Appendix 6. Annual Environmental Reports 2017-2019 and Silt Pond Cleaning records 2019.

AER Reporting Year
Licence Register Number
Name of site
Site Location
NACE Code
Class/Classes of Activity
National Grid Reference (6E, 6 N)

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.

2017	01	Bord na Mona Boora	Leabeg, Boora, Tullamore, Co Offaly	0892	1.4	180050, 319540	
20	P0500-01		Lea				

of energy efficient initiatives are in place in terms of fuel and electricity usage. Lubricant training Activities on site can be divided into two components, firstly the milling, harrowing, ridging and received two cleanings with inspections dictating if a pond required further cleaning.A number 9001:2015. We are "committed to conducting all aspects of our business activities with a focus meetings take place weekly with environmental issues on the agenda for discussion. We had a for better management of oils, greases and coolant was completed. Formalised management were no environmental complaints received during 2017. There were twelve incidents, one in harvesting of peat into stockpiles and secondly the transportation of that peat via an internal relation to dust and the remainder to water. In relation to silt pond cleaning, 100% of ponds approximately 559486 tonnes. Infrastructurally, there was no new bog development. There successful audit of operations in relation to our Quality Management System to I.S. EN ISO rail network to the Power Station and lorry outloading facilities. Production achieved was on minimising the impact on the environment". Rehabilitation works are described in an attachment

Declaration:

All the data and information presented in this report has been checked and certified as being

Signature

Group/Facility manager

(or nominated, suitably qualified and

experienced deputy)

	AIR-summary template	Lic No:	P0500-01	Year	2017	
	Answer all questions and complete all tables where relevant				_	
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	No		Additional information Fugitive emissions only		
	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				
3	Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist? Basic air monitoring checklist AGN2	Yes				

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

Emission reference no:		Frequency of	ELV in licence or any revision therof	Licence Compliance criteria		Compliant with licence limit	Method of analysis	Annual mass	Comments - reason for change in % mass load from previous year if applicable
	SELECT			SELECT	SELECT	SELECT	SELECT		
	SELECT			SELECT	SELECT	SELECT	SELECT		
	SELECT			SELECT	SELECT	SELECT	SELECT		
	SELECT			SELECT	SELECT	SELECT	SELECT		

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

AIR-summary template	Lic No:	P0500-01	Year	2017	
Continuous Monitoring					
4 Does your site carry out continuous air emissions monitoring?	No				
If yes please review your continuous monitoring data and report the required fields below in Table A2 and compar it to its relevant Emission Limit Value (ELV)	e				
5 Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	No				
6 Do you have a proactive service agreement for each piece of continuous monitoring equipment?	No				
7 Did your site experience any abatement system bypasses? If yes please detail them in table A3 below Table A2: Summary of average emissions -continuous monitoring	No				

Emission	Parameter/ Substance		Averaging Period	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:					measurement			Equipment	exceedences in	
		ELV in licence or any						downtime (hours)	current	
		revision therof							reporting year	
		350mg/m2/day	84			19488	372	0	1	Reported to
DM-01	Total Particulates			Daily average < ELV	mg/m2/day					Agency
DM-02	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	20636	228	0	0	
DM-03	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	13216	183	0	0	
	SELECT				SELECT					

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

Table A3: Abatement system bypass reporting table

Bypass p	oro	toco
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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

	AIR-summary t	emplate				Lic No:	P0500-01		Year	2017
	Solvent	use and manageme	nt on site							
3	Do you have a total	Emission Limit Value of d	irect and fugitive emis		No					
		ent Management Pla ssion limit value	n Summary	Solvent regulations	Please refer to linked solven complete table 5 :					
	Reporting year	Total solvent input on site (kg)	Total VOC emissions to Air from entire site (direct and fugitive)	emissions as %of solvent input	Total Emission Limit Value (ELV) in licence or any revision therof	Compliance				
						SELECT				
	T-1-1- AF	Calara Mara Balana				SELECT				
	Table A5:	Solvent Mass Baland	e summary							
		(I) Inputs (kg)			(0)	Outputs (kg)				
	Solvent	(I) Inputs (kg)	Organic solvent emission in waste gases(kg)	Solvents lost in water (kg)	Collected waste solvent (kg)	Solvent (kg)	other ways e.g. by-	Solvents destroyed onsite through physical reaction	Total emission of Solvent to air (kg)	
								Total		

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER) Lic No: P0500-01 Does your site have licensed emissions direct to surface water or direct to sewer? If yes please The continuous monitoring sampler was relocated during the reporting complete table W2 and W3 below for the current reporting year and answer further questions. If period. The sampler experienced technical difficulties which inhibited the collection of flow data and subsequent annual loading calculations. It was you do not have licenced emissions you only need to complete table W1 and or W2 for storm therefore decided to present the sampling results in graphical form as an water analysis and visual inspections attachment. Yes Was it a requirement of your licence to carry out visual inspections on any surface water 2 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 Monthly COD analysis of yard runoff is attached in a separate document.

Table W1 Storm water monitoring

Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Compliance	Measured value	Unit of measurement	Compliant with licence	Comments
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	

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

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

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
			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 pleas section of Table W3 below	e provide brief detail		Yes	Additional information
					Surface water monitoring was carried out on a quarterly basis. The results of which are attached. Monthly COD yard
١	Was all monitoring carried out in accordance with EPA guidance and				runoff results are also attached.
	checklists for Quality of Aqueous Monitoring Data Reported to the	External /Internal			
	EPA? If no please detail what areas require improvement in	Lab Quality	Assessment of		
4	additional information box	checklist	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	ELV or trigger values in licence or any revision therof Note 2	Measured value	Unit of measurement	Compliant with licence	Procedural reference source		Annual mass load (kg)	Comments
									APHA / AWWA "Standard Methods"	4500-NH3	NA	One off Grab sample
									APHA / AWWA "Standard	4500-NH3	NA	One off Grab sample

Year

2017

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

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

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)	Lic No:	P0500-01		Year	2017	
Continuous monitoring 5 Does your site carry out continuous emissions to water/sewer monitoring? Yes		Additional Information See note above				
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 Yes		Total of 176 days over 365 days.				
7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site? Yes	Annual calibration	schedule and trouble shooting service	ce			
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						
ELV or trigger values in licence or			% change +/- from previous reporting	Monitoring	Number of ELV	

Annual Emission for current

reporting year (kg)

exceedences in

Comments

downtime (hours) reporting year

Equipment

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

Emission reference no: released to

Table W5: Abatement system bypass reporting table

Date	Duration (hours)	Location	Resultant	Reason for	Corrective	Was a report	When was this report submitted?
						submitted to the	
				-,,		EPA?	
						SELECT	

Units of

measurement

Compliance

Averaging Period Criteria

any revision

thereof

^{*}Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline test	ting template				Lic No:	P0500-01		Year	2017	1				
Bund testing	7	dropdown menu cli	ick to see ontions				Additional information							
		•	·	fill+ + 01 h			There was no requirement to test the	2						
		tegrity testing on bunds and cont bunds which failed the integrity					bunds in 2017							
		the licenced testing period (mol			e pullus iliust pe listeu ili									
the table below, please	e include all bullus outside	the licenced testing period (mor	bile bullus allu chemstore ilit	Liudeuj		Yes								
Please provide integrity	y testing frequency period	l				Other (2 Yearly)		1						
Does the site maintain	a register of bunds, unde	rground pipelines (including stori	mwater and foul), Tanks, sun	nps and containers? (contain	ners refers to "Chemstore									
type units and mobile b						Yes								
							Two additional bunds to be included	Ī						
How many bunds are or	n site?					9	in future tests.							
How many of these bun	nds have been tested with	in the required test schedule?				g	All passed in 2016							
							This includes barrel trays located							
How many mobile bund							within workshops							
	ncluded in the bund test s					No								
		ted within the required test sched	dule?			NA NA		-						
	te are included in the inte							-						
	nps are integrity tested w tegrity failures in table B1					NA		_						
	bers have high level liquid					N/A		7						
		i alarms? in a maintenance and testing pro	gramme?			N/A N/A		1						
		r integrity test programme?	0			N/A		1						
		- 2 -1 b0						_						
Tabl	le B1: Summary details of	bund /containment structure int	egrity test	<u> </u>										
														Results of
									Integrity reports					retest(if in
Bund/Containment									maintained on		Integrity test failure		Scheduled date	current
structure ID	Type	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	site?	Results of test	explanation <50 words	Corrective action taken	for retest	reporting yea
	SELECT					SELECT			SELECT	SELECT		SELECT		
	SELECT	rule as detailed in your licence				SELECT SELECT	Commentary		SELECT SELECT	SELECT		SELECT		
* Capacity required should comp	SELECT pply with 25% or 110% containment	rule as detailed in your licence nce with licence requirements an	d are all structures tested in				Commentary							
* Capacity required should comp Has integrity testing be- line with BS8007/EPA G	SELECT pply with 25% or 110% containment een carried out in accordar Guidance?	nce with licence requirements an	d are all structures tested in	bunding and storage guidel	lines	SELECT	Commentary]						
* Capacity required should comp Has integrity testing be- line with BS8007/EPA G Are channels/transfer s	SELECT uply with 25% or 110% containment een carried out in accordar Guidance? systems to remote contain	nce with licence requirements an iment systems tested?			lines.	SELECT SELECT SELECT	Commentary							
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Groundwater/Soil monitoring template Lic No: P0500-01 Year 2017

Comments

		Comments	
Are you required to carry out groundwater monitoring as part of your licence requirements?	no		Please provide an interpretation of groundwater monitoring data in the
2 Are you required to carry out soil monitoring as part of your licence requirements?	no		interpretation box below or if you require additional space please
Do you extract groundwater for use on site? If yes please specify use in comment section	no	Domestic Use Only	include a groundwater/contaminated land monitoring results interpretaion as an additional section in this AER
Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there 4 an upward trend in results for a substance? If yes, please complete the Groundwater Monitoring Guideline Template Groundwater Report (link in cell G8) and submit separately through ALDER as a monitoring licensee return AND answer questions 5-12 below. template	SELECT		
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?	N/A		
9 Has any type of risk assesment been carried out for the site?	N/A		
10 Has a Conceptual Site Model been developed for the site?	N/A		
11 Have potential receptors been identified on and off site?	N/A		
12 Is there evidence that contamination is migrating offsite?	N/A		Please enter interpretation of data here

Table 1: Upgradient Groundwater monitoring results

Table 1.	Opgradient	Giodilawat	.c. momeom	g i couito						
										Upward trend in
										pollutant
	Sample									concentration over
Date of	location	Parameter/		Monitoring	Maximum	Average				last 5 years of
sampling	reference	Substance	Methodology	frequency	Concentration++	Concentration+	unit	GTV's*	SELECT**	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:	Downgradi	ent Ground	water monito	oring results	T	T	1	1			¬	
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	r	
Janiping							SELECT			SELECT		
Sampling												
	e exceedance of	generic assessm	ent criteria (GAC)	such as a Groundwa	ater Threshold Value (GT)	/) or an Interim Guide	SELECT			SELECT		
*please not trend in complei	n results for a sub te the Groundwa nation on the use	estance indicates ter Monitoring G	that further interpuideline Template	oretation of monitor Report at the link potherwise instructe of generic assessment	ing results is required. In provided and submit sepa d by the EPA.	addition to completin rately through ALDER	SELECT line Value (IGV) or an upward og the above table, please as a licensee return or as	<u>Grou</u>	undwater monito	SELECT		
*please not trend in complei	n results for a sub te the Groundwa nation on the use C) and risk assess	estance indicates ter Monitoring G	that further interpuideline Template	oretation of monitor Report at the link potherwise instructe	ing results is required. In provided and submit sepa d by the EPA.	addition to completin rately through ALDER	SELECT line Value (IGV) or an upward g the above table, please	<u>Grou</u>		SELECT		
*please not trend in complei More inform riteria (GAC see the link	results for a sub te the Groundwa nation on the use c) and risk assess in G31)	stance indicates ter Monitoring G of soil and grour ment tools is ava	that further interpuideline Template industries that the standards is also be seen as the second sec	oretation of monitor Report at the link potherwise instructe Generic assessmen ublished guidance	ing results is required. In provided and submit sepa d by the EPA. ht Guidance on the	addition to completin rately through ALDER ne Management of I	SELECT line Value (IGV) or an upward og the above table, please as a licensee return or as	<u>Grou</u> roundwater a	at EPA Licensed S	SELECT		

Table 3: Soil results

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

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

Environmental Liabilities template Lic No: P0500-01 Year 2017

Click here to access EPA guidance on Environmental Liabilities and Financial provision

			Commentary
1	ELRA initial agreement status	Not a Licence Requirement	
2	ELRA review status	NA	
3	Amount of Financial Provision cover required as determined by the latest ELRA	NA	
4	Financial Provision for ELRA status	NA	
5	Financial Provision for ELRA - amount of cover	NA	
6	Financial Provision for ELRA - type	NA	
7	Financial provision for ELRA expiry date	NA	
8	Closure plan initial agreement status	NA	Internal Budget Provision
9	Closure plan review status	NA	Internal Budget Provision
10	Financial Provision for Closure status	NA	Internal Budget Provision
11	Financial Provision for Closure - amount of cover	NA	Internal Budget Provision
12	Financial Provision for Closure - type	NA	Internal Budget Provision
13	Financial provision for Closure expiry date	NA	

	Environmental Management Programme/Continuous Improvement Programme t	emplate	Lic No:	P0500-01	Year	2017
	Highlighted cells contain dropdown menu click to view		Additional Inforn	mation	_	
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in					
	additional information	Yes		Internal unaccredited EMS		
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	Yes				
	Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance					
3	with the licence requirements	Yes				
	Do you maintain an environmental documentation/communication system to inform the public on					

environmental performance of the facility, as required by the licence

Environmental Management Programme	EMP) report				
Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
teduction of emissions to Air	Training. Continue to train		In total 33 Personnel received		
	all employees in		training in 2017. Training now		
	environmental matters.		also includes an energy		
	Training will be by means of		awareness component. Ten		
	the screening of an		hydraulic harrows were		
	environmental DVD,		deployed at five production		
	followed by a power point		areas including all dust		
	presentation. Deploy		sensitive areas. Headland		
	Hydraulic Harrows at dust		peat was collected at six		
	sensitive areas headland		production areas and		
	Peat collection.		returned as part of overall		
	reac conection.		production.		
			production.		Improved Environmental
		90		Individual	Management Practices
aste reduction/Raw material usage efficiency	Waste Streamlining.It is		Quarterly waste reports are		
	planned to continue with		returned for records/filing		
	and where possible improve		and waste streams are		
	the current waste		segrated on site to maximise		
	management service		recycling potential which was		
	provided by AES Ltd		installed in 2015		
	, ,				
					Improved Environmental
		400		C. III. I	
		100		Section Head	Management Practices
eduction of emissions to Water	Training. Continue to train		In total 33 Personnel received		
	all employees in		training in 2017. All silt ponds		
	environmental matters.		were cleaned at least twice as		
	Training will be by means of		per licence condition .		
	the screening of an				
	environmental DVD,				
	followed by a power point				
	presentation.				Improved Environmental
		90		Individual	Management Practices
aste reduction/Raw material usage efficiency	Continue with the recycling		In total 222.82 tonnes were		
	of polyethylene. The		sent off site for recycling.		
	sourcing of more recycling		Procurement also exploring		
	contractors will be ongoing.		the possibility of securing		
			further recyclers.		
			ididici recycleis.		Improved Environmental
		100		Individual	Management Practices
ergy Efficiency/Utility conservation	As part of an energy		There was reduced activity at		
	management process, an		Boora Workshop .The		
	ongoing review of energy		unoccupied areas are		
	usage is in place.		sectioned of. Consequently		
			there is no requirement for		
			lighting or heating in those		
			areas. The site achieved the		
			Energy standard ISO50001		
			during the reporting period.		
					Improved Environmental
	I	100		Section Head	Management Practices

	N	loise monitor	ing summary	report			Lic No:	P0500-01	Year	2017	
If yes please to Was noise mo "Checklist for 3 Does your sit	onitoring a licenc fill in table N1 no onitoring carried r noise measuren e have a noise re	ce requirement for ise summary belon out using the EP nent report" inclu	or the AER period ow A Guidance note uded in the guida	i? , including co		the	Noise Guidance note NG4	No NA NA Enter date		2017	
		evant to site nois		plant or ope	rational cha	nges) since 1	the last noise				
Table N1: No	ise monitoring s	ummary]					
Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
								SELECT	SELECT		SELECT
*DI			and decree and NGA Th								
Please ensure the		ise limits exceed						ne corrective action fro	m the following options?	SELECT	
			** nlass	e evnlain the	reason for r	not taking ac	rtion/resolution	on of noise issues?]	

Any additional comments? (less than 200 words)

Resource Usage/Energy efficiency summary Lic No: P0500-01 Year 2017

			Additional information
1	When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below	Oct-17	
	SEAI - Large Industry		The site attained accrediation to the
2	Is the site a member of any accredited programmes for reducing energy usage/water conservation such <u>Energy Network</u>	Yes	energy standard 50001
3	Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information	NA	

Table R1 Energy usag	e on site			
Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	13280.71	11375		
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (M	ЛWHrs)			
Electricity Consumption (MWHrs)	678.142	611.494		
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	1240.28	1057.016		
Natural gas (m3)				
Coal/Solid fuel (metric tonnes)	17.6	4.5		
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 usag	e on site	j	•	. ,	Water Emissions	Water Consumption	
	Water extracted		,	consumption i, io	Volume Discharged back to	Volume used i.e not discharged to environment e.g. released as steam	
Water use	Previous year m3/yr.	Current year m3/yr.	year**	production*	environment(m³yr):	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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

Resource Usage/Energy efficiency summary Lic No: P0500-01 Year 2017

Table R3 Waste Stream	Summary				
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	1.95	0	0.28	1.67	0
Non-Hazardous (Tonnes)	1104.72	57.84	0	334.95	711.94

Table R4: Energy A	udit finding recommenda	tions						
		Description of		Predicted energy				Status and
Date of audit	Recommendations	Measures proposed	Origin of measures	savings %	Implementation date	Responsibility	Completion date	comments
			SELECT					
			SELECT					
			SELECT					

Table R5: Power Generation: Where 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:	P0500-01	Year	2017	
_	Complaints					
		Additional inform	ation			
	Have you received any environmental complaints in the current reporting year? If yes please complete summary					

l able :	1 Complaints summary						
			Brief description of				
			complaint (Free txt <20	Corrective action< 20			
Date	Category	Other type (please specify)	words)	words	Resolution status	Resolution date	Further information
	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	I					

	Incidents			
				Additional informati
Have any incidents occurred on site in the current report year in Tab		ents for current reporting	Yes	
		Ī		
*For information on how to report and what constitutes				
an incident	What is an incident			

able 2 Incidents sur	mmary													
						Other								
			Incident category*please			cause(please	Activity in progress at			Corrective action<20	Preventative		Resolution	Likelihood
ate of occurrence	Incident nature	Location of occurrence	refer to guidance	Receptor	Cause of incident	specify)	time of incident	Communication	Occurrence	words	action <20 words	Resolution status	date	reoccuren
30/03/2017	Breach of ELV	SW 10 Noggus Bog	1. Minor	Water	Other (add		Normal activities	EPA Ref. No. INCI012003	New	Water diverted to	NA			
					details)Water					fully use pond				
					allowed to enter							Complete	03/04/2017	Low
30/03/2017	Breach of ELV	SW 14 (The Derries) Boora	1. Minor	Water	Not related to		Normal activities	EPA Ref No. INCI012010	New	Pond recently	NA			1
					site activities					cleaned water				
										disturbed		Complete	18/04/2017	
20/02/2047	Breach of ELV	SW 14A (The Derries) Boora	1. minor	Water	Not related to		Normal activities	EPA REF NO INCIO12011	New	Pond recently		Complete	18/04/2017	LOW
30/03/2017	Breach of ELV	SW 14A (The Dernes) Boora	1. minor	water	site activities		Normal activities	EPA REF NO INCIDIZUTI	New	cleaned water				
					site activities					disturbed				
										disturbed	NA	Complete	18/04/2017	Low
30/03/2017	Trigger level reached	SW 10 Noggus Bog	1. Minor	Water	Not related to		Normal activities	EPA REF NO INCIO12014	New	No likely cause				
					site activities						NA	Complete	18/04/2017	Low
08/06/2017	Breach of ELV	Sw 7 Drinagh	1. Minor	Water	Not related to		Normal activities	EPA Ref No.INCIO12304	New	High Rainfall				
					site activities				-		Water slowing de	Complete	23/06/2017	Low
08/06/2017	Trigger level reached	Sw 7 Drinagh	1. Minor	Water	Not related to		Normal activities	EPA Ref No.INCIO12305	New	No likely cause				
					site activities				-	,	na	Complete	16/06/2017	
13/09/2017	Oil to doub	Boora	1. Minor	Water	Not related to		Normal activities	EPA Ref No.INCIO12879	New	Cause not Discovered	па	Complete	16/06/201/	LOW
13/09/2017	Oil in drain	Boora	1. IVIIIOI	water	site activities		Normal activities	EPA REI NO.INCIO12879	New	Cause not discovered				
											Have taken two g	Complete	28/09/2017	Low
30/06/2017	Trigger level reached	Sw 35	1. Minor	Water	Not related to		Normal activities	EPA Ref No.INCIO13315	New	No likely cause				
					site activities						NA	Complete	30/06/2017	Low
30/06/2017	Trigger level reached	Sw 33	1. Minor	Water	Not related to		Normal activities	EPA Ref No. INCIO13316	New	No likely cause				
					site activities						NA	Complete	30/06/2017	Low
11/10/2017	Trigger level reached	Sw 4	1. Minor	Water	Not related to		Normal activities	EPA Ref No. INCIO13317	New	No likely cause				
					site activities						na	Complete	11/10/2017	Low
19/07/2017	Breach of ELV	DM1 Clongawney	1. Minor	Air	Not related to		Normal activities	EPA Ref.INCIO 13318	New	Employees instructed	No production in			1
					site activities					on dangers of	windy conditions			
										activities that give	.,			
										rise to dust.			l	
												Complete	26/09/2017	Low
14/09/2017	Trigger level reached	Sw 7 Drinagh	1. Minor	Water	Not related to		Normal activities	EPA Ref No.INCIO13319	New	No likely cause				
		_			site activities								27/09/2017	
												Complete		

1
3009

SELECT UNIT SELECT UNIT SELECT UNIT

OTION . DOT-	Y				Lic No:	P0500-01		Year	2017			
CTION A-PRTR (ON SITE WASTE TREATMENT AND	WASTE TRANSFERS TAB-	TO BE COMPLETED BY	ALL IPPC AND WA	STE FACILITIES	PRTR facility logor	<u>. </u>	dropdown l	ist click to see options			
ECTION B- WAST	E ACCEPTED ONTO SITE-TO BE CO	MPLETED BY ALL IPPC AN	D WASTE FACILITIES									
						-	Additional Informatio	n T				
ere any wastes accep	ted onto your site for recovery or disposal o	or treatment prior to recovery or d	lisposal within the boundari	es of your facility ?: (was	te generated within your boundaries is							
be captured through				,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	N/A						
yes please enter deta	ils in table 1 below							=				
d your site have any r	ejected consignments of waste in the currer	nt reporting year? If yes please giv	e a brief explanation in the	additional information		SELECT						
	s waste accepted onto your site that was ge					SELECT]				
	of waste accepted onto your									•	1	ı
Licenced annual connage limit for your	EWC code	Source of waste accepted	Description of waste accepted	Quantity of waste accepted in current	Quantity of waste accepted in previous reporting year (tonnes)	Reduction/ Increase over	Reason for reduction/increase	Packaging Content (%)- only applies if the waste		Quantity of waste remaining	Comments -	
site (total				reporting year (tonnes)	reporting year (torines)	previous year +/ -	from previous	has a packaging	and the description of this	on site at the		
tonnes/annum)			and detailed description -			%	reporting year	component	operation	end of reporting		
			which applies to relevant EWC code							year (tonnes)		
	European Waste Catalogue EWC codes		European Waste									
			Catalogue EWC codes									
ECTION C-TO BE	COMPLETED BY ALL WASTE FACIL	ITIES (waste transfer stati	ons, Composters, Ma	terial recovery facil	ities etc) EXCEPT LANDFILL SITE	S						
ECTION C-TO BE	COMPLETED BY ALL WASTE FACIL	ITIES (waste transfer stati	ons, Composters, Ma	terial recovery facil	ities etc) EXCEPT LANDFILL SITE	S						
ECTION C-TO BE	COMPLETED BY ALL WASTE FACILI	ITIES (waste transfer stati	ons, Composters, Ma	terial recovery facil	ities etc) EXCEPT LANDFILL SITE	S						
		·		-								
	COMPLETED BY ALL WASTE FACILION of the structure as required by your licence an	·		-		SELECT						
all waste processing i	nfrastructure as required by your licence an	d approved by the Agency in place	e? If no please list waste pro	ocessing infrastructure re	quired onsite	SELECT						
all waste processing i		d approved by the Agency in place	e? If no please list waste pro	ocessing infrastructure re	quired onsite							
all waste processing i all waste storage infra pes your facility have	nfrastructure as required by your licence an astructure as required by your licence and a relevant nuisance controls in place?	d approved by the Agency in place pproved by the Agency in place? I	e? If no please list waste pro	ocessing infrastructure re	quired onsite	SELECT SELECT						
all waste processing i all waste storage infra pes your facility have p you have an odour r	nfrastructure as required by your licence an astructure as required by your licence and a relevant nuisance controls in place? nanagement system in place for your facility	d approved by the Agency in place pproved by the Agency in place? I	e? If no please list waste pro	ocessing infrastructure re	quired onsite	SELECT SELECT SELECT SELECT						
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all waste processing i all waste storage infra person your facility have you have an odour ro you maintain a sludy ECTION D-TO BE able 2 Waste typ Waste types permitted for disposal	nfrastructure as required by your licence an astructure as required by your licence and astructure as required by your licence and as relevant nuisance controls in place? management system in place for your facility ge register on site? COMPLETED BY LANDFILL SITES One and tonnage-landfill only Authorised/licenced annual intake for disposal (tpa)	d approved by the Agency in place? I pproved by the Agency in place? I f no why? NLY Actual intake for disposal in	e? If no please list waste pro f no please list waste storag Remaining licensed capacity at end of	ocessing infrastructure required	quired onsite	SELECT SELECT SELECT SELECT				Total disposal area occupied by	Lined disposal area occupied by	Unlined are

WASTE SUMMARY	•				Lic No:	P0500-01		Year	2017
Table 4 Environme	ntal monitoring-landfill only	Landfill Manual-Monitoring Stand	dards			-	•	•	
	Was leachate monitored in compliance	Was Landfill Gas monitored in compliance with LD standard in reporting year			Were emission limit values agreed with	of the site surveyed in	Has the statement under S53(A)(5) of WMA been submitted in reporting year	Comments	
]
.+ please refer to Landfill Table 5 Capping-La	Manual linked above for relevant Landfill	Directive monitoring standards							
Table 5 Capping-La	I						1		
Area uncapped*	Area with temporary cap			Area with waste that should be permanently					
SELECT UNIT	SELECT UNIT	Area with final cap to LD Standard m2 ha, a	Area capped other	capped to date under licence	What materials are used in the cap	Comments			
]		
*please note this include	,								
Table 6 Leachate-L	andfill only	_					=		

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

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

Volume of leachate in reporting year(m3)		Leachate (NH4) mass load (kg/annum)	Leachate (Chloride) mass load kg/annum	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	

Boora Decommissioning and Rehabilitation AER Overview 2017.

Within the Boora licensed area (P0500-01) there was no entire bog units available for rehabilitation in 2017. Ongoing monitoring of cutaway within the Boora area was carried out with Kilaranny, Belair North and Lemonaghan bogs being re-surveyed. An invasive aquatic plant species (Parrots Feather *Myriophyllum aquaticum*) was identified in the amenity areas of Boora in 2016, actions to control its spread have been enacted along with the notification of the presence of this species to the relevant authorities.

A section of deep peat restoration was carried out in Clongawney Bog in 2017 (28 ha). Peat dams were used to block the drains on a section of bog that had formerly been in industrial peat production.

Draft rehabilitation plans for the Boora bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015 and 2017.

The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in February 2017, this included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.

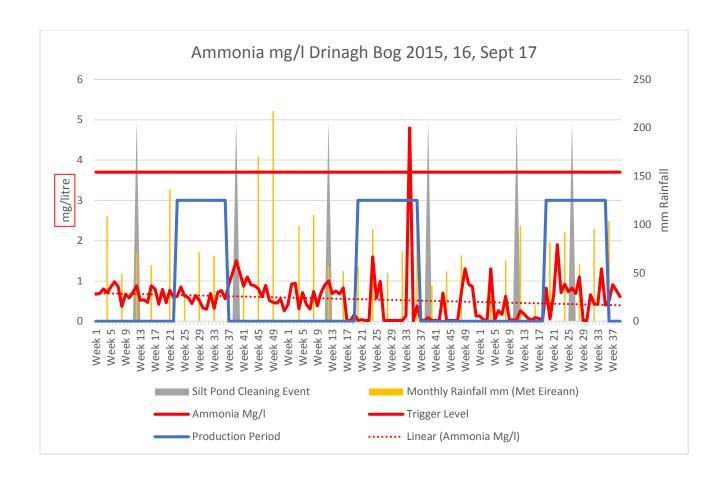
A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

As required by condition 10.2 Cutaway Bog Rehabilitation Plans, draft peatland rehabilitation plans for all the individual bog units were submitted to the agency in 2013, reviewed and amended in 2015 and re-submitted to the agency in 2015. All draft rehabilitation plans have been reviewed in 2017. These reviewed and amended plans will be re-submitted to the agency in due course.

Siltpond Monitoring Frequency

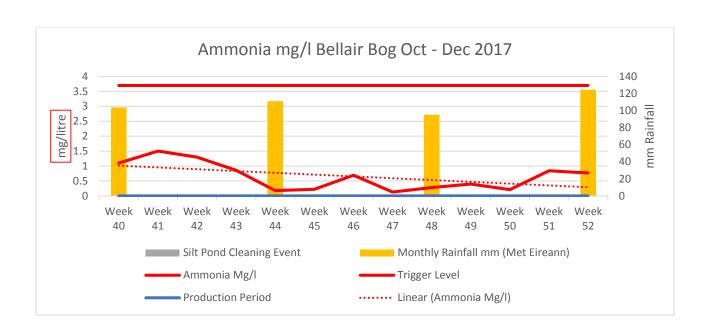
Bord na Mona Boora IPPC Licence P0500-01

II I C LICEI	ICE P0300-01											
Х	Υ	Bog	SW	Monitoring	Sampled	pН	SS	TS	Ammonia	TP	COD	Colour
213631.82	220692.54	Noggusboy	SW-10	Q1 17	30/03/2017	7.5	247	488	0.35	0.05	110	127
214515.48	219480.49	West Boora	SW-11	Q1 17	30/03/2017	7.5	28	412	1.5	0.05	57	130
215354.86	221941.82	Derries	SW-14	Q1 17	30/03/2017	7.5	75	370	0.02	0.05	96	253
214889.87	221778.27	Derries	SW-14A	Q1 17	30/03/2017	7.4	53	342	0.02	0.05	89	239
220650.17	210315.60	Derrinboy	SW-38	Q2 17	29/06/2017	7.9	5	292	1.3	0.05	66	109
220483.33	210276.48	Derrinboy	SW-39	Q2 17	29/06/2017	7.4	5	188	0.35	0.05	66	204
219663.49	210038.82	Derrinboy	SW-40	Q2 17	29/06/2017	7.5	5	236	0.58	0.05	48	101
215361.95	232964.99	Bellair South	SW-33	Q2 17	29/06/2017	7.1	12	150	1.1	0.05	101	298
214495.84	232937.68	Bellair South	SW-34	Q2 17	29/06/2017	7.5	5	170	0.5	0.05	69	210
214987.18	232598.43	Bellair South	SW-34A	Q2 17	29/06/2017	6.3	14	112	0.63	0.05	92	302
213906.46	231884.67	Bellair South	SW-35	Q2 17	29/06/2017	6.3	9	129	2	0.05	121	306
215477.01	233062.25	Bellair North	SW-37B	Q2 17	29/06/2017	7.4	5	260	1.4	0.05	78	301
204681.49	214416.93	Clongawney	SW-1	Q3 17	11/10/2017	7.6	5	266	0.93	0.05	63	166
205641.50	213067.71	Clongawney	SW-3	Q3 17	11/10/2017	7.8	9	282	1.5	0.05	44	119
206319.95	215656.92	Clongawney	SW-4	Q3 17	11/10/2017	7.4	5	246	0.06	0.05	116	319
207679.57	215615.99	Clongawney	SW-5	Q3 17	11/10/2017	7.6	5	234	0.7	0.05	55	111
208818.04	215648.99	Drinagh	SW-7	Q3 17	11/10/2017	7.7	5	316	0.83	0.05	49	128
212017.45	214103.39	Drinagh	SW-8	Q3 17	11/10/2017	7.9	5	232	2.9	0.05	56	146
224321.91	224780.07	Kilaranny	SW-24	Q3 17	11/10/2017	7.8	13	512	0.06	0.05	55	161
224248.46	223524.04	Kilaranny	SW-24A	Q3 17	11/10/2017	7.7	5	490	1.3	0.05	48	122
217008.23	222986.75	Turraun	SW-15	Q4 17	13/12/2017	7.3	6	440	0.14	0.05	82	192
219378.47	224050.10	Turraun	SW-16	Q4 17	13/12/2017	7.4	7	258	0.82	0.05	70	212
219721.73	224554.04	Pollagh	SW-17	Q4 17	13/12/2017	7	5	212	1.9	0.05	63	231
221729.61	226112.15	Pollagh	SW-17A	Q4 17	13/12/2017	7.4	5	374	0.34	0.05	67	169
220331.44	222549.88	Oughter	SW-18	Q4 17	13/12/2017	7.4	8	288	0.46	0.05	64	223
216627.57	234827.38	Bellair North	SW-36	Q4 17	13/12/2017	6.8	5	82	0.37	0.05	60	182
219056.10	234057.41	Bellair North	SW-37	Q4 17	13/12/2017	7	7	140	0.44	0.05	62	223
216202.99	234373.11	Bellair North	SW-37A	Q4 17	13/12/2017	4.9	7	74	0.39	0.05	67	166



Drinagh Bog

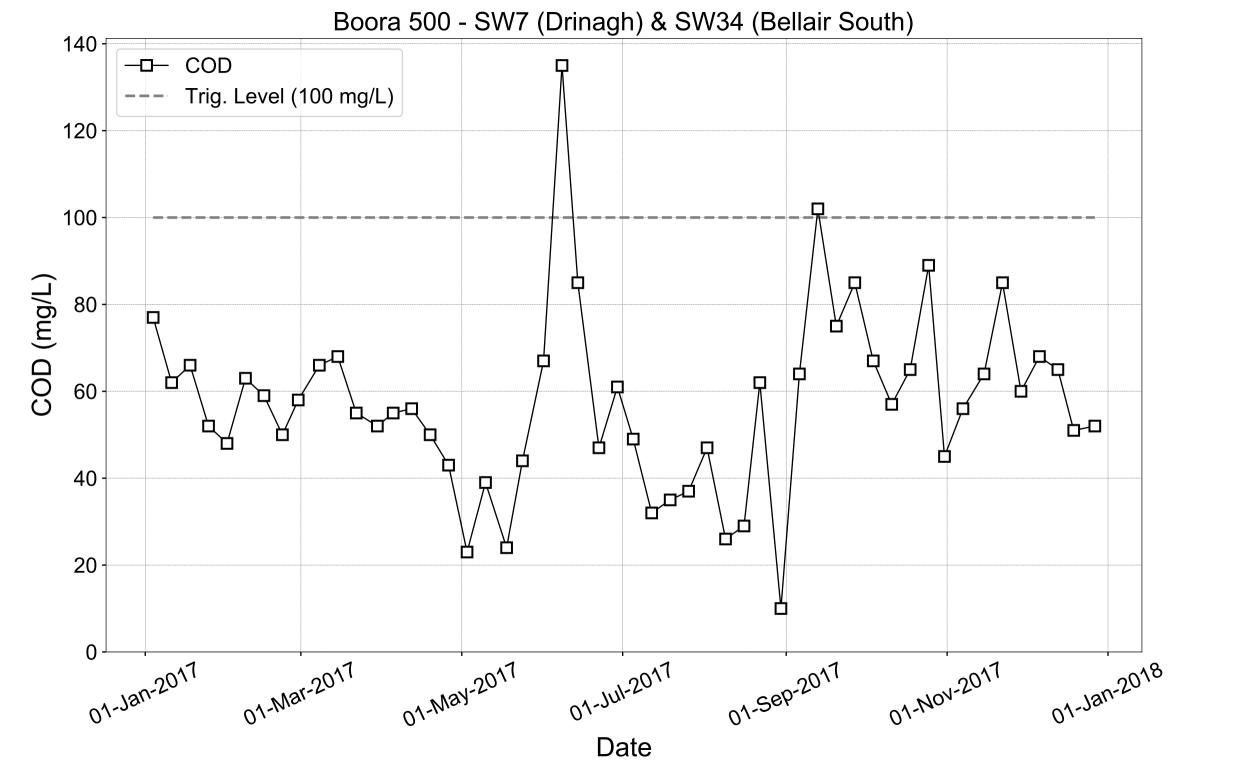
Drinagh bog is an active production bog with the composite sampler located here during 2015, 16 and up to September 2017. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had 35% downtime during the period being reported, but suitable weekly grab samples were taken during these downtimes, primarily due to battery fault, flooding events or sampler away for service/overhaul. The ammonia trigger level of 3.7mg/l, as agreed with the Agency, was not exceeded during the period being reported. Combining the 2015, 16 & 17 results above show concentrations trending downwards over the 2-3 year period as peat extraction continues and this is in line with the downwards trends submitted to the EPA in 2013 as required by condition 6.14. There is no obvious link between the summer production, winter maintenance or silt pond maintenance events on the concentration of ammonia disharging from the peatlands. The only link expected would be that related to rainfall events and seasonal weather patterns and the subsequent surfacewater runoff and associated ammonia concentrations.

