting of or containing hazardous substances	Hazardous	0.2	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	R12 - Exchange of waste for submission to any of the operations numbered R 1 to R 11	Avanti Environemntal Group	R01 - Use principally as a fuel or other means to generate energy
07 05 13*	solid wastes containing hazardous substances	Hazardous	8.89	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	D15 - Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage, pending collection, on the site where the waste is produced)	Remondis Bramsche	D10 - Incineration on land

07 05 13*	solid wastes containing hazardous substances	Hazardous	4.6	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	D15 - Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage, pending collection, on the site where the waste is produced)	Remondis-SAVA	D10 - Incineration on land
07 05 99	wastes not otherwise specified	Non hazardous	4.36	SRCL Limited (Kylemore Road) trading as Eco-Safe Systems Ltd, Allied Industrial Estate, Kylemore Road, D10 - W0054	D15 - Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage, pending collection, on the site where the waste is produced)	Not applicable	Not applicable

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