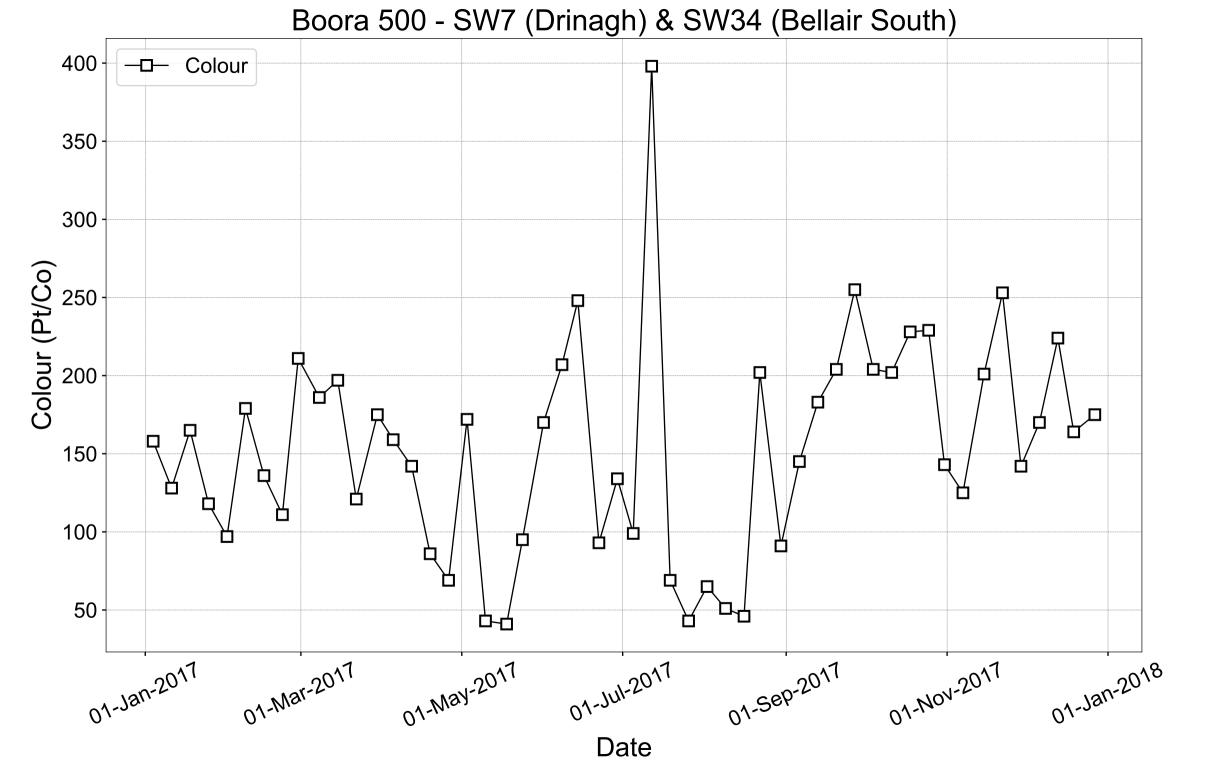


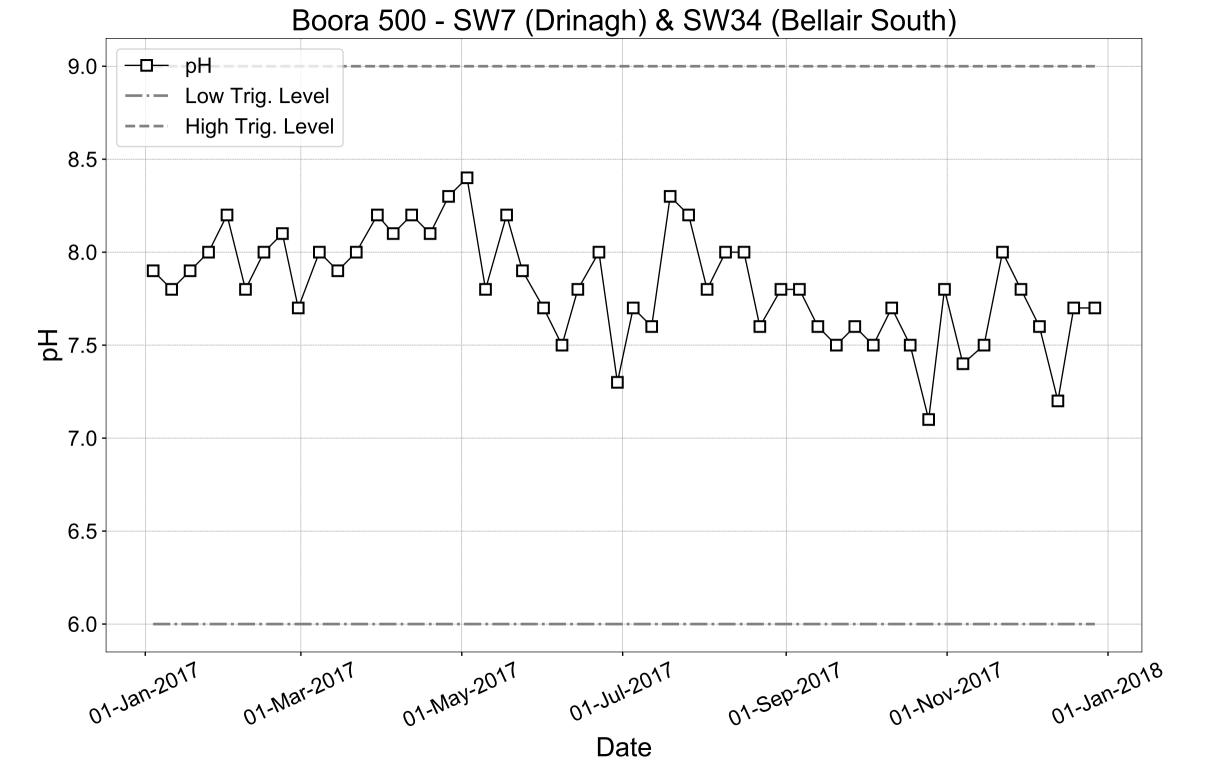
Bellair Bog

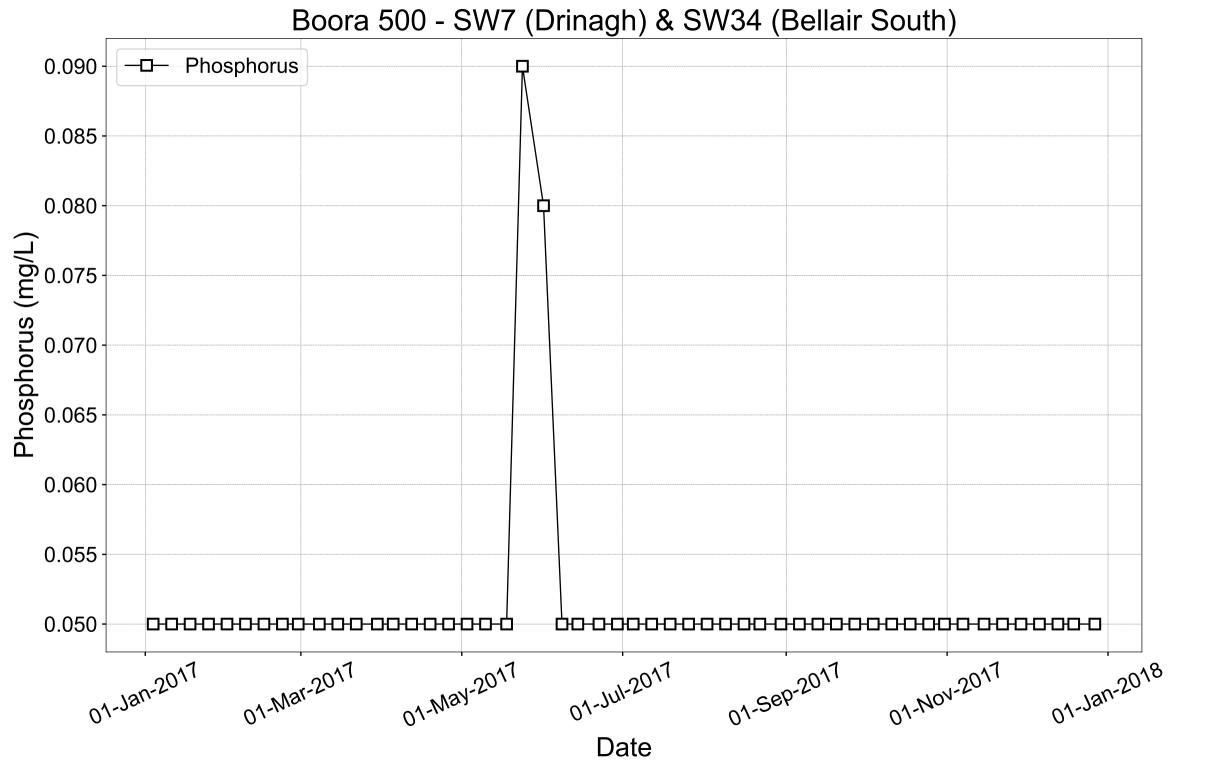
Bellair bog is an active production bog with the composite sampler located here from the last week in September 2017. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had 85% downtime during the period being reported, but suitable weekly grab samples were taken during these downtimes, primarily due to battery fault, flooding events or the sampler was being serviced/overhauled. The ammonia trigger level of 3.7mg/l, as agreed with the Agency, was exceeded once during the period being reported. The above graph show concentrations trending downwards over the initial 3 month period as peat extraction continues and this is in line with the downwards trends submitted to the EPA in 2013 as required by condition 6.14. The sampler will remain at this emission point for 2018 and in Aer 2018, data will give a better indication of ongoing trends. It is not possible to idnetify any obvious link between the summer production, winter maintenance or silt pond maintenance events on the concentration of ammonia disharging from the peatlands, as these all occurred in the months prior to the location of the sampler at Bellair bog. The only link expected would be that related to rainfall events and seasonal weather patterns and the subsequent surfacewater runoff and associated ammonia concentrations.

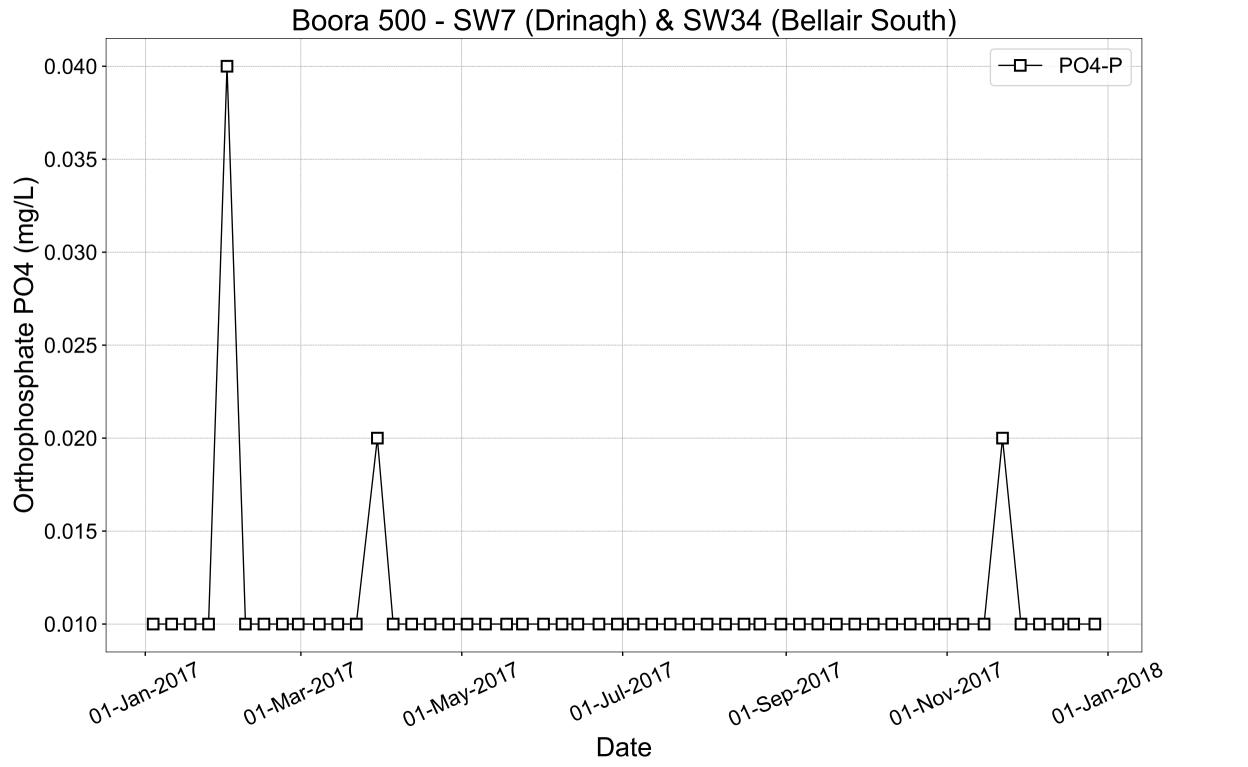
Boora 500 - SW7 (Drinagh) & SW34 (Bellair South) Ammonia 3.5 Trig. Level (3.70 mg/L) 3.0 1.0 0.5 0.0 01-May-2017 01-Mar-2017 01-Jan-2017 01-NOV-2017 01-Sep-2017 01-Jul-2017 01-Jan-2018 Date

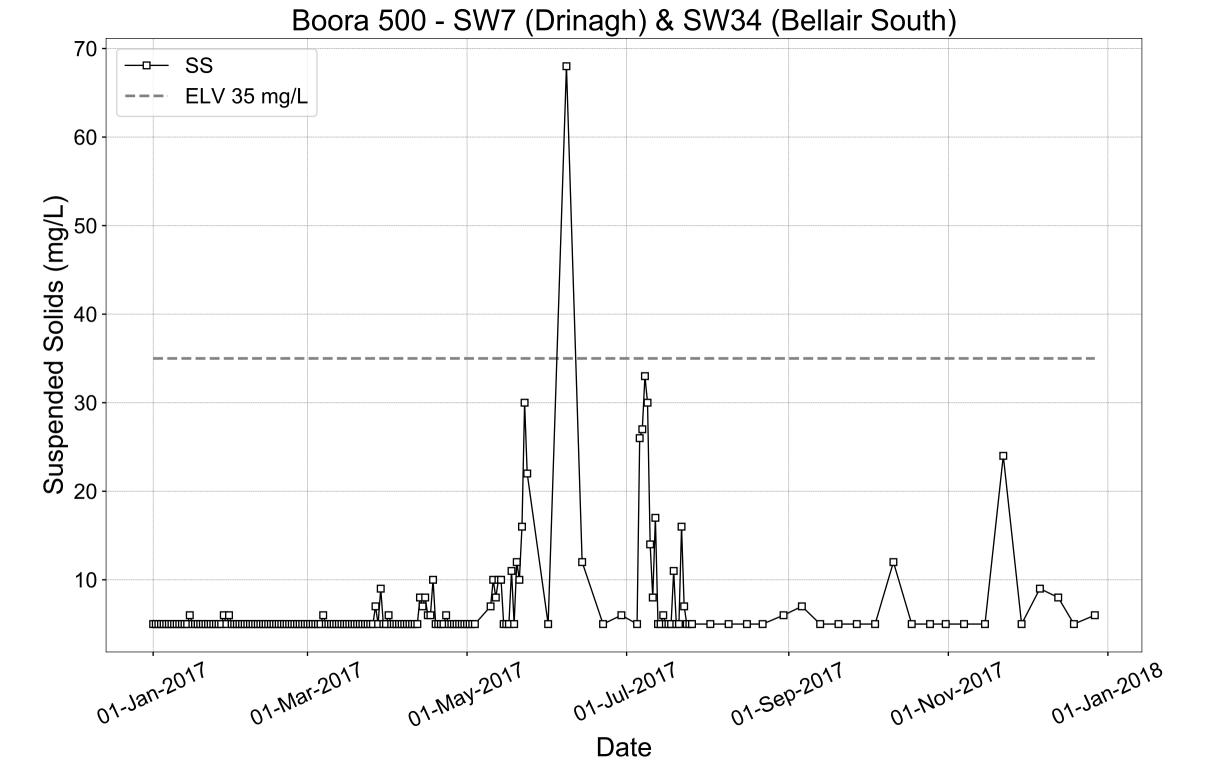


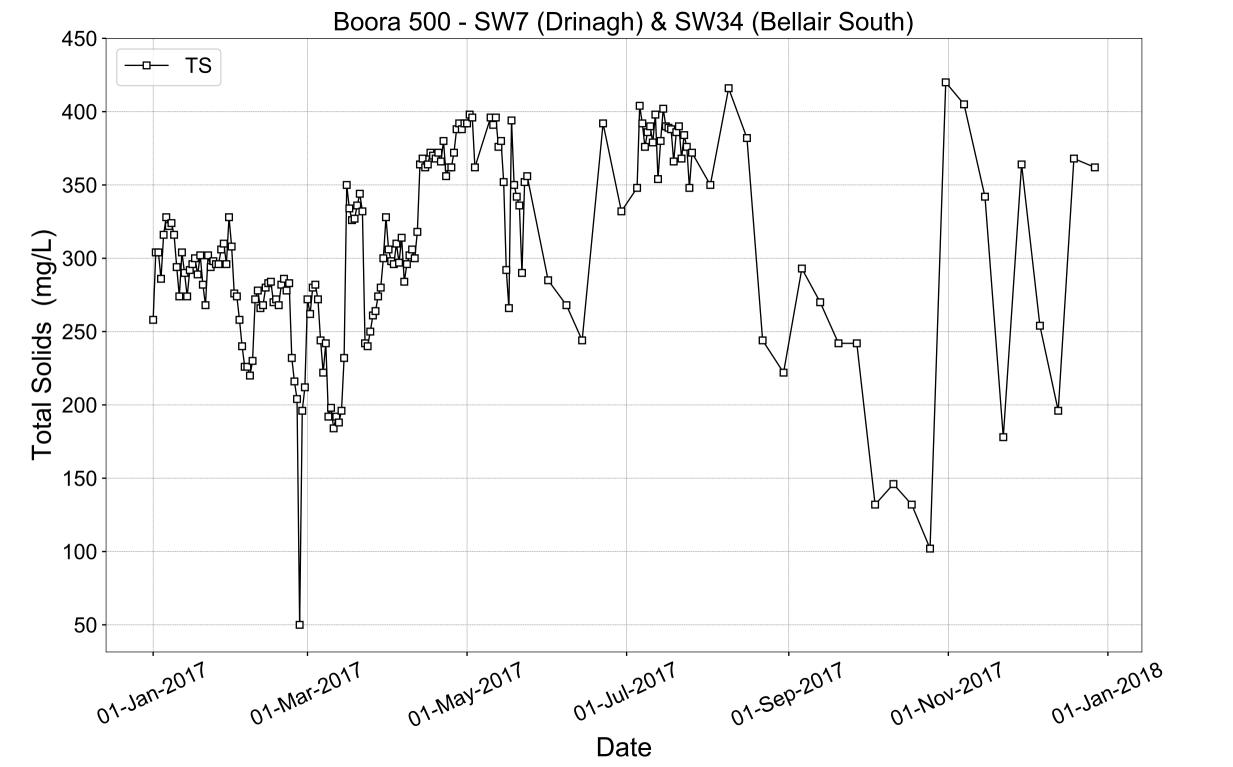












Licence: P0500-01															
Works: B	oora														
Month	SWE 1A	SWE 1B	SWE 2	SWE 3	SWE 3A	SWE 4A	SWE 4B	SWE 5A	SWE 5B	SWE 6A	SWE 6B	SWE 7	SWE 8	SWE 9	
Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
June	51	21	48	0	0	0	0	0	0	66	0	0	0	0	
July	51	36	32	0	0	0	0	0	0	31	30	25	29	24	
Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	57	
Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	42	
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Nov	31	15	54	52	0	0	0	0	0	50	0	0	0	0	
Dec	22	13	0	0	0	0	0	19	0	51	24	0	0	0	
ote: 0 de	enotes no fl	ow at emiss	sion poin	t on day	of sampli	ng									



| PRTR# : P0500 | Facility Name : Bord na Mona Energy Limited Leabeg | Filename : P0500 | 2017.xls | Return Year : 2017

04/04/2018 12:09

Suidance to completing the PRTR workbook

PRTR Returns Workbook

REFERENCE YEAR	2017
1. FACILITY IDENTIFICATION	
	Bord na Mona Energy Limited
	Bord na Mona Energy Limited Leabeq
PRTR Identification Number	
Licence Number	
Classes of Activity	
No.	class_name
-	Refer to PRTR class activities below
Address 1	Boora Group
	c/o Boora Works
	Leabeg, Tullamore,
Address 4	
	Offaly
Country	
Coordinates of Location	
River Basin District	IEGBNISH
NACE Code	0892
Main Economic Activity	Extraction of peat
AER Returns Contact Name	Enda McDonagh
AER Returns Contact Email Address	enda.mcdonagh@bnm.ie
AER Returns Contact Position	
AER Returns Contact Telephone Number	057 9345911
AER Returns Contact Mobile Phone Number	086 2370816
AER Returns Contact Fax Number	057 9345160
Production Volume	559486.0
Production Volume Units	Tonnes
Number of Installations	13
Number of Operating Hours in Year	2232
Number of Employees	124
User Feedback/Comments	
	In accordance with licence condition 6.2 of Technical Amendment A, quarterly sampling is now rotated every quarter and therefore
	suspended solids results are not factored into loading. Due to technical difficulties experienced with the composite sampler annual
Web Address	loading was not possible to calculate. All composite sampler results are attached for review in the AER document.
Web Address	www.bim.je
2. PRTR CLASS ACTIVITIES	
Activity Number	Activity Name
50.1	General
	
3. SOLVENTS REGULATIONS (S.I. No. 543 of 20	
Is it applicable?	No
Have you been granted an exemption ?	
If applicable which activity class applies (as per	
Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being used?	
4. WASTE IMPORTED/ACCEPTED ONTO SITE	Guidance on waste imported/accepted onto site
Do you import/accept waste onto your site for on-	
site treatment (either recovery or disposal	
activities) ?	
	This question is only applicable if you are an IPPC or Quarry site

This question is only applicable if you are an IPPC or Quarry site

4.1 RELEASES TO AIR

Link to previous years emissions data

| PRTR# : P0500 | Facility Name : Bord na Mona Energy Limited Leabeg | Filename : P0500_2017.xls | Return Year : 2017 |

04/04/2018 12:11

24

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

SECTION C. KEW	MINING FOLLOTAINT ENIN	Sions (As required in your Licence)										
		RELEASES TO AIR				Please enter all quantities	in this section in KGs					
	POLLUTANT				OD				QUANTITY			
				Method Used		DM01	DM02	DM03				
										A (Accidental)	F (Fugiti	ive)
Po	ollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	Emission Point 3	T (Total) KG/Year	KG/Year	KG/Year	r
210		Dust	E	OTH	VDI 2119 Blatt 2/Part 2	0.0	0.0	0.0	0.05334	0.	0	0.05334
		* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button										

Additional Data Requested from Land	ffill operators					
(Methane) flared or utilised on their facilities to accomp	use Gases, landfill operators are requested to provide summary data on landfill gas any the figures for total methane generated. Operators should only report their Net methane for Section A: Sector specific PRTR pollut					
Landfill:	Bord na Mona Energy Limited Leabeg					
Please enter summary data on the	,					
quantities of methane flared and / or						
utilised			Meth	nod Used		
				Designation or	Facility Total Capacity	
	T (Total) kg/Year	M/C/E	Method Code	Description	m3 per hour	
Total estimated methane generation (as per						
site model)					N/A	
Methane flared						(Total Flaring Capacity)
Methane utilised in engine/s					0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section						
A above)	0.0				N/A	

4.2 RELEASES TO WATERS

Link to previous years emissions data

| PRTR# : P0500 | Facility Name : Bord na Mona Energy Limited Leabeg | Filename : P0500_2017.xls | Return Year : 2017 |

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SECTION A: SECTOR SPECIFIC PRTR POL	SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS RELEASES TO WATERS				Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only co								
				Please enter all quan	tities i	in this section in K	Gs						
		QUANTITY											
				Method Used									
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1		T (Total) KG/Year	A (Ac	cidental) KG/Year	F (Fugitive) KG/Year			
						0.0		0.0	0.0	0.0			

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

SECTION B : REMAINING PRTR POLLUTANTS

OLOTION D. REMAINING I RITE I OLLOTAR								
				Please enter all quantities				
	POLLUTANT						QUANTITY	
				Method Used				
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

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

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

		RELEASES TO WATERS	Please enter all quantities in this section in KGs									
		POLLUTANT				QUANTITY						
ı					Method Used							
	Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year			
Ī					G/19 Based on							
					ALPHA,1998,20th Edition,							
	240	Suspended Solids	Е	OTH	Method 2540D	0.0	0.0	0.0	0.0			

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

4.3 RELEASES TO WASTEWATER OR SEWER

Link to previous years emissions data

| PRTR# : P0500 | Facility Name : Bord na Mona Energy Limited Leabeg | Filename : P0500_2017.xl

04/04/2018 12:13

SECTION A: PRTR POLLUTANTS

OFFSITE TRANS	ATER TREATMENT OR SEWER			Please enter all quantities in this section in KGs					
POLLUTANT		METHOD			QUANTITY				
			Method Used						
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Y	ear F (Fugitive) KG/Year	
					0.0	(0.0	0.0 0.0	

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

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

ELOTION B.: REIMARRING FOLESTART EMISSIONS (as required in your Elosition)										
OFFSITE TRAN	ATER TRI	EATMENT OR SEWER		Please enter all quantities in this section in KGs						
POLLUTANT		METHOD			QUANTITY					
			Method Used							
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year		
					0.0	0	0 00	0.0		

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

Link to previous years emissions data Page 1 of 1

4.4 RELEASES TO LAND

Link to previous years emissions data

| PRTR# : P0500 | Facility Name : Bord na Mona Energy Limited Leabeg | Filename : P0500_2017.xls | Return Year : 2017 |

04/04/2018 12:14

SECTION A: PRTR POLLUTANTS

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

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

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

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

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE | PRTR#: P0500 | Facility Name: Bord na Mona Energy Limited Leabeg | Filename: P0500_2017.xls | Return Year: 2017 | Please enter all quantities on this sheet in Tonnes 04/04/2018 12:15

				Please efficer a	all quantities on this sheet in Tonnes								3
										Licence/Permit No of Next			
											Haz Waste : Address of Next	Name and License / Permit No. and	
				Quantity									Actual Address of Final Destination
				(Tonnes per						Haz Waste: Name and	Destination Facility	Address of Final Recoverer /	
										Licence/Permit No of	Non Haz Waste: Address of	Disposer (HAZARDOUS WASTE	i.e. Final Recovery / Disposal Site
				Year)				Method Used		Recover/Disposer	Recover/Disposer	ONLY)	(HAZARDOUS WASTE ONLY)
						Waste							
		European Waste				Treatment			Location of				
	Transfer Destination	Code	Hazardous		Description of Waste	Operation	M/C/E	Method Used	Treatment				
,					wastes from mineral non-metalliferous					Bord na Mona Boora P0500-	Boora, Leabeg, Tullamore, Co		
	A/:4b: 4b - O4	04.04.00	NI-			D4	F	Malana Calandada	0		Offalv.Ireland		
	Within the Country	01 01 02	No	711.94	excavation	D1	E	Volume Calculation	Onsite or generati				
										Leinster Environmental	Haggardstown, Dundalk, Co		
	Within the Country	02 01 04	No	222.82	waste plastics (except packaging)	R3	M	Weighed	Offsite in Ireland	Ltd,WP 2008/06	Louth,,,Ireland		
	•							-			Clonminam Ind	R.D. Recycling, Reg no	
					mineral-based non-chlorinated engine, gear							51727/1KD,Houthalen,Belgi	Houthalen Relgium Relgiu
	To Other Countries	40.00.05	V			R1	С	Volume Calculation	A la	Enva Ireland Ltd.W184-01			
	10 Other Countries	13 02 05	Yes	0.0	and lubricating oils	KT	C	volume Calculation	Abroad	Enva ireiano Ltd, vv 184-01		um,.,,,Belgium	m
											Cappincur,Tullamore,Co		
	Within the Country	15 01 03	No	2.13	wooden packaging	R3	M	Weighed	Offsite in Ireland	AES Ltd,WP-OY-08-601-01	Offaly,,,Ireland		
					absorbents, filter materials (including oil								
					filters not otherwise specified), wiping						Clonminam Ind	Lindenschmidt,Reg no	
					cloths, protective clothing contaminated by							E97095037,Kreuztal,,Ger	
							_						
	To Other Countries	15 02 02	Yes	0.28	dangerous substances	R1	С	Volume Calculation	Abroad	Enva Ireland Ltd,W184-01			Kreuztal,.,.,,Germany
											Clonminam Ind	R.D. Recycling,Reg no	
											Estate.Portlaoise.Co	51727/1KD.Houthalen.Belgi	Houthalen, Belgium,, Belgiu
	To Other Countries	16.01.07	Yes	0.27	oil filters	R4	С	Volume Calculation	Ahrond	Enva Ireland Ltd,W184-01			m
	To Other Countries	16 01 07	162	0.37	Oil Tillers	174	C	volume Calculation	Abioau	Liiva ilelalid Ltd,VV 104-01	Cappincur.Tullamore.Co	um,.,.,Deigium	
	Within the Country	17 04 07	No	110.0	mixed metals	R4	M	Weighed	Offsite in Ireland	AES Ltd,WP-OY-08-601-01	Offaly,.,Ireland		
											Cappincur, Tullamore, Co		
	Within the Country	20 03 01	No	32.5	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	AES Ltd,WP-OY-08-601-01	OffalyIreland		
	uno occurrity			32.0					22.too.dila	, 2. 22 301 01	Cappincur.Tullamore.Co		
	A/:4b:- 4b - O4	00.00.04	NI-	05.04	mived municipal weets	DE		Malana Calandadaa	04-1-1-1-1	AES Ltd,WP-OY-08-601-01			
	Within the Country	20 03 01	No	25.34	mixed municipal waste	D5	M	Volume Calculation	Offsite in Ireland	AES LIU, WF-UY-08-601-01	Offaly,,,Ireland		
												Campine	
											Clonminam Ind	Recycling,MLAV/05-	
											Estate.Portlaoise.Co	173/GUDA,Beerse,,,,,,Belgi	
	To Other Countries	16.06.01	Yes	1 22	lead batteries	R6	М	Weighed	Abroad	Enva Ireland Ltd.W184-01			Beerse,,,,,,Belgium
	To Other Countiles	10 00 01	162	1.32	icau patteries	NU	IVI	weigneu	Abibau	Liiva iiciaila Llu, W 104-01	Lauis,,,iiciailu	um	Deerse,.,.,Deigium

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

Link to previous years waste data
Link to previous years waste summary data & percentage change Link to Waste Guidance

National Grid Reference (6E, 6 N) Site Location Name of site Licence Register Number Class/Classes of Activity NACE Code AER Reporting Year Facility Information Summary P0501-01 2017 Derrygreenagh, Rochfortbridge, Co Westmeath Bord na Mona Derrygreenagh 249450, 238140 0892

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

and lorry outloading facilities. Production achieved was approximately 299,912 tonnes which was up on the 2016 made to send the sampler away to the manufacturer for overhaul. experienced some technical difficulties which impacted on the collection of flow data. A decision was therefore Mona liaised with Meath and Offaly Co. Councils to reduce littering in litter hotspots across the pond cleaning, almost 90% of ponds received two cleanings, inspections dictating cleaning schedules. Bord na satisfaction of the complainant. A shelter belt 200m long was planted to alleviate the problem.In relation to silt environmental complaint received during the reporting period, this was dust related and was resolved to the continuous composite sampling returning no non-compliances for suspended solids. There was one figure. Infrastructurally, there was no bog development. Quarterly grab sampling was 100% compliant, with the peat into stockpiles and secondly the transportation of that peat via an internal rail network to the Power Station Activities on site can be divided into two components, firstly the milling, harrowing, ridiging and harvesting of licence.Decommissioning and Rehabilitation works are described in an attachment. The composite sampler

Declaration:

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

guality of the information is assured to meet licence requirements

E. Mullull

Signature

Signature

Group/Facility manager

(or nominated, suitably qualified and experienced deputy)

					Lic No:	P0501-01		Year	2017	1	
Answer all questio	ons and complete all table	s where relevant									
						1	Additional informati	on	1		
Door your site l	have licensed air emissis	and if you alone on	malata tabla A1 a	nd A2 below for the current							
				sions and do not complete a			Fugitive emissions or	nlv			
		,,,			No						
					110				1		
Periodic	c/Non-Continuous N	Monitoring									
Are there any resi	ults in breach of licence re			tails in the comment section of							
		TableA1 below			Yes	Reporte	d to the Agency ref If	ICI012674.	-		
			Basic air								
			monitoring								
note AG2 an	nd using the basic air monit	oring checklist?	checklist	AGN2	Yes				j		
Table A1: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous)											
		I	1		1	1	1	I		Comments -	
								reason for			
										change in %	
									mass load		
										from	
F-sissia-						Unit of	Compliant with		A	previous vear if	
	Parameter/ Substance	Monitoring		Licence Compliance criteria	Measured value			Method of analysis		applicable	
		-		·				,			
DM-01	SELECT			SELECT		SELECT	SELECT	SELECT			
5111 01	JEECT			J. C. C.		Secret	SEEECT	SEECT			
	CC1 CCT			CCI COT		CC. CCT	CEL FOR				
	SELECT			SELECT		SELECT	SELECT	SELECT			
Note 1: Volumetric		renortable naramete	er .	SELECT		SELECT	SELECT	SELECT			
			-								
	Continuous N	/Ionitoring									
Does your site carr	ry out continuous air emiss	ions monitoring?			No				J		
If yes please review				elow in Table A2 and compare it							
	to its	relevant Emission Lim	it Value (ELV)						1		
Did continuous mo	nitoring equinment evneri	ence downtime? If ve	nlease record dow	ntime in table A2 below	No						
01111110031110		uowinine. ii ye	. p						1		
Do you have a proa	active service agreement for	or each piece of contin	nuous monitoring eq	juipment?	No						
Did your s	site experience any abaten	nent system bypasses	If yes please detail	them in table A3 below	No						
	Periodi Are there any res Was all monitorin note AG2 at note AG2 at Table A1: Lice Emission Terference no: DM-01 Note 1: Volumetric Type your site car file yes please revieund to get a continuous me Do you have a pro	Periodic/Non-Continuous N Are there any results in breach of licence re- Was all monitoring carried out in accordance note AG2 and using the basic air monit Table A1: Licensed Mass Emission: Emission Parameter/ Substance DM-01 SELECT SELECT SELECT Note 1: Volumetric flow shall be included as a continuous air emission of the properties of the propertie	Periodic/Non-Continuous Monitoring Are there any results in breach of licence requirements? If yes please review your continuous monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist? Table A1: Licensed Mass Emissions/Ambient data-licensed mass Emission Monitoring SELECT SELECT	Periodic/Non-Continuous Monitoring Are there any results in breach of licence requirements? if yes please provide brief de TableA1 below Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist? Table A1: Licensed Mass Emissions/Ambient data-periodic monitor reference no: Parameter/ Substance Parameter/ Substance Monitoring SELECT SELECT SELECT SOM-01 SELECT SOM 1: Volumetric flow shall be included as a reportable parameter Continuous Monitoring Does your site carry out continuous air emissions monitoring? If yes please review your continuous monitoring data and report the required fields be to its referent Emission Limit Value (ELV) bid continuous monitoring equipment experience downtime? If yes please record dow	Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of TableA1 below Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist? Table A1: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous) Emission Parameter/ Substance Frequency of surversion thereof Monitoring ELV in licence or any revision thereof SELECT SELECT	Periodic/Non-Continuous Monitoring Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of TableA1 below Was all monitoring carried out in accordance with EPA guidance note A62 and using the basic air monitoring checklist? Table A1: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous) Emission Friequency of Monitoring Friequency of Monitoring Friequency of Monitoring ELV in licence or any revision thereof Licence Compliance criteria Measured value DM-01 SELECT SELECT SELECT SELECT SELECT SOLE CT SELECT SOLE CT SELECT SOLE CT SOLE CT SELECT Note 1: Volumetric flow shall be included as a reportable parameter Continuous Monitoring Does your site carry out continuous air emissions monitoring? If yes please review your 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) Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below No No	Periodic/Non-Continuous Monitoring Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of TableA1 below Was all monitoring carried out in accordance with EPA guidance note A62 and using the basic air monitoring checklist? Table A1: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous) Emission Parameter/ Substance Parameter/ Substance Monitoring Frequency of any revision thereof Licence Compliance criteria Measured value Measured value Measured value Measured value SELECT SELECT	Periodic/Non-Continuous Monitoring Are there any results in breach of licence requirements? if yes please provide brief details in the comment section of TableA1 below Was all monitoring carried out in accordance with EPA guidance monitoring. mote A62 and using the basic air monitoring checklist? Table A1: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous) Emission Parameter/ Substance Frequency of Monitoring Frequency of Monitoring Frequency of Monitoring SELECT S	Periodic/Non-Continuous Monitoring Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of TableA1 below Basic air. Was all monitoring carried out in accordance with EPA guidance monitoring. checklist Table A1: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous) Emission Parameter/ Substance Monitoring ELV in licence or any revision therof SELECT S	Periodic/Non-Continuous Monitoring Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of TableA1 below Was all monitoring carried out in accordance with EPA guidance monitoring, checklist? AGN2 Was all monitoring carried out in accordance with EPA guidance monitoring, checklist? AGN2 Table A1: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous) Emission Parameter/ Substance Parameter/ Substance Monitoring DM-01 SELECT SELE	

 AIR-summary template
 Lic No:
 P0501-01
 Year
 2017

Table A2: Summary of average emissions -continuous monitoring

Emission	Parameter/ Substance		Averaging Period	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:					measurement			Equipment	exceedences in	
		ELV in licence or						downtime (hours)	current	
		any revision therof							reporting year	
DM-01	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	11340	113	0	0	Dust
				, , , , , ,	u, ,,					monitioring
										took place
										on 5
										occasions
										for 28 days
										each time
										between
										April and
										September
DM-02	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	15204	214		0	
DM-03	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	21364	350	0	0	
DM-04	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	28560	605	0	1	Reported to
										Agency on
										14/08/2017.1
										NCI012674
	SELECT				SELECT					

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

Table A3: Abatement system bypass reporting table

Bypass protocol

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

^{*} this should include all dates that an abatement system bypass occurred

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

Solvent	use and manageme	nt on site							
Do you have a total	l Emission Limit Value of di	rect and fugitive emis	sions on site? if yes	please fill out tables A4 and A5			SELECT		
	ent Management Pla ssion limit value	an Summary	Solvent Please refer to linked solvent regulations to regulations complete table 5 and 6						
Reporting year	Total solvent input on site (kg)		Total VOC emissions as 5Kof solvent input (ELV) in licence or any revision there of the form						
Table A5:	Solvent Mass Baland	ce summary			SELECT				
	(I) Inputs (kg)			(0)	Outputs (kg)				
Solvent	(I) Inputs (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.	Total emission of Solvent to air (kg)	
							Total		

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER) Lic No: P0501-01 2017 Does your site have licensed emissions direct to surface water or direct to sewer? If yes The continuous monitoring sampler was relocated during the reporting please complete table W2 and W3 below for the current reporting year and answer period. The sampler also experienced technical difficulties at both sites further questions. If **you do not have** licenced emissions you <u>only</u> need to complete table which inhibited the collection of flow data and subsequent annual loading calculations. It was therefore decided to present the sampling results in W1 and or W2 for storm water analysis and visual inspections graphical form as an attachment. Monthly COD of yard run-off is attached. Was it a requirement of your licence to carry out visual inspections on any surface water 2 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 Table W1 Storm water monitoring ELV or trigger Location Monitoring level in licence Unit of Compliant with PRTR Parameter Compliance Comments relative to site Measured value reference Parameter measurement licence date or any revision activities criteria thereof* SELECT *trigger values may be agreed by the Agency outside of licence conditions Table W2 Visual inspections-Please only enter details where contamination was observed. Location Reference inspection Description of contamination Corrective action contamination Comments 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 Surface water monitoring was carried out on a quarterly basis. The results of which are attached. Was all monitoring carried out in accordance with EPA guidance and checklists for Quality of Aqueous Monitoring External /Internal Data Reported to the EPA? If no please detail what areas Lab Quality Assessment of require improvement in additional information box Table W3: Licensed Emissions to water and /or wastewater (sewer)-periodic monitoring (non-continuous) ELV or trigger values in licence or Procedural any revision Emission Emission Parameter/ requency of Unit of Compliant with Procedural eference veraging period therof Note 2 Type of sample monitoring reference no: SubstanceNote 1 Licence Compliance criteria Measured value Nethod of analysis 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

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)	Lic I	No: P0501-01	Υ	Year	2017
Continuous monitoring 5 Does your site carry out continuous emissions to water/sewer monitoring? If yes please summarise your continuous monitoring data below in Table W4 and compare it to its relevant Emission Limit Value (ELV)	Yes		al Information ate composite sampling		
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	Yes Yes No	Total of 70	days over 365 days		

Emission reference no:	Emission released to	ELV or trigger values in licence or any revision thereof	Averaging Period			Number of ELV exceedences in reporting year	Comments
						0	

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

Table W5: Abatement system bypass reporting table

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

^{*}Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline test	ting template				Lic No:	P0501-01		Year	2017					
Bund testing	Т	dropdown menu clic	rk to see ontions				Additional information							
	1						All bunds requiring an integrity test	1						
		tegrity testing on bunds and conta					in 2017 were tested and passed.							
		bunds which failed the integrity t the licenced testing period (mob			bunas must be listed in		·							
1			nie bulius and chemstore inc	iddedj		Yes								
2 Please provide integrity						Other (2 Yearly)								
		rground pipelines (including storn	nwater and foul), Tanks, sum	ps and containers? (contain	ers refers to "Chemstore"									
3 type units and mobile b 4 How many bunds are or						Yes 2								
		nin the required test schedule?				1	1 decommissioned, 1 tested in 2017	-						
6 How many mobile bund		in the required test senedule.				9	T decommosoried, T tested in 2017							
7 Are the mobile bunds in		schedule?				No								
		ted within the required test sched	lule?			0								
9 How many sumps on sit						0								
10 How many of these sum						0								
11 Do all sumps and chamb	tegrity failures in table B1					N/A		1						
		in a maintenance and testing prog	gramme?			N/A		1						
		r integrity test programme?	-			N/A		1						
				_			•	•						
Tabl	le B1: Summary details of	bund /containment structure inte	egrity test		1				1					
														Results
									Integrity reports					retest(if
Bund/Containment									maintained on		Integrity test failure		Scheduled date	current
structure ID	Туре	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	site?	Results of test	explanation <50 words	Corrective action taken	for retest	reportir
Derrygreenagh Bund NO:501-37-01	reinforced concrete		Gas Oil	110,592	45000	Hydraulic test		22/05/2017	Yes	Pass	N/A	N/A	N/A	N/A
10.501 57 01	remiorced concrete		Gas Oil	110,332	43000	Hydraulic test		22/03/2017	163	1 033	IVA	IN/A	NA	IV/A
	iply with 25% or 110% containment						Commentary		•					
		nce with licence requirements and	d are all structures tested in			CCLCCT								
15 line with BS8007/EPA G 16 Are channels/transfer s		ment systems tested?		bunding and storage guideli	nes	SELECT SELECT		-						
		integrity and available volume?				SELECT		-						
	-,							J						
		_												
Pipeline/undergrou	und structure testing													
				. 3:6			No underground tanks or pipelines							
		tegrity testing* on underground s ich failed the integrity test and al				Yes	on site							
 underground structures Please provide integrity 			ii wiiicii nave not peen teste	u withing the integrity test	periou as specified	SELECT		+						
		ness testing for process and foul p	pipelines (as required under	your licence)		SELECT		1						
				-										
Table	B2: Summary details of p	ipeline/underground structures in	ntegrity test									7		
				Type of secondary										
				containment				Integrity test						
			Does this structure have			Integrity reports			Corrective action	Scheduled date	Results of retest(if in current			
Structure ID						maintained on site?	Results of test	<50 words	taken	for retest	reporting year)			
	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT				SELECT			
									+					
									+					
								l	1	1				
							7							
		Please use comm	entary for additional details	not answered by tables/ qu	estions above		_							

Groundwater/Soil monitoring template	Lic No:	P0501-01	Year	2017
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Comments

ndwater monitoring data in the
uire additional space please
ed land monitoring results al section in this AER
on of data here
1

Table 1: Upgradient Groundwater monitoring results

I UDIC I.	Table 1. Opproving the monitoring results											
										Upward trend in		
										pollutant		
	Sample									concentration		
Date of	location	Parameter/		Monitoring	Maximum	Average				over last 5 years		
sampling	reference	Substance	Methodology	frequency	Concentration++	Concentration+	unit	GTV's*	SELECT**	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

	•	nonitoring t	•		Lic No:	P0501-01		Year	2017			J
Table 2:	Downgradi	ent Ground	water monito	oring results		1		1			7	
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		
*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. More information on the use of soil and groundwater standards/ generic assessment												
trend in complet More inform	results for a sub- te the Groundwa nation on the use c) and risk assess	stance indicates to ter Monitoring G	that further interp uideline Template ndwater standards	retation of monitor Report at the link p otherwise instructe	ng results is required. In a rovided and submit sepa d by the EPA.	addition to completing trately through ALDER	line Value (IGV) or an upward g the above table, please	<u>Grou</u>		ring template		
trend in complet	results for a sub- te the Groundwa nation on the use c) and risk assess	stance indicates to ter Monitoring G	that further interp uideline Template ndwater standards	retation of monitor Report at the link potential otherwise instructe of generic assessment	ng results is required. In a rovided and submit sepa d by the EPA.	addition to completing trately through ALDER	line Value (IGV) or an upward g the above table, please as a licensee return or as	<u>Grou</u>		ring template		

Table 3: Soil results

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

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

Environmental Liabilities template

Lic No:

P0501-01

Year

2017

Click here to access EPA guidance on Environmental Liabilities and Financial provision

			Commentary
1	ELRA initial agreement status	Not a licence requirement	
2	ELRA review status	NA	
3	Amount of Financial Provision cover required as determined by the latest ELRA	NA	
4	Financial Provision for ELRA status	NA	
5	Financial Provision for ELRA - amount of cover	NA	
6	Financial Provision for ELRA - type	NA	
7	Financial provision for ELRA expiry date	NA	
8	Closure plan initial agreement status	NA	Internal budget provision
9	Closure plan review status	NA	Internal budget provision
10	Financial Provision for Closure status	NA	Internal budget provision
11	Financial Provision for Closure - amount of cover	NA	Internal budget provision
12	Financial Provision for Closure - type	NA	Internal budget provision
13	Financial provision for Closure expiry date	NA	

	Environmental Management Programme/Continuous Improvement Programme	template	Lic No:	P0501-01	Year	2017
	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	Internal	unaccredited EMS.		
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				

Invironmental Management Programm Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	Continue to train all		In total 73 personnel	Individual	Reduced emissions
reduction of emissions to All	employees in	30	received training during	individual	Neduced emissions
	environmental matters.		2017. Hydraulic harrows		
	Training will be by means		were depolyed at 4		
	of a new four module		locations. Headland peat		
	training programme		was collected at all locations		
	delivered by dedicated		and returned with		
	Bord na Mona training		production figures.		
	specialists. This new		· -		
	training programme				
	includes environmental				
	compliance-IPPC,				
	Biodiversity, Archaeology				
	and Energy management.				
	Hydraulic harrows will be				
	deployed at dust sensitive				
	locations. Continue with				
	the collection of headland				
	peat.				
Vaste reduction/Raw material usage	Waste streamlining is a	or	Monthly waste reports are	Section Head	Improved Environmental
		OL.		Section Head	
efficiency	project we are particularly		returned for records/filing		Management Practices
	interested in continuing		and waste streams are		
	and hope to reduce wastes		segrated on site to maximise		
	further in the future and		recycling potential.		
	be more efficient in				
	dealing with all aspects of				
	waste management				
	_				
Waste reduction/Raw material usage	Continue with the	100	In total 119.14 tonnes of	Individual	Improved Environmental
efficiency	recycling of polyethylene.		polyethlene were sent off		Management Practices
	The sourcing of more		site for recycling.		
	recycling contractors will		Procurement also exploring		
	be ongoing.		the possibility of securing		
	be origoring.		further recyclers.		
			turtner recyclers.		
nergy Management	As part of an Energy	100	The monthly consumption of	Section Head	Reduce overall energy outpo
inergy ividilagement		100		Section riead	
	Awareness campaign all		energy was regurally		while maintaining
	aspects of energy		communicated to the		productivity.
	consumption will be		relevant personnel. This		
	communicated to		included the KPI's for peat		
	personnel with the		production, maintenance		
	intention of reducing		and transportation as well as		
	consumption through		bog pumping and workshop		
	awareness		electrical consumption.		
	dwareness		ciccincal consumption.		
Reduction of emissions to Water	Continue to train all	or	In total 72 Percennel	Individual	Improved Environmental
neduction of emissions to water	Continue to train all	90	In total 73 Personnel		Improved Environmental
	employees in		received training in 2017.		Management Practices
	environmental matters.		Personnel are trained every		
	Training will be by means		two years in Environmental		
	of a new four module		matters. Headland peat was		
	training programme		collected at all locations and		
	delivered by dedicated		included as part of overall		
	Bord na Mona training		peat returns.		
			peac returns.		
	specialists. This new		I .		
	training programme		I .		
	includes environmental		I .		
	compliance-IPPC,		I .		
	Biodiversity, Archaeology		I .		
	and Energy management.		I .		
	Continue with the		I .		
	collection of headland		I .		
	conection or neadign0				
	post				
	peat.				
	peat.				

Noise monitoring su	mmary report			Lic No:	P0501-01	Year	2017	
Was noise monitoring a licence requirement for the Al If yes please fill in table N1 noise summary below				No]			
Was noise monitoring carried out using the EPA Guida "Checklist for noise measurement report" included in to	•	the	Noise Guidance note NG4	NA				
3 Does your site have a noise reduction plan					NA			
4 When was the noise reduction plan last updated?					Enter date			
5 Have there been changes relevant to site noise emissi s	ions (e.g. plant or opera urvey?	ational char	nges) since t	he last noise	NA			
Table N1: Noise monitoring summary								
Date of Noise location location	oise sitive on -NSL slicable) LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
					SELECT	SELECT		SELECT
*Please ensure that a tonal analysis has been carried out as per guidance	note NG4. These records must	be maintained	onsite for future	einspection				

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: P0501-01 Year

1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below

| Is the site a member of any accredited programmes for reducing energy usage/water conservation such as | Industry_Energy_
| 2 | the SEAI programme linked to the right? If yes please list them in additional information | Network_ULENI |

Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

	Additional information
Oct-17	
Yes	The site attained accrediation to the energy standard 50001
NA	Not a Licence requirement

Table R1 Energy usag	e on site			
Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	5907	6913	NA	NA
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (N	(WHrs)			
Electricity Consumption (MWHrs)	300.277	318.403	NA	NA
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	551.885	649.037		
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 usag	e on site				Water Emissions	Water Consumption	
						Volume used i.e not	
			Production +/- %	Energy		discharged to	
			compared to	Consumption +/- %	Volume Discharged	environment e.g.	
	Water extracted	Water extracted	previous reporting	vs overall site	back to	released as steam	
Water use	Previous year m3/yr.	Current year m3/yr.	year**	production*	environment(m3yr):	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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

Table R3 Waste Stream	Summary				
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	17.82	0	1.62	16.2	0
Non-Hazardous (Tonnes)	560.32	20.06		370.56	169.7

Table R4: Energy	Audit finding recommenda	tions						
		Description of		Predicted energy				Status and
Date of audit	Recommendations	Measures proposed	Origin of measures	savings %	Implementation date	Responsibility	Completion date	comments
			SELECT					
			SELECT					
			SELECT					

Table R5: Power Generation: Where p	ower is generated onsite	(e.g. power generation	facilities/food and d	rink industry)please co	omplete the following in
	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:	P0504-01	Year	2017	
Complaints						
	ion					
Have you received any environmental complaints in the current reporting year? If yes please complete	Yes	One complaint was				
summary details of complaints received on site in table 1 below		received in				
		Ballybeg Bog Area				
		relating to dust,				
		this was reported				
		to the Agency.				
		RefLR029212				

Table 1	L Complaints summary						
Date	Category	Other type (please specify)	Brief description of complaint (Free txt <20 words)	Corrective action< 20 words	Resolution status	Resolution date	Further information
11/05/2017			Complaint received at Ballybeg Bog relating to dust nuisance.	Peat production was suspended and personnel reminded of their environmental responsibilities. 200m shelter belt sown.	Complete	11/05/2017	Reported to the Agency ref: LR029212 on 08/06/2017
	SELECT				SELECT		
	SELECT				SELECT		
	SELECT				SELECT		
	SELECT			1	SELECT		
Total complaints open at start of reporting year Total new complaints received during	0						
reporting year Total complaints closed during	1						

reporting year
Balance of
complaints end of
reporting year

Complaints and	Incidents summary templat	te			Lic No:	P0504-01		Year	2017					
												_		
		Incidents												
					Additional informati	on								
Have any incidents	occurred on site in the current repor	ting year? Please list all incide	ents for current reporting	Yes										
	year in Tab	le 2 below	_											
*For information on	how to report and what constitutes													
1 of illiorniation on		What is an incident												
	annedent		1											
Table 2 Incidents sun	nmary		1											
	,						Activity in							
			Incident category*please			Other cause(please	progress at time			Corrective action<20	Preventative		Resolution	Likelihood of
Date of occurrence	Incident nature	Location of occurrence	refer to guidance	Receptor	Cause of incident	specify)	of incident	Communication	Occurrence	words	action <20 words	Resolution status	date	reoccurence
07/06/2017	Trigger level reached	Rossan SW-43	1. Minor	Water	Other (add details)	Naturally occurring	Normal activities	EPA INCI012535	New	Investigate	None Required	Complete	27/07/2017	Medium
20/06/2017	Trigger level reached	Rossan SW-43	1. Minor	Water	Other (add details)	Naturally occurring	Normal activities	EPA INCI012538	New	Investigate	None Required	Complete	21/07/2017	Medium
13/07/2017	Breach of ELV	Ballybeg DM-04	1. Minor	Air	Other (add details)	Dust from nearby trees	Normal activities	EPA INCI012674	New	Investigate	Move dust gauge	Complete	14/08/2017	Low
01/09/2017	Trigger level reached	Derryhinch SW-2	1. Minor	Water	Other (add details)	Naturally occurring	Normal activities	EPA INCI013178	New	Investigate	None Required	Complete	19/10/2017	Medium
01/09/2017	Trigger level reached	Derryhinch SW-3	1. Minor	Water	Other (add details)	Naturally occurring	Normal activities	EPA INCI0013180	New	Investigate	None Required	Complete	19/10/2017	Medium
07/11/2017	Trigger level reached	Rossan SW-43	1. Minor	Water	Other (add details)	Naturally occurring	Normal activities	EPA INCI013385	New	Investigate	None Required	Complete	21/11/2017	Medium
Total number of	·			·	·			·		·		·		·
incidents current														

year
Total number of
incidents previous
year
% reduction/
increase

The contraction is the sequence diseased in the contractive or disposed or treatment pixt to recovery or disposed with the localizers of your facility?; (make generated within past plants or past facility?); (make generated within past past past past past past past past	ASTE SUMMARY					Lic No:	P0501-01		Year	2017			
And the land the state of the s	CTION A-PRTR C	ON SITE WASTE TREATMENT AND	WASTE TRANSFERS TAB-	TO BE COMPLETED BY	ALL IPPC AND WAS	STE FACILITIES	PRTR facility logor	n_	dropdown li	st click to see options			
CORD C-TO BE COMPLETED BY ALL WASTE FACILITIES (waste transfer stations, Composters, Material recovery facilities etc) EXCEPT LANDFILL SITES Waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list 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 setup. SELECT SELECT	crion B- wasts accept undaries is to be cap es please enter deta I your site have any t Was s able 1 Details t Licenced annual nnage limit for your site (total	E ACCEPTED ONTO SITE-TO BE COl sited onto your site for recovery or disposal tured through PRTR reporting) sils in table 1 below rejected consignments of waste in the curr waste accepted onto your site that was ger of waste accepted onto your	mpleted by all ippe and or treatment prior to recovery of ent reporting year? If yes please herated outside the Republic of Ir site for recovery, dispo	D WASTE FACILITIES r disposal within the bounce give a brief explanation in the leand? If yes please state to the leand of the leand o	daries of your facility ?; (we had additional information the quantity in tonnes in a do not include we quantity of waste quantity quantit	n additional information rastes generated at your si	N/A N/A N/A te, as these w Reduction/ Increase over previous year +/-	Additional Information vill have been r Reason for reduction/ increase from previous	eported in your P Packaging Content (%)- only applies if the waste has a packaging	RTR workbook) Disposal/Recovery or treatment operation carried out at your site and the	waste remaining on site at the end of reporting	Comments -	
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 SELECT		European Waste Catalogue EWC codes		European Waste									-
SELECT SE	ECTION C-TO BE (COMPLETED BY ALL WASTE FACILL	ITIFS (waste transfer static	ons Composters Mai	terial recovery facili	tios etc) EXCEPT LANDELL SITE	:c						
Waste types permitted for disposal (fpa) Authorised/ficenced annual intake for disposal in reporting year (fpa) Fable 3 General information-Landfilling commenced Date landfilling ceased Currently landfilling Currently landfilling Private or Public Operated Inert or non-hazardous Predicted date to case landfilling ashestos: Licence permits ashestos: Licence permits ashestos: Licence permits ashestos: Licence permits ashestos: Accepted ashestos in reporting var waste Vaste types permitted for disposal in reporting year (fpa) Comments Comments Licence permits ashestos: Licence permits ashestos	all waste processing i	infrastructure as required by your licence a	and approved by the Agency in pl	ace? If no please list waste	processing infrastructure	e required onsite	SELECT						
Waste types permitted disposal (fipa) and disposal (fipa) reporting year (fipa) reporting year (m3) Comments Table 3 General information-Landfilling commenced Date landfilling ceased Currently landfilling Private or Public Operated Inert or non-hazardous Predicted date to case landfilling absences. Is there a separate cell for assestors? Is there a separate cell for assestors? Is there a separate cell for assestors? It is the case of the control of	all waste processing i all waste storage infr pes your facility have o you have an odour r o you maintain a slud	infrastructure as required by your licence a astructure as required by your licence and relevant nuisance controls in place? management system in place for your facili ge register on site?	and approved by the Agency in pl approved by the Agency in place ty? If no why?	ace? If no please list waste	processing infrastructure	e required onsite	SELECT SELECT SELECT SELECT						
Area ID Date landfilling commenced Date landfilling ceased Currently landfilling Private or Public Operated Inert or non-hazardous Predicted date to case landfilling asbestos Is there a separate cell for asbestos? Accepted asbestos in reporting waste Total disposal area occupied by waste Unlined are waste	all waste processing in all waste storage infrues your facility have by you have an odour in your maintain a slud, ecction D-TO BE	infrastructure as required by your licence a rastructure as required by your licence and relevant nuisance controls in place? management system in place for your facili ge register on site?	and approved by the Agency in pl approved by the Agency in place ty? If no why?	ace? If no please list waste	processing infrastructure	e required onsite	SELECT SELECT SELECT SELECT						
Area ID Date landfilling commenced Date landfilling ceased Currently landfilling Private or Public Operated Inert or non-hazardous Predicted date to cease landfilling. Private or Public Operated Inert or non-hazardous Predicted date to cease landfilling. Accepted asbestos in reporting waste area occupied by waste waste Unlined are waste.	all waste processing in all waste storage infrues your facility have by you have an odour or you maintain a slud, the company of the company	infrastructure as required by your licence and astructure as required by your licence and relevant nuisance controls in place? management system in place for your facili ge register on site? COMPLETED BY LANDFILL SITES O e and tonnage-landfill only Authorised/licenced annual intake for	and approved by the Agency in place approved by the Agency in place tty? If no why? NLY Actual intake for disposal in	ace? If no please list waste ? If no please list waste sto Remaining licensed capacity at end of	processing infrastructure requi	e required onsite	SELECT SELECT SELECT SELECT						
SELECT UNIT SELECT	all waste processing i all waste storage infr person your facility have o you have an odour i you maintain a slud ection 0-10 BE able 2 Waste typ Waste types permitted for disposal	infrastructure as required by your licence a rastructure as required by your licence and relevant nuisance controls in place? management system in place for your facili ge register on site? COMPLETED BY LANDFILL SITES O e and tonnage-landfill only Authorised/licenced annual intake for disposal (tpa)	and approved by the Agency in place approved by the Agency in place tty? If no why? NLY Actual intake for disposal in	ace? If no please list waste ? If no please list waste sto Remaining licensed capacity at end of	processing infrastructure requi	e required onsite	SELECT SELECT SELECT SELECT						
	all waste processing i all waste storage infr pes your facility have you have an odour n you maintain a slud; ECTION D-TO BE able 2 Waste typ Waste types permitted for disposal	infrastructure as required by your licence and relevant nuisance controls in place? management system in place for your facilities register on site? COMPLETED BY LANDFILL SITES Of e and tonnage-landfill only Authorised/licenced annual intake for disposal (pa)	approved by the Agency in place approved by the Agency in place ty? If no why? NLY Actual intake for disposal in reporting year (tpa)	Remaining Recessed capacity at end of reporting year (m.3)	processing infrastructure requi	e required onsite red on site	SELECT SELECT SELECT SELECT SELECT SELECT SELECT					area occupied by	Unlined area

WASTE SUMMARY	1				Lic No:	P0501-01		Year
Table 4 Environme	ental monitoring-landfill only	Landfill Manual-Monitoring Star	ndards			•	•	•
	Was leachate monitored in compliance		Was SW monitored in compliance with LD standard in reporting year		Were emission limit values agreed with	of the site surveyed in	Has the statement under S53(A)(5) of WMA been submitted in reporting year	Comments
eporting year	wan 22 samana in reporting year	reporting year	sundir d in reporting year	been established	the rigency (EE/3)	reporting year	reporting year	Commence
.+ please refer to Landfi	ill Manual linked above for relevant Landfil	Directive monitoring standards						
Table 5 Capping-La	andfill only							
Area uncapped*	Area with temporary cap			Area with waste that should be permanently				
SELECT UNIT	SELECT UNIT	Area with final cap to LD Standard m2 ha, a	Area capped other	capped to date under licence	What materials are used in the cap	Comments		

*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		,	Leachate (NH4) mass	Leachate (Chloride)		Specify type of	
reporting year(m3)	Leachate (BOD) mass load (kg/annum)	(kg/annum)	load (kg/annum)	mass load kg/annum	Leachate treatment on-site	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	s-Landfill only			
			Was surface emissions	
Gas Captured&Treated			monitoring performed	
by LFG System m3	Power generated (MW / KWh)	Used on-site or to national grid	during the reporting year?	Comments
			SELECT	

Derrygreenagh Decommissioning and Rehabilitation AER Overview 2017.

Within the Derrygreenagh licensed area (P0501-01) there were no entire bog units available for rehabilitation in 2017. Ongoing monitoring of cutaway within the Derrygreenagh licensing area included the re-survey of Drumman bog. Active rehabilitation work was carried out in Cavemount bog in 2017 with some hydrological management. An overflow pipe was constructed in 2017 to manage the maximum winter water levels. Some ground works were also carried out with a bulldozer to help stabilise a small section of the headland and to block field drains. This is a phased rehabilitation programme and will be completed over several years. Cavemount is developing as a cutaway wetland and is attracting nationally important wintering and breeding bird species. This cutaway wetland will continue to be managed to enhance its biodiversity value.

Bog restoration and drain-blocking is being carried out at a remnant section of high bog at Daingean Rathdrum. This work is due to be finished in 2018.

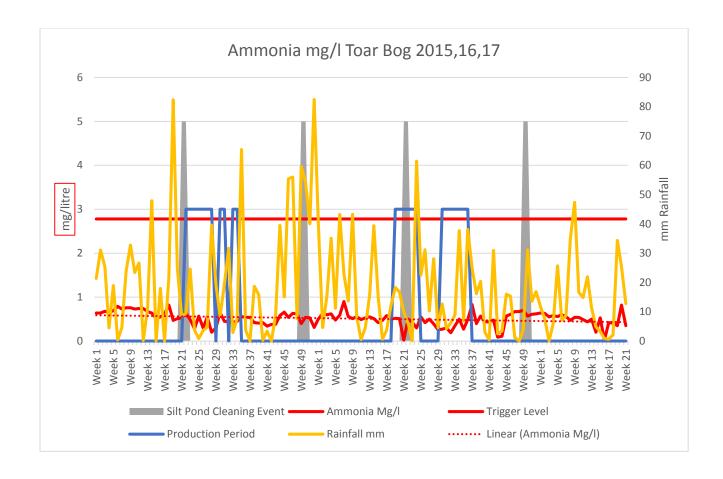
Draft rehabilitation plans for the Derrygreenagh bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015, and 2017.

The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in February 2017, this included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.

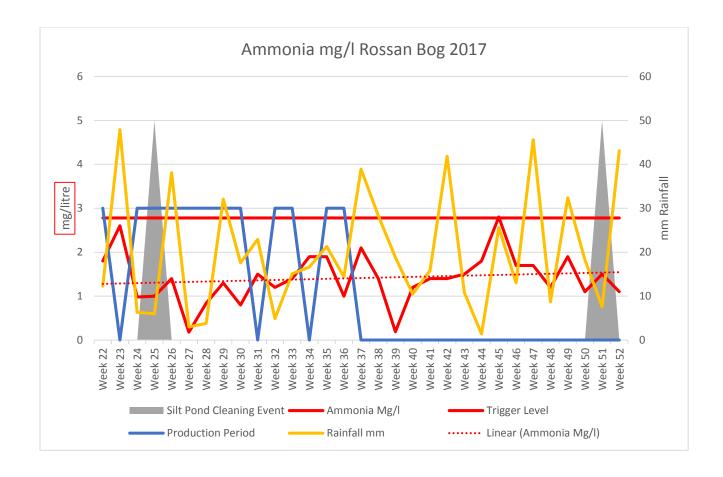
A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

As required by condition 10.2 Cutaway Bog Rehabilitation Plans, draft peatland rehabilitation plans for all the individual bog units were submitted to the agency in 2013, reviewed and amended in 2015 and re-submitted to the agency in 2015. All draft rehabilitation plans have been reviewed in 2017. These reviewed and amended plans will be re-submitted to the agency in due course.

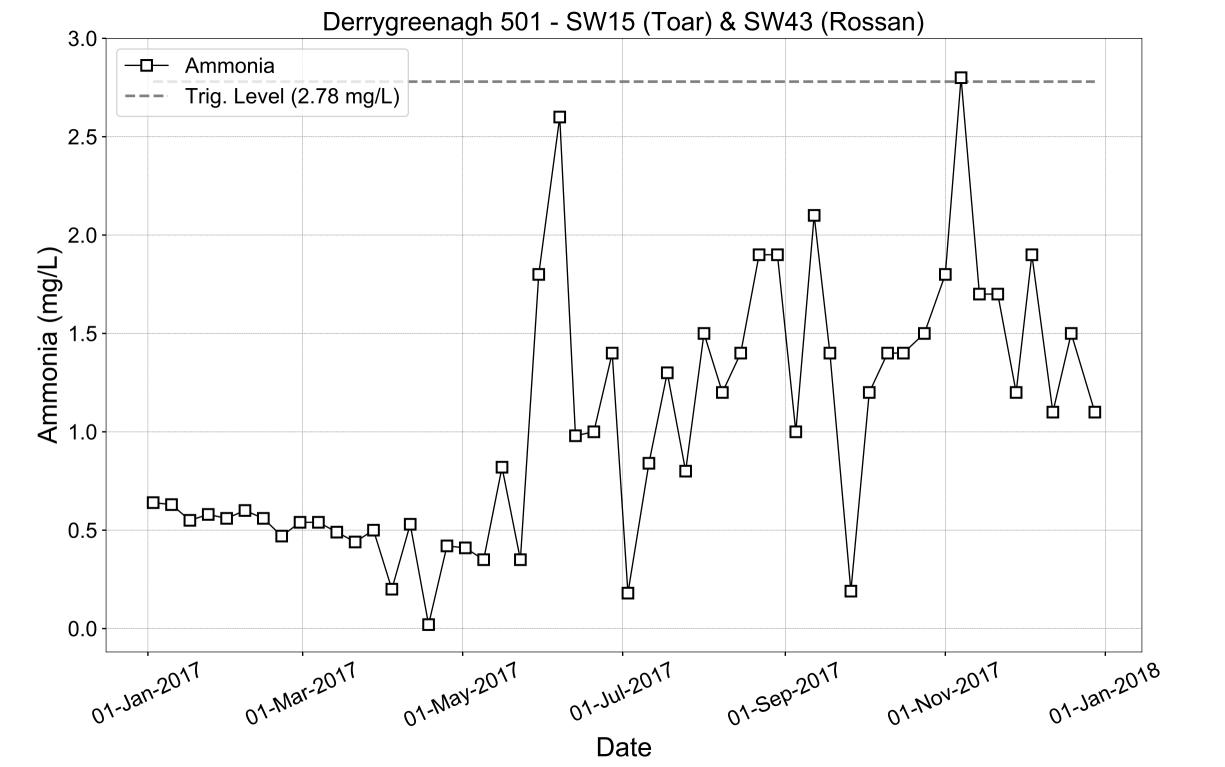
		I	PC License	P0501-01 C	uarterly Gra	b Samplii	ng Results	2017				
Х	Υ	Bog	SW	Monitoring	Sampled	рН	SS	TS	Ammonia	TP	COD	Colour
265888.99	253456.63	Ballivor	SW-39	Q1 17	13/03/2017	7.6	5	206	0.29	0.05	64	142
266366.86	251598.58	Ballivor	SW-40	Q1 17	13/03/2017	7.4	5	320	0.64	0.05	98	287
266386.45	251579.18	Ballivor	SW-41	Q1 17	13/03/2017	7.2	6	176	0.67	0.05	71	220
To Be Confirmed	To Be Confirmed	Rossan	SW-42	Q1 17	13/03/2017	7.3	5	146	1.7	0.05	71	255
259965.18	243847.63	Rossan	SW-43	Q1 17	13/03/2017	7.3	5	205	1.3	0.05	71	242
To Be Confirmed	To Be Confirmed	Rossan	SW-44	Q2 17	08/05/2017	7.6	5	289	0.88	0.05	72	148
258846.25	243853.76	Rossan	SW-45	Q2 17	08/05/2017	7.3	5	254	1.4	0.05	65	178
260629.22	242141.39	Rossan	SW-46	Q2 17	08/05/2017	7.3	5	278	1.4	0.05	74	231
260145.55	242266.71	Rossan	SW-47	Q2 17	08/05/2017	7.7	11	320	1.3	0.08	72	122
To Be Confirmed	To Be Confirmed	Rossan	SW-48	Q2 17	08/05/2017	7.6	5	260	1.1	0.05	52	96
255381.16	243606.05	Derryhinch	SW-1	Q3 17	01/09/2017	7.6	5	226	0.71	0.08	39	86
254528.83	242354.28	Derryhinch	SW-2	Q3 17	01/09/2017	7.3	5	278	3	0.05	30	75
253369.19	242417.94	Derryhinch	SW-3	Q3 17	01/09/2017	7.5	5	284	3	0.05	28	61
252602.78	242540.17	Derryhinch	SW-4	Q3 17	01/09/2017	7.7	5	314	0.14	0.05	33	108
252623.61	241470.16	Carrick	SW-4A	Q3 17	01/09/2017	7.9	9	316	1	0.05	39	118
252468.68	240919.32	Carrick	SW-5	Q3 17	01/09/2017	7.7	6	370	1.4	0.05	44	119
252409.71	241163.33	Carrick	SW-6	Q3 17	01/09/2017	7.8	5	442	0.1	0.05	24	51
252473.21	241162.01	Carrick	SW-7	Q3 17	01/09/2017	7.8	6	430	0.09	0.05	24	49
252275.61	239871.62	Drumman	SW-8	Q3 17	01/09/2017	7.9	7	366	0.19	0.05	38	93
252950.37	238421.69	Drumman	SW-9	Q3 17	01/09/2017	7.6	6	274	0.02	0.05	42	122
251559.92	235341.71	Ballybeg	SW-11	Q4 17	17/11/2017	7.2	5	500	0.1	0.05	48	90
252206.09	235207.02	Ballybeg	SW-12	Q4 17	17/11/2017	7.2	5	324	0.05	0.05	100	278
251880.6	234593.13	Ballybeg	SW-13	Q4 17	17/11/2017	7.3	5	516	1.1	0.06	45	60
252250.49	235061.45	Ballybeg	SW-13A	Q4 17	17/11/2017	7.3	6	514	0.9	0.05	45	69
240485.16	235706.33	Torr	SW-14	Q4 17	16/11/2017	7	6	256	1.5	0.05	66	219
244391.76	235128.93	Torr	SW-15	Q4 17	16/11/2017	7.2	5	438	0.52	0.05	34	71
244435.64	235093.42	Torr	SW-16	Q4 17	16/11/2017	7.2	7	466	0.43	0.05	44	65
240425.65	234997.32	Torr	SW-17	Q4 17	23/11/2017	7.2	6	406	0.22	0.05	75	186
259415.3	256855.75	Bracklin	SW-29	Q4 17	23/11/2017	7.1	5	240	0.4	0.05	97	319
259519.45	257618.44	Bracklin	SW-30	Q4 17	23/11/2017	6.2	7	106	0.5	0.05	55	252

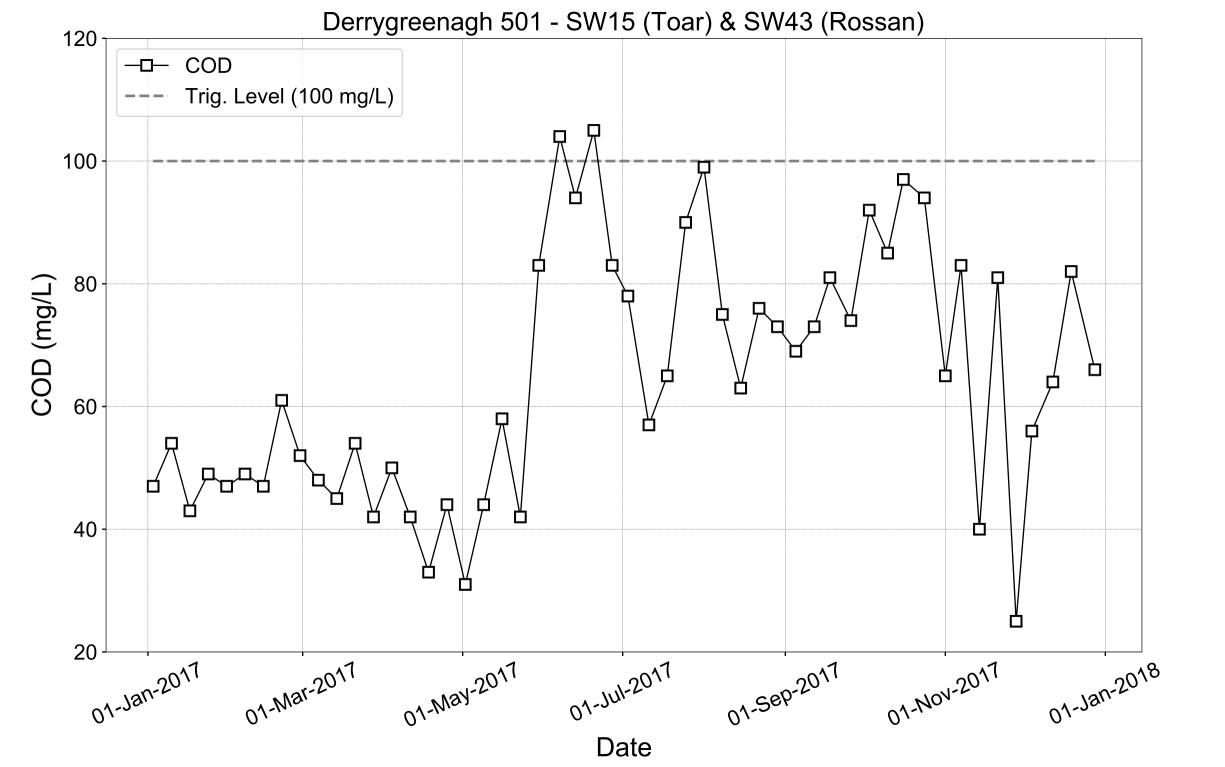


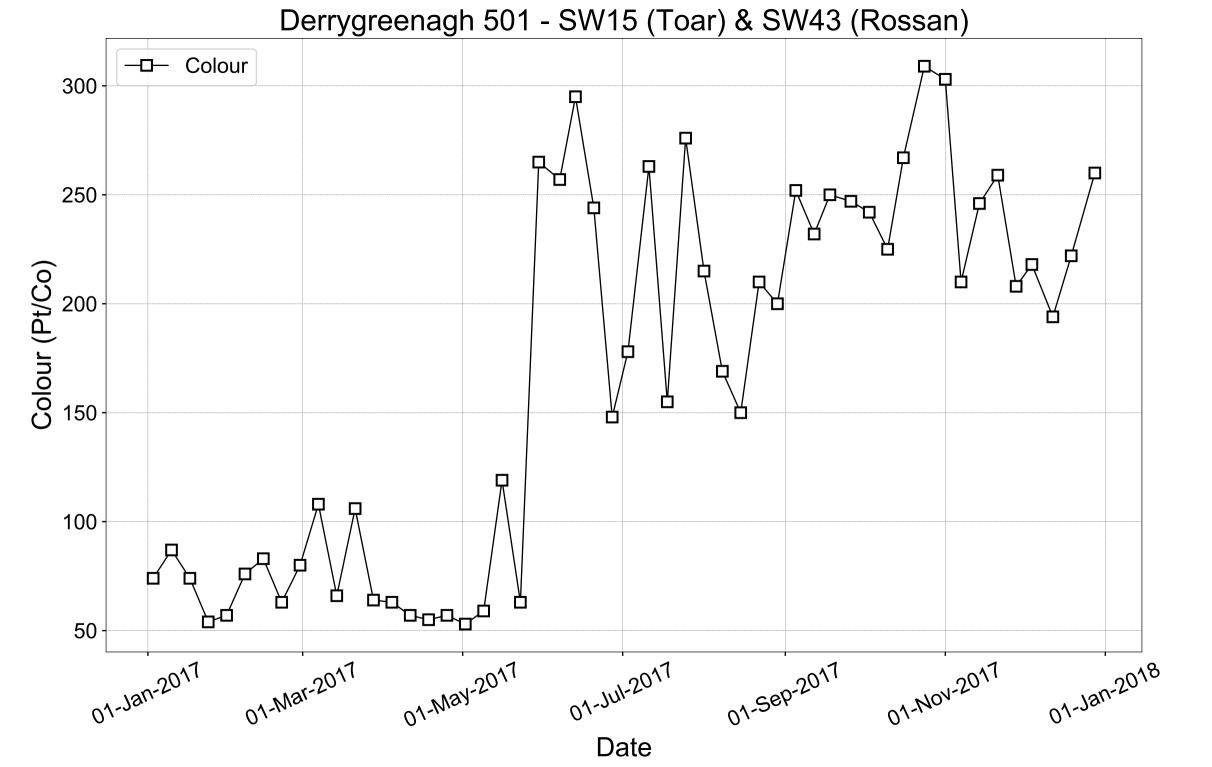
Toar bog is an active production bog with the composite sampler located here during 2015, 2016 and until May 2017 where it was moved to Rossan Bog within the Derrygreenagh IPC Licence. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had 0% downtime during this reporting period and returned 21 weekly ammonia results during the period of its location at Toar bog. The ammonia trigger level of 2.78mg/l, as agreed with the Agency, was not exceeded during the period. Combining the 2015,16 and May 2017 results above shows concentrations trending downwards over this 2.5 year period as peat extraction continues and this is in-line with the downwards trends submitted to the EPA in 2013 as required by condition 6.14. There is no obvious link between the summer production, winter maintenance, or silt pond maintenance events on the concentration of Ammonia discharging from this peatland. The only link expected would be that related to rainfall events and seasonal weather patterns and the subsequent surfacewater runoff and associated ammonia concentrations.

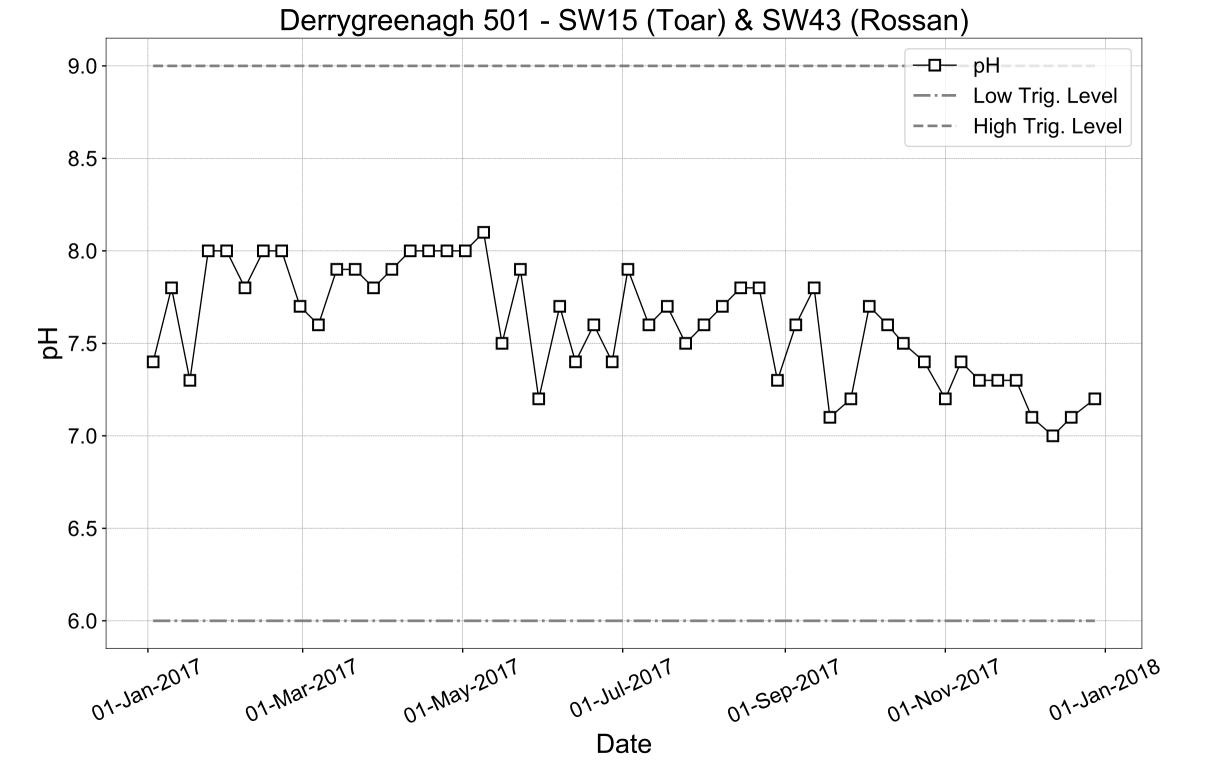


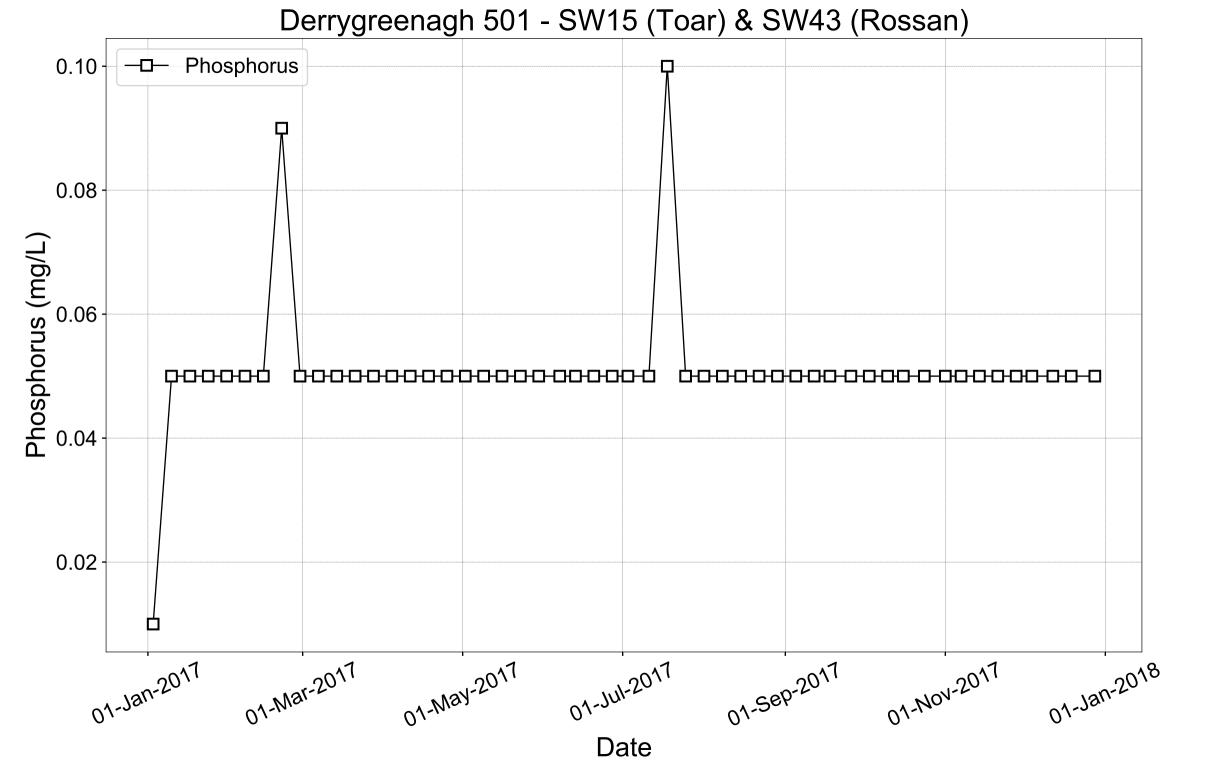
Rossan bog is an active horticultural production bog with the composite sampler located here from May 2017 where it was moved from Toar Bog within the Derrygreenagh IPC Licence. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had 0% downtime during this reporting period and returned 31 weekly ammonia results during the period. The ammonia trigger level of 2.78mg/l, as agreed with the Agency, was marginally exceeded once during the period. There sampling period of 31 weeks showed a slight increasing trend in ammonia, but as per previous sampler relocations, it will need up to two years at this locations and associated weekly ammonia spanning two seasonal production periods to establish the trend. There is no obvious link between the summer production, winter maintenance, or silt pond maintenance events on the concentration of Ammonia discharging from this peatland. The only link expected would be that related to rainfall events and seasonal weather patterns and the subsequent surfacewater runoff and associated ammonia concentrations.

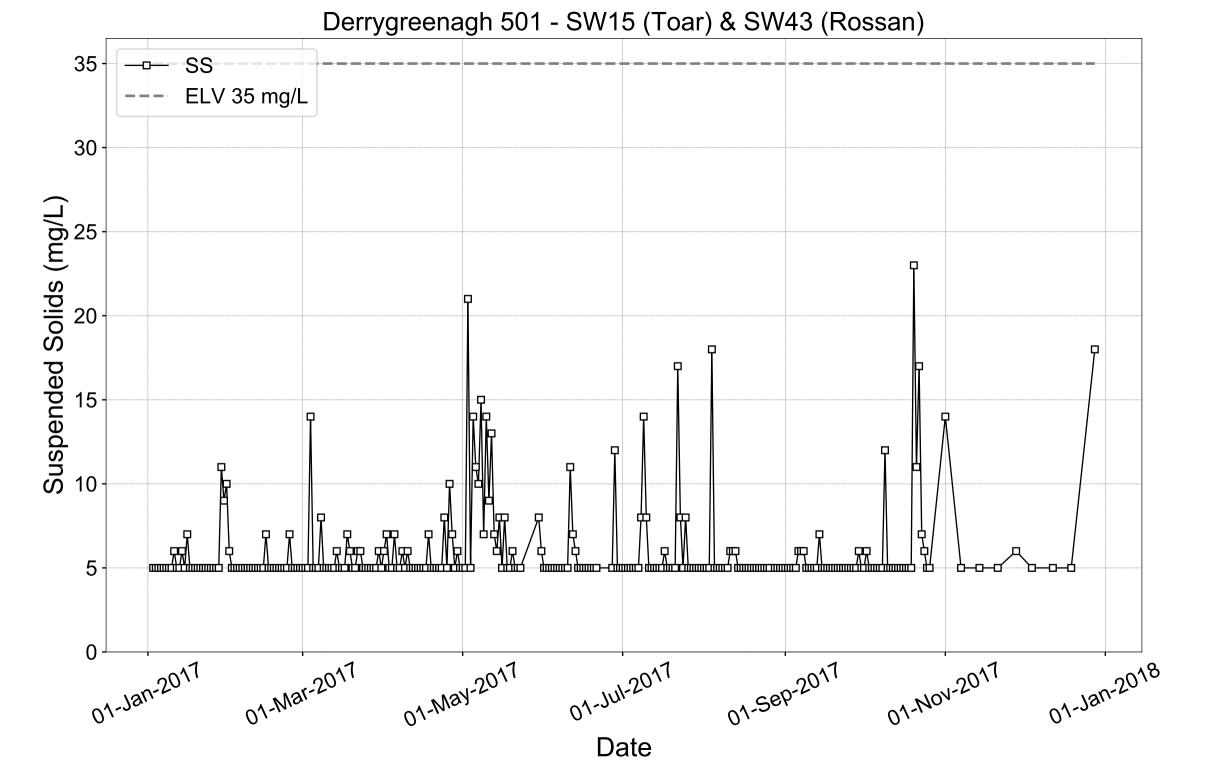


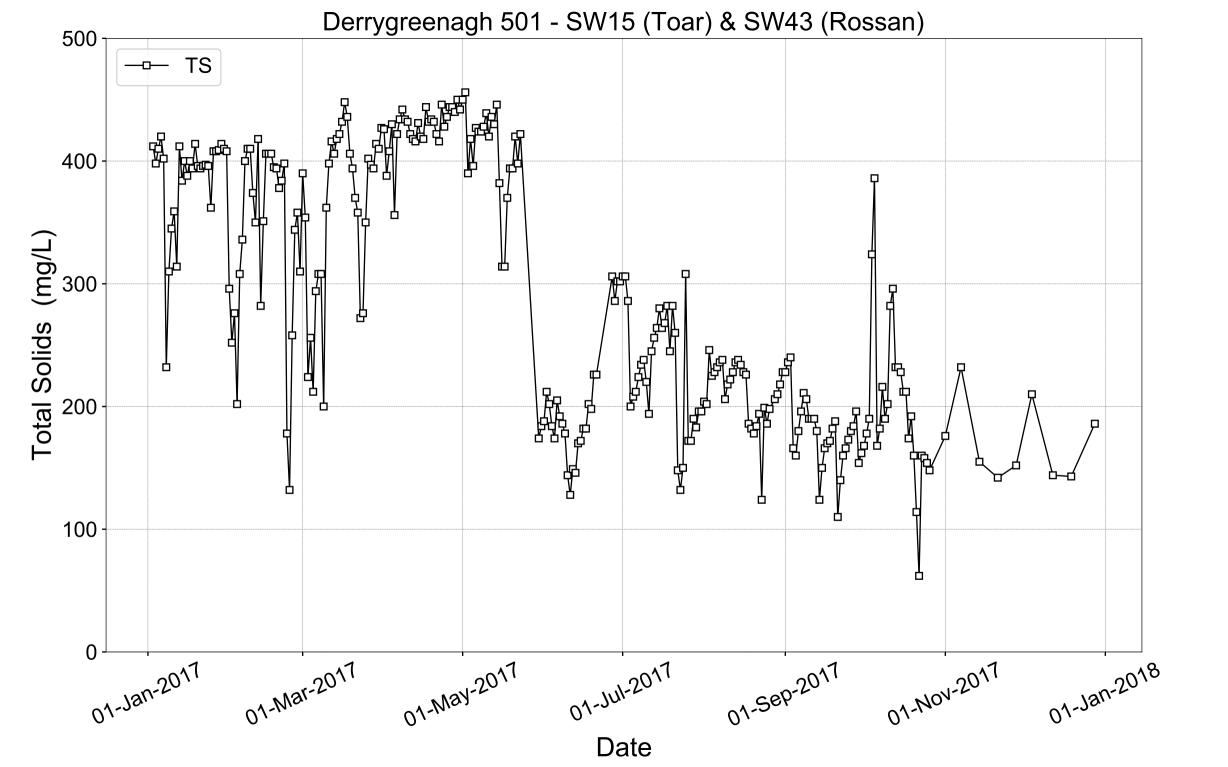












Yard Discharge Results 2017 Licence: P0501-01

Works: Derrygreenagh

Month	D/Greenagh SWE 2 COD	Rossan SWE 1 COD
Jan	30	64
Feb	52	70
Mar	41	34
Apr	40	11
May	36	31
June	33	83
July	23	20
Aug	14	87
Sep	34	41
Oct	39	91
Nov	46	69
Dec	30	70



| PRTR# : P0501 | Facility Name : Bord na Móna Energy Limited (Derrygreenagh) | Filename : P0501_2017.xls | Return Year : 2017 |

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Guidance to completing the PRTR workbook

PRTR Returns Workbook

REFERENCE YEAR 2017 1. FACILITY IDENTIFICATION arent Company Name Bord na Mona Energy Limited PRTR Identification Number P0501

Licence Number P0501-01 Classes of Activity No. class_name
- Refer to PRTR class activities below Address 1 Derrygreenagh Group Address 2 c/o Derrygreenagh Works Address 3 Rochfortbridge Address 4 Mullingar Westmeath Country Ireland
Coordinates of Location -7.25676 53.3910
River Basin District IEEA
NACE Code 0892 MACE Code (0892

Main Economic Activity Extraction of peat

AER Returns Contact Name Enda Mc Donagh

AER Returns Contact Email Address enda.mcdonagh@bnm.ie

AER Returns Contact Fosition Head of Environment

AER Returns Contact Telephone Number (0579345911

AER Returns Contact Telephone Number (0579345911

AER Returns Contact Fax Number (0579345160)

Production Volume

Production Volume Units Tonnes

Number of Derasting Hours in Year Number of Operating Hours in Year
Number of Employees
User Feedback/Comments 60 In accordance with licence condition 6.2 of Technical Amendment A, quarterly sampling is now rotated every quarter and therefore suspended solids results are not factored into loading. Due to technical difficulties experienced with the composite sampler annual loading was not possible to calculate. All composite sampler results are attached for review in the AER document. Web Address www.bnm.ie 2. PRTR CLASS ACTIVITIES
Activity Number
50.1 Activity Name General 3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002) Is it applicable? No. 144 or 2002)

Have you been granted an exemption?

If applicable which activity class applies (as per Schedule 2 of the regulations)?

Is the reduction scheme compliance route being . WASTE IMPORTED/ACCEPTED ONTO SITE Guidance on waste imported/accepted onto s Do you import/accept waste onto your site for on-site treatment (either recovery or disposa

(of dispusar) activities) ? No
This question is only applicable if you are an IPPC or Quarry site

4.1 RELEASES TO AIR

Link to previous years emissions data

| PRTR# : P0501 | Facility Name : Bord na Môna Energy Limited (Derrygreenagh) | Filename : P0501_2017.xls | Return Year : 2017 |

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SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

		RELEASES TO AIR			Please enter all quantities in this section in KGs							
		POLLUTANT		METH	OD				QUANTITY			
				Method Used		DM01	DM02	DM03	DM04			
											A (Accidental)	F (Fugitive)
Pollutant	No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	Emission Point 3	Emission Point 4	T (Total) KG/Year	KG/Year	KG/Year
210		Dust	E	OTH	VDI 2119 Blatt 2/Part 2	0.0	0.0	0.0	0.0	0.076468	0.	0.076468
		Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button										

	Color a for by accept blocking of the Foliatain Haine (Colorini b) than block the accept ballon					
Additional Data Requested from Land	Ifill operators					
(Methane) flared or utilised on their facilities to accomp. (CH4) emission to the environment under T(total) KG/yr	use Gases, landfill operators are requested to provide summary data on landfill gas any the figures for total methane generated. Operators should only report their Net methane for Section A: Sector specific PRTR pollut					
Please enter summary data on the	Bord Ha World Ericryy Erinited (Berrygreenagh)				1	!
quantities of methane flared and / or						
utilised			Meth	od Used		
				Designation or	Facility Total Capacity	
	T (Total) kg/Year	M/C/E	Method Code	Description	m3 per hour	
Total estimated methane generation (as per						
site model)					N/A	
Methane flared					0.0	(Total Flaring Capacity)
Methane utilised in engine/s					0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section						
A above)	0.0				N/A	

4.2 RELEASES TO WATERS

Link to previous years emissions data

| PRTR# : P0501 | Facility Name : Bord na Móna Energy Limited (Derrygreenagh) | Filename : P0501_2017.xls | Return Year : 2017 |

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SECTION A: SECTOR SPECIFIC PRTR POL	LUTANTS	Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only concerns Releases									
	RELEASES TO WATERS		Please enter all quantities in this section in KGs								
	POLLUTANT		QUANTITY								
				Method Used							
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T	(Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year		
						0.0	0.0	0.0	0.0		

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

TON C : REMAINING FOLEOTANT Emissions (as required in your Eicence)											
	RELEASES TO WATERS				Please enter all quantities	in this section in I	KGs				
	POLLUTANT						QUANTITY				
				Method Used	SW15	SW43					
									F		
								A (Accidental)	(Fu	igitive)	
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	T (Total) KG/Year	KG/Year	KG/	/Year	
				G/19 Based on							
				ALPHA,1998,20th Edition,							
0	Suspended Solids	E	OTH	Method 2540D	0.0	0.0		0.0	0.0	0.0	
	Pollutant No.	POLLUTANT RELEASES TO WATERS	POLLUTANT Pollutant No. Name MC/E	Pollutant No. Name M/C/E Method Code	RELEASES TO WATERS	POLLUTANT Pollutant No. Name Mc/E Method Code Designation or Description G/19 Based on ALPHA,1998,20th Edition,	Pollutant No. Name Mc/E Method Code Designation or Description G/19 Based on ALPHA,1998,20th Edition, ALPHA,1998,20th Edition,	Pollutant No. RELEASES TO WATERS Please enter all quantities in this section in KGs Method Used SW15 SW43 Pollutant No. Method Code Designation or Description G/19 Based on ALPHA, 1798, 20th Edition, ALPHA, 1798, 20th Edition,	RELEASES TO WATERS Pollutant No. Name MC/E Method Code Designation or Description G/19 Based on ALPHA, 1998, 20th Edition, ALPHA, 1998, 20th Edition, ALPHA, 1998, 20th Edition,	RELEASES TO WATERS Pollutant No. Name MC/E Method Code Designation or Description G/19 Based on ALPHA,1998,20th Edition, ALPHA,1998,20th Edition,	

4.3 RELEASES TO WASTEWATER OR SEWER

Link to previous years emissions data

| PRTR# : P0501 | Facility Name : Bord na Móna Energy Limited (Derrygreenagh) | Filename : P0501

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SECTION A: PRTR POLLUTANTS

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

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

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

OLOTION D. KLIMAINING I OLLOTAIN LIIN	EO HOLE B. REIMAINING TO LEG TART EMISSION (46 TO QUITOU IT) OUR ELOCHOO												
OFFSITE TRAN	SFER OF POLLUTANTS DESTINED FOR WASTE-W	Please enter all quantities in this section in KGs											
PO	LLUTANT		METHO	D	QUANTITY								
			Met	hod Used									
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year					
					0.0	0	0 00	0.0					

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

Link to previous years emissions data Page 1 of 1

4.4 RELEASES TO LAND

Link to previous years emissions data

PRTR# : P0501 | Facility Name : Bord na Móna Energy Limited (Derrygreenagh) | Filename : P0501_2017.xls | Return Year : 2017 |

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SECTION A: PRTR POLLUTANTS

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

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

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

	RELEASES TO LAND	Please enter all quantities	s in this section in KC	Gs			
F	OLLUTANT		METHO)D			QUANTITY
			Met	hod Used			
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Yea
					0.0)	0.0

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE | PRTR#: P.0501 | Facility Name: Bord na Ména Energy Limited (Derrygreenagh) | Filename: P0501_2017.xls | Return Year: 2017 |

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			Please enter	all quantities on this sheet in Tonnes	, (.),	, , ,						19
									Licence/Permit No of Next			
			Quantity						Destination Facility Non	Haz Waste : Address of Next	Name and License / Permit No. and	
			(Tonnes per						Haz Waste: Name and Licence/Permit No of	Destination Facility Non Haz Waste: Address of	Address of Final Recoverer / Disposer (HAZARDOUS WASTE	Actual Address of Final Destination i.e. Final Recovery / Disposal Site
			Year)				Method Used		Recover/Disposer	Recover/Disposer	ONLY)	(HAZARDOUS WASTE ONLY)
			,		Waste		Michied Cood				5.12.7	(
	European Waste				Treatment			Location of				
Transfer Destination	Code	Hazardous		Description of Waste	Operation	M/C/E	Method Used	Treatment				
										Derrygreenagh,Rochfortbrid		
				wastes from mineral non-metalliferous					Bord na Mona Energy	ge,Mullingar,Co		
Within the Country	01 01 02	No	169.7	excavation	D1	E	Volume Calculation	Onsite of generati		Westmeath, Ireland		
									Walker Recycling, NWCPO-	Clonkeen,Portlaoise,Co		
Within the Country	02 01 04	No	119.14	waste plastics (except packaging)	R5	M	Weighed	Offsite in Ireland	14-11464-01	Laois,.,Ireland Clonminam Ind	Basifical	
				wests point and versich containing argenia						Estate, Portlaoise, Co	Recyfuel Ltd,BE0459.735.458,Enghis,	
To Other Countries	00 01 11	Yes	0.25	waste paint and varnish containing organic solvents or other dangerous substances	R2	М	Weighed	Abroad	Enva Ireland Ltd,184-1	Laois,,,Ireland		Enghis,,,,,,Belgium
To Other Countiles	00 01 11	165	0.23	solvents of other dangerous substances	NZ	IVI	weighed	Abibau	Eliva lieland Etd, 164-1	Lauis,.,ireiariu	.,,,,Belgium Solvent Recovery	Engins,.,.,beigium
											Management,PP33345F,Wh	Wheeland
												Rd,Knottingly,West
				degreasing wastes containing dangerous							Yorks,WF11 8DZ,United	Yorks,WF11 8DZ,United
To Other Countries	11 01 13	Yes	0.39	substances	R11	С	Volume Calculation	Abroad	Safety Kleen Ltd,99-1	Tallaght,,,,,,Ireland	Kingdom	Kingdom
										3	Enva Ltd,184-1,Clonminam	3
										Clonminam Ind	Industrial	Clonminam Industrial
				mineral-based non-chlorinated engine, gear						Estate, Portlaoise, Co	Estate,Portlaoise,Laois,,,Irel	Estate, Portlaoise, Laois, ., Irel
Within the Country	13 02 05	Yes	10.45	and lubricating oils	R1	С	Volume Calculation	Offsite in Ireland	Enva Ireland Ltd,184-1	Laois,.,Ireland	and	and
											Enva Ltd,184-1,Clonminam	
										Clonminam Ind	Industrial	Clonminam Industrial
										Estate,Portlaoise,Co		Estate, Portlaoise, Laois, ., Irel
Within the Country	13 05 03	Yes	2.62	interceptor sludges	R1	С	Volume Calculation	Offsite in Ireland	Enva Ireland Ltd,184-1	Laois,,,Ireland	and	and
14/241 2 44 60 4	45.04.00		4400	dag and an alterdage	D.4			0" "	AEC 144 MP OV 00 004 04	Cappincur, Tullamore, Co		
Within the Country	15 01 03	No	14.26	wooden packaging absorbents, filter materials (including oil	R1	М	Weighed	Offsite in Ireland	AES Ltd,WP-OY-08-061-01	Offaly,.,lceland		
				filters not otherwise specified), wiping						Clonminam Ind	Lindenschmidt,Reg no	
				cloths, protective clothing contaminated by						Estate, Portlaoise, Co	E97095037,IINDENSCHMID	IINDENSCHMIDT Kreuztal
To Other Countries	15 02 02	Yes	1.62	dangerous substances	R1	С	Volume Calculation	Abroad	Enva Ireland Ltd.184-1	Laois,,,Ireland	T,Kreuztal,,,,,Germany	,Germany
				J						Clonminam Ind	R.D. Recycling, Reg no	
										Estate, Portlaoise, Co	51727/1/KD,Houthalen,.,.,,B	
To Other Countries	16 01 07	Yes	1.6	oil filters	R4	С	Volume Calculation	Abroad	Enva Ireland Ltd,184-1	Laois,,,Ireland	elgium	Houthalen,,,,,,Belgium
											Campine	
										Clonminam Ind	Recycling,MLAV/05-	
										Estate,Portlaoise,Co	173/GVDA,Beerse,,,,,,Belgi	
To Other Countries	16 06 01	Yes	0.82	lead batteries	R4	M	Weighed	Abroad	Enva Ireland Ltd,184-1	Laois,.,Ireland	um	Beerse,,,,,,Belgium
Midbin db - Onco	47.04.07	NI-	540	miyad matala	D4		Material	Official in Inch	AES Ltd,WP-OY-08-061-01	Cappincur, Tullamore, Co		
Within the Country	17 04 07	No	54.8	mixed metals	R4	М	Weighed	Offsite in Ireland	AES LIU, WP-O1-06-061-01	Offaly,,,lceland Cappincur,Tullamore,Co		
Within the Country	20.03.01	No	12.1	mixed municipal waste	D5	М	Weighed	Offsite in Ireland	AES Ltd,WP-OY-08-061-01	Offaly,,,lceland		
Within the Country	20 03 01	140	12.1	mixed manoipar waste	D3	IVI	vveigneu	Offsite in freiand	7120 210,777 01 00 001 01	Cappincur, Tullamore, Co		
Within the Country	20 03 01	No	7.96	mixed municipal waste	D5	М	Volume Calculation	Offsite in Ireland	AES Ltd,WP-OY-08-061-01	Offaly,,,lceland		
, , , , , , , , , , , , , , , , , , , ,				mixed construction and demolition wastes								
				other than those mentioned in 17 09 01, 17					Anthony Cocoman, NWCPO-	Cloncant, Clonbullogue, Tulla		
Within the Country	17 09 04	No	180.0	09 02 and 17 09 03	R5	E	Volume Calculation	Offsite in Ireland	10-10642-02	more,Co Offaly,Ireland		
										Cappincur Ind		
									IZANZAI A LD	Estate, Daingean	DELA	Alt. I. I.
Wish in the Orac	00.04.04	V	0.00	fluorescent tubes and other mercury-	D4		Matehaal	Official in Inch	KMK Metal Recycling	Rd,Tullamore ,Co	GmbH,E11315322,Alte,Land	
Within the Country	20 01 21	Yes	0.08	containing waste	R4	М	Weighed	Oitsite in Ireland	Ltd,NWCPO-08-10607-02	Offaly, Ireland Cappincur Ind	str 4,Essen,.,Germany	4,Essen,.,Germany
										Estate, Daingean		
				discarded equipment other than those					KMK Metal Recycling	Rd,Tullamore ,Co		
Within the Country	16 02 14	No	2.36	mentioned in 16 02 09 to 16 02 13	R4	М	Weighed	Offsite in Ireland	Ltd,NWCPO-08-10607-02	Offaly, Ireland		
				the Description of Waste then click the delete button			g.,	2510	., 02			

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

			Quantity (Tonnes per Year)				Method Used		Licence/Permit No of Next Destination Facility Haz Waste: Name and Licence/Permit No of Recover/Disposer	Destination Facility	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination
					Waste							
	European Waste				Treatment			Location of				
Transfer Destination	Code	Hazardous		Description of Waste	Operation	M/C/E	Method Used	Treatment				

Link to previous years waste data
Link to previous years waste summary data & percentage change
Link to Waste Guidance

AER Reporting Year
Licence Register Number
Name of site
Site Location
NACE Code
Class/Classes of Activity
National Grid Reference (6E, 6 N)

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.

_	_	T -	т-	1	T-	3
P0502-01	Bord na Mona Blackwater	Shannonbridge, Athlone, Co Westmeath	0892	1.4	200125, 225050	Activities on site can be divided into two composite for

Activities on site can be divided into two components, firstly the milling, harrowing, ridging and harvesting of peat into stockpiles and secondly the transportation of that peat via an internal rail network to the Power Station and lorry outloading facilities. Production achieved was approximately 966254 tonnes. Infrastructurally, there was no bog development. There was nine incidents, two in relation to dust and seven were trigger level breaches in relation to water. In relation to silt pond cleaning, 100% of ponds received two cleanings with some ponds receiving additional cleanings. A number of energy efficient initiatives are in place in terms of fuel and electricity usage. Lean Processes, Continuous Improvement initiatives and Visual Management have been introduced to raise standards, maintain compliance and drive efficiency. One of its programmes is designed to keep employees up to date on all aspects of Environmental & Energy Management. Lubricant training for better management of oils, greases and coolant was completed. Formalised management meetings take place weekly with environmental issues on the agenda for discussion. We had a successful audit "committed to conducting all aspects of our business activities with a focus on minimising the impact on the environment". Rehabilitation works are desribed in an attachment.

Declaration:

All the data and information presented in this report has been checked and certified as being

Signature

Group/Facility manager

(or nominated, suitably qualified and experienced deputy)

change in % mass load

previous year

if applicable

from

Annual mass

Method of analysis load (kg)

SELECT

SELECT

SELECT

SELECT

	AIR-summary template	Lic No:	P0502-01	Year	2017
1	Answer all questions and complete all tables where relevant Does your site have licensed air emissions? If yes please complete table A1 and A2 below for the current reporting year and answer further questions. If you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not need to complete the tables	No		Additional information Fugitive emissions only	
	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			
3	Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist? Basic air monitoring carried out in accordance with EPA guidance monitoring checklist? checklist AGN2	Yes			
	Table A1: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous)				
					Comments - reason for

Unit of

SELECT

SELECT

SELECT

SELECT

measurement

Measured value

Compliant with

licence limit

SELECT

SELECT

SELECT

SELECT

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

SELECT

SELECT

SELECT

SELECT

Parameter/ Substance Frequency of Monitoring

Emission

reference no:

ELV in licence or

Licence Compliance criteria

SELECT

SELECT

SELECT

SELECT

any revision

therof

	AIR-summary template	Lic No:	P0502-01	Year	2017
	Continuous Monitoring				
4	Does your site carry out continuous air emissions monitoring?	No			
	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)				
5	Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	No			
6	Do you have a proactive service agreement for each piece of continuous monitoring equipment?	No			
7	Did your site experience any abatement system bypasses? If yes please detail them in table A3 below	No			

Table A2: Summary of average emissions -continuous monitoring

Emission	Parameter/ Substance		Averaging Period	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:					measurement			Equipment	exceedences in	
		ELV in licence or any						downtime (hours)	current	
		revision therof							reporting year	
		350mg/m2/day	84			34048	805	0	1	Repoerted to
DM-01	Total Particulates			Daily average < ELV	mg/m2/day					Agency
		350mg/m2/day	84			30856	694	0	1	Repoerted to
DM-02	Total Particulates			Daily average < ELV	mg/m2/day					Agency
DM-03	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	11872	138	0	0	
DM-04	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	22344	339	0	0	
	SELECT				SELECT					

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

Table A3: Abatement system bypass reporting table

Bypass protocol

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

^{*} this should include all dates that an abatement system bypass occurred

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

	AIR-summary t	emplate				Lic No:	P0502-01		Year	2017	_
	Solvent	use and managemen	nt on site								
_											ļ.
Q	Do you have a total	Emission Limit Value of di	irect and fugitive emi	ssions on site? if ye	s please fill out tables A4 and A5						
0	Do you have a total Emission Limit Value of direct and fugitive emissions on site? if yes please fill out tables A4 and A5										
	Table A4: Solvent Management Plan Summary Solvent Please refer to linked solvent regulations to										
	Total VOC Emission limit value regulations complete table 5 and 6										
	Reporting year	Total solvent input on	Total VOC emissions	Total VOC		Compliance	1				
	.,	site (kg)	to Air from entire	emissions as %of		,					
			site (direct and	solvent input	Total Emission Limit Value						
			fugitive)		(ELV) in licence or any revision						
					therof						
						SELECT					
						SELECT					
	Table A5:	Solvent Mass Baland	ce summary								
		(I) Inputs (kg)			(O)	Outputs (kg)					
	Solvent		Organic solvent			Fugitive Organic		Solvents destroyed			
		(I) Inputs (kg)	emission in waste gases(kg)	water (kg)		Solvent (kg)	other ways e.g. by- passes (kg)	onsite through physical reaction	Solvent to air (kg)		
			gases(Kg)				hasses (vB)	e.g.			
								Total			

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)		Lic No: P0502-01	Year
Does your site have licensed emissions direct to surface water or direct to sewer? If yes please 1 complete table. W2 and W3 below for the current reporting year and answer further questions. If you do not have licenced emissions you only need to complete table W1 and or W2 for storm		Additional information The continuous monitoring sampler experienced technical difficulti which inhibited the collection of flow data and subsequent annual loa calculations. It was therefore decided to present the sampling result	ding
water analysis and visual inspections	Yes	graphical form as an attachment.	
Was it a requirement of your licence to carry out visual inspections on any surface water discharges or watercourses on or near your site? If yes please complete table W2 below			
summarising only any evidence of contamination noted during visual inspections	Yes	Monthly COD analysis of yard runoff is attached in a separate docum	ent.

Table W1 Storm water monitoring

Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Compliance	Measured value	Unit of measurement	Compliant with licence	Comments
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	

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

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

	Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
I				SELECT		
ſ				SELECT		

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

3 W	as there any result in breach of licence requirements? If yes pleas section of Table W3 below	e provide brief detail		Yes	Additional information
					Surface water monitoring was carried out on a quarterly basis. The results of which are attached. Monthly COD yard
w	as all monitoring carried out in accordance with EPA guidance and				runoff results are also attached.
c	hecklists for Quality of Aqueous Monitoring Data Reported to the	External /Internal			
	EPA? If no please detail what areas require improvement in	Lab Quality	Assessment of		
4	additional information box	checklist	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	ELV or trigger values in licence or any revision therof Note 2	Measured value	Compliant with licence	Procedural	Procedural reference standard number	Annual mass load (kg)	Comments

2017

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

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

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)	L	ic No:	P0502-01		Year	2017	
Continuous monitoring			Additional Information		•		
5 Does your site carry out continuous emissions to water/sewer monitoring?	Yes						
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	Yes		Total of 162 days over 365 days.				
7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site?		nnual calibration sci	hedule and trouble shooting service	•			
8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 below	No						
Table W4: Summary of average emissions -continuous monitoring	NO						
ELV or trigger				% change +/- from		N. ob o of FIV	

Emission reference no:	Emission released to	ELV or trigger values in licence or any revision thereof				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

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

^{*}Measures taken or proposed to reduce or limit bypass frequency

	ting template				Lic No:	P0502-01		Year	201	7				l
Bund testing		dropdown menu	click to see options				Additional information							
	 				Dating all ages bosses		There was no requirement to test the	1						
		tegrity testing on bunds and co					bunds in 2017							
		e the licenced testing period (m			bullus illust be listed ill									
				,		Yes								
	testing frequency perior					Other (2 Yearly)								
		rground pipelines (including sto	rmwater and foul), Tanks, sum	os and containers? (contain	ers refers to "Chemstore"									
type units and mobile b						Yes								
How many bunds are or							11							
How many of these bun	as nave been tested wit	nin the required test schedule?					9 All passed in 2016 This includes barrel trays located	+						
How many mobile bund	s are on site?						IS within workshops							
	cluded in the bund test	schedule?				No	S William Workshops							
		ted within the required test sch	edule?				0	1						
ow many sumps on site are included in the integrity test schedule?							0]						
		rithin the test schedule?					0]						
	egrity failures in table B							7						
	ers have high level liqui					N/A		1						
		in a maintenance and testing p ir integrity test programme?	ogramme?			N/A N/A		1						
is the rife water Retent	ion rona meiadea m you	a arregaty test programme?				IN/A	-	1						
Tabl	e B1: Summary details o	f bund /containment structure i	ntegrity test											
									Integrity reports					Results of retest(if in
Bund/Containment									maintained on		Integrity test failure		Scheduled date	current
structure ID	Type	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	site?	Results of test	explanation <50 words	Corrective action taken	for retest	reporting year
	SELECT	.,,,,		,		SELECT			SELECT	SELECT		SELECT		.,
	SELECT					SELECT			SELECT	SELECT		SELECT		
	ly with 25% or 110% containmen	rule as detailed in your licence nce with licence requirements a					Commentary	1						
line with BS8007/EPA G		nce with ilcence requirements a		bunding and storage guideli	200	SELECT								
	stems to remote contai	nment systems tested?		barraing and storage galden	100	SELECT								
		h integrity and available volume	?			SELECT		1						
								=						
D: 1: / 1		7												
Pipeline/undergrou	and structure testing							1						
Are you required by you	r licence to undertake ir	tegrity testing* on undergroun	d structures e.g. pipelines or sur	nps etc ? if yes please fill o	ut table 2 below listing all									
underground structures	and pipelines on site wi	nich failed the integrity test and	all which have not been tested	withing the integrity test	period as specified	Yes								
	testing frequency perior					Other (2 Yearly)]						
*nlosco noto intocult : t	esting means water tight	ness testing for process and for	I pipelines (as required under y	our licence)										
prease note integrity to	B2: Summary details of r	ipeline/underground structure	integrity test											
	,													
	,													
				Type of secondary								i e		
				Type of secondary containment				Integrity test						
			Does this structure have			Integrity reports		Integrity test	Corrective action	Scheduled date	Results of retest(if in current			
Table		Material of construction	Does this structure have Secondary containment?		Type integrity testing	Integrity reports	Results of test	failure explanation	Corrective action					
Table	Type system SELECT	Material of construction: SELECT	Does this structure have Secondary containment? SELECT		Type integrity testing SELECT	Integrity reports maintained on site? SELECT	Results of test SELECT		Corrective action taken	Scheduled date for retest	Results of retest(if in current reporting year) SELECT			
Table	Type system		Secondary containment?	containment		maintained on site?		failure explanation			reporting year)			
Table	Type system		Secondary containment?	containment		maintained on site?		failure explanation			reporting year)			
Table	Type system		Secondary containment?	containment		maintained on site?		failure explanation			reporting year)			
Table	Type system		Secondary containment?	containment		maintained on site?		failure explanation			reporting year)			
Table	Type system	SELECT	Secondary containment? SELECT	containment	SELECT	maintained on site?		failure explanation			reporting year)			
Table	Type system	SELECT	Secondary containment?	containment	SELECT	maintained on site?		failure explanation			reporting year)			

Groundwater/Soil monitoring template	Lic No:	P0502-01	Year 201	7
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Comments

		Comments	
Are you required to carry out groundwater monitoring as part of your licence requirements?	no		Please provide an interpretation of groundwater monitoring data in the
2 Are you required to carry out soil monitoring as part of your licence requirements?	no		interpretation box below or if you require additional space please
$_{\rm 3}$ Do you extract groundwater for use on site? If yes please specify use in comment section	no	Domestic Use Only	include a groundwater/contaminated land monitoring results interpretaion as an additional section in this AER
Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there 4 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.	SELECT		
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?	N/A		
9 Has any type of risk assesment been carried out for the site?	N/A		
10 Has a Conceptual Site Model been developed for the site?	N/A		
11 Have potential receptors been identified on and off site?	N/A		
12 Is there evidence that contamination is migrating offsite?	N/A		Please enter interpretation of data here

Table 1: Upgradient Groundwater monitoring results

I UDIC I.	Oppradicit	Giodilawa		Bicouito						
										Upward trend in
										pollutant
	Sample									concentration over
Date of	location	Parameter/		Monitoring	Maximum	Average				last 5 years of
sampling	reference	Substance	Methodology	frequency	Concentration++	Concentration+	unit	GTV's*	SELECT**	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

i able 2:	Downgradi	ent Ground	water monito	oring 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		
							SELECT			SELECT		
			1				SELECT			SELECT		
trend in complet	results for a sub te the Groundwa	stance indicates ter Monitoring G	that further interp Guideline Template	oretation of monitor Report at the link p otherwise instructed	ing results is required. In provided and submit sepand by the EPA.	addition to completin	line Value (IGV) or an upward g the above table, please as a licensee return or as		indwater monito			
trend in complet	results for a sub te the Groundwa nation on the use c) and risk assess	estance indicates ter Monitoring G	that further interp Juideline Template Indwater standards	oretation of monitor Report at the link p	ing results is required. In provided and submit sepa d by the EPA.	addition to completin rately through ALDER	I line Value (IGV) or an upward g the above table, please	<u>Grou</u>		ring template		

Table 3: Soil results

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

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

Environmental Liabilities template Lic No: P0502-01 Year 2017

Click here to access EPA guidance on Environmental Liabilities and Financial provision

			Commentary
1	ELRA initial agreement status	Not a Licence Requirement	
2	ELRA review status	NA	
3	Amount of Financial Provision cover required as determined by the latest ELRA	NA	
4	Financial Provision for ELRA status	NA	
5	Financial Provision for ELRA - amount of cover	NA	
6	Financial Provision for ELRA - type	NA	
7	Financial provision for ELRA expiry date	NA	
8	Closure plan initial agreement status	NA	Internal Budget Provision
9	Closure plan review status	NA	Internal Budget Provision
10	Financial Provision for Closure status	NA	Internal Budget Provision
11	Financial Provision for Closure - amount of cover	NA	Internal Budget Provision
12	Financial Provision for Closure - type	NA	Internal Budget Provision
13	Financial provision for Closure expiry date	NA	

	Environmental Management Programme/Continuous Improvement Programme	template	Lic No:	P0502-01	Year	2017
	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	Interna	ıl unaccredited EMS		
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				

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	Training.Continue to train	Status (70 completeu)	In total 102 Personnel	псэропэннісу	intermediate outcomes
icadetion of emissions to Air	all employees in		received training in 2017.Ten		
	environmental matters.		Hydraulic Harrows were		
	Training will be by means of		deployed at six locations		
	,		' '		
	the screening of an		including the four sensitive		
	environmental DVD,		areas. Headland peat was		
	followed by a power point		collected in five areas and		
	presentation .Employees		returned with overall		
	get environmental training		production figures.		
	at a minium of every two				
	years and updates are				
	carried out from time to				
	time in addition to that .				Improved Environmental
			8	Individual	Management Practices
Waste reduction/Raw material usage	Waste Streamlining.It is	-	Quarterly waste reports are	individual	Wanagement Fractices
efficiency	planned to continue with		returned for records/filing		
eniciency	· · · · · · · · · · · · · · · · · · ·				
	and where possible		and waste streams are		
	improve the current waste		segrated on site to maximise		
	management service		recycling potential.		
	provided by AES Ltd				Improved Environmental
		10	0	Section Head	Management Practices
Reduction of emissions to Water	Training. Continue to train		In total 102 Personnel		
	all employees in		received training in 2017. Silt		
	environmental matters.		pond cleaning and upgrade		
	Training will be by means of		was on target with two		
	the screening of an		machines designated full time		
	environmental DVD,		at silt control.		
	followed by a power point				
	presentation.				Improved Environmental
	presentation.	g	0	Individual	Management Practices
Materials Handling/Storage/Bunding	Increased bund capacity		There were no additional	marriada	Widning Circuit Francisco
viacerials rianding/storage/bariang	will be provided where		bund requirements.		
	required. Bund integrity		bulla requirements.		
	testing will be carried out				
					Inches of Facility and a second
	where required.				Improved Environmental
			0	Individual	Management Practices
Waste reduction/Raw material usage	Continue with the recycling		In total 599 tonnes were sent		
efficiency	of polyethylene. The		off site for recycling.		
	sourcing of more recycling		Procurement also exploring		
	contractors will be ongoing.		the possibility of securing		
			further recyclers.		Improved Environmental
		10		Individual	Management Practices
Proundunter protection	It is proposed to us	10		murviuUdi	ivialiagement Fractices
Groundwater protection	It is proposed to upgrade		Septic tanks are continually		
	existing septic tank systems		being assessed and upgrade		
	where required.		works scheduled where		
			required.		
					Improved Environmental
		9	5	Section Head	Management Practices

	N	oise monitor	ing summary	report			Lic No:	P0502-01	Year	2017	l
	onitoring a licenc	-	-	?				No]		
"Checklist for 3 Does your sit 4 When was th	nonitoring carried r noise measuren te have a noise re ne noise reduction	nent report" inclu duction plan n plan last update	uded in the guida	nce note as t	able 6?		Noise Guidance note NG4	NA NA Enter date			
5 Have there i	been changes rele	evant to site nois	survey?	plant or oper	rational char	iges) since t	ne iast noise	NA			
Table N1: No	oise monitoring su	ımmary									
Date of Noise location location -NSL (if applicable) LA _{eq} LA ₉₀ LA ₁₀								Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
								SELECT	SELECT		SELECT
*Please ensure that a tonal analysis has been carried out as per guidance note NG4. These records must be maintained onsite for future inspection											
If noise limits exceeded as a result of noise attributed to site activities, please choose the corrective action from the following options?									SELECT		

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

Any additional comments? (less than 200 words)

P0502-01	Year	201
	P0502-01	P0502-01 Year

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

Table R1 Energy usag	e on site			
Energy Use	Previous year		compared to	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	23559.287	12464.785		
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (N	/IWHrs)			
Electricity Consumption (MWHrs)	2311.256	1683.585		
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	2091	1950.703		
Natural gas (m3)				
Coal/Solid fuel (metric tonnes)	6.2	8		
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 usag	j	•	. ,	Water Emissions			
	Water extracted		,	consumption i, io	Volume Discharged back to	Volume used i.e not discharged to environment e.g. released as steam	
Water use	Previous year m3/yr.	Current year m3/yr.	year**	production*	environment(m³yr):	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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

Resource Usage/Energy efficiency summary Lic No: P0502-01 Year 2017

Table R3 Waste Stream					
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	20.58	0	0.08	20.5	
Non-Hazardous (Tonnes)	5070.47	83.78		784.35	4202.33

Table R4: Energ	Table R4: Energy Audit finding recommendations							
		Description of		Predicted energy				Status and
Date of audit	Recommendations	Measures proposed	Origin of measures	savings %	Implementation date	Responsibility	Completion date	comments
			SELECT					
			SELECT					
			SELECT					

Table R5: Power Generation: Where 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 N	No:	P0502-01	Year	2017	
	Complaints						
		Addi	ditional informat	tion			
	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						

Table	1 Complaints summary						
			Brief description of				
			complaint (Free txt <20	Corrective action< 20			
Date	Category	Other type (please specify)	words)	words	Resolution status	Resolution date	Further information
	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	1						
reporting year	0						

Incidents	Incidents						
Addit							
Have any incidents occurred on site in the current reporting year? Please list all incide							
year in Table 2 below		Yes					
*For information on how to report and what constitutes							
an incident What is an incident							

Table 2 Incidents sur	nmary													
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	Resolution status	Resolution	Likelihood of reoccurence
	Trigger level reached	SW 94 Bunnahinly	1. Minor	Water	Not related to site activities	and the second	Normal activities	EPA Ref no. INCIO12493	New	None	NA			
19/05/2017	Breach of ELV	Lismanny DM01	1. Minor	Air	Windy conditions		Normal activities	EPA Ref no. INCIO12711	New	Stop during windy conditions	Stop during windy conditions	Complete	01/06/2017	Low
27/06/2017	Trigger level reached	SW 51	1. Minor	Water	Not related to site activities		Normal activities	EPA Ref no.INCIO12712	New	None		Complete	21/07/2017	Low
19/07/2017	Breach of ELV	Cuillagh DM2	1. Minor	Air	Windy conditions		Normal activities	EPA Ref No.INCIO12945	New	Stop harvesting in windy conditions	na	Complete	28/06/2017	Low
27/06/2017	Trigger level reached	SW 52 Cloniffe .	1. Minor	Water	Not related to site activities		Normal activities	EPA Ref No. INCIO13312	New	NONE	Toolbox talks to e	Complete	19/08/2017	Low
18/10/2017	Trigger level reached	SW 94 Bunnahinly	1. Minor	Water	Not related to site activities		Normal activities	EPA Ref No. INCIO13313	New	None	NA	Complete	27/06/2017	
19/12/2017	Trigger level reached	SW 94 Bunnahinly	1. Minor	Water	Not related to site activities		Normal activities	EPA Ref No. INCIO13823	New	None	NA	Complete	18/10/2017	
13/12/2017	Trigger level reached	SW 94 Bunnahinly	1. Minor	Water	Not related to site activities		Normal activities	EPA Ref No. INCIO13824	New	None	NA NA	Complete	19/12/2017	
06/12/2017	Trigger level reached	SW 37 Bloomhill	1. Minor	Water	Not related to site activities		Normal activities	EPA Ref No. INCIO13826	New	None	NA NA	Complete	16/12/2017	

Total number of	
incidents current	
year	g
Total number of	
incidents previous	
year	4
% reduction/	
increase	125.00%

WASTE SUMMARY					Lic No:	P0502-01		Year	2017			
SECTION A-PRTR O	N SITE WASTE TREATMENT AND	WASTE TRANSFERS TAB-	TO BE COMPLETED E	BY ALL IPPC AND W	ASTE FACILITIES	PRTR facility logor	<u>1</u>	dropdown I	ist click to see options			_
SECTION B- WASTE	ACCEPTED ONTO SITE-TO BE CO	MPLETED BY ALL IPPC AN	ID WASTE FACILITIES	1								
						1	Additional Information	in				
	ed onto your site for recovery or disposal o	r treatment prior to recovery or o	disposal within the boundar	ries of your facility ?; (wa	ste generated within your boundaries is							
to be captured through F	PRTR reporting)					N/A]				
If yes please enter details	s in table 1 below							_				
Did your site have any re	ejected consignments of waste in the currer	nt reporting year? If yes please giv	ve a brief explanation in the	additional information		SELECT						
Wası	waste accepted onto your site that was gen	nerated outside the Republic of In	eland? If ves please state th	e quantity in tonnes in a	dditional information	SELECT						
	of waste accepted onto your						II have been re	ı nortad in vour DB	TP workhook)			
Licenced annual	EWC code	Source of waste accepted		Quantity of waste	Quantity of waste accepted in previous	Reduction/	Reason for	Packaging Content (%)-	Disposal/Recovery or treatment	Quantity of	Comments -	_
tonnage limit for your	EWC tode	Source or waste accepted	accepted	accepted in current	reporting year (tonnes)	Increase over	reduction/ increase	only applies if the waste	operation carried out at your	waste remaining		
site (total			Please enter an accurate	reporting year (tonnes)	, , , , , , , , , , , , , , , , , , , ,	previous year +/ -	from previous	has a packaging	site and the description of this	on site at the		
tonnes/annum)			and detailed description -			%	reporting year	component	operation	end of reporting	3	
			which applies to							year (tonnes)		
			relevant EWC code									4
	European Waste Catalogue EWC codes		European Waste									
			Catalogue EWC codes									4
												4
												1
												J
<u> </u>												1
SECTION C-TO BE C	COMPLETED BY ALL WASTE FACIL	ITIES (waste transfer stat	ions, Composters, M	aterial recovery fac	cilities etc) EXCEPT LANDFILL SIT	res	T			٦		
Is all waste processing in	frastructure as required by your licence and	d approved by the Agency in plac	e? If no please list waste pro	ocessing infrastructure re	equired onsite	SELECT						
	,,,		,		.,.					1		
										1		
Is all waste storage infras	structure as required by your licence and ap	pproved by the Agency in place?	f no please list waste stora	ge infrastructure required	d on site	SELECT				J		
							ı			7		
	elevant nuisance controls in place? nanagement system in place for your facility	2 If no why?				SELECT SELECT				-		
Do you maintain a sludge		r: II IIO WIIY!				SELECT SELECT						
50 700 maintain a siduge	e register off site:					522201	1			_		
SECTION D-TO BE O	COMPLETED BY LANDFILL SITES O	NLY										
	and tonnage-landfill only		ı									
	torringe remain only				1							
			Remaining licensed									
Waste types permitted	Authorised/licenced annual intake for	Actual intake for disposal in	capacity at end of									
for disposal	disposal (tpa)	reporting year (tpa)	reporting year (m3)	Comments	4							
					4							
					1							
					1							
	1	<u> </u>	1	1	4							
Table 3 General inf	formation-Landfill only											
												Т
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	Ur
												#
										SELECT UNIT	SELECT UNIT	SE

Cell 8

WASTE SUMMARY	Lic No:	P0502-01	Year	2017
---------------	---------	----------	------	------

Table 4 Environmental monitoring-landfill only	Landfill Manual-Monitoring Standards
------------------------------------------------	--------------------------------------

Was meterological							Has the statement	
monitoring in			Was SW monitored in			Was topography	under S53(A)(5) of	
compliance with Landfill		Was Landfill Gas monitored in				of the site	WMA been	
Directive (LD) standard	Was leachate monitored in compliance	compliance with LD standard in	standard in reporting	Have GW trigger levels	Were emission limit values agreed with	surveyed in	submitted in	
in reporting year +	with LD standard in reporting year	reporting year	year	been established	the Agency (ELVs)	reporting year	reporting year	Comments
	·							, and the second

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

Table 5 Capping-Landfill only

				Area with waste that		
Area uncapped*	Area with temporary cap			should be permanently		
SELECT UNIT	SELECT UNIT	Area with final cap to LD		capped to date under		
SELECT UNIT	SELECT UNIT	Standard m2 ha, a	Area capped other	licence	What materials are used in the cap	Comments

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

SELECT	
CLICAL	

ı							Specify type of	
	Volume of leachate in		Leachate (COD) mass load	Leachate (NH4) mass load	Leachate (Chloride)		leachate	
	reporting year(m3)	Leachate (BOD) mass load (kg/annum)	(kg/annum)	(kg/annum)	mass load kg/annum	Leachate treatment on-site	treatment	Comments
ſ								

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	

Blackwater Decommissioning and Rehabilitation AER Overview 2017.

Several bogs within the Blackwater bogs licensed area (P0502-01) have been identified as having bog restoration value. Bog restoration work (drain-blocking) has been completed in sub-sections of Clonboley I and Clonboley II (Knock Bog and Clera Island Bog). Restoration work at the Killeglan network of bogs is ongoing and proving successful. These bogs are currently being considered for SAC/NHA designation by the NPWS as part of the National Raised Bog Special Area of Conservation Management Plan and the National Review of Raised Bog NHAs. A Greenhouse Gas Monitoring programme is ongoing at Moyarwood Bog (a continuation of the NEROS (EPA-funded project)) to investigate carbon fluxes on this restored bog (completed in 2018). The funding has been taken over by Bord na Mona. An additional site established at Blackwater Bog was part of REEDFLUX (EPA/BnM funded project) to investigate carbon fluxes of specific cutaway communities including Reedbeds has been finalised (April 2015).

A small area of Clooniff Bog has been rehabilitated in order to create a wetland (8 ha). Wetland vegetation have been introduced here in order to speed up the establishment of wetland vegetation such as common reed, reed mace and reed canary grass. It is intended to re-direct water from industrial peat production areas into this wetland during 2018.

Ongoing monitoring of peatland areas was carried out within the Blackwater licensing area with Clera Island Bog being re-surveyed using the eco-tope monitoring system. Lismanny bog was also resurveyed as part of the ongoing biodiversity survey. BeadaMoss is a product that acts as a small Sphagnum moss 'seed' and is used in peatland rehabilitation in the UK. A small area (0.5 ha) of re-wetted cutaway at Bunihinly was spread with BeadaMoss to investigate if this product had potential to help establish *Sphagnum* moss on the cutaway. This trial is in the early stages and no definitive results are expected for several years.

Draft rehabilitation plans for the Blackwater bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015 and 2017.

Japanese Knotweed (Invasive species) control is ongoing at Attymon. A small area was sprayed with herbicide in 2017.

A section of remnant bog at the south of Lismanny Bog has been leased to the local community, restoration work is due to begin on this section in 2018. New signage will also be erected and this will complement the existing board walk that was constructed in 2009.

Ballydangan Bog has been managed for conservation since 2009. Many stakeholders are involved in this project which entails managing the site for the conservation of ground nesting birds, specifically Curlew and Red Grouse. In November 2017, Ministers Heather Humphries and Denis Naughton visited the project and acknowledged the work being carried out.

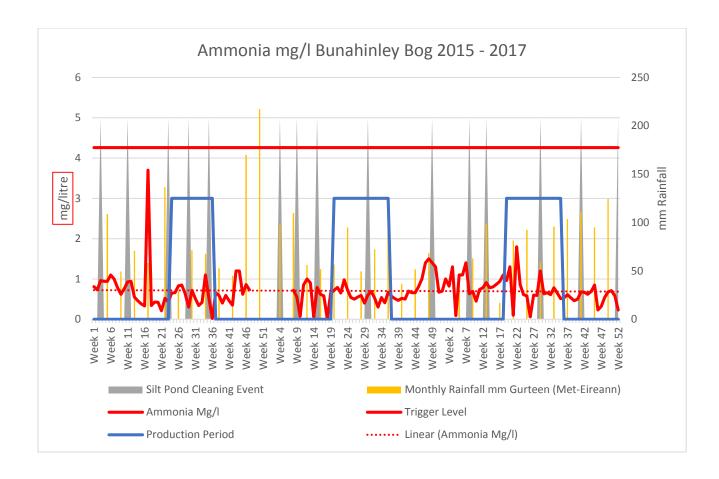
The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in February 2017. This included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland

Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.

A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

As required by condition 10.2 Cutaway Bog Rehabilitation Plans, draft peatland rehabilitation plans for all the individual bog units were submitted to the agency in 2013, reviewed and amended in 2015 and re-submitted to the agency in 2015. All draft rehabilitation plans have been reviewed in 2017. These reviewed and amended plans will be re-submitted to the agency in due course.

David on Many Div		Results										
Bord na Mona Blad	ckwater		_									
IPPC Licence P050	02-01											
X	Y	Bog	SW	Monitoring	Sampled	рН	SS	TS	Ammonia	TP	COD	Colour
179707.29	248776.74	Boughill	SW-137	Q1 17	30/03/2017	7	5	103	1.3	0.05	74	234
196289.52	229517.21	Clooniff	SW-54	Q1 17	30/03/2017	6.5	5	106	0.43	0.05	89	279
206721.04	238609.93	Bunahinly	SW-92	Q1 17	30/03/2017	6.5	5	92	0.57	0.05	66	218
206662.99	238274.82	Bunahinly	SW-93	Q1 17	30/03/2017	6.2	5	196	0.4	0.05	73	262
197086.52	222116.69	Garryduff	SW-13	Q1 17	30/03/2017	7.5	5	346	0.61	0.05	49	147
196834.5	231514.48	Clooniff	SW-58	Q1 17	30/03/2017	6.7	5	70	0.07	0.05	65	285
179332.06	244537.9	Gowla	SW-127	Q1 17	30/03/2017	7.6	5	216	0.32	0.08	67	214
188124.43	227737.31	Culliaghmore	SW-1	Q2 17	29/06/2017	7.6	5	386	0.09	0.05	59	76
189325.60	226464.60	Culliaghmore	SW-2	Q2 17	29/06/2017	7.9	5	276	0.2	0.05	39	69
189939.96	226469.40	Culliaghmore	SW-3	Q2 17	29/06/2017	8	5	328	3.2	0.05	55	94
188449.77	226433.58	Culliaghmore	SW-4	Q2 17	29/06/2017	8.4	5	223	0.05	0.05	48	113
189010.02	226437.01	Culliaghmore	SW-5	Q2 17	29/06/2017	7.6	5	210	0.56	0.05	67	179
194628.63	226099.90	Cornaveagh	SW-47	Q2 17	29/06/2017	8	5	254	1.9	0.05	50	105
196839.94	227791.83	Cornaveagh	SW-48	Q2 17	29/06/2017	7.7	16	226	2.1	0.05	80	228
196073.07	226174.31	Cornaveagh	SW-50	Q2 17	29/06/2017	8.2	5	360	1	0.05	35	58
197786.75	230319.32	Clooniff	SW-51	Q2 17	29/06/2017	7.4	17	174	2.5	0.05	110	252
197784.04	230364.06	Clooniff	SW-52	Q2 17	29/06/2017	7.4	10	230	1.2	0.05	106	191
196003.55	230845.12	Clooniff	SW-53	Q2 17	29/06/2017	7.1	5	130	0.02	0.05	97	359
197925.10	231099.16	Clooniff	SW-57	Q2 17	29/06/2017	8.5	35	196	0.04	0.05	93	96
199765.54	230706.39	Coolumber	SW-60	Q2 17	29/06/2017	7.6	24	284	2.3	0.05	90	148
198231.11	231265.33	Clooniff	SW-61	Q2 17	29/06/2017	7.9	5	336	0.06	0.05	33	64
190499.55	225107.26	Lismanny	SW-7	Q3 17	11/10/2017	7.8	27	304	2.2	0.05	81	136
192303.22	225342.18	Lismanny	SW-9	Q3 17	11/10/2017	8	5	476	3.4	0.05	50	94
194242.55	224648.00	Garryduff	SW-11	Q3 17	11/10/2017	7.9	5	388	1.3	0.05	47	84
194949.25	224611.01	Garryduff	SW-12	Q3 17	11/10/2017	7.9	5	500	1.2	0.05	44	54
197086.52	222116.69	Garryduff	SW-13	Q3 17	11/10/2017	7.9	5	436	0.32	0.05	46	100
200109.89	220928.62	Kilmacshane	SW-14	Q3 17	11/10/2017	8	8	406	0.88	0.05	48	83
199114.52	217827.05	Kilmacshane	SW-16	Q3 17	11/10/2017	7.8	5	268	0.08	0.05	73	103
200866.74	217504.84	Kilmacshane	SW-17	Q3 17	11/10/2017	7.8	5	172	0.69	0.05	60	172
198151.68	221499.90	Kilmacshane	SW-18	Q3 17	11/10/2017	7.9	5	318	0.52	0.05	46	106
201608.72	218385.31	Kilmacshane	SW-19	Q3 17	11/10/2017	8	5	442	0.44	0.05	58	231
209315.20	230290.00	Ballaghurt	SW-23	Q3 17	11/10/2017	7.6	5	318	0.98	0.05	52	149
209356.83	229725.69	Ballaghurt	SW-24	Q3 17	11/10/2017	7.7	5	321	0.89	0.05	53	140
209442.00	229429.71	Ballaghurt	SW-26	Q3 17	11/10/2017	7.8	5	300	0.28	0.05	53	115
209411.14	230131.84	Ballaghurt	SW-98	Q3 17	11/10/2017	7.6	5	332	0.91	0.05	60	136
204488.47	230990.35	Bloomhill	SW-29	Q4 17	13/12/2017	6.9	8	138	1.3	0.05	65	250
205547.62	232711.03	Bloomhill	SW-30	Q4 17	13/12/2017	7.8	5	412	0.28	0.05	44	90
205451.06	232775.35	Bloomhill	SW-32	Q4 17	13/12/2017	7.6	5	314	2.2	0.05	52	119
205115.69	233023.61	Bloomhill	SW-33	Q4 17	13/12/2017	7.6	5	404	0.45	0.05	50	101
204905.69	233024.27	Bloomhill	SW-34	Q4 17	13/12/2017	7.5	5	416	0.28	0.05	53	95
204763.10	232973.54	Bloomhill	SW-35	Q4 17	13/12/2017	7.6	5	294	1.7	0.05	64	140
207534.45	232106.89	Bloomhill	SW-36	Q4 17	13/12/2017	7	5	158	1.6	0.05	80	211
207678.88	232177.99	Bloomhill	SW-37	Q4 17	13/12/2017	6.7	5	244	0.18	0.12	148	306
208168.42	232535.60	Bloomhill	SW-38	Q4 17	13/12/2017	7.2	5	336	0.15	0.05	56	57
207782.39	233800.82	Bloomhill	SW-39	Q4 17	13/12/2017	7.4	5	250	1.1	0.05	10	130
207534.25	234227.54	Bloomhill	SW-40	Q4 17	13/12/2017	7.3	9	264	0.56	0.05	86	214
207054.61	234796.69	Bloomhill	SW-41	Q4 17	13/12/2017	7	5	162	1.2	0.05	71	161
206343.39	234493.76	Bloomhill	SW-42	Q4 17	13/12/2017	7.7	5	284	1.2	0.05	57	119
205823.99	234334.45	Bloomhill	SW-43	Q4 17	13/12/2017	6.7	5	90	1.2	0.05	60	208



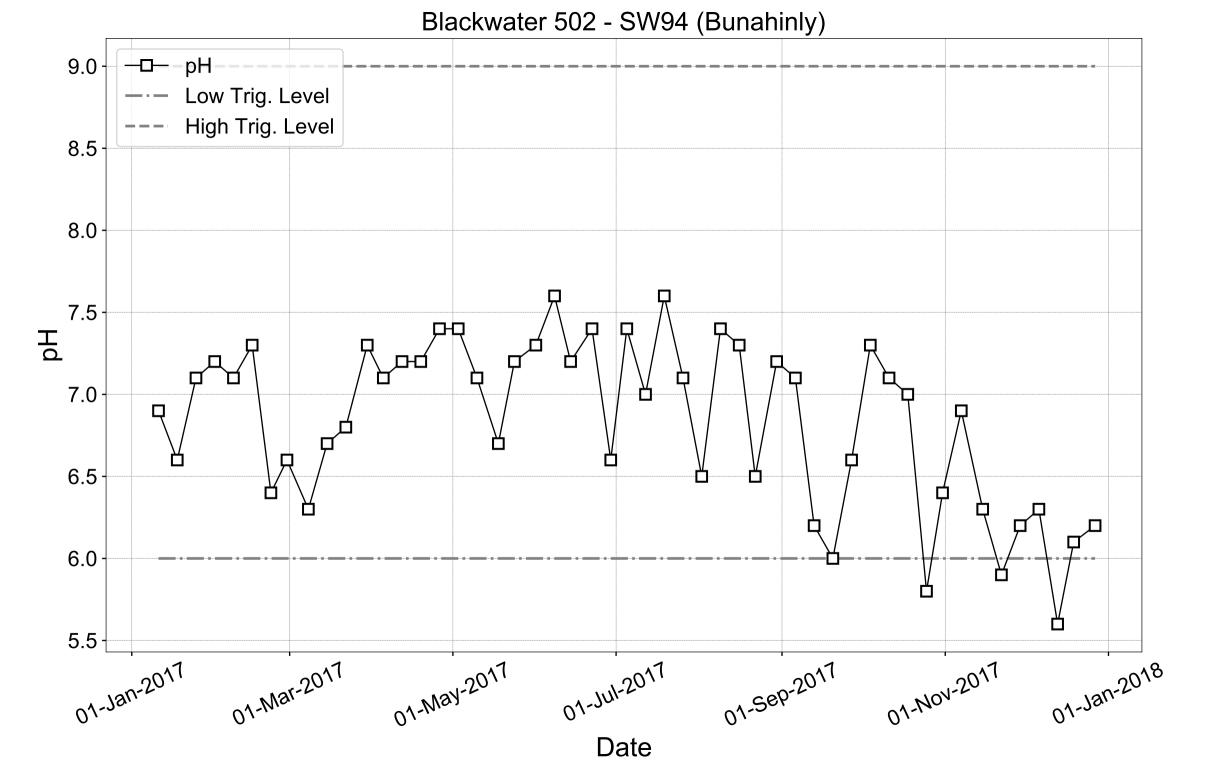
Bunahinly Bog

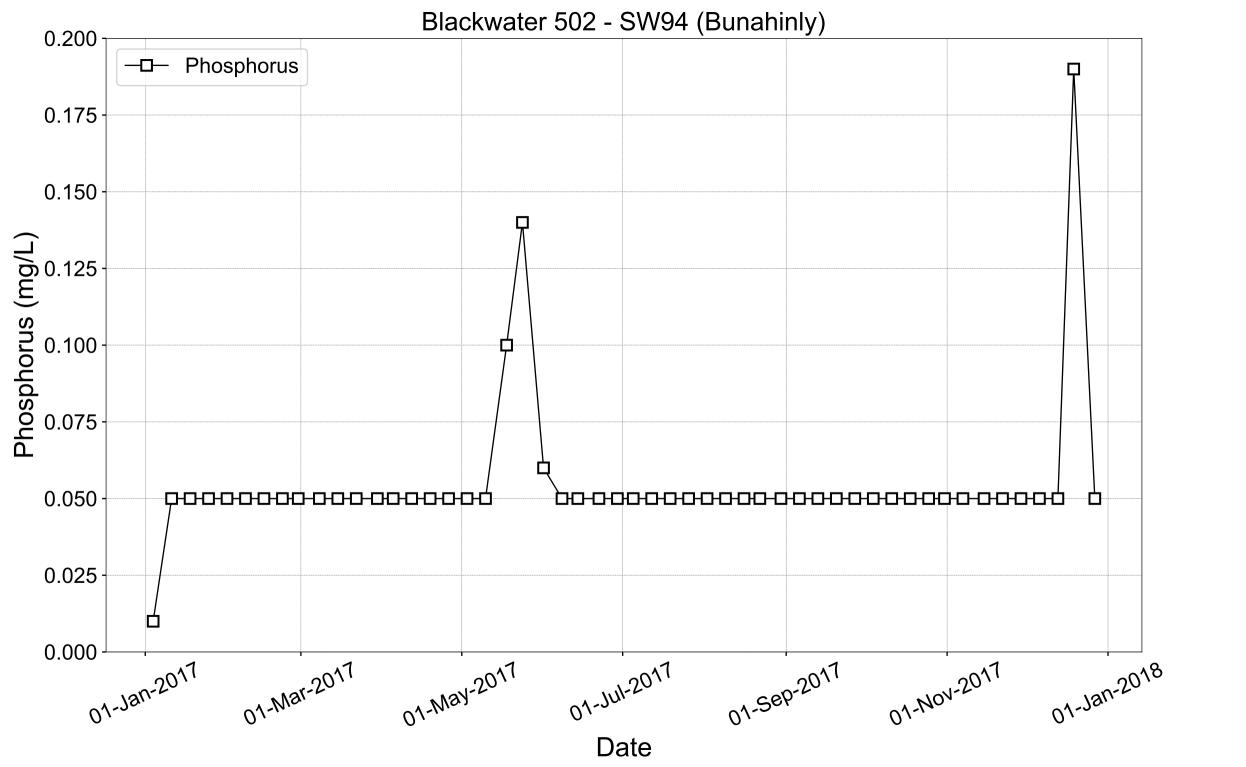
Bunahinly Bog is an active production bog with the composite sampler located here during 2015, 2016 and 2017. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had 45% downtime during the period mainly due to the fact that it is located on the silt pond outlet from Bunahinly Bog which has negative flow during winter flooding events, resulting in zero discharge during these events and limited safe access for a weekly grab sample. The ammonia trigger level of 4.26mg/l, as agreed with the Agency, was not exceeded during the period. Overall the results are trending level and slightly downwards as peat extraction continues and this is in-line with the level or downwards trends submitted to the EPA in 2013 as required by condition 6.14. There is no obvious link between the summer production, winter maintenance or silt pond maintenance events on the concentration of ammonia disharging from the peatlands. The only link expected would be that related to rainfall events and seasonal weather patterns and the subsequent surfacewater runoff and associated ammonia concentrations.

Blackwater 502 - SW94 (Bunahinly) Ammonia Trig. Level (4.26 mg/L) 4 Ammonia (mg/L) 口口 0 01-Mar-2017 01-May-2017 01-Jan-2017 01-Sep-2017 01-NOV-2017 01-Jan-2018 01-Jul-2017 Date

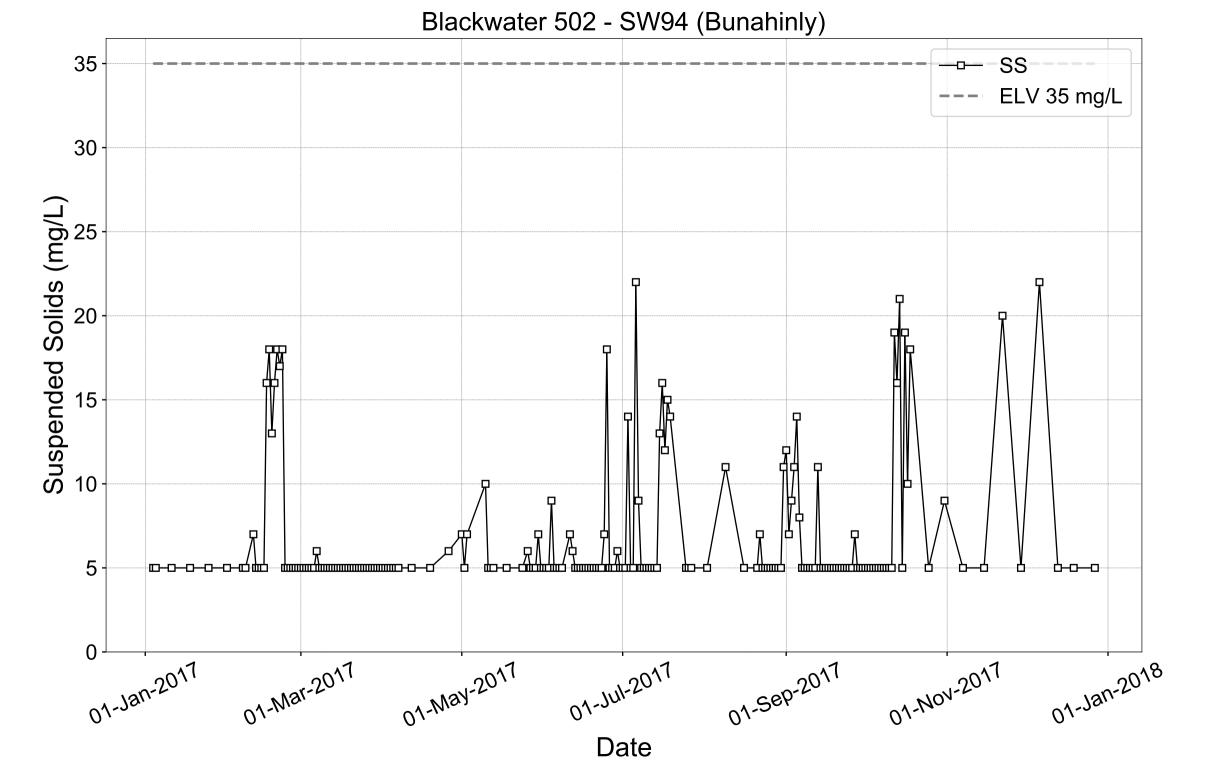
Blackwater 502 - SW94 (Bunahinly) COD Trig. Level (100 mg/L) 140 120 COD (mg/L) 山口 80 60 40 01-Mar-2017 01-Jan-2017 01-May-2017 01-NOV-2017 01-Sep-2017 01-Jan-2018 01-Jul-2017 Date

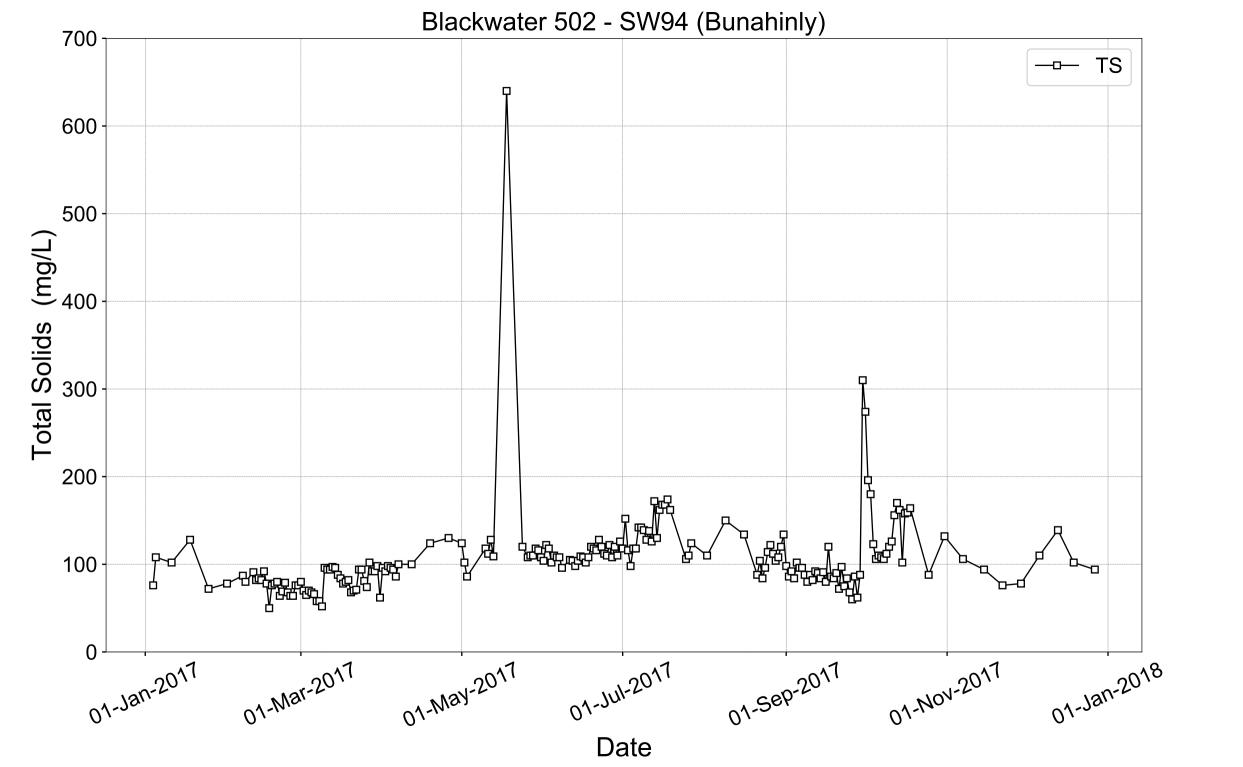
Blackwater 502 - SW94 (Bunahinly) Colour 口 300 275 Colour (Pt/Co) 225 200 200 175 150 125 01-Mar-2017 01-NOV-2017 01-May-2017 01-Jan-2017 01-Sep-2017 01-Jan-2018 01-Jul-2017 Date





Blackwater 502 - SW94 (Bunahinly) —□— PO4-P 0.16 0.04 0.02 01-May-2017 01-Mar-2017 01-Jan-2017 01-Jul-2017 Date





Yard Discharge Results Licence: P0502-01

Works: Blackwater 2017

Month	SWE 1 COD mg/l	SWE2 COD	SWE3 COD	SWE4 COD	SWE5 COD	SWE6 COD	SWE7 COD	SWE8 COD	SWE9 COD	SWE10 COD	SWE11 COD
	2	mg/l	mg/l								
Jan	0	0	0	0	0	0	29	38	0	0	0
Feb	69	0	0	29	0	0	0	0	0	0	0
Mar	0	0	20	0	0	0	24	33	40	0	0
Apr	0	0	0	0	0	0	0	0	0	32	78
May	0	0	0	0	0	0	0	0	0	0	0
June	0	42	0	0	0	39	20	41	62	0	0
July	0	0	0	0	0	42	34	54	48	0	0
Aug	0	0	0	0	0	0	0	0	0	0	0
Sep	0	0	0	0	0	0	33	83	64	0	0
Oct	0	0	0	30	0	0	19	69	15	0	0
Nov	50	0	55	0	0	0	0	0	0	91	76
Dec	26	0	0	27	0	0	0	0	0	0	0

Note: 0 denotes no flow at emission point on day of sampling



| PRTR# : P0502 | Facility Name : Bord na Móna Energy Limited (Blackwater) | Filename : P0502_2017.xls | Return Year : 2017 |

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Guidance to completing the PRTR workbook

PRTR Returns Workbook

Environmental Protection Agency	Version 1.1.19
REFERENCE YEAR	2017
1. FACILITY IDENTIFICATION	
	Bord na Mona Energy Limited
	Bord na Móna Energy Limited (Blackwater)
PRTR Identification Number	
Licence Number	P0502-01
Classes of Activity	
No.	class_name
-	Refer to PRTR class activities below
	Ta
	Blackwater Group
	c/o Blackwater Works
	Blackwater, Shannonbridge,
Address 4	Athlone
	Westmeath
	Ireland
Coordinates of Location	
River Basin District	
NACE Code	
Main Economic Activity	Extraction of peat
AER Returns Contact Name	Enda McDonagh
AER Returns Contact Email Address	
AER Returns Contact Position	Head of Environment
AER Returns Contact Telephone Number	
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	
Production Volume	966254.0
Production Volume Units	
Number of Installations	21
Number of Operating Hours in Year	233
Number of Employees	193
User Feedback/Comments	130
Oser Feedback/Comments	In accordance with licence condition 6.2 of Technical Amendment A, quarterly sampling is now rotated every quarter and therefore
	suspended solids results are not factored into loading. Due to technical difficulties experienced with the composite sampler annual
	loading was not possible to calculate. All composite sampler results are attached for review in the AER document.
Web Address	
110071441000	TransconC
2. PRTR CLASS ACTIVITIES	
Activity Number	Activity Name
50.1	General
,	
3. SOLVENTS REGULATIONS (S.I. No. 543 of 20	02)
Is it applicable?	
Have you been granted an exemption ?	
If applicable which activity class applies (as per	
Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being	
used ?	
used ?	
4. WASTE IMPORTED/ACCEPTED ONTO SITE	Guidance on waste imported/accepted onto site
	Guidance on waste imported/accepted onto site
Do you import/accept waste onto your site for on-	
site treatment (either recovery or disposal	
activities) ?	
	This question is only applicable if you are an IPPC or Quarry site

4.1 RELEASES TO AIR

Link to previous years emissions data

| PRTR# : P0502 | Facility Name : Bord na Móna Energy Limited (Blackwater) | Filename : P0502_2017.xls | Return Year : 2017 |

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SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

	RELEASES TO AIR	Please enter all quantities in this section in KGs						
	METHOD				QUANTITY			
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0) 00	0.0

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

	RELEASES TO AIR					Please enter all quantities in this section in KGs						
	POLLUTANT		METHOD						QUANTITY			
				Met	hod Used	DM01	DM02	DM03	DM04			
											A (Accidental)	F (Fugitive)
Pollutant No	lo.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	Emission Point 3	Emission Point 4	T (Total) KG/Year	KG/Year	KG/Year
210		Oust	E	OTH	VDI 2119 Blatt 2/Part 2	0.0	0.0	0.0	0.0	0.09912	0.	0.0991
		Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button										

Additional Data Requested from Landfill operators										
(Methane) flared or utilised on their facilities to accomp	For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T(total) KG/yr for Section A: Sector specific PRTR pollutants above. Please complete the table below:									
Landfill:	Bord na Móna Energy Limited (Blackwater)									
Please enter summary data on the	,									
quantities of methane flared and / or										
utilised			Meth	nod Used						
				Designation or	Facility Total Capacity					
	T (Total) kg/Year	M/C/E	Method Code	Description	m3 per hour					
Total estimated methane generation (as per										
site model)					N/A					
Methane flared	0.0					(Total Flaring Capacity)				
Methane utilised in engine/s					0.0	(Total Utilising Capacity)				
Net methane emission (as reported in Section										
A above)	0.0				N/A					

4.2 RELEASES TO WATERS

Link to previous years emissions data

| PRTR# : P0502 | Facility Name : Bord na Móna Energy Limited (Blackwater) | Filename : P0502_2017.xls | Return Year : 2017 |

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SECTION A : SECTO	R SPECIFIC PRTR I	POLLUTANTS
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Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only concerns Releases from your facility

	RELEASES TO WATERS				Please enter all quantitie	s in this section in Ko	38	
POLLUTANT					QUANTITY			
		7		Method Used				
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
				_	0.	0 0	.0 0.0	0.0

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

SECTION B: REMAINING PRTR POLLUTANTS

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

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

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

		RELEASES TO WATERS	Please enter all quantities in this section in KGs							
	POLLUTANT					QUANTITY				
					Method Used					
	Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
					G/19 Based on					
					ALPHA,1998,20th Edition,					
2	40	Suspended Solids	E	OTH	Method 2540D	0.0	0.0	0.0	0.0	

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

4.3 RELEASES TO WASTEWATER OR SEWER

Link to previous years emissions data

| PRTR# : P0502 | Facility Name : Bord na Móna Energy Limited (Blackwater) | Filename : P0502_20

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SECTION A: PRTR POLLUTANTS

J	OFFSITE TRANS	SFER OF POLLUTANTS DESTINED FOR WASTE-W	ATER TRE	EATMENT OR SEWER		Please enter all quantities	in this section in KGs		
	PO	LLUTANT	METHOD					QUANTITY	
				Method Used					
	No. Annex II	Name	M/C/E	Method Code Designation or Description		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
						0.0	0.0	0.0	0.0

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

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

OLOTION D. KLIMAINING I OLLOTAIN LIIN	olotto (as required in your Election)					_		
OFFSITE TRAN	SFER OF POLLUTANTS DESTINED FOR WASTE-W	VATER TRE	EATMENT OR SEWER		Please enter all quantities	in this section in KGs		
PO	LLUTANT	METHOD					QUANTITY	
			Method Used					
Pollutant No.	Name	M/C/E	/E Method Code Designation or Description E		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

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

Link to previous years emissions data Page 1 of 1

4.4 RELEASES TO LAND

Link to previous years emissions data

PRTR# : P0502 | Facility Name : Bord na Móna Energy Limited (Blackwater) | Filename : P0502_2017.xls | Return Year : 2017 |

04/04/2018 12:25

SECTION A: PRTR POLLUTANTS

	RELEASES TO LAND		Please enter all quantities in this section in KGs					
POLLUTANT			METHO	D			QUANTITY	
			Method Used					
No. Annex II	ame	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) K	(G/Year
					0.0		0.0	0.0

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

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

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

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE | PRTR#: P0502 | Facility Name: Bord na Móna Energy Limited (Blackwater) | Filename: P0502_2017.xts | Return Year: 2017 |

		2:25

		1	i lease enter	all quantities on this sheet in Tonnes					Haz waste . Ivanie anu			-
			Quantity (Tonnes per Year)		Waste		Method Used		Licence/Permit No of Next Destination Facility Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste: Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destinatio i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
Transfer Destination	European Waste Code	Hazardous		Description of Waste	Treatment	M/C/E	Method Used	Location of Treatment				
Transier Destination	Code	riazaruous		Description of Waste	Operation	IVI/ C/ E	Ivieti iou Oseu	Heatment		Blackwater		
Within the Country	01 01 02	No	2305.33	wastes from mineral non-metalliferous excavation	D1	E	Volume Calculation	Onsite of general	Bord na Mona ij Blackwater,P0502-01	Bog,Shannonbridge,Co Offaly,.,Ireland Blackwater		
Within the Country	01 01 02	No	1897.0	wastes from mineral non-metalliferous excavation	D1	М	Weighed	Onsite of general	Bord na Mona ii Blackwater,P0502-01 Ryston Industeries WFP-KF-	Bog, Shannonbridge, Co Offaly,., Ireland Castledermot, Kildare,, Icela		
Within the Country	02 01 04	No	599.6	waste plastics (except packaging)	R3	M	Weighed	Offsite in Ireland		nd		
To Other Countries	11 01 13	Yes	0.42	degreasing wastes containing dangerous substances	R11	С	Volume Calculation	Abroad	Safety Kleen Ltd,WP 99-01	Tallaght, Dublin,, Ireland	Solvent Recovery Managemant,PP33345F,Wh eeland Road,Knottingly ,West Yorks,WF11 8DZ,United Kingdom R.D. Recycling,Req no	Wheeland Road, Knottingly , West Yorks, WF11 8DZ, United Kingdom
				mineral-based non-chlorinated engine, gear						Est,Portlaoise,Co	51727/1/KD,Houthalen,.,,,	
To Other Countries	13 02 05	Yes	17.7	and lubricating oils absorbents, filter materials (including oil filters not otherwise specified), wiping	R1	С	Volume Calculation	Abroad	Enva Ireland Ltd,WP 184-01	Clonminam Ind	Germany	Houthalen,.,,,,Germany
To Other Countries	15 02 02	Yes	0.08	cloths, protective clothing contaminated by dangerous substances	R1	М	Weighed	Abroad	Enva Ireland Ltd,WP 184-01	Clonminam Ind	Enva Ireland Ltd,184-	Kreuztal,.,,.,Germany
Within the Country	13 05 07	Yes	0.0	oily water from oil/water separators	R1	С	Volume Calculation	Offsite in Ireland	Enva Ireland Ltd,WP 184-01	Est,Portlaoise,Co Laois,.,Ireland Cappincur,Tullamore,Co	1,Clonminan Ind Est,,Portlaoise,Ireland	Clonminan Ind Est,,Portlaoise,Ireland
Within the Country	15 01 03	No	10.16	wooden packaging	R1	М	Weighed	Offsite in Ireland	AES Ltd,WP-OY-08-601-01		R.D. Recycling,Reg no 51727/1/KD,Houthalen,,	
To Other Countries	16 01 07	Yes	0.77	oil filters	R4	С	Volume Calculation	Abroad	Enva Ireland Ltd,WP 184-01	Laois,.,Ireland Clonminam Ind Est.Portlaoise.Co	Germany Campine Recycling,Reg no MLAV/05- 173/GVDA,Beerse,,Belgi	Houthalen,,,,,,Germany
To Other Countries	16 06 01	Yes	1.61	lead batteries	R6	М	Weighed	Abroad	Enva Ireland Ltd,WP 184-01		um	Beerse,.,.,,Belgium
Within the Country	17 04 07	No	169.96	mixed metals	R4	М	Weighed	Offsite in Ireland	AES Ltd,WP-OY-08-601-01 Security In Shredding	Offaly,,,Ireland Neanagh,Co		
Within the Country	15 01 01	No	3.48	paper and cardboard packaging discarded electrical and electronic equipment other than those mentioned in	R3	М	Weighed	Offsite in Ireland	Ltd,WCP-KK-08-0502-01	Tipperary,,,,,Ireland	KMK Metals.WO114-04	
				20 01 21 and and 20 01 23 containing					KMK Metals,WO113-04		WCPO-08-10607-	
Within the Country	20 01 35	Yes	0.52	hazardous components	R4	М	Weighed	Offsite in Ireland	WCPO-08-10607-02	Tullamore,,,,,,lreland Cappincur,Tullamore,Co	02,Tullamore,.,.,Ireland	Tullamore,,,,,,Ireland
Within the Country	20 03 01	No	33.21	mixed municipal waste	D1	М	Weighed	Offsite in Ireland	AES Ltd,WP-OY-08-601-01 Barna Waste Ltd,WCP-08-	Offaly,,,Ireland Headford Road,Galway,Co		
Within the Country	20 03 01	No	15.63	mixed municipal waste	D1	E	Volume Calculation	Offsite in Ireland		Galway,.,Ireland Cappincur,Tullamore,Co		
Within the Country	20 03 01	No	34.95	mixed municipal waste	D1	М	Volume Calculation	Offsite in Ireland	AES Ltd,WP-OY-08-601-01 KMK Metals.WO113-04	Offaly,,,Ireland		
Within the Country	16 06 04	No	0.63	alkaline batteries (except 16 06 03)	R4	М	Weighed	Offsite in Ireland	WCPO-08-10607-02	Tullamore,,,,,,Ireland		
				the Description of Waste then click the delete button			3					

No 0.63 alkaline batteries (except 16 06 03)

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

			Quantity (Tonnes per Year)				Method Used		Licence/Permit No of Next Destination Facility Haz Waste: Name and Licence/Permit No of Recover/Disposer	Destination Facility	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination
					Waste							
	European Waste				Treatment			Location of				
Transfer Destination	Code	Hazardous		Description of Waste	Operation	M/C/E	Method Used	Treatment				

Link to previous years waste data Link to previous years waste summary data & percentage change Link to Waste Guidance

National Grid Reference (bt, b N)	NI TO THE PARTY OF	Class/Classes of Activity	NACE Code	Site Location	Name of site	Licence Register Number	AER Reporting Year	racility information summary
	249450, 238140	1.4	0892	Derrygreenagh, Rochfortbridge, Co Westmeath	Bord na Mona Allen	P0503-01	2017	

compliance with your licence listing all include information such as production the site for the reporting year. This should A description of the activities/processes at applicable) and what they relate to e.g. air, exceedances of licence limits (where the reporting year and an overview of performance which was measured during infrastructural changes, environmental increases or decreases on site, any

2/9/50 2381/0	1.4	0892	Derrygreenagh, Rochfortbridge, Co Westmeath	Bord na Mona Allen	P0503-01	100+7
---------------	-----	------	---------------------------------------------	--------------------	----------	-------

away to the manufacturer for overhaul difficulties which impacted on the collection of flow data. A decision was therefore made to send the sampler and Rehabilitation works are described in an attachment. The composite sampler experienced some technical conduct a litter pick and put in measures to reduce littering in litter hot spots across the licence.Decommissioning cleanings, inspections dictating cleaning schedules. Bord na Mona liaised with Offaly and Kildare Co.Councils to period, both related to dust and were resolved. In relation to silt pond cleaning, 100% of ponds received two the continuous composite sampling. There were two environmental complaints received during the reporting and lorry outloading facilities. Production achieved was approximately 825,839 tonnes which was up on the 2016 peat into stockpiles and secondly the transportation of that peat via an internal rail network to the Power Station figure. Infrastructurally, there was no bog development. The quarterly grab sampling was 100% compliant, as was tirstly the milling, harrowing, ridiging and harvesting of

Declaration:

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

Group/Facility manager (or nominated, suitably qualified and experienced deputy) Signature quality of the information is assured to meet licence requirements Date

AlR-summary template

Lic No: P0503-01 Year 2017

Answer all questions and complete all tables where relevant

Does your site have licensed air emissions? If yes please complete table A1 and A2 below for the current
1 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 have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5

	Periodic/Non-Continuous Monitoring				
				Reported to the Agency ref INCI012523.	
2	Are there any results in breach of licence requirements? If yes ple	ase provide brief details in the comment section of			
	TableA1 below		Yes		
3		Basic air			
3	Was all monitoring carried out in accordance with EPA guidance	monitoring			
	note AG2 and using the basic air monitoring checklist?	checklist AGN2	Yes		

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

Emission reference no:	Parameter/ Substance	Frequency of	ELV in licence or any revision therof	Licence Compliance criteria	Measured value		Compliant with licence limit	Method of analysis	Annual mass	Comments - reason for change in % mass load from previous year if applicable
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		

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

1

	AIR-summary template	Lic No:	P0503-01	Year	2017
	Continuous Monitoring				
4	Does your site carry out continuous air emissions monitoring?	No			
	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)	.			
5	Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	No			
6	Do you have a proactive service agreement for each piece of continuous monitoring equipment?	No			
7	Did your site experience any abatement system bypasses? If yes please detail them in table A3 below Table A2: Summary of average emissions -continuous monitoring	No			

Emission	Parameter/ Substance		Averaging Period	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:					measurement			Equipment	exceedences in	
		ELV in licence or any						downtime (hours)	current	
		revision therof							reporting year	
DM-2	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	16828	150	0	0	Dust
										monitioring
										took place on
										5 occasions
										for 28 days
										each time
										between
										April and
										September
		350	140 DAYS			35644	552	0	1	Reported to
										Agency on
										20/07/2017.
DM-03	Total Particulates			Daily average < ELV	mg/m2/day					INCI012523
DM-05	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	24892	315	0	0	
DM-06	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	26376	289	0	0	
	SELECT				SELECT					

SELECT

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

Table A3: Abatement system bypass reporting table Bypass proto

Tubic Ast Audit ment system bypass reporting tubic											
Date*	Duration** (hours)	Location	Reason for bypass	Impact magnitude	Corrective action						

^{*} this should include all dates that an abatement system bypass occurred

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

	Solvent use and management on site											
8	Do you have a total	Emission Limit Value of di	rect and fugitive emis	sions on site? if yes	please fill out tables A4 and A5							
	Table A4: Solvent Management Plan Summary Total VOC Emission limit value			Solvent Please refer to linked solvent regulations to regulations complete table 5 and 6								
Reporting year Total solvent input on site (kg) Total VOC emissio to Air from entire site (direct and fugitive)				emissions as %of solvent input	Total Emission Limit Value (ELV) in licence or any revision therof	Compliance						
ļ						SELECT						
ł	Table 6	A5: Solvent Mass Balance :	ummary			SELECT						
L		(I) Inputs (kg)				Outputs (kg)						
	Solvent	(I) Inputs (kg)		Solvents lost in water (kg)		Fugitive Organic Solvent (kg)	Solvent released in other ways e.g. by- passes (kg)	Solvents destroyed onsite through physical reaction e.g.	Total emission of Solvent to air (kg)			
ļ												
ļ												

[AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)		Lic No: P0503-01	Year	2017	
_			Additional information			
	Does your site have licensed emissions direct to surface water or direct to sewer? If yes 1 please complete table: W2 and W3 below for the current reporting year and answer further questions. If you do not have licenced emissions you only need to complete table W1 and or W2 for storm water analysis and visual inspections		The continuous monitoring sampler was relocated reporting period. The sampler experienced technic inhibited the collection of flow data and subseque calculations. It was therefore decided to present it graphical form as an attachmen	al difficulties which ent annual loading ne sampling results in		
	Was it a requirement of your licence to carry out visual inspections on any surface water					
	2 discharges or watercourses on or near your site? If yes please complete table W2 below					
	summarising only any evidence of contamination noted during visual inspections	Yes	Monthly COD and Yard Run Of	f		
	Table W1 Storm water monitoring					

Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	

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

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

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
			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 y comment section of Table W3		ief details in the	No	Additional information
	Was all monitoring carried out in accordance with EPA				
	guidance and checklists for Quality of Aqueous Monitoring	External /Internal			
	Data Reported to the EPA? If no please detail what areas	Lab Quality	Assessment of		
4	require improvement in additional information box	checklist	results checklist	Yes	Surface water monitoring was carried out on a quarterly basis. The results of which are attached.

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

Emission reference no:	Emission released to	Parameter/ SubstanceNote 1		Frequency of monitoring	Averaging period	ELV or trigger values in licence or any revision therof ^{Note 2}	Licence Compliance criteria	Measured value		Compliant with licence		Procedural	Procedural reference standard number	Annual mass load (kg)	Comments
	SELECT	SELECT	SELECT		SELECT		SELECT		SELECT	SELECT	SELECT	SELECT			

Note 1: Volumetric flow shall be included as a reportable parameter
Note 2: Where Emission Limit Values (ELV) do not apply to your licence

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)		Lic No:	P0503-01	Year	2017
Continuous monitoring Does your site carry out continuous emissions to water/sewer monitoring?			Additional Information	ī	
5	Yes		See note above	1	
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	Yes		Total of 118 days over 365 days		
7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site?	Yes	Annual calibration s	chedule and trouble shooting service.		
8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 below	No				
Table W4: Summary of average emissions -continuous monitoring					

	Emission			Averaging			Annual Emission for current	Monitoring Equipment	Number of ELV exceedences in	
reference no:	released to	Parameter/ Substance	thereof	Period	Criteria	measurement	reporting year (kg)	downtime (hours)	reporting year	Comments
							-		0	
1 -							· · · · · · · · · · · · · · · · · · ·			

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

Table W5: Abatement system bypass reporting table

	Date	Duration (hours)		action*	submitted to the	When was this report submitted?
L					EPA?	
					SELECT	
ſ						
[

^{*}Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline tes	ting template				Lic No:	P0503-01		Year	2017					
Bund testing		dropdown menu cl	ick to see options				Additional information	_						
containment structures	s on site, in addition to all e include all bunds outsid	tegrity testing on bunds and conta bunds which failed the integrity t e the licenced testing period (mob	est-all bunding structures wh	ich failed including mobile		Yes Other (2 Yearly)	One bund requiring an integrity test in 2017 passed. One bund was decommissioned following a 2016 retest failure.	_						
	a register of bunds, unde bunds)	rground pipelines (including storm	nwater and foul), Tanks, sump	s and containers? (containe	rs refers to "Chemstore"	Yes 4	Two bunds due for testing in 2018.	-						
5 How many of these bur	nds have been tested with	nin the required test schedule?				4		<u> </u> 						
9 How many sumps on sil 10 How many of these sun Please list any sump in 11 Do all sumps and cham 12 If yes to Q11 are these 13 Is the Fire Water Reten	ncluded in the bund test sobile bunds have been test ite are included in the intemps are integrity tested we tegrity failures in table Bibers have high level liquic failsafe systems included tition Pond included in you	ted within the required test sched grity test schedule? I d alarms? in a maintenance and testing prog ir integrity test programme?	gramme?			13 No 0 0 0 5 ELECT SELECT SELECT								
Tab	ble B1: Summary details o	f bund /containment structure int	egrity test											
Bund/Containment structure ID EPL Main Bund 503-37-	Туре	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)
05 Clonsast Heating Bund	reinforced concrete		Gas Oil	132440 litres	44000 litres	Hydraulic test			Yes	Pass		NA	NA	NA
503-37-07 Ballycon Main Bund	reinforced concrete		Gas Oil	9288 litres	5500 litres	Hydraulic test			Yes	Pass		NA	NA	NA
503-37-09	reinforced concrete		Gas Oil	346500 litres litres	315000 litres	Hydraulic test			Yes	Pass	The outer concrete wall was cracked. A contractor was appointed to repair this and is in the process of doing so.	NA Repair the bund wall	NA NA	Other (please describe) Contractor repaired the wall and a retest was done. The bund failed again. It was decided to
	reinforced concrete		Gas Oil	143208 litres	49500 litres	Hydraulic test			Yes	Fail			14/06/2017	decommission the bund.
Has integrity testing be 15 line with BS8007/EPA G 16 Are channels/transfer s	Guidance? systems to remote contain	nce with licence requirements and	l are all structures tested in	bunding and storage guide	line <u>s</u>	Yes No No	Commentary							
Are you required by you 1 underground structure 2 Please provide integrity	es and pipelines on site wh y testing frequency period	itegrity testing* on underground s nich failed the integrity test and al	I which have not been tested	withing the integrity test p		Yes Other (Every 3 Years)	No underground pipe lines that require testing							
		ness testing for process and foul p		ur licence)										
Table	e BZ: Summary details of	pipeline/underground structures in	ntegrity 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	1		

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

Groundwater/Soil monitoring template	Lic No:	P0503-01	Year	2017
--------------------------------------	---------	----------	------	------

Comments

Are you required to carry out groundwater monitoring as part of your licence requirements?	no		Please provide an interpretation of groundwater monitoring data in the
2 Are you required to carry out soil monitoring as part of your licence requirements?	no		interpretation box below or if you require additional space please
Do you extract groundwater for use on site? If yes please specify use in comment section	no	Domestic Use Only	include a groundwater/contaminated land monitoring results interpretaion as an additional section in this AER
Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there 4 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	NA		
5 Is the contamination related to operations at the facility (either current and/or historic)	NA		
6 Have actions been taken to address contamination issues?If yes please summarise remediation strategies proposed/undertaken for the site	NA		
7 Please specify the proposed time frame for the remediation strategy	NA		
8 Is there a licence condition to carry out/update ELRA for the site?	NA		
9 Has any type of risk assesment been carried out for the site?	NA		
10 Has a Conceptual Site Model been developed for the site?	NA		
11 Have potential receptors been identified on and off site?	NA		
12 Is there evidence that contamination is migrating offsite?	NA		Please enter interpretation of data here

Groundy	vater/Soil n	nonitoring to	emplate		Lic No:	P0503-01		Year	2017	•		
Table 1:	Upgradient	Groundwat	er monitorin	g results								_
Date of sampling + where a	Sample location reference verage indicate	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration++	Average Concentration+	unit SELECT SELECT	GTV's*	SELECT**	Upward trend in pollutant concentration over last 5 years of monitoring data SELECT		
			e maximum mea water monito		on from all monitoring	results produced d	uring the reporting yea	ır				
Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit SELECT SELECT	GTV's*	SELECT**	Upward trend in yearly average pollutant concentration over last 5 years of monitoring data SELECT		
upward to	rend in results fo	or a substance in	dicates that furthering Guideline Tem	er interpretation of r	monitoring results is req link provided and submi	uired. In addition to c	Guideline Value (IGV) or a completing the above tab ALDER as a licensee retur	le, <u>Grou</u>	ndwater monito	ring template		
ssessment		nd risk assessmer	undwater standard nt tools is available		Guidance on t	he Management of	Contaminated Land an	d Groundwater a	t EPA Licensed S	ites (EPA 2013).		
		f the site is close	to surface water	compare to Surface		uality Standards (SWE	indards should be used it QS), If the site is close to		Groundwater regulations GTV's	Drinking water (private supply) standards	<u>Drinking water (public</u> supply) standards	Interim Guid

Table 3: Soil results

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

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

Environmental Liabilities template Lic No: P0503-01 Year 2017

Click here to access EPA guidance on Environmental Liabilities and Financial provision

			Commentary
1	ELRA initial agreement status	Not a licence requirement	
2	ELRA review status	NA	
3	Amount of Financial Provision cover required as determined by the latest ELRA	NA	
4	Financial Provision for ELRA status	NA	
5	Financial Provision for ELRA - amount of cover	NA	
6	Financial Provision for ELRA - type	NA	
7	Financial provision for ELRA expiry date	NA	
8	Closure plan initial agreement status	NA	Internal budget provision
9	Closure plan review status	NA	Internal budget provision
10	Financial Provision for Closure status	NA	Internal budget provision
11	Financial Provision for Closure - amount of cover	NA	Internal budget provision
12	Financial Provision for Closure - type	NA	Internal budget provision
13	Financial provision for Closure expiry date	NA	

	Environmental Management Programme/Continuous Improvement Programme	template	Lic No:	P0503-01	Year	2017
	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	Internal u	naccredited EMS		
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 Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	Continue to train all	Status (% completed) 90	In total 73 Personnel received	Responsibility	Intermediate outcomes
	employees in		training in 2017. There were		
	environmental matters.		12 hydraulic harrows		
	Training will be by means of		deployed across the licence		
	a new four module training programme delivered by		area. Headland peat was collected at all locations and		
	dedicated Bord na Mona		returned as part of overall		
	Training Specialists. This		production figures.		
	new training programme		production rigares.		
	includes Environmental				
	Compliance _ IPPC,				
	Biodiversity, Archaeology				
	and Energy Management.				
	und Energy Widnesserience				
					Improved Environmental
				Individual	Management Practices
Waste reduction/Raw material usage	Waste streamlining is a	90	Monthly waste reports are		
efficiency	project we are particularly		returned for records/filing		
	interested in continuing		and waste streams are		
	and hope to reduce wastes		segrated on site to maximise		
	further in the future and be		recycling potential. In an		
	more efficient in dealing		attempt to curtail illegal		
	with all aspects of waste		dumping on Bord na Mona		
	management		remain in contact with Laois,		
			Offaly and Kildare Co		
			Councils.		Improved Environmental
				Section Head	Management Practices
Waste reduction/Raw material usage	Continue with the recycling	100	In total 446.54 tonnes were		
efficiency	of polyethylene. The		sent off site for recycling.		
	sourcing of more recycling		Procurement also exploring		
	contractors will be ongoing.		the possibility of securing		
			further recyclers.		
					Improved Environmental
				Individual	Management Practices
Energy Management	As part of an Energy	90	The monthly consumption of		Reduce overall energy output
	Awareness campaign all		energy was regurally		while maintaining
	aspects of energy		communicated to the		productivity.
	consumption will be		relevant personnel. This		
	communicated to		included the KPI's for peat		
	personnel with the		production, maintenance and		
	intention of reducing		transportation as well as bog		
	consumption through		pumping and workshop		
	awareness		electrical consumption.		
				Section Head	
Reduction of emissions to Water	Continue to train all	90	In total 73 Personnel received		
	employees in		training in 2017. There were		
	environmental matters.		12 hydraulic harrows		
	Training will be by means of		deployed across the licence		
	a new four module training		area and headland peat was		
	programme delivered by		collected and returned as		
	dedicated Bord na Mona		part of overall production		
	Training Specialists. This		figures.		
	new training programme				
	includes Environmental				
	Compliance _ IPPC,	_			
	Compliance _ IPPC, Biodiversity, Archaeology				
	Compliance _ IPPC,				
	Compliance _ IPPC, Biodiversity, Archaeology				
	Compliance _ IPPC, Biodiversity, Archaeology				
	Compliance _ IPPC, Biodiversity, Archaeology				Improved Environmental

	N	loise monitor	ing summary	report			Lic No:	P0503-01	Year	2017	
	•	ce requirement fo	•	?				No]		
						NA					
•		•	ad2					NA Enter date			
				plant or ope	rational char	nges) since t	he last noise	NA NA			
Table N1: No	ise monitoring s	ummary									
Table N1: Noise monitoring summary Date of Noise location location - NSL						LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site_compliant</u> with noise limits (day/evening/night)?
								SELECT	SELECT		SELECT
*Please ensure the	nt a tonal analysis has	been carried out as pe	r guidance note NG4. T	hese records must	be maintained	onsite for future	inspection				
	If n	oise limits exceed	led as a result of	noise attribu	ted to site a	ctivities, ple	ase choose th	e corrective action fror	n 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: P0503-01 Year 2017

When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below

Oct-17

The site attained accrediation to the energy standard as the SEAI programme linked to the right? If yes please list them in additional information

Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

NA

Additional information

SEAI - Large Industry
Energy Network
(LIEN)

Yes

50001

Table R1 Energy usag	e on site	previous reporting year** +/- % vs overa production* 203 13121.695 315 900.39 NA NA		
Energy Use	Previous year	Current year	compared to previous reporting	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	13923.203	13121.695		
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (N	/WHrs)			
Electricity Consumption (MWHrs)	1315	900.39	NA	NA
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	1199.243	1202.766		
Natural gas (m3)				
Coal/Solid fuel (metric tonnes)				
Peat (metric tonnes)	0			NA
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	e on site				Water Emissions	Water Consumption	
	Water extracted			Energy Consumption +/- % vs overall site	Volume Discharged	Volume used i.e not discharged to environment e.g. released as steam	
Water use	Previous year m3/yr.	Current year m3/yr.	year**	production*	environment(m³yr):	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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

Resource Usage/Energy efficiency summary

Lic No:

P0503-01

Year

2017

Table R3 Waste Stream	Summary				
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	35.91	0	2.79	33.12	0
Non-Hazardous (Tonnes)	2439.93	54.29	0	850.72	1534.92

I	Table R4: Energy Au	dit finding recommenda	tions						
Ī	Description of				Predicted energy				Status and
	Date of audit	Recommendations	Measures proposed	Origin of measures	savings %	Implementation date	Responsibility	Completion date	comments
ſ				SELECT					
ſ				SELECT					
				SELECT					

Table R5: Power Generation: Where p	ower is generated onsit	e (e.g. power generatio	n facilities/food and	drink industry)please	complete the following	informatio
	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						1
KWH per Litre of Total Water used on	Site					

Complaints and Incidents common templets		P. M.	20202.04	V	2047	
Complaints and Incidents summary template		Lic No:	P0503-01	Year	2017	
Complaints						
		Additional information	- /			
		Two complaints received in				
		relation to dust. The				
Have you received any environmental complaints in the current reporting year? If yes please complete		Agency were informed on				
summary details of complaints received on site in table 1 below	Yes	both occasions				

			Ī				
Table 1	Complaints summary						
			Brief description of				
			complaint (Free txt <20				
Date	Category	Other type (please specify)	words)	Corrective action< 20 words	Resolution status	Resolution date	Further information
11/05/2017	Air	Dust nuisance	Complaint about dust	Personnel reminded of	Complete	08/06/2017	Reported to the Agency
			nuisance from Cloncreen	responsibilities and production			ref LR029211 on
			Bog	stopped during windy weather			08/06/2017
04/09/2017	Air	Dust nuisance	Complaint about dust	Personnel reminded of	Complete	04/10/2017	Reported to the Agency
			nuisance from	responsibilities.			ref LR031234 on
			Ballykeane Bog				04/10/2017
	SELECT				SELECT		
Total complaints							
open at start of							
	_						
reporting year	U						
Total new							
complaints received							
during reporting							

year
Total complaints
closed during
reporting year
Balance of
complaints end of
reporting year

Complaints and Incidents summary template Lic No: P0503-01 Year 2017

Incidents Additional information

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

*For information on how to report and what constitutes
an incident What is an incident

Additional information
There were 10 incidents of
which 6 related to Trigger
levels, 3 related to fire and
1 was a dust emissiom limit
exceedence.

Table 2 Incidents sur	nmary	
		_

Table 2 incluents sun	minury													
						Other							Beerletter	121 - 121 1 - 6
			Incident category*please			cause(please	Activity in progress at		_		Preventative action		Resolution	Likelihood of
Date of occurrence		Location of occurrence	refer to guidance	Receptor	Cause of incident	specify)	time of incident	Communication	Occurrence	words	<20 words	Resolution status		reoccurence
25/04/2017	Fire	Timahoe South Bog	1. Minor	Air	Other (add details)	Spark from	Normal activities	EPA INCI012024	New	Machinery deployed	Area patrolled and	Complete	26/04/2017	Medium
						trespassing				and fire extinguished	,			
						Motorbike					to prevent trespass.			
05/05/2017	Fire	Garryhinch Bog	1. Minor	Air	Other (add details)	Trespass	Normal activities	EPA INCI012064	New	Machinery deployed	Area patrolled and	Complete	06/05/2017	Medium
										and fire extinguished	boundary reinforced			
											to prevent trespass.			
15/05/2017	Trigger level reached	Ballydermot SWE-1	1. Minor	Water	Other (add details)	Unknown, but	Normal activities	EPA INCI012128	New	The outfall was	Outfall monitored	Complete	19/05/2017	Low
						sample taken				checked				
						after prolonged								
						dry spell								
25/05/2017	Fire	Garryhinch Bog	1. Minor	Air	Other (add details)	Trespass	Normal activities	EPA INCI012160	New	Machinery deployed	Area patrolled and	Complete	26/05/2017	Medium
										and fire extinguished	boundary reinforced			
											to prevent trespass.			
11/05/2017	Breach of ELV	Ballykeane Bog DM-03	1. Minor	Air	Other (add details)	Collection of	Normal activities	EPA INCI012523	New	Employees reminded	Collect headland pear	Complete	09/06/2017	Medium
						headland peat.				of environmental	in more favourable			
										responsibilities	weather conditions.			
28/06/2017	Trigger level reached	Esker Bog SW-29	1. Minor	Water	Other (add details)	Unknown.	Normal activities	EPA INCI012524	New	The outfall was	Outfall monitored	Complete	20/07/2017	Medium
										checked				
28/06/2017	Trigger level reached	Esker Bog SW-26	1. Minor	Water	Other (add details)	Unknown.	Normal activities	EPA INCI012529	New	The outfall was	Outfall monitored	Complete	20/07/2017	Medium
										checked				
28/06/2017	Trigger level reached	Esker Bog SW-29A	1. Minor	Water	Other (add details)	Unknown.	Normal activities	EPA INCI012530	New	The outfall was	Outfall monitored	Complete	20/07/2017	Medium
										checked				
27/10/2017	Trigger level reached	Power Station SWE-1	1. Minor	Water	Other (add details)	Unknown.	Normal activities	EPA INCI013386	New	The outfall was	Outfall monitored	Complete	21/11/2017	Low
										checked				
15/11/2017	Trigger level reached	Ticknevin Bog SW-68	1. Minor	Water	Other (add details)	Unknown.	Normal activities	EPA INCI013444	New	The outfall was	Outfall monitored	Complete	29/11/2017	Low
										checked				

15/11/2017 Trigger level reached

Total number of incidents current year 10
Total number of incidents previous year 4
Yer eduction/ increase 150.00%

					Lic No:	P0503-01		Year	2017			
ECTION A-PRTR O	N SITE WASTE TREATMENT AND	WASTE TRANSFERS TAB- T	O BE COMPLETED BY	Y ALL IPPC AND WAS	STE FACILITIES	PRTR facility logor	<u>1</u>	dropdown li	st click to see options			
ECTION B- WASTE	ACCEPTED ONTO SITE-TO BE CO	MPLETED BY ALL IPPC AND	WASTE FACILITIES			I	Additional Information	on				
oundaries is to be capt	ted onto your site for recovery or disposal tured through PRTR reporting)	or treatment prior to recovery or	disposal within the bound	daries of your facility ?; (\	waste generated within your	SELECT						
yes please enter detai	ils in table 1 below							1				
old your site have any re	ejected consignments of waste in the curre	ent reporting year? If yes please g	give a brief explanation in	the additional informatio	n	SELECT						
	vaste accepted onto your site that was gen					SELECT						
Table 1 Details o	of waste accepted onto your			(do not include w Quantity of waste	vastes generated at your si	Reduction/	vill have been r	eported in your P		Quantity of	Comments -	7
tonnage limit for your site (total tonnes/annum)	Ewclode		accepted Please enter an accurate and detailed description - which applies to relevant EWC code	accepted in current reporting year (tonnes)	previous reporting year (tonnes)	Increase over previous year +/ - %	reduction/ increase from previous reporting year		at your site and the description of this operation		Comments	
	European Waste Catalogue EWC codes		European Waste Catalogue EWC codes									
	COMPLETED BY ALL MACTE FACILI	TIES (wasto transfor statio										
				-	ities etc) EXCEPT LANDFILL SITE]		
	nfrastructure as required by your licence a			-	•	SELECT						
s all waste processing in s all waste storage infra	nfrastructure as required by your licence a structure as required by your licence and	nd approved by the Agency in pla	ice? If no please list waste	processing infrastructure	e required onsite	SELECT						
s all waste processing in s all waste storage infra Does your facility have r	nfrastructure as required by your licence a	nd approved by the Agency in pla approved by the Agency in place:	ice? If no please list waste	processing infrastructure	e required onsite	SELECT SELECT SELECT SELECT						
s all waste processing in s all waste storage infra Does your facility have r	nfrastructure as required by your licence a sstructure as required by your licence and relevant nuisance controls in place? nanagement system in place for your facili	nd approved by the Agency in pla approved by the Agency in place:	ice? If no please list waste	processing infrastructure	e required onsite	SELECT SELECT						
s all waste processing in s all waste storage infra does your facility have r do you have an odour n do you maintain a sludg SECTION D-TO BE (infrastructure as required by your licence a distructure as required by your licence and relevant nuisance controls in place? nanagement system in place for your facilit ge register on site?	nd approved by the Agency in pla approved by the Agency in place: ty? If no why?	ice? If no please list waste	processing infrastructure	e required onsite	SELECT SELECT SELECT SELECT						
s all waste processing in all waste storage infractions your facility have roo you have an odour mo you maintain a sludgetCTION D-TO BE Cable 2 Waste types	infrastructure as required by your licence a distructure as required by your licence and relevant nuisance controls in place? nanagement system in place for your facilities register on site? COMPLETED BY LANDFILL SITES OF and tonnage-landfill only Authorised/licenced annual intake for	nd approved by the Agency in place: approved by the Agency in place: ty? If no why? NLY Actual intake for disposal in	ce? If no please list waste If no please list waste sto Remaining licensed capacity at end of	processing infrastructure	e required onsite	SELECT SELECT SELECT SELECT						
s all waste processing in all waste storage infra soon on the soon of the soon	infrastructure as required by your licence a structure as required by your licence and relevant nuisance controls in place? nanagement system in place for your facility register on site? COMPLETED BY LANDFILL SITES OF a and tonnage-landfill only	nd approved by the Agency in place: approved by the Agency in place: ty? If no why?	ce? If no please list waste If no please list waste sto Remaining licensed	processing infrastructure	e required onsite	SELECT SELECT SELECT SELECT						
s all waste processing in all waste storage infractions your facility have roo you have an odour mo you maintain a sludgetCTION D-TO BE Cable 2 Waste types	infrastructure as required by your licence a distructure as required by your licence and relevant nuisance controls in place? nanagement system in place for your facilities register on site? COMPLETED BY LANDFILL SITES OF and tonnage-landfill only Authorised/licenced annual intake for	nd approved by the Agency in place: approved by the Agency in place: ty? If no why? NLY Actual intake for disposal in	ce? If no please list waste If no please list waste sto Remaining licensed capacity at end of	processing infrastructure	e required onsite	SELECT SELECT SELECT SELECT						
s all waste processing in all waste storage infra copes your facility have roo you wave an odour no you maintain a sludg section D-TO BE Cable 2 Waste types Waste types permitted for disposal	infrastructure as required by your licence a distructure as required by your licence and relevant nuisance controls in place? nanagement system in place for your facilities register on site? COMPLETED BY LANDFILL SITES OF and tonnage-landfill only Authorised/licenced annual intake for	nd approved by the Agency in place: approved by the Agency in place: ty? If no why? NLY Actual intake for disposal in	ce? If no please list waste If no please list waste sto Remaining licensed capacity at end of	processing infrastructure	e required onsite	SELECT SELECT SELECT SELECT						
s all waste processing in all waste storage infra copes your facility have roo you wave an odour no you maintain a sludg section D-TO BE Cable 2 Waste types Waste types permitted for disposal	nfrastructure as required by your licence a structure as required by your licence and relevant nuisance controls in place? nanagement system in place for your facilitie register on site? COMPLETED BY LANDFILL SITES OF a and tonnage-landfill only Authorised/licenced annual intake for disposal (tpa)	nd approved by the Agency in place: approved by the Agency in place: ty? If no why? NLY Actual intake for disposal in	ce? If no please list waste If no please list waste sto Remaining licensed capacity at end of	processing infrastructure requi	e required onsite	SELECT SELECT SELECT SELECT	Licence permits asbestos	Is there a separate cell for asbestos?	Accepted asbestos in reporting	Total disposal area occupied by waste	Lined disposal area	
s all waste processing in s all waste storage infra toes your facility have r to you have an odour n to you maintain a sludg SECTION D-TO BE (Table 2 Waste type Waste types permitted for disposal	nfrastructure as required by your licence and structure as required by your licence and relevant nuisance controls in place? nanagement system in place for your facilities register on site? COMPLETED BY LANDFILL SITES OF a and tonnage-landfill only Authorised/licenced annual intake for disposal (tpa)	nd approved by the Agency in place: approved by the Agency in place: ty? If no why? NLY Actual intake for disposal in reporting year (tpa)	ce? If no please list waste If no please list waste sto Remaining licensed capacity at end of reporting year (m3)	e processing infrastructure requi	e required onsite	SELECT SELECT SELECT SELECT SELECT Predicted date to		Is there a separate cell for asbestos?		area occupied by waste		

WASTE SUMMARY			•		Lic No:	P0503-01		Year	20	17
Table 4 Environme	ntal monitoring-landfill only	Landfill Manual-Monitoring Star	dards							
	Was leachate monitored in compliance with		Was SW monitored in compliance with LD standard in reporting year	Have GW trigger levels been established	Were emission limit values agreed with the Agency (ELVs)	Was topography of the site surveyed in reporting year	Has the statement under S53(A)(5) of WMA been submitted in reporting year	Comments		
.+ please refer to Landfi	ll Manual linked above for relevant Landfil	Directive monitoring standards								
Table 5 Capping-La	ndfill only									
Area uncapped*	Area with temporary cap			Area with waste that should be permanently						
SELECT UNIT	SELECT UNIT	Area with final cap to LD Standard m2 ha, a	Area capped other	capped to date under licence	What materials are used in the cap	Comments				
*-1	4-1	1				1	1			
*please note this include	es daily cover area									

Table 6 Leachate-Landfill only
9 Is leachate from your site treated in a Waste Water Treatment Plant?

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

SELECT SELECT

Volume of leachate in		Leachate (COD) mass load	Leachate (NH4) mass load	Leachate (Chloride) mass		Specify type of	
reporting year(m3)	Leachate (BOD) mass load (kg/annum)	(kg/annum)	(kg/annum)	load kg/annum	Leachate treatment on-site	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

Tab	le 7 Landfill Gas	-Landfill only			
	G . 10m . 1			Was surface emissions	
	Captured&Treated			monitoring performed	
by	LFG System m3	Power generated (MW / KWh)	Used on-site or to national grid	during the reporting year?	Comments
				SELECT	

Allen Decommissioning and Rehabilitation AER Overview 2017.

Within the Allen licensed area (P0503-01), there were no entire bog units available for rehabilitation in 2017.

Active rehabilitation work was carried out in one area with further hydrological management maintenance work carried out in Lullymore as part of the long term rehabilitation of this site.

A small re-wetting trial was set up at Lodge Bog (34 ha), in association with the Irish Peatland Conservation Council (IPCC). The IPCC own an area of remnant raised bog called Lodge Bog. BnM decided to re-wet an area of cutaway adjacent to this high bog remnant to support the conservation objectives of the IPCC for the high bog area. These include raised bog restoration (of the high bog area) and conservation of breeding Curlew, which use this area. This re-wetting has been very successful in creating new pioneer cutaway wetland habitat and in helping natural colonisation in this area. There is ongoing consultation with the IPCC regarding this trial. Lodge Bog was also used for a *Sphagnum* inoculation trial using a product called BeadaMoss. BeadaMoss is a product that acts as a small Sphagnum moss 'seed' and is used in peatland rehabilitation in the UK. A small area (0.5 ha) of re-wetted cutaway was spread with BeadaMoss to investigate if this product had potential to help establish *Sphagnum* moss on the cutaway. This trial is in the early stages and no definitive results are expected for several years.

A Greenhouse Gas (GHG) flux tower has been constructed in Lullymore in association with several academic institutions (UCC, WIT, TCD, UCD), and in now operational. This flux tower is used to measure and model gas fluxes (Carbon Dioxide and Methane) from the surrounding cutaway peatland habitats (wetland and Birch Woodland). Flux Towers are a key tool in Climate Change research and are used to measure and model GHG emission factors from different habitats. This research will establish if cutaway at Lullymore (Birch woodland mosaic) has potential to develop as a Carbon sink or source, and will help inform peatland rehabilitation management to re-create GHG sinks in the cutaway. This is a long-term academic research project.

Draft rehabilitation plans for the Allen bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015 and 2017.

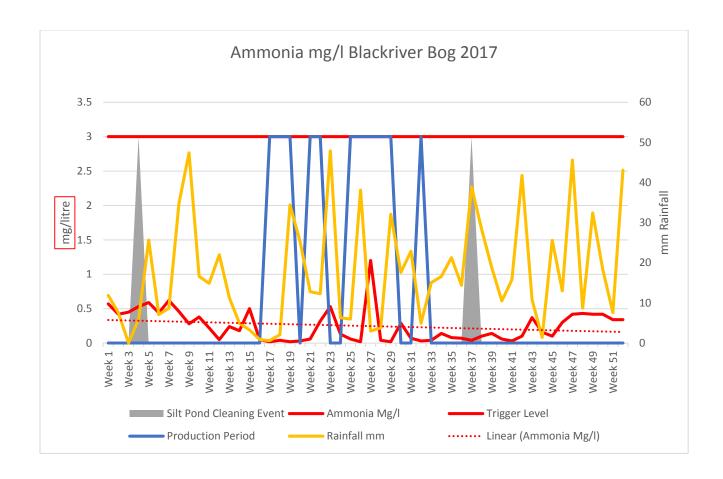
The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in February 2017. This included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.

A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

As required by condition 10.2 Cutaway Bog Rehabilitation Plans, draft peatland rehabilitation plans for all the individual bog units were submitted to the agency in 2013, reviewed and amended in 2015 and re-submitted to the agency in 2015. All

draft rehabilitation plans have been reviewed in 2017. These reviewed and amended plans will be re-submitted to the agency in due course.

Bord na Moi	na Allen P05	603-01															
Quarterly 0	Grab 2017																
x	Υ	Bog	SW	Monitoring	Status	Drainage	Upgrade Status	RBD	Receiving Water Quality	Sampled Date	pН	SS	TS	Ammonia	TP	COD	Colour
250869.07	219763.05	Ballykeane	SW-14	Q1 17	Operational	Gravity	Complete	SERBD	Moderate	02/03/2017	7.8	8	255	1	0.05	62	147
249524.55	220230.29	Ballykeane	SW-16	Q1 17	Operational	Gravity	Complete	SERBD	Moderate	02/03/2017	7.6	11	330	0.99	0.05	54	119
251030.51	221700	Ballykeane	SW-17	Q1 17	Operational	Gravity	Complete	SERBD	Moderate	02/03/2017	7.9	5	176	0.13	0.05	68	169
251754.7	229410.12	Cavemount	SW-20	Q1 17	Cutaway	Gravity	Complete	SERBD	Moderate	02/03/2017	8.1	5	260	0.07	0.08	56	132
254333.53	229715.7	Esker	SW-24	Q1 17	Operational	Gravity	Complete	SERBD	Moderate	02/03/2017	7.4	6	130	0.47	0.05	79	242
254066.03	229231.46	Esker	SW-25	Q1 17	Operational	Gravity	Complete	SERBD	Moderate	02/03/2017	6.6	8	84	0.49	0.05	81	244
255848.09	228220.5	Esker	SW-26	Q2 17	Operational	Gravity	Complete	SERBD	Moderate	28/06/2017	7.2	5	172	4.3	0.05	112	325
255811.14	228181.42	Esker	SW-27	Q2 17	Operational	Gravity	Complete	SERBD	Moderate	28/06/2017	7.6	5	298	0.9	0.05	59	131
256098.51	227480.46	Esker	SW-28	Q2 17	Operational	Gravity	Complete	SERBD	Moderate	28/06/2017	7.5	5	306	1.6	0.05	81	160
253610.03	227876.29	Esker	SW-29	Q2 17	Operational	Gravity	Complete	SERBD	Moderate	28/06/2017	7.2	15	230	2.3	0.05	126	338
254079.86	227734.11	Esker	SW29-A	Q2 17	Operational	Gravity	Complete	SERBD	Moderate	28/06/2017	7.1	10	135	3.1	0.05	113	367
255866.18	225413.14	Ballycon	SW-30	Q2 17	Cutaway	Gravity	Complete	SERBD	Moderate	28/06/2017	7.7	25	304	0.36	0.05	70	89
269197.57	228032.68	Glashabaun South	SW-47	Q3 17	Operational	Gravity	Complete	SERBD	Poor	31/08/2017	7.7	9	328	0.14	0.05	43	89
268823.95	228190.35	Glashabaun South	SW-48	Q3 17	Operational	Gravity	Complete	SERBD	Poor	31/08/2017	7.9	5	244	0.32	0.05	64	144
269054.43	228057.26	Glashabaun South	SW-49	Q3 17	Operational	Gravity	Complete	SERBD	Poor	31/08/2017	8	5	260	0.17	0.05	64	142
269278.18	227938.86	Glashabaun South	SW-50	Q3 17	Operational	Gravity	Complete	SERBD	Not Monitored	31/08/2017	7.8	10	334	0.13	0.05	58	133
266471.63	226777.93	Glashabaun South	SW-51	Q3 17	Operational	Gravity	Complete	SERBD	Not Monitored	31/08/2017	7.9	5	308	0.06	0.05	57	125
266530.75	226503.86	Glashabaun South	SW-52	Q3 17	Operational	Gravity	Complete	SERBD	Not Monitored	31/08/2017	7.9	5	318	0.09	0.05	54	112
266677.4	226324.12	Glashabaun South	SW-53	Q3 17	Operational	Gravity	Complete	SERBD	Not Monitored	31/08/2017	7.9	5	318	0.09	0.05	59	125
268454.98	225617.94	Lullybeg	SW-56	Q3 17	Cutaway	Gravity	Complete	SERBD	Poor	31/08/2017	7.6	7	214	0.58	0.05	70	162
273261.1	224710.84	Lodge	SW-60	Q3 17	Cutaway	Gravity	Complete	SERBD	Poor	31/08/2017	8.1	8	270	0.19	0.05	58	168
273158.15	224383.3	Lodge	SW-61	Q3 17	Cutaway	Gravity	Complete	SERBD	Poor	31/08/2017	8.1	6	238	0.2	0.05	63	202
268001.63	223625.99	Barnaran	SW-62	Q3 17	Operational	Gravity	Complete	SERBD	Poor	31/08/2017	7.9	6	319	0.15	0.05	57	128
265940.18	224925.96	Blackriver	SW-65	Q3 17	Operational	Gravity	Complete	SERBD	Poor	31/08/2017	8	5	330	0.18	0.05	57	111
264507.34	223259.15	Ballydermot	SW-67A	Q3 17	Operational	Gravity	Complete	SERBD	Moderate	31/08/2017	7.9	5	294	0.42	0.05	54	99
263592.36	226625.93	Codd South	SW-45	Q4 17	Operational	Gravity	Complete	SERBD	Moderate	15/11/2017	7.7	6	240	1.3	0.05	33	139
265523.7	225264.93	Blackriver	SW-65A	Q4 17	Operational	Gravity	Complete	SERBD	Not Monitored	15/11/2017	7.7	7	292	0.31	0.05	78	205
264457.64	225650.79	Codd South	SW-67	Q4 17	Operational	Pumped	Complete	SERBD	Moderate	15/11/2017	7.7	5	244	0.4	0.05	70	179
266794.47	229663.32	Ticknevin	SW-68	Q4 17	Operational	Pumped	Complete	SERBD	Moderate	15/11/2017	7.3	11	186	2.9	0.05	108	242
266266.45	229593.59	Ticknevin	SW-69	Q4 17	Operational	Gravity	Complete	SERBD	Moderate	15/11/2017	7.5	5	200	1.4	0.05	84	207
265768.96	229932.59	Ticknevin	SW-70	Q4 17	Operational	Gravity	Complete	SERBD	Poor	15/11/2017	7.3	5	199	0.91	0.05	81	204
265060.79	228192.45	Glashabaun North	SW-71	Q4 17	Operational	Pumped	Complete	SERBD	Poor	15/11/2017	7.6	5	240	0.99	0.05	77	201
264299.21	227722	Codd North	SW-72	Q4 17	Operational	Gravity	Complete	SERBD	Poor	15/11/2017	7.6	5	256	0.66	0.05	70	205
263602.31	227263.88	Sheridans	SW-73	Q4 17	Operational	Gravity	Complete	SERBD	Moderate	15/11/2017	6.6	5	150	1.4	0.05	87	312
263712.36	226714.35	Codd North	SW-74	Q4 17	Operational	Gravity	Complete	SERBD	Moderate	15/11/2017	7.5	5	208	2.2	0.05	57	160
263831.27	226569.76	Codd North	SW-75	Q4 17	Operational	Gravity	Complete	SERBD	Moderate	15/11/2017	7.5	5	252	3	0.05	68	139
264471.44	226292.96	Codd North	SW-76	Q4 17	Operational	Gravity	Complete	SERBD	Moderate	15/11/2017	7.5	5	218	2.1	0.05	56	142



Blackriver bog is an active fuel peat production bog with the composite sampler located here in January 2017. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had 0% downtime during the period and returned 52 weekly ammonia results during the period of this 2017 AER. The ammonia trigger level of 3.0mg/l, as agreed with the Agency, was not exceeded during the period. The results above show concentrations trending downwards as peat extraction continues and this is in-line with the downwards trends submitted to the EPA in 2013 as required by condition 6.14. However the sampler is only 1 year at this location covering once seasonal production season so the trending from 2018 will better inform this current trend from 2017. There is no obvious link between the summer production, winter maintenance, or silt pond maintenance events on the concentration of Ammonia discharging from this peatland. The only link expected would be that related to rainfall events and seasonal weather patterns and the subsequent surface water runoff and associated ammonia concentrations.

Allen 503 - SW65A (Blackriver) Ammonia 3.0 Trig. Level (3.00 mg/L) 2.5 Ammonia (mg/L) 1.0 0.5 0.0 01-May-2017 01-Sep-2017 01-NOV-2017 01-Mar-2017 01-Jan-2017 01-Jan-2018 01-Jul-2017 Date

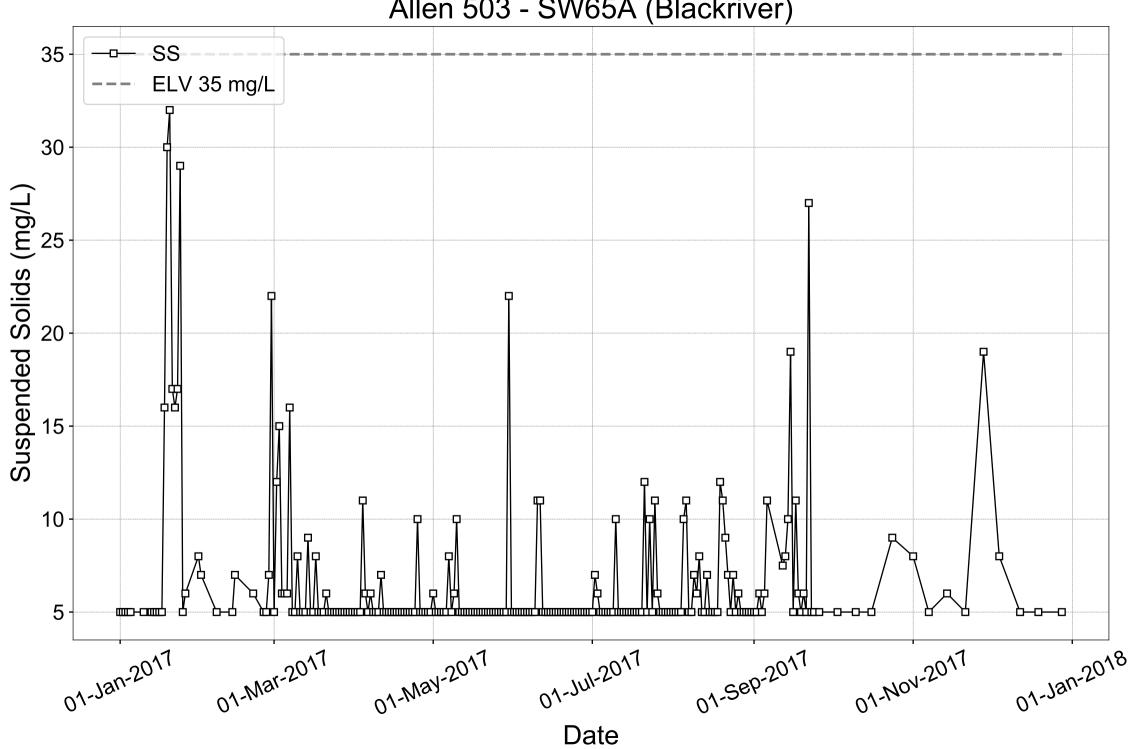
Allen 503 - SW65A (Blackriver) COD 100 -Trig. Level (100 mg/L) 90 80 占 COD (mg/L) 70 60 50 40 30 01-Mar-2017 01-NOV-2017 01-Jan-2017 01-May-2017 01-Sep-2017 01-Jan-2018 01-Jul-2017 Date

Allen 503 - SW65A (Blackriver) Colour 300 白 250 Colour (Pt/Co)
150 Н Ъ 口 100 50 01-Mar-2017 01-May-2017 01-NOV-2017 01-Jan-2017 01-Sep-2017 01-Jan-2018 01-Jul-2017 Date

Allen 503 - SW65A (Blackriver) 9.0 рΗ Low Trig. Level High Trig. Level 8.5 口位 8.0 표 7.5 7.0 6.5 6.0 01-NOV-2017 01-Mar-2017 01-May-2017 01-Sep-2017 01-Jan-2017 01-Jul-2017 01-Jan-2018 Date

Allen 503 - SW65A (Blackriver) Phosphorus 0.08 -0.07 Phosphorus (mg/L) 000000 0-0-00.03 0.02 0.01 01-May-2017 01-Sep-2017 01-Jul-2017 01-Mar-2017 Date

Allen 503 - SW65A (Blackriver)



Allen 503 - SW65A (Blackriver) 450 TS 400 Total Solids (mg/L) 图 肿 200 150 01-May-2017 01-NOV-2017 01-Jan-2017 01-Mar-2017 07-JU1-2017 01-Sep-2017 01-Jan-2018 Date

Yard Discharge Results 2017

Licence: P0503-01

Works: Allen

Month	B/Dermot SWE 1 COD	B/Dermot SWE 2 COD	Clonsast SWE 1 COD	Ballycon SWE1 COD	Power Station SWE1 COD	Trigger Level
Jan	83	41	46	28	61	100
Feb	43	53	62	16	60	100
Mar	52	60	41	13	79	100
Apr	89	62	13	40	47	100
May	108	55	51	20	59	100
June	70	40	37	15	83	100
July	70	43	10	16	35	100
Aug	42	33	84	38	60	100
Sep	64	29	25	10	57	100
Oct	85	18	60	21	114	100
Nov	51	46	38	10	10	100
Dec	65	51	34	10	69	100



| PRTR# : P0503 | Facility Name : Bord na Mona Allen Peat Limited | Filename : P0503_2017.xls | Return Year : 2017 |

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Guidance to completing the PRTR workbook

PRTR Returns Workbook

REFERENCE YEAR 2017 FACILITY IDENTIFICATION Parent Company Name Bord n Facility Name Bord n PRTR Identification Number P0503 Licence Number P0503-01 Classes of Activity No. class_name
Refer to PRTR class activities below Address 1 Allen Group
Address 2 c/o Derrygreenagh Works
Address 3 Rochfordbridge Address 4 Country Ireland
Coordinates of Location | 7.25677 53.3910
River Basin District IEEA
NACE Code | 0892
Main Economic Activity | Extraction of peat
AER Returns Contact Name | Enda McDonagh |
AER Returns Contact Email Address enda—mcdonagh@bnm.ie
AER Returns Contact Email Address enda—mcdonagh@bnm.ie
AER Returns Contact Position | Head of Environment |
AER Returns Contact Fax Number | 086 2370816 |
AER Returns Contact Fax Number | 057 9345911 |
AER Returns Contact Fax Number | 079 9345911 |
Tonnes | Tonnes | Number of Installations | Number of Departing Hours in Year |
Number of Departing Hours in Year |
Number of Employees | User Feedback/Comments |
User Feedback/Comments | accordance with licence | accordance | a In accordance with licence condition 6.2 of Technical Amendment A, quarterly sampling is now rotated every quarter and therefore suspended solids results are not factored into loading. Due to technical difficulties experienced with the composite sampler annual loading was not possible to calculate. All composite sampler results are attached for review in the AER document. Web Address www.bnm.ie 2. PRTR CLASS ACTIVITIES Activity Number Activity Name 3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002) Is it applicable? No
Have you been granted an exemption?
If applicable which activity class applies (as per
Schedule 2 of the regulations)? Is the reduction scheme compliance route being Is the reduction.....

I. WASTE IMPORTED/ACCEPTED ONTO SITE

Do you import/accept waste onto your site for onsite treatment (either recovery or disposal
activities)?

No

This question is only applicable if you are an IPPC or Quarry site

4.1 RELEASES TO AIR

Link to previous years emissions data

| PRTR# : P0503 | Facility Name : Bord na Mona Allen Peat Limited | Filename : P0503_2017.xls | Return Year : 2017 |

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SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

		RELEASES TO AIR				Please enter all quantities	in this section in KGs					
		POLLUTANT		METH	OD						QUANTITY	
				Met	hod Used	DM02	DM03	DM05	DM06			
											A (Accidental)	F (Fugitive)
Pollutant N	lo.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	Emission Point 3	Emission Point 4	T (Total) KG/Year	KG/Year	KG/Year
210		Dust	E	OTH	VDI 2119 Blatt 2/Part 2	0.0	0.0	0.0	0.0	0.10374	0.	0 0.10374
		Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button										

Additional Data Requested from Land	dfill operators					
(Methane) flared or utilised on their facilities to accompa	use Gases, landfill operators are requested to provide summary data on landfill gas any the figures for total methane generated. Operators should only report their Net methane for Section A: Sector specific PRTR pollut					
Landfill:	Bord na Mona Allen Peat Limited					
Please enter summary data on the						
quantities of methane flared and / or						
utilised			Meth	nod Used		
				Designation or	Facility Total Capacity	
	T (Total) kg/Year	M/C/E	Method Code	Description	m3 per hour	
Total estimated methane generation (as per						
site model)	0.0				N/A	
Methane flared						(Total Flaring Capacity)
Methane utilised in engine/s					0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section						
A above)	0.0				N/A	

4.2 RELEASES TO WATERS

Link to previous years emissions data

| PRTR# : P0503 | Facility Name : Bord na Mona Allen Peat Limited | Filename : P0503_2017.xls | Return Year : 2017 |

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SECTION A : SECT	TOR SPECIFIC	PRTR POLLUTANTS
------------------	--------------	-----------------

SECTION A: SECTOR SPECIFIC PRTR POL	CTION A : SECTOR SPECIFIC PRTR POLLUTANTS				Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only co								
	RELEASES TO WATERS				Please enter all quan	tities i	in this section in K	Gs					
	POLLUTANT							QUAN	NTITY				
				Method Used									
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1		T (Total) KG/Year	A (Ac	cidental) KG/Year	F (Fugitive) KG/Year			
						0.0		0.0	0.0	0.0			

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

SECTION B : REMAINING PRTR POLLUTANTS

_	SECTION B. KEWAINING FRIR FOLLOTAN	10							
		Please enter all quantities in this section in KGs							
	POLLUTANT					QUANTITY			
I					Method Used				
	No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
Ī						0.0	0.0	0.0	0.0

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

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

				Please enter all quantities in this section in KGs					
	POLLUTANT					QUANTITY			
					Method Used	SW65A			
	Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					G/19 Based on				
					ALPHA,1998,20th Edition,				
2	40	Suspended Solids	Е	OTH	Method 2540D	0.0	0.0	0.0	0.0

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

4.3 RELEASES TO WASTEWATER OR SEWER

Link to previous years emissions data

| PRTR# : P0503 | Facility Name : Bord na Mona Allen Peat Limited | Filename : P0503_2017.xls | R

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SECTION A: PRTR POLLUTANTS

J	OFFSITE TRANS	ATER TREATMENT OR SEWER			Please enter all quantities in this section in KGs					
	POLLUTANT			METHO)D	QUANTITY				
- [Method Used						
	No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
						0.0	0	0.0	0.0	

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

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

OLOTION D. KLIMAINING I OLLOTAIN LIIN	ED HOLE B. REIMARRING I DELOTARY EMISSION (40 TOQUILOU IT YOU EIGONOC)										
OFFSITE TRAN	ATER TRE	EATMENT OR SEWER		Please enter all quantities in this section in KGs							
POLLUTANT			METHO)D	QUANTITY						
			Method Used								
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year			
					0.0	0.0	0.0	0.0			

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

Link to previous years emissions data Page 1 of 1

4.4 RELEASES TO LAND

Link to previous years emissions data

| PRTR# : P0503 | Facility Name : Bord na Mona Allen Peat Limited | Filename : P0503_2017.xls | Return Year : 2017 |

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SECTION A: PRTR POLLUTANTS

	PO	LLUTANT		METHO	D			QUANTITY
ı			Method Used					
	No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
						0.0	1	0.0 0.0

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

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

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

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE | PRTR#: P0503 | Facility Name: Bord na Mona Allen Peat Limited | Filename: P0503_2017.xls | Return Year: 2017 |

Please enter all quantities on this sheet in Tonnes Licence/Permit No of Next Haz Waste : Address of Next Destination Facility Name and License / Permit No. and Nor Quantity Haz Waste: Name and Destination Facility Address of Final Recoverer / Actual Address of Final Destination (Tonnes per Licence/Permit No of Non Haz Waste: Address of Disposer (HAZARDOUS WASTE i.e. Final Recovery / Disposal Site Year) Method Used Recover/Disposer Recover/Disposer ONLY) (HAZARDOUS WASTE ONLY) Waste European Waste Location of Treatmen Transfer Destination Description of Waste Treatment Bord na Mona Allen P0503-01,P0503-01 Derrygreenagh Derrygreenagh, Rochfortbrid Rochfortbridge Mullingar ge, Mullingar, Co wastes from mineral non-metalliferous D1 Volume Calculation Onsite of generati Co Westmeath Westmeath, Ireland Within the Country 01 01 02 No 413.02 excavation Bord na Mona Allen P0503-01,P0503-01 Derrygreenagh Derrygreenagh, Rochfortbrid wastes from mineral non-metalliferous Rochfortbridge Mullingar ge,Mullingar,Co Westmeath, Ireland D1 М Onsite of generati Co Westmeath Within the Country 01 01 02 Nο 1115.0 excavation Weighed Walker Recycling, NWCPO-Clonkeen, Portlaoise, Co 446.54 waste plastics (except packaging) Offsite in Ireland 14-11464-01 Laois...Ireland Within the Country 02 01 04 No R3 Weighed Solvent Recovery Management, PP33345F, Wh eeland Wheeland Road, Knottingly, West Yorks Road, Knottingly, West Yorks degreasing wastes containing dangerous Safety Kleen Ltd ,W0099-To Other Countries 11 01 13 R11 Tallaght, Dublin,..., Ireland ,WF11 8DZ,United Kingdom ,WF11 8DZ,United Kingdom Yes 2.71 substances Volume Calculation Abroad Enva Ireland Ltd. 184-Enva Ireland Ltd Clonminam Ind 1,Clonminam Industrial Clonminam Industrial mineral-based non-chlorinated engine, gear 184.1.Clonminam Ind Estate Estate Portlaoise.Co. Estate, Portlaoise, Laois, ,, Irel Estate, Portlaoise, Laois, ,, Irel Within the Country 13 02 05 16.85 and lubricating oils R1 Volume Calculation Offsite in Ireland Portlaoise Co Laois Laois,,,Ireland and and Yes Enva Ireland Ltd, 184-1,Clonminam Industrial Enva Ireland Ltd Clonminam Ind Clonminam Industria 184.1.Clonminam Ind Estate Estate.Portlaoise.Co Estate.Portlaoise.Laois...Irel Estate.Portlaoise.Laois...Irel R1 Within the Country 13 05 03 Yes 11.18 interceptor sludges C Volume Calculation Offsite in Ireland Portlaoise Co Laois Laois Ireland and and Lindenschmidt Kreuztal Enva Ireland Ltd Clonminam Ind Germany, E97095037, Linden 184.1, Clonminam Ind Estate Estate, Portlaoise, Co schmidt Lindenschmidt To Other Countries 13 08 99 1.7 wastes not otherwise specified R1 Portlaoise Co Laois Laois...Ireland .Kreuztal.....Germany ,Kreuztal,...,Germany Yes Volume Calculation Abroad AES Ltd Cappincur Tullamore, WCP-OY-08-601- Cappincur, Tullamore, Co 0.0 wooden packaging Offsite in Ireland 01 Within the Country 15 01 03 No R1 M Weighed Offaly,,,Ireland absorbents, filter materials (including oil Lindenschmidt Kreuztal filters not otherwise specified), wiping Enva Ireland Ltd Clonminam Ind Germany, E97095037, Linden cloths, protective clothing contaminated by 184.1.Clonminam Ind Estate Estate.Portlaoise.Co schmidt Lindenschmidt To Other Countries 15 02 02 1.09 dangerous substances R1 Portlaoise Co Laois Laois...Ireland Kreuztal Germany ,Kreuztal,...,Germany Yes C Volume Calculation Abroad R.D. Recycling, Reg No Enva Ireland Ltd Clonminam Ind 184.1,Clonminam Ind Estate Estate, Portlaoise, Co 51727/1/KD, Houthalen, ., ., ., B 1.26 oil filters R4 Portlagise Co Lagis Houthalen,,,,,,Belgium To Other Countries 16 01 07 Yes M Weighed Abroad Laois Ireland elaium Campine Recycling, MLAV/05-Enva Ireland Ltd Clonminam Ind 184.1, Clonminam Ind Estate Estate, Portlaoise, Co 173/GVDA, Beerse, ., ., Belgi Portlaoise Co Laois To Other Countries 16 06 01 0.0 lead batteries R6 Weighed Laois...Ireland Beerse,,,,,,Belgium Yes M Ahroad AES Ltd Cappincur Tullamore,WCP-OY-08-601-Cappincur, Tullamore, Co Within the Country 17 04 07 No 399.19 mixed metals R4 M Weighed Offsite in Ireland 01 Offaly,.,Ireland AES Ltd Cappincur Tullamore.WCP-OY-08-601-Cappincur, Tullamore, Co 48.34 mixed municipal waste Offaly,,,Ireland Within the Country 20 03 01 No D5 Weighed Offsite in Ireland 01 AES Ltd Cappincur Tullamore, WCP-OY-08-601-Cappincur, Tullamore, Co Within the Country 20 03 01 5.94 mixed municipal waste Volume Calculation Offsite in Ireland 01 Offaly,,,Ireland Nο D5 mixed construction and demolition wastes AES Ltd Cappincur Tullamore, WCP-OY-08-601- Cappincur, Tullamore, Co other than those mentioned in 17 09 01, 17 Within the Country 17 09 04 2 48 09 02 and 17 09 03 R5 Offaly,,,Ireland No Weighed Offsite in Ireland 01

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		European Waste		Quantity (Tonnes per Year)		Waste Treatment		Method Used	Location of	Licence/Permit No of Next Destination Facility Non Haz Waste; Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
	Transfer Destination		Hazardous		Description of Waste		M/C/E	Method Used	Treatment				
Ī					packaging containing residues of or					Enva Ireland Ltd 184.1,Clonminam Ind Estate	Clonminam Ind		
	Within the Country	15 01 10	Yes		contaminated by dangerous substances	R4	М	Weighed	Offsite in Ireland	Portlaoise Co Laois	Laois,.,Ireland		
										FMcG 24 Hour Management			
	Within the Country	20 03 04	No	6.9	septic tank sludge	D2	М	Weighed	Offsite in Ireland	Services Ltd,NWCPO-12- 11077-02	Shean,Edenderry,Co Offaly,,,Ireland		

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

Link to previous years waste data
Link to previous years waste summary data & percentage change
Link to Waste Guidance

Facility Information Summary	
AER Reporting Year	2017
Licence Register Number	P0504-01
Name of site	Bord na Mona Mountdillon
Site Location	Mountdillon, Lanesboro, Co Longford
NACE Code	0892
Class/Classes of Activity	1.4
National Grid Reference (6E, 6 N)	E204720, N268880

applicable) and what they relate to e.g. air, compliance with your licence listing all water, noise. exceedances of licence limits (where the reporting year and an overview of performance which was measured during infrastructural changes, environmental increases or decreases on site, any include information such as production the site for the reporting year. This should A description of the activities/processes at

collection of flow data. A decision was therefore made to send the sampler away to the composite sampler experienced some technical difficulties which impacted on the automatic sampler. In relation to dust monitoring there was one exceedance of the Licence composite sampler. There was two trigger level exceedences for Ammonia on the COD, three in relation to quarterly grab results and one in relation to the automatic cleanings with some ponds receiving three. The site had four trigger level exceedences for bog in Cuil na Gun. Works included ditching and levelling on an area of approximately 180 achieved was approximately 624,826 tonnes which was 77.4% of target. This impacted on manufacturer for overhaul limit. Decommissioning and Rehabilitation works are described in an attachment. The Agency through ALDER. In relation to silt pond cleaning, 100% of ponds received two environmental complaints received during the reporting period, this was reported to the hectares and the construction of appropriately sized silt settlement ponds. There was 6 headland peat harvesting. Infrastructurally, there was bog development works at Coolcraft internal rail network to the Power Station and lorry outloading facilities. Production and harvesting of peat into stockpiles and secondly the transportation of that peat via an Activities on site can be divided into two components, firstly the milling, harrowing, ridging

Declaration:

All the data and information presented in this report has been checked and certified as being

Group/Facility manager 8 Signature 2018

AIR-sui	nmary template				Lic No:	P0504-01		Year	201	7	
	all questions and complete all table	les where relevant			Lic ito.	1 0304 01			201	<u> </u>	
							Additional informati	on	ī		
Does	your site have licensed air emiss	sions? If yes please o	omplete table A1 a	nd A2 below for the current							
reporti	ng year and answer further que										
	solvent management plan	(table A4 and A5) yo	u <u>ao not</u> neea to co	omplete the tables	No		Fugitive emissions o	nly			
								,	ī		
	Periodic/Non-Continuous	Monitoring									
	a annual de la bassala of l'annual			ata lla la dia a conservata a sella a se							
Are ther	e any results in breach of licence r	TableA1 belo		etails in the comment section or	Yes						
			Basic air								
	monitoring carried out in accordan		monitoring checklist	AGN2	Yes						
no	te AG2 and using the basic air mor			1							
Table 6	1: Licensed Mass Emission	s/Ambiant data	nariadia manita	sing (non continuous)							
Table A	AT: Licenseu Mass Emission	is/Ambient data-	periodic monitor	ing (non-continuous)							
										Comments - reason for	
										change in %	
										mass load from	
			ELV in licence or							previous	
Emission		Frequency of Monitoring	any revision therof	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence limit	Method of analysis	Annual mass load (kg)	year if applicable	
	SELECT			SELECT		SELECT	SELECT	SELECT			
	SELECT			SELECT		SELECT	SELECT	SELECT			
	SELECT			SELECT		SELECT	SELECT	SELECT			
	SELECT			SELECT		SELECT	SELECT	SELECT			
Note 1: V	olumetric flow shall be included a	s a reportable parame	eter								
	Continuous	Monitoring									
	ur site carry out continuous air em			No				1			
It yes pl	ease review your continuous mon it to i	itoring data and repor its relevant Emission L		below in Table A2 and compare							
									Ī		
Did conti	nuous monitoring equipment exp	erience downtime? If	yes please record do	wntime in table A2 below	No				1		

Do you have a proactive service agreement for each piece of continuous monitoring equipment?

Did your site experience any abatement system bypasses? If yes please detail them in table A3 below

 AiR-summary template
 Lic No:
 P0504-01
 Year
 2017

Table A2: Summary of average emissions -continuous monitoring

Emission	Parameter/ Substance		Averaging Period	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:					measurement			Equipment	exceedences in	
		ELV in licence or any						downtime (hours)	current	
		revision therof							reporting year	
DM-01	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	63281	120	0	0	
		350mg/m2/day	84			13817	367	0	1	Reported to
DM-02	Total Particulates			Daily average < ELV	mg/m2/day					EPA
DM-05	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	10359	195	0	0	
DM-06	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	11130	224	0	0	
	SELECT				SELECT					

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

Table A3: Abatement system bypass reporting table Bypass protocol

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

^{*} this should include all dates that an abatement system bypass occurred

	inspections please refer to bypass protocol link													
	Solvent	use and managemen	nt on site											
8	Do you have a total	Emission Limit Value of di	rect and fugitive emis		No									
		ent Management Plai ssion limit value	n Summary	Solvent regulations	Please refer to linked solven complete table 5									
	Reporting year	Total solvent input on site (kg)	to Air from entire	Total VOC emissions as %of solvent input	Total Emission Limit Value (ELV) in licence or any revision therof	Compliance								
						SELECT								
						SELECT								
	Table A5:	Solvent Mass Balanc	e summary				•							
		(I) Inputs (kg)			(0)									
	Solvent	(I) Inputs (kg)		Solvents lost in water (kg)		Fugitive Organic Solvent (kg)	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)					
					1	I	ı	Total						

^{**} an accurate record of time bypass beginning and end should be logged on site and maintained for future Agency

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER) Lic No: P0504-01 Year Does your site have licensed emissions direct to surface water or direct to sewer? If yes please The continuous monitoring sampler was relocated during the reporting complete table W2 and W3 below for the current reporting year and answer further questions. If period. The sampler also experienced technical difficulties at both sites which inhibited the collection of flow data and subsequent annual loading you do not have licenced emissions you only need to complete table W1 and or W2 for storm calculations. It was therefore decided to present the sampling results in water analysis and visual inspections graphical form as an attachment. Yes Was it a requirement of your licence to carry out visual inspections on any surface water 2 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 Monthly COD analysis of yard runoff is attached in a separate document.

Table W1 Storm water monitoring

Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Compliance	Measured value	Unit of measurement	Compliant with licence	Comments
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	

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

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

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
			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 section of Table W3 below	provide brief detail		Yes	Additional information
					Surface water monitoring was carried out on a quarterly basis. The results of which are attached. Monthly COD yard
	Was all monitoring carried out in accordance with EPA guidance and				runoff results are also attached.
	checklists for Quality of Aqueous Monitoring Data Reported to the	External /Internal			
	EPA? If no please detail what areas require improvement in	Lab Quality	Assessment of		
4	additional information box	checklist	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	Frequency of monitoring	ELV or trigger values in licence or any revision therof Note 2	Measured value	Compliant with licence		Annual mass load (kg)	Comments

2017

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

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

AER Monitor	ring returns summary template-WATER/WASTEWATER(SEWER)		Lic No:	P0504-01	Year	2017	7
Continuous r	carry out continuous emissions to water/sewer monitoring?	Yes		Additional Information			
	immarise your continuous monitoring data below in Table W4 and compare it to its on Limit Value (ELV)						
Did continuous n	monitoring equipment experience downtime? If yes please record downtime in table W4	Yes	145 days in 3	65 due to technical difficulties which are addressed.	currently being		
7 Do you have a pr	proactive service contract for each piece of continuous monitoring equipment on site?	Yes		ation schedule and trouble shooting service nt away for major overhaul and componer			
	system bypass occur during the reporting year? If yes please complete table W5 below	No					

Table W4: Summary of average emissions -continuous monitoring

	Emission	ELV or trigger values in licence or any revision		Compliance	Units of		% change +/- from previous reporting year		Number of ELV exceedences in	
Emission reference no:			Averaging Period			reporting year (kg)		downtime (hours)		Comments

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

Table W5: Abatement system bypass reporting table

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

^{*}Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline tes	ting template				Lic No:	P0504-01		Year	2017	7				
	_													
Bund testing		dropdown menu cl	lick to see options				Additional information	_						
Are you required by you	ur licence to undertake in	tegrity testing on bunds and con	tainment structures ? if yes r	olease fill out table B1 below	listing all new bunds and		All Bunds were tested in 2017 and							
		I bunds which failed the integrity					passed the integrity test.							
		e the licenced testing period (mo												
1				•		Yes		4						
2 Please provide integrity		a erground pipelines (including stor	mustor and foul). Tanks, cur	nns and containors? (contain	orr refers to "Chemitere"	Other (2 Yearly)		-						
3 type units and mobile b		rigiouna pipennes (including stor	iliwater and roulj, ranks, sur	nps and containers: (contain	iers refers to Chemistore	Yes								
4 How many bunds are or							5							
		nin the required test schedule?					5 All Bunds were tested in 2017							
6 How many mobile bund							7							
7 Are the mobile bunds in	ncluded in the bund test s	schedule?				No								
8 How many of these mo	How many of these mobile bunds have been tested within the required test schedule?						0							
How many sumps on site are included in the integrity test schedule?							0							
10 How many of these sun	mps are integrity tested w	rithin the test schedule?					0							
	tegrity failures in table B							_						
11 Do all sumps and chaml						N/A								
		in a maintenance and testing pro	ogramme?			N/A								
13 Is the Fire Water Reten	ition Pond included in you	r integrity test programme?				N/A		_						
				_										
Tab	le B1: Summary details of	f bund /containment structure in	tegrity test											
														Results o
									Integrity reports					retest(if i
Bund/Containment									maintained on		Integrity test failure		Scheduled date	current
structure ID	Туре	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	site?	Results of test	explanation <50 words	Corrective action taken	for retest	reporting
Structure 10	SELECT	Specify Other type	r roudet containment	Actual capacity	Capacity required	SELECT SELECT	Other test type	rest date	SELECT	SELECT	explanation <50 words	SELECT	TOT TELEST	reporting
	SELECT					SELECT				SELECT		SELECT		
* Capacity required should com		rule as detailed in your licence					Commentary							
	SELECT apply with 25% or 110% containment	trule as detailed in your licence nce with licence requirements an	nd are all structures tested in				Commentary	1						
Has integrity testing be 15 line with BS8007/EPA G	SELECT pply with 25% or 110% containment een carried out in accorda Guidance?	nce with licence requirements ar	nd are all structures tested in	bunding and storage guidel	ines	SELECT	Commentary]						
Has integrity testing be 15 line with BS8007/EPA G 16 Are channels/transfer s	SELECT ply with 25% or 110% containment een carried out in accorda Guidance? systems to remote contain	nce with licence requirements ar nment systems tested?			ines.	SELECT SELECT SELECT	Commentary							
Has integrity testing be 15 line with BS8007/EPA G 16 Are channels/transfer s	SELECT ply with 25% or 110% containment een carried out in accorda Guidance? systems to remote contain	nce with licence requirements ar			ines	SELECT	Commentary							
Has integrity testing be 15 line with BS8007/EPA G 16 Are channels/transfer s	SELECT ply with 25% or 110% containment een carried out in accorda Guidance? systems to remote contain	nce with licence requirements ar nment systems tested?			ines	SELECT SELECT SELECT	Commentary							
Has integrity testing be 15 line with BS8007/EPA G 16 Are channels/transfer s 17 Are channels/transfer s	SELECT pply with 25% or 110% containment teen carried out in accorda Guidance? systems to remote contain systems compliant in both	nce with licence requirements ar nment systems tested?			ines	SELECT SELECT SELECT	Commentary							
Has integrity testing be 15 line with BS8007/EPA G 16 Are channels/transfer s 17 Are channels/transfer s	SELECT ply with 25% or 110% containment een carried out in accorda Guidance? systems to remote contain	nce with licence requirements ar nment systems tested?			ines	SELECT SELECT SELECT								
Has integrity testing be 15 line with BS8007/EPA G 16 Are channels/transfer s 17 Are channels/transfer s Pipeline/undergro	SELECT ply with 25% or 110% containment ten carried out in accorda Guidance? systems to remote contain systems compliant in both both systems compliant in both both systems compliant in both	nce with licence requirements ar nment systems tested? n integrity and available volume?		bunding and storage guidel		SELECT SELECT SELECT SELECT	Petrol tank Tested 19 March 2016							
Has integrity testing be 15 line with BS8007/EPA G 16 Are channels/transfer s 17 Are channels/transfer s Pipeline/undergro Are you required by you	SELECT ply with 25% or 110% containment en carried out in accorda Guidance? systems to remote contain systems compliant in both and structure testing ur licence to undertake in	nce with licence requirements ar nment systems tested? h integrity and available volume?	structures e.g. pipelines or s	bunding and storage guidel	out table 2 below listing all	SELECT SELECT SELECT SELECT	Petrol tank Tested 19 March 2016 and Passed. It is scheduled for retest							
Has integrity testing be 15 line with BS800/FPA G 15 Are channels/transfer s 17 Are channels/transfer s Pipeline/undergro Are you required by you 1 underground structures	SELECT: ply with 25% or 110% containment processing the control of the containment systems to remote contain systems to remote contain systems compliant in both bund structure testing ur licence to undertake in s and pipelines on site with	nce with licence requirements ar nment systems tested? n integrity and available volume? Itegrity testing* on underground nich fälled the integrity test and i	structures e.g. pipelines or s	bunding and storage guidel	out table 2 below listing all	SELECT SELECT SELECT SELECT SELECT Yes	Petrol tank Tested 19 March 2016							
Has integrity testing be 15 line with BS8007/EPA G 16 Are channels/transfer s 17 Are channels/transfer s Pipeline/undergro Are you required by you 1 underground structures 2 Please provide integrity	SELECT ply with 25% or 110% containment enc carried out in accorda Suldance? systems to remote contain systems compliant in both systems compliant in both ound structure testing ur licence to undertake in s and pipelines on site with y testing frequency perioc	nce with licence requirements ar nment systems tested? integrity and available volume? Itegrity testing* on underground pich falled the integrity test and a	structures e.g. pipelines or s all which have not been testr	bunding and storage guidel umps etc ? If yes please fill ced withing the integrity test	out table 2 below listing all	SELECT SELECT SELECT SELECT	Petrol tank Tested 19 March 2016 and Passed. It is scheduled for retest							
Has integrity testing be 15 line with BS8007/EPA G 16 Are channels/transfer s 17 Are channels/transfer s Pipeline/undergro Are you required by you 1 underground structures 2 Please provide integrity	SELECT ply with 25% or 110% containment enc carried out in accorda Suldance? systems to remote contain systems compliant in both systems compliant in both ound structure testing ur licence to undertake in s and pipelines on site with y testing frequency perioc	nce with licence requirements ar nment systems tested? n integrity and available volume? Itegrity testing* on underground nich fälled the integrity test and i	structures e.g. pipelines or s all which have not been testr	bunding and storage guidel umps etc ? If yes please fill ced withing the integrity test	out table 2 below listing all	SELECT SELECT SELECT SELECT SELECT Yes	Petrol tank Tested 19 March 2016 and Passed. It is scheduled for retest							
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Has integrity testing be 15 line with BS8007/EPA G 16 Are channels/transfer s 17 Are channels/transfer s 17 Pipeline/undergro Are you required by you 1 underground structure 2 Please provide integrity *please note integrity	SELECT up with 25% or 110% containment containment suddance? Systems to remote contain systems compliant in both systems compliant in both und structure testing ur licence to undertake in and pipelines on site with y testing frequency perioc testing means water tight	nce with licence requirements ar nment systems tested? In integrity and available volume? Ittegrity testing* on underground hich failed the integrity test and is an ess testing for process and foul	structures e.g. pipelines or s all which have not been teste pipelines (as required under	bunding and storage guidel umps etc ? If yes please fill ced withing the integrity test	out table 2 below listing all	SELECT SELECT SELECT SELECT SELECT Yes	Petrol tank Tested 19 March 2016 and Passed. It is scheduled for retest							
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Has integrity testing be 15 line with BS8007/EPA G 16 Are channels/transfer s 17 Are channels/transfer s 17 Are channels/transfer s Pipeline/undergrov Are you required by you 1 underground structure 2 Please provide integrity *please note integrity *please note integrity	SELECT up with 25% or 110% containment containment suddance? Systems to remote contain systems compliant in both systems compliant in both und structure testing ur licence to undertake in and pipelines on site with y testing frequency perioc testing means water tight	nce with licence requirements ar nment systems tested? In integrity and available volume? Ittegrity testing* on underground hich failed the integrity test and is an ess testing for process and foul	structures e.g. pipelines or s all which have not been teste pipelines (as required under	bunding and storage guidel umps etc ? If yes please fill ced withing the integrity test your licence)	out table 2 below listing all	SELECT SELECT SELECT SELECT SELECT Yes	Petrol tank Tested 19 March 2016 and Passed. It is scheduled for retest							
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Has integrity testing be 15 line with BS8007/EPA G 16 Are channels/transfer s 17 Are channels/transfer s 17 Are channels/transfer s 18 Pipeline/undergro Are you required by you 1 underground structures 2 Please provide integrity *please note integrity t Table	SELECT ply with 25% or 110% containment containment suidance? systems to remote contain systems compliant in both und structure testing ur licence to undertake in s and pipelines on site with y testing frequency perior testing means water tight B2: Summary details of p	nce with licence requirements and ment systems tested? In integrity and available volume? Ittegrity testing* on underground sich failed the integrity test and a sign in the system of	structures e.g. pipelines or s all which have not been testu pipelines (as required under integrity test Does this structure have Secondary containment?	umps etc ? If yes please fill ced withing the integrity test your licence) Type of secondary containment	out table 2 below listing all period as specified Type integrity testing	SELECT SELECT SELECT SELECT Yes Other (2 Yearly) Integrity reports maintained on site?	Petrol tank Tested 19 March 2016 and Passed. It is scheduled for retest in 2018.	Integrity test failure explanation	SELECT Corrective action	SELECT Scheduled date	reporting year)			
Has integrity testing be 5 line with BS8007/EPA G 16 Are channels/transfer s 17 Are channels/transfer s 17 Pipeline/undergro Are you required by you 1 underground structure 2 Please provide integrity *please note integrity t Table	SELECT ply with 25% or 110% containment containment suidance? systems to remote contain systems compliant in both und structure testing ur licence to undertake in s and pipelines on site with y testing frequency perior testing means water tight B2: Summary details of p	nce with licence requirements and ment systems tested? In integrity and available volume? Ittegrity testing* on underground sich failed the integrity test and a sign in the system of	structures e.g. pipelines or s all which have not been testu pipelines (as required under integrity test Does this structure have Secondary containment?	umps etc ? If yes please fill ced withing the integrity test your licence) Type of secondary containment	out table 2 below listing all period as specified Type integrity testing	SELECT SELECT SELECT SELECT Yes Other (2 Yearly) Integrity reports maintained on site?	Petrol tank Tested 19 March 2016 and Passed. It is scheduled for retest in 2018.	Integrity test failure explanation	SELECT Corrective action	SELECT Scheduled date	reporting year)			
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Has integrity testing be 15 line with BS8007/EPA G 16 Are channels/transfer s 17 Are channels/transfer s 17 Are channels/transfer s 18 Pipeline/undergro Are you required by you 1 underground structures 2 Please provide integrity *please note integrity t Table	SELECT ply with 25% or 110% containment containment suidance? systems to remote contain systems compliant in both und structure testing ur licence to undertake in s and pipelines on site with y testing frequency perior testing means water tight B2: Summary details of p	nce with licence requirements and ment systems tested? In integrity and available volume? Ittegrity testing* on underground sich failed the integrity test and a sign in the system of	structures e.g. pipelines or s all which have not been testu pipelines (as required under integrity test Does this structure have Secondary containment?	umps etc ? If yes please fill ced withing the integrity test your licence) Type of secondary containment	out table 2 below listing all period as specified Type integrity testing	SELECT SELECT SELECT SELECT Yes Other (2 Yearly) Integrity reports maintained on site?	Petrol tank Tested 19 March 2016 and Passed. It is scheduled for retest in 2018.	Integrity test failure explanation	SELECT Corrective action	SELECT Scheduled date	reporting year)			

Groundwater/Soil monitoring template	Lic No:	P0504-01	Year	2017	
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Comments

Are you required to carry out groundwater monitoring as part of your licence requirements?	no	Please provide an interpretation of groundwater monitoring data in the
2 Are you required to carry out soil monitoring as part of your licence requirements?	no	interpretation box below or if you require additional space please
Do you extract groundwater for use on site? If yes please specify use in comment section	no	include a groundwater/contaminated land monitoring results interpretaion as an additional section in this AER
Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there 4 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.	SELECT	
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?	N/A	
9 Has any type of risk assesment been carried out for the site?	N/A	
10 Has a Conceptual Site Model been developed for the site?	N/A	
11 Have potential receptors been identified on and off site?	N/A	
12 Is there evidence that contamination is migrating offsite?	N/A	Please enter interpretation of data here

Groundy	water/Soil n	nonitoring t	emplate		Lic No:	P0504-01		Year	2017	7		1
	•		ter monitorir	ng results								
Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration++	Average Concentration+	unit SELECT SELECT	GTV's*	SELECT**	Upward trend in pollutant concentration over last 5 years of monitoring data SELECT		
	-			sured concentration	on from all monitoring	g results produced d	uring the reporting year					
Table 2:	Downgradi	ent Ground	water monit	oring results	_	1	T	-			7	
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		
trend in	results for a sub	stance indicates	that further interplate	oretation of monitori	ing results is required. In rovided and submit sepa	addition to completin	line Value (IGV) or an upward g the above table, please as a licensee return or as		undwater monito	oring template		
	c) and risk assess	_		s/ generic assessmen ublished guidance		he Management of	Contaminated Land and G	iroundwater	et EPA Licensed S	ites (EPA 2013).		
			water compare to	Surface Water Enviro		rds (SWEQS), If the sit	ds should be used in addition e is close to a drinking water		regulations	Drinking water (private supply) standards	Drinking water (public supply) standards	Interim Guidel Values (IGV)

Table 3: Soil results

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

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

Environmental Liabilities template

Lic No:

P0504-01

Year

2017

Click here to access EPA guidance on Environmental Liabilities and Financial provision

	Commentary
ent	

1	ELRA initial agreement status		
		Not a Licence Requirement	
2	ELRA review status	NA	
3	Amount of Financial Provision cover required as determined by the latest ELRA	NA	
	· · · · · · · · · · · · · · · · · · ·		
4	Financial Provision for ELRA status	NA	
5	Financial Provision for ELRA - amount of cover	NA	
6	Financial Provision for ELRA - type	NA	
U	Tinancial Frowslott for EERA - type	IVA	
7	Financial provision for ELRA expiry date	NA	
-			Internal Dudget Duscisian
8	Closure plan initial agreement status	NA	Internal Budget Provision
9	Closure plan review status	NA	Internal Budget Provision
10	Financial Provision for Closure status	NA	Internal Budget Provision
11	Financial Provision for Closure - amount of cover	NA	Internal Budget Provision
12	Financial Provision for Closure - type	NA	Internal Budget Provision
13	Financial provision for Closure expiry date	NA	

	Environmental Management Programme/Continuous Improvement Programme	template	Lic No:	P0504-01	Year	2017
	Highlighted cells contain dropdown menu click to view		Additional Inform	ation	_	
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional information	Yes		Internal unaccredited EMS		
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		Status (/o completeu)	In total 103 Personnel	nesponsibility	intermediate outcomes
Reduction of emissions to Air	Training.Continue to				
	train all employees in		received training in 2017.		
	environmental matters.		There was no headland peat		
	Training will be by means		collected in the 2017 season		
	of the screening of an		due to a poor production		
	environmental DVD,		season which resulted in a		
	followed by a power point		reduction in the availibility of		
	presentation.Hydraulic		headland peat. Thirteen		
			hydraulic harrows were		
	Harrows.		deployed during the 2017		
	There are currently 13				
	Hydraulic Harrows in		production season.		
	operation in Mountdillon.				
	Headland Peat				
	Collection.				
	Continue with the				
	collection of headland				
	peat, particularly at dust				
	sensitive locations.				
			I		
			I		
					Improved Environmental
		90	I	Individual	Management Practices
Waste reduction/Raw material usage	Waste Streamlining.It is	30	Quarterly waste reports are		
			returned for records/filing		
efficiency	planned to continue with				
	and where possible		and waste streams are		
	improve the current waste		segrated on site to maximise		
	management service		recycling potential.		
			.,,.		
	provided by AES Ltd				
					Improved Environmental
		100		Section Head	Management Practices
Reduction of emissions to Water	Training. Continue to train		In total 103 Personnel		
neduction of emissions to water					
	all employees in		received training in 2017.		
	environmental matters.		There was no headland peat		
	Training will be by means		collected in the 2017 season		
	of the screening of an		due to a poor production		
	environmental DVD,		season which resulted in a		
			reduction in the availibility of		
	followed by a power point				
	presentation.		headland peat. Thirteen		
			hydraulic harrows were		
			deployed during the 2017		
			production season.		
			production season.		
					Improved Environmental
		90		Individual	Management Practices
Materials Handling/Storage/Bunding	Increased bund capacity				
			There were no additional		
	will be provided where		bund requirements. Bund		
	will be provided where required. Bund integrity		bund requirements. Bund integrity testing will be		
	will be provided where required. Bund integrity testing will be carried out		bund requirements. Bund		
	will be provided where required. Bund integrity		bund requirements. Bund integrity testing will be		
	will be provided where required. Bund integrity testing will be carried out		bund requirements. Bund integrity testing will be		
	will be provided where required. Bund integrity testing will be carried out		bund requirements. Bund integrity testing will be		Improved Environmental
	will be provided where required. Bund integrity testing will be carried out	80	bund requirements. Bund integrity testing will be	Individual	Improved Environmental
West and rain (On marketing or	will be provided where required. Bund integrity testing will be carried out where required.	80	bund requirements. Bund integrity testing will be carried out in 2017	Individual	Improved Environmental Management Practices
Waste reduction/Raw material usage	will be provided where required. Bund integrity testing will be carried out where required.	80	bund requirements. Bund integrity testing will be carried out in 2017	Individual	
Waste reduction/Raw material usage efficiency	will be provided where required. Bund integrity testing will be carried out where required. Continue with the recycling of polyethylene.	80	bund requirements. Bund integrity testing will be carried out in 2017 In total 433.88 tonnes were sent off site for recycling.	Individual	
	will be provided where required. Bund integrity testing will be carried out where required. Continue with the recycling of polyethylene.	80	bund requirements. Bund integrity testing will be carried out in 2017	Individual	
	will be provided where required. Bund integrity testing will be carried out where required. Continue with the recycling of polyethylene. The sourcing of more	80	bund requirements. Bund integrity testing will be carried out in 2017 In total 433.88 tonnes were sent off site for recycling. Procurement also exploring	Individual	
	will be provided where required. Bund integrity testing will be carried out where required. Continue with the recycling of polyethylene. The sourcing of more recycling contractors will	80	bund requirements. Bund integrity testing will be carried out in 2017 In total 433.88 tonnes were sent off site for recycling. Procurement also exploring the possibility of securing	Individual	
	will be provided where required. Bund integrity testing will be carried out where required. Continue with the recycling of polyethylene. The sourcing of more	80	bund requirements. Bund integrity testing will be carried out in 2017 In total 433.88 tonnes were sent off site for recycling. Procurement also exploring	Individual	Management Practices
	will be provided where required. Bund integrity testing will be carried out where required. Continue with the recycling of polyethylene. The sourcing of more recycling contractors will		bund requirements. Bund integrity testing will be carried out in 2017 In total 433.88 tonnes were sent off site for recycling. Procurement also exploring the possibility of securing		Management Practices
	will be provided where required. Bund integrity testing will be carried out where required. Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing.	80	bund requirements. Bund integrity testing will be carried out in 2017 In total 433.88 tonnes were sent off site for recycling. Procurement also exploring the possibility of securing	individual	Management Practices
efficiency	will be provided where required. Bund integrity testing will be carried out where required. Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing.		bund requirements. Bund integrity testing will be carried out in 2017 In total 433.88 tonnes were sent off site for recycling. Procurement also exploring the possibility of securing further recyclers.		Management Practices
	will be provided where required. Bund integrity testing will be carried out where required. Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing. Continue with the		bund requirements. Bund integrity testing will be carried out in 2017 In total 433.88 tonnes were sent off site for recycling. Procurement also exploring further recyclers. The site successfully retained.		Management Practices Improved Environmental
efficiency	will be provided where required. Bund integrity testing will be carried out where required. Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing. Continue with the implementation process of		band requirements. Bund integrity testing will be carried out in 2017 In total 433.88 tonnes were sent off site for recycling. Procurement also exploring further recyclers. The site successfully retained the energy standard 50001.		Management Practices Improved Environmental
efficiency	will be provided where required. Bund integrity testing will be carried out where required. Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing. Continue with the implementation process of the Energy Standard		bund requirements. Bund integrity testing will be carried out in 2017 integrity testing will be carried out in 2017 integrity testing will be carried out in 2017 integrity of the carried out in 2017 integrity ou		Management Practices Improved Environmental
efficiency	will be provided where required. Bund integrity testing will be carried out where required. Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing. Continue with the implementation process of		band requirements. Bund integrity testing will be carried out in 2017 In total 433.88 tonnes were sent off site for recycling. Procurement also exploring further recyclers. The site successfully retained the energy standard 50001.		Management Practices Improved Environmental Management Practices
efficiency	will be provided where required. Bund integrity testing will be carried out where required. Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing. Continue with the implementation process of the Energy Standard	100	bund requirements. Bund integrity testing will be carried out in 2017 integrity testing will be carried out in 2017 integrity testing will be carried out in 2017 integrity of the carried out in 2017 integrity ou	Individual	Management Practices Improved Environmental Management Practices Improved Environmental
efficiency Energy Efficiency/Utility conservation	will be provided where required. Bund integrity testing will be carried out where required. Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing. Continue with the implementation process of the Energy Standard 50001.		bund requirements. Bund integrity testing will be carried out in 2017 In total 433.88 tonnes were sent off site for recycling. Procurement also exploring the possibility of securing further recyclers. The site successfully retained the energy standard 50001. Energy management is ongoing at the site		Management Practices Improved Environmental Management Practices
efficiency	will be provided where required. Bund integrity testing will be carried out where required. Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing. Continue with the implementation process of the Energy Standard	100	bund requirements. Bund integrity testing will be carried out in 2017 In total 433.88 tonnes were sent off site for recycling. Procurement also exploring the possibility of securing further recyclers. The site successfully retained the energy standard 50001. Energy management is ongoing at the site. Septic tanks are continually.	Individual	Management Practices Improved Environmental Management Practices Improved Environmental
efficiency Energy Efficiency/Utility conservation	will be provided where required. But integrity testing will be carried out where required. Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing. Continue with the implementation process of the Energy Standard 50001. It is proposed to upgrade	100	bund requirements. Bund integrity testing will be carried out in 2017 In total 433.88 tonnes were sent off site for recycling. Procurement also exploring the possibility of securing further recyclers. The site successfully retained the energy standard 50001. Energy management is ongoing at the site	Individual	Management Practices Improved Environmental Management Practices Improved Environmental
efficiency Energy Efficiency/Utility conservation	will be provided where required. Bund integrity testing will be carried out where required. Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing. Continue with the implementation process of the Energy Standard 50001. It is proposed to upgrade existing septic tank	100	bund requirements. Bund integrity testing will be carried out in 2017 In total 433.88 tonnes were sent off site for recycling. Procurement also exploring the possibility of securing further recycles. The site successfully retained the energy standard Southerney tonger standard Southerney tonger standard Southerney than spendered to ongoing at the site. Septit canks are continually being assessed and upgrade	Individual	Management Practices Improved Environmental Management Practices Improved Environmental
efficiency Energy Efficiency/Utility conservation	will be provided where required. But integrity testing will be carried out where required. Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing. Continue with the implementation process of the Energy Standard 50001. It is proposed to upgrade	100	bund requirements. Bund integrity testing will be carried out in 2017 In total 433.88 tonnes were sent off site for recycling. Procurement also exploring further recyclers. The site successfully retained the energy standard 50001. Energy management is ongoing at the site Septic tanks are continually being assessed and upgrade works scheduled where	Individual	Management Practices Improved Environmental Management Practices Improved Environmental
efficiency Energy Efficiency/Utility conservation	will be provided where required. Bund integrity testing will be carried out where required. Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing. Continue with the implementation process of the Energy Standard 50001. It is proposed to upgrade existing septic tank	100	bund requirements. Bund integrity testing will be carried out in 2017 In total 433.88 tonnes were sent off site for recycling. Procurement also exploring the possibility of securing further recycles. The site successfully retained the energy standard Southerney tonger standard Southerney tonger standard Southerney than spendered to ongoing at the site. Septit canks are continually being assessed and upgrade	Individual	Management Practices Improved Environmental Management Practices Improved Environmental Management Practices
efficiency Energy Efficiency/Utility conservation	will be provided where required. Bund integrity testing will be carried out where required. Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing. Continue with the implementation process of the Energy Standard 50001. It is proposed to upgrade existing septic tank	100	bund requirements. Bund integrity testing will be carried out in 2017 In total 433.88 tonnes were sent off site for recycling. Procurement also exploring further recyclers. The site successfully retained the energy standard 50001. Energy management is ongoing at the site Septic tanks are continually being assessed and upgrade works scheduled where	Individual	Management Practices Improved Environmental Management Practices Improved Environmental

	N	loise monitor	ing summary	report			Lic No:	P0504-01	Year	2017	
	onitoring a licen	ce requirement fo	or the AER period					No			
"Checklist for	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? Does your site have a noise reduction plan When was the noise reduction plan last updated?										
When was the noise reduction plan last updated? Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?								Enter date NA			
Table N1: No	ise monitoring s	ummary			ı			1	1		
Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA_{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
								SELECT	SELECT		SELECT
		+									
*Dlease ensure tha	at a tonal analysis has l	been carried out as per	guidance note NGA. Th	asa racords must b	ne maintained or	site for future in	espection				
riease ensure una	it a tolial allalysis lias i	been carried out as per	guidance note NG4. III	ese records must t	de maintained of	isite for future if	ispection				
	If no	oise limits exceed	ed as a result of	noise attribu	ted to site a	ctivities, plea	ase choose th	e corrective action from	m 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: P0504-01 Year 2017

			Additional information
1	When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below	Oct-17	
			The site retained
	SEAI - Large Industry		accrediation to the
	Is the site a member of any accredited programmes for reducing energy usage/water conservation such <u>Energy Network</u>		energy standard
2	as the SEAI programme linked to the right? If yes please list them in additional information (LIEN)	Yes	50001
	Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in		Not a Licence
3	additional information	No	requirement

Table R1 Energy usag	e on site			
Energy Use	Previous year		compared to	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	16754	11762		
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (N	/WHrs)			
Electricity Consumption (MWHrs)	2082.17	1712.11		
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	1443.98	1157.59		-24.74%
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			. accrease compared	. to previous year	Water Emissions	Water Consumption	
Tuble N2 Water usuge off size		Production +/- % Energy			Volume used i.e not discharged to		
	Water extracted		,	Consumption +/- %	Volume Discharged back to	environment e.g. released as steam	
Water use	Previous year m3/yr.	Current year m3/yr.	year**	production*	environment(m ³ yr):	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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

Table R3 Waste Stream					
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	24.42			24.42	
Non-Hazardous (Tonnes)	4006.63	20.31		528.26	3458.06

Resource Usage/Energy efficiency summary Lic No: P0504-01 Year 2017

Table R4: Energy Au	Table R4: Energy Audit finding recommendations							
		Description of		Predicted energy				Status and
Date of audit	Recommendations	Measures proposed	Origin of measures	savings %	Implementation date	Responsibility	Completion date	comments
			SELECT					
			SELECT					
			SELECT					

Table R5: Power Generation: Where 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				

Complete and to the state of th						
Complaints and Incidents summary template	Lic N	0:	P0504-01	Year	2017	
Complaints						
	Addit	tional information				
			l			

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

All reported to the Agency

during reporting year Total complaints closed during reporting year Balance of complaints end of reporting year

Table 1	Complaints summary						
			Brief description of				
			complaint (Free txt <20	Corrective action< 20			
Date	Category	Other type (please specify)	words)				Further information
			Complaint about smoke		Complete		Reported on Alder o
			from bog fire affecting	BNM personell			01/02/2017 Ref. No.
28/01/2017	Air		house	extinguished fire			LR027193
							Reported on Alder o
				Both parties have agreed			05/05/2017 Ref. No.
02/05/2017	Air		Dust affecting house	a resoulution	Complete	01/06/2017	LR028790
							Reported on Alder o
				All work and machinery			19/05/2017 Ref. No.
06/05/2017	Air		Dust affecting house	stopped immeadiately	Complete	06/05/2017	LR028985
			The state of the s		·		Reported on Alder o
				Tanker of water used to			05/05/2017 Ref. No.
30/04/2017	Air		Dust affecting house		Ongoing		LR028792
00/01/2021							Reported on Alder o
				All work and machinery			19/05/2017 Ref. No.
10/05/2017	Air		Dust affecting house	,	Ongoing		LR028983
10/03/2017	All		Dust directing nouse	эторреа пиневанителу	Oligonia		Reported on Alder or
				On inspection no silt was			24/05/2017 Ref. No.
10/05/2017	Water		Report of silt in river		Complete	24/05/2017	
10/03/2017	water		Report of silt in river	Touriu	Complete	24/03/2017	EN023030
			_				
		1					
otal complaints							
pen at start of							
eporting year	2	2					
otal new	<u> </u>						
complaints received							

Complaints and Incidents summary template Lic No: P0504-01 Year 2017

Incidents

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

Additional information Yes All reported to the Agency

0.00%

*For information on how to report and what constitutes an incident

incidents current year Total number of incidents previous year % reduction/

increase

What is an incident

le 2 Incidents sur	,	Location of occurrence	Incident category*please	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	Resolution	Likelihood o
	Trigger level reached	SW62 Clooneeny	1. Minor	Water	Not related to site activities	specify	Normal activities	EPA Ref. No. INCI011736	New	Inspected internal outfall on 02/03/2017	Complete	02/03/2017	
04/04/2017	Trigger level reached	SW77A Corlea	1. Minor	Water	Not related to site activities		Normal activities	EPA Ref No. INCI012052	New	Inspected internal outfall on NA 07/04/2017	Complete	07/04/2017	Medium
10/07/2017	Breach of ELV	Cloonshannagh Bog	1. Minor	Air	Adverse weather		Normal activities	EPA RefNo. Incl012790	New	All personell spoken to regarding environmental responsibilities All personell have received environmental training	Complete	28/07/2017	Medium
01/08/2017	Trigger level reached	SW77A Corlea	1. Minor	Water	Not related to site activities		Normal activities	EPA Ref No. INCI012791	New	Inspected internal outfall on 04/08/2017 NA	Complete	04/08/2017	Medium
30/06/2017	Uncontrolled release	Grid Ref. E632130 N772688	1. Minor	Water	Unauthorized Contractor /turfcutting		Normal activities	EPA Ref No. INCI012401	New	Notified the responsible Exclude the illegal turfcutter person and advised to cease from entering BMM property without consent	Complete	03/07/2017	Low
25/10/2017	Trigger level reached	SW 22 Granaghan	1. Minor	Water	Any chemical breakdown in exceedance in trigger level for COD is caused by naturally occurring chemicals in peatlands as no chemicals are add to the process		Normal activities	EPA Ref No. INCI013328	New	There was no activity upstream of this point that owould lead to exceedance in trigger level, therefore no corrective actions are possible		25/10/2017	Low
25/10/2017	Trigger level reached	SW 20 Mountdillon	1. Minor	Water	Any chemical breakdown in exceedance in trigger level for COD is caused by naturally occurring chemicals in peatlands as no chemicals are add to the process		Normal activities	EPA Ref No. INCI013327	New	There was no activity upstream of this point that would lead to wccedance in trigger level, therefore no corrective actions are possible		25/10/2017	Low
25/10/2017	Trigger level reached	SW 19 Mountdillon	1. Minor	Water	Any chemical breakdown in exceedance in trigger level for COD is caused by naturally occurring chemicals in peatlands as no chemicals are add to the process		Normal activities	EPA Ref No. INCI013325		There was no activity upstream of this point that would lead to exceedance in trigger level, therefore no corrective actions are possible		25/10/2017	Low

	•				Lic No:	P0504-01		Year	2017			
ECTION A-PRIKO	N SITE WASTE TREATMENT AND	WASTE TRANSFERS TAB-	TO BE COMPLETED BY	Y ALL IPPC AND WAS	STE FACILITIES	PRTR facility logon	1	dropdown li	st click to see options			
CTION P. MACTO	ACCEPTED ONTO CITE TO ES CO	MADIETED DV ALL IDDG 11	D MACTE EACH ITIES									
ECTION B- WASTE	ACCEPTED ONTO SITE-TO BE CO	IMPLETED BY ALL IPPC AN	D WASTE FACILITIES				Additional Information	on				
·	ted onto your site for recovery or disposal		- di	danian af facilit. 2. (.				1				
	ured through PRTR reporting)	for treatment prior to recovery t	r disposal within the bound	daries of your facility r; (waste generated within your	N/A						
yes please enter detail	ls in table 1 below							7				
id your cito have any re	ejected consignments of waste in the curr	ront raporting year? If you place	aive a brief evaluation in	the additional informatio	in.	SELECT						
id your site have any re	ejected consignments of waste in the curr	ent reporting year: if yes please	give a brief explanation in	the additional informatio	""	SELECT						
Was w	raste accepted onto your site that was ger	nerated outside the Republic of I	reland? If yes please state t	the quantity in tonnes in a	additional information	SELECT						
	of waste accepted onto your						ill have been r	eported in your P	RTR workbook)			
Licenced annual	EWC code	Source of waste accepted		Quantity of waste	Quantity of waste accepted in	Reduction/	Reason for		Disposal/Recovery or treatment	Quantity of	Comments -	
onnage limit for your site (total			accepted Please enter an accurate	accepted in current reporting year (tonnes)	previous reporting year (tonnes)	Increase over previous year +/ -	reduction/ increase from previous	only applies if the waste has a packaging	operation carried out at your site and the description of this	waste remaining on site at the		
tonnes/annum)			and detailed description			%	reporting year	component	operation	end of reporting		
			- which applies to relevant EWC code							year (tonnes)		
	European Waste Catalogue EWC codes		European Waste Catalogue EWC codes									
			Catalogue EWC codes									
ECTION C-TO BE C	OMPLETED BY ALL WASTE FACILI	ITIES (waste transfer stati	ons, Composters, Ma	terial recovery facili	ities etc) EXCEPT LANDFILL SITE	S						-
	OMPLETED BY ALL WASTE FACILI	·				SELECT			l]		-
all waste processing ir		and approved by the Agency in p	ace? If no please list waste	processing infrastructure	e required onsite							-
all waste processing ir all waste storage infra	nfrastructure as required by your licence a structure as required by your licence and	and approved by the Agency in p	ace? If no please list waste	processing infrastructure	e required onsite	SELECT						-
all waste processing in all waste storage infra oes your facility have r o you have an odour m	nfrastructure as required by your licence a structure as required by your licence and elevant nuisance controls in place? nanagement system in place for your facili	and approved by the Agency in pi approved by the Agency in place	ace? If no please list waste	processing infrastructure	e required onsite	SELECT SELECT SELECT SELECT						-
all waste processing ir all waste storage infra oes your facility have r	nfrastructure as required by your licence a structure as required by your licence and elevant nuisance controls in place? nanagement system in place for your facili	and approved by the Agency in pi approved by the Agency in place	ace? If no please list waste	processing infrastructure	e required onsite	SELECT SELECT						-
all waste processing in all waste storage infra oes your facility have r o you have an odour m o you maintain a sludg	nfrastructure as required by your licence and structure as required by your licence and elevant nuisance controls in place? nanagement system in place for your facilie register on site?	and approved by the Agency in place lapproved by the Agency in place lity? If no why?	ace? If no please list waste	processing infrastructure	e required onsite	SELECT SELECT SELECT SELECT						-
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all waste processing in all waste storage infra bes your facility have ro you have an odour m o you maintain a sludg ECTION D-TO BE Cable 2 Waste types	infrastructure as required by your licence and structure as required by your licence and elevant nuisance controls in place? anaagement system in place for your facili e register on site? COMPLETED BY LANDFILL SITES Or and tonnage-landfill only	and approved by the Agency in place approved by the Agency in place ity? If no why? NLY Actual intake for disposal in	ace? If no please list waste sto	processing infrastructure	e required onsite	SELECT SELECT SELECT SELECT						•
all waste processing in all waste storage infra ues your facility have r o you have an odour m o you maintain a sludg ECTION D-TO BE of able 2 Waste type Waste types Waste types permitted for disposal	infrastructure as required by your licence and structure as required by your licence and elevant nuisance controls in place? nanagement system in place for your facility or egister on site? **COMPLETED BY LANDFILL SITES OF and tonnage—landfill only **Authorised/licenced annual intake for disposal (tpa)	and approved by the Agency in place approved by the Agency in place ity? If no why? NLY Actual intake for disposal in	ace? If no please list waste sto	processing infrastructure	e required onsite	SELECT SELECT SELECT SELECT						•
all waste processing in all waste storage infra ues your facility have r o you have an odour m o you maintain a sludg ECTION D-TO BE of able 2 Waste type Waste types Waste types permitted for disposal	infrastructure as required by your licence and structure as required by your licence and elevant nuisance controls in place? anaagement system in place for your facili e register on site? COMPLETED BY LANDFILL SITES Or and tonnage-landfill only	and approved by the Agency in place approved by the Agency in place ity? If no why? NLY Actual intake for disposal in	ace? If no please list waste sto	processing infrastructure	e required onsite	SELECT SELECT SELECT SELECT						-
all waste processing in all waste storage infra ues your facility have r o you have an odour m o you maintain a sludg ECTION D-TO BE of able 2 Waste type Waste types Waste types permitted for disposal	infrastructure as required by your licence and structure as required by your licence and elevant nuisance controls in place? nanagement system in place for your facility or egister on site? **COMPLETED BY LANDFILL SITES OF and tonnage—landfill only **Authorised/licenced annual intake for disposal (tpa)	and approved by the Agency in place approved by the Agency in place ity? If no why? NLY Actual intake for disposal in	ace? If no please list waste sto	processing infrastructure	e required onsite	SELECT SELECT SELECT SELECT	Licence permits ashestos	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
all waste processing in all waste storage infra ones your facility have ro you have an odour m you maintain a sludg ECTION D-TO BE Cable 2 Waste types Waste types permitted for disposal	infrastructure as required by your licence and structure as required by your licence and elevant nuisance controls in place? anaagement system in place for your facility of the register on site? COMPLETED BY LANDFILL SITES OF and tonnage-landfill only Authorised/licenced annual intake for disposal (tpa)	and approved by the Agency in place approved by the Agency in place ity? If no why? Actual intake for disposal in reporting year (tpa)	Remaining licensed capacity at end of reporting year (m.5)	processing infrastructure requi	e required onsite	SELECT SELECT SELECT SELECT SELECT SELECT SELECT				area occupied by waste	occupied by waste	Unined area
all waste processing in all waste storage infra ones your facility have ro you have an odour m you maintain a sludg ECTION D-TO BE Cable 2 Waste types Waste types permitted for disposal	infrastructure as required by your licence and structure as required by your licence and elevant nuisance controls in place? anaagement system in place for your facility of the register on site? COMPLETED BY LANDFILL SITES OF and tonnage-landfill only Authorised/licenced annual intake for disposal (tpa)	and approved by the Agency in place approved by the Agency in place ity? If no why? Actual intake for disposal in reporting year (tpa)	Remaining licensed capacity at end of reporting year (m.5)	processing infrastructure requi	e required onsite	SELECT SELECT SELECT SELECT SELECT SELECT SELECT				area occupied by waste	Lined disposal area occupied by waste SELECT UNIT	Unlined area

WASTE SUMMARY					Lic No:	P0504-01		Year	2017	
Table 4 Environmental monitoring-landfill only Landfill Manual-Monitoring Standards										
reporting year +	Was leachate monitored in compliance with LD standard in reporting year	compliance with LD standard in reporting year	Was SW monitored in compliance with LD standard in reporting year		Were emission limit values agreed with	Was topography of the site surveyed in reporting year	Has the statement under S53(A)(5) of WMA been submitted in reporting year	Comments		
	l Manual linked above for relevant Landfill	Directive monitoring standards								
Table 5 Capping-La	ndfill only						_			
	Area with temporary cap SELECT UNIT	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				

*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?

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

SELECT SELECT

	Volume of leachate in		Leachate (COD) mass load	Leachate (NH4) mass load	Leachate (Chloride) mass		Specify type of	
	reporting year(m3)	Leachate (BOD) mass load (kg/annum)	(kg/annum)	(kg/annum)	load kg/annum	Leachate treatment on-site	leachate treatment	Comments
ſ								

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

Table / Landfill Gas	S-Landfill only			
			Was surface emissions	
Gas Captured&Treated			monitoring performed	
by LFG System m3	Power generated (MW / KWh)	Used on-site or to national grid	during the reporting year?	Comments
			SELECT	

Mount Dillon Decommissioning and Rehabilitation AER Overview 2017.

Within the Mount Dillion licensed area (P0504-01) there were no entire bog units available for rehabilitation in 2017. Ongoing monitoring of cutaway areas was carried out within the Mount Dillon area with Derryadd 2 and Derryarogue Bogs having been re-surveyed in 2017.

Draft rehabilitation plans for the Mount Dillon bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015 and 2017.

Active rehabilitation work was carried out within two areas of Lough Bannow (27 ha) and Coolnagun Bog (31 ha) as part of the long term rehabilitation of these sites. Intensive drain-blocking and re-wetting was carried out in bog remnant and deep peat bog areas. The work at Lough Bannow will help support the Lough Bawn pNHA by consolidating the butter zone around this pNHA.

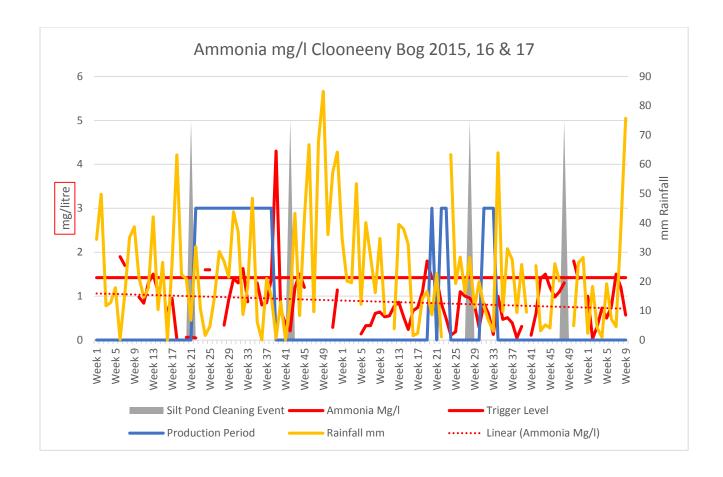
An amenity walkway has also been constructed at Corlea Bog in an area of rehabilitated cutaway now leased to the local community. This was a joint project between Bord na Móna and Longford County Council.

The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in February 2017, this included an update on progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.

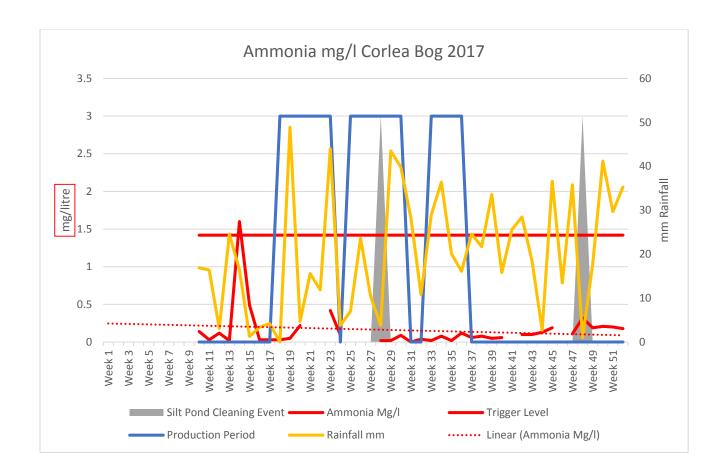
A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

As required by condition 10.2 Cutaway Bog Rehabilitation Plans, draft peatland rehabilitation plans for all the individual bog units were submitted to the agency in 2013, reviewed and amended in 2015 and re-submitted to the agency in 2015. All draft rehabilitation plans have been reviewed in 2017. These reviewed and amended plans will be re-submitted to the agency in due course.

				IPC License Po	504-01 Quarte	rly Grab S	Sampling 20)17				
Х	Υ	Bog	SW	Monitoring	Sampled	pН	SS	TS	Ammonia	TP	COD	Colour
207066.22	270009.38	Killashee	SW-71A	Q1 17	20/03/2017	6.7	6	76	1	0.05	55	188
206957.05	270175.39	Killashee	SW-71B	Q1 17	20/03/2017	7.6	10	280	0.5	0.05	51	220
206552.83	271606.89	Killashee	SW-71C	Q1 17	20/03/2017	7.9	5	338	0.13	0.05	49	119
205264.48	266929.73	Derryadd	SW-72	Q1 17	20/03/2017	7.8	8	362	0.58	0.05	59	122
205704.47	264985.60	Derryadd	SW-73	Q1 17	20/03/2017	7.7	12	349	1.1	0.05	52	126
206483.50	264717.84	Loughbannow	SW-74	Q1 17	20/03/2017	7.9	7	306	0.29	0.05	52	142
209520.92	261717.87	Loughbannow	SW-77	Q2 17	29/05/2017	7.9	14	292	0.11	0.05	41	111
210699.18	261574.22	Corlea	SW-77A	Q2 17	29/05/2017	7.6	5	208	0.21	0.05	57	210
207855.20	263302.19	Loughbannow	SW-78	Q2 17	29/05/2017	7.8	5	296	0.3	0.05	23	115
205488.20	261055.08	Derrycolumb	SW-88	Q2 17	29/05/2017	7.9	6	632	0.2	0.05	40	114
206320.96	260736.89	Derrycolumb	SW-88A	Q2 17	29/05/2017	7.7	5	320	0.37	0.05	39	124
206675.47	260347.41	Derrycolumb	SW-89	Q2 17	29/05/2017	7.7	5	374	0.17	0.05	50	144
209457.03	259759.30	Derrycolumb	SW-90	Q2 17	31/05/2017	7.7	6	280	0.46	0.05	42	110
207371.13	259735.70	Derrycolumb	SW-91	Q2 17	31/05/2017	7.8	5	408	0.26	0.05	42	116
208445.3	261154.8	Derrycolumb	SW91-A	Q2 17	31/05/2017	7.9	7	368	0.32	0.05	57	108
208008.49	259636.58	Derrycolumb	SW-92	Q2 17	31/05/2017	7.5	5	219	3.9	0.05	48	144
206651.08	262095.91	Derrycolumb	SW-93	Q2 17	31/05/2017	7.8	6	628	0.53	0.05	51	111
206995.27	262194.95	Derrycolumb	SW-93A	Q2 17	31/05/2017	7.6	10	308	0.05	0.05	42	125
205264.48	266929.73	Derryadd	SW-72	Q3 17	27/07/2017	7.6	5	256	0.43	0.06	67	177
204007.27	264128.46	Derryshannoge	SW-81	Q3 17	27/07/2017	7.8	21	282	0.16	0.05	68	147
204924.46	264012.79	Derryshannoge	SW-82	Q3 17	27/07/2017	7.7	19	362	0.3	0.05	57	116
204271.29	265669.06	Derryshannoge	SW-85	Q3 17	27/07/2017	7.4	5	340	0.12	0.05	93	312
204673.67	264817.11	Derryshannoge	SW-86	Q3 17	27/07/2017	7.7	12	324	0.15	0.05	91	174
205440.03	264471.90	Derryshannoge	SW-87	Q3 17	27/07/2017	8	5	332	0.02	0.07	46	80
209712.71	257877.59	Edera	SW-94	Q3 17	14/08/2017	8	9	399	0.1	0.05	36	77
210769.22	258184.69	Edera	SW-95	Q3 17	14/08/2017	7.7	8	286	0.37	0.1	41	155
211324.98	256892.74	Edera	SW-96	Q3 17	14/08/2017	7.9	5	318	0.17	0.05	41	108
211251.58	256376.68	Edera	SW-97	Q3 17	14/08/2017	7.8	5	316	0.02	0.07	28	72
209397.17	257668.64	Edera	SW-98	Q3 17	14/08/2017	8.1	10	354	0.09	0.05	34	66
209104.06	257598.54	Edera	SW-99	Q3 17	14/08/2017	8	5	380	0.02	0.05	17	32
200798.96	275520.06	Mountdillon	SW-18	Q4 17	25/10/2017	7.7	6	287	0.19	0.05	92	191
200723.37	275195.91	Mountdillon	SW-18A	Q4 17	25/10/2017	7.7	5	310	0.17	0.07	61	125
200579.43	275879.05	Mountdillon	SW-19	Q4 17	25/10/2017	7.5	5	180	0.09	0.05	116	376
199243.17	274640.01	Curraghroe	SW-20	Q4 17	25/10/2017	7.8	5	315	0.11	0.07	104	241
199241.03	275382.10	Grannaghan	SW-21	Q4 17	25/10/2017	7.8	6	304	0.21	0.05	98	233
199522.07	275622.16	Grannaghan	SW-22	Q4 17	25/10/2017	7.5	15	202	0.46	0.05	107	193
199949.40	276004.88	Grannaghan	SW-22A	Q4 17	25/10/2017	6.3	5	82	0.44	0.05	72	199
199698.09	276893.88	Grannaghan	SW-23	Q4 17	25/10/2017	7.5	5	218	0.03	0.05	89	178
199038.96	274095.83	Erenagh	SW-24	Q4 17	25/10/2017	7.4	5	184	0.06	0.05	96	212
198696.43	272374.18	Erenagh	SW-25	Q4 17	25/10/2017	7.8	5	370	0.02	0.05	74	129
198696.31	272347.40	Cloontuskert	SW-26	Q4 17	25/10/2017	7.7	8	312	0.6	0.05	27	183
197304.69	271399.80	Cloontuskert	SW-33	Q4 17	25/10/2017		No san	nple available	on day of sampl	ling due to	no flow	

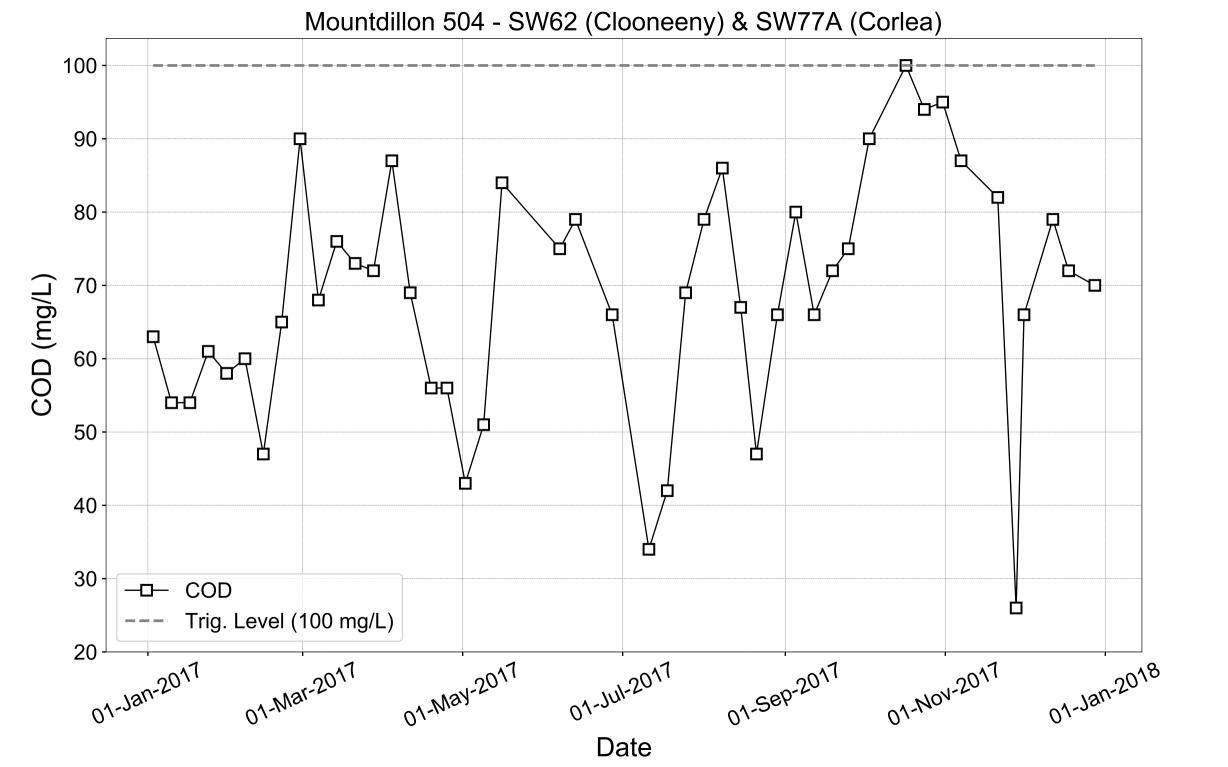


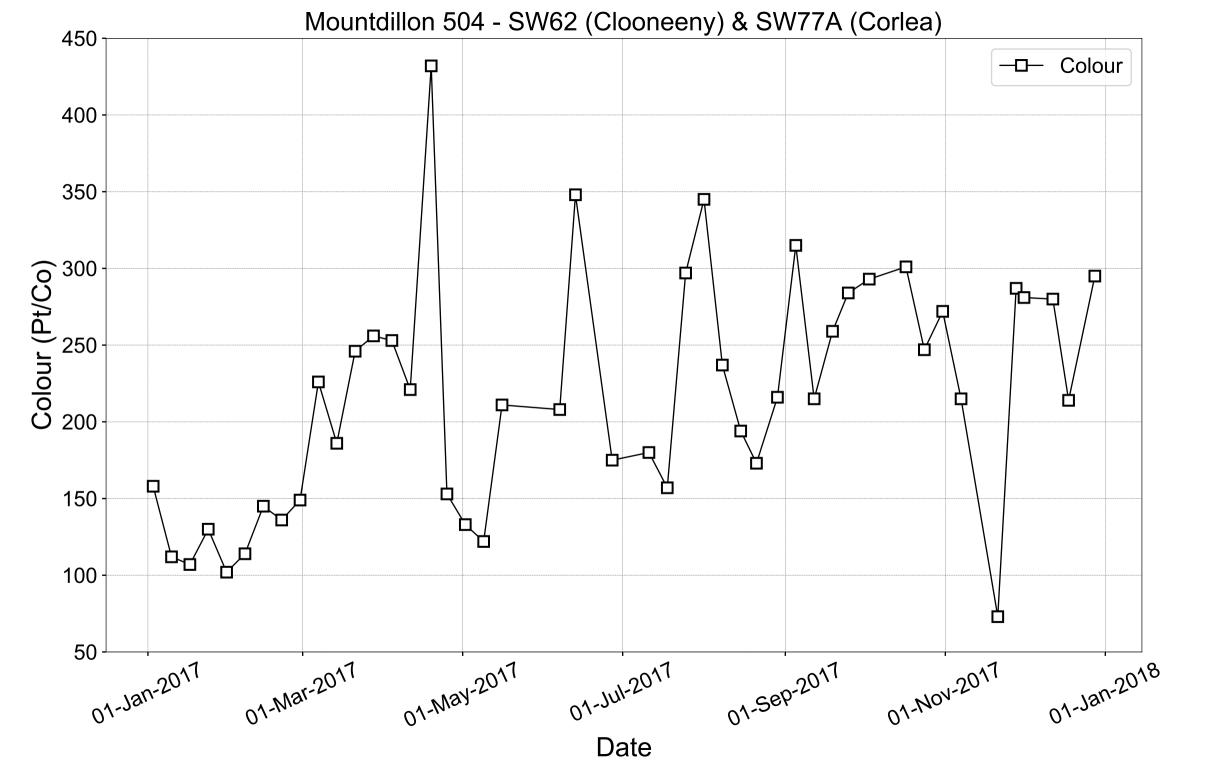
Clooneeny bog is an active production bog with the composite sampler located here during 2015, 16 & 17. The composite sampler takes a flow proportional composite sample over a 24 hour period. This location returned 9 weekly ammonia results during the 2017 period (Jan to Feb) of its location at Clooneeny Bog during this reporting period, which is a return of 100%, The ammonia trigger level of 1.42mg/l, as agreed with the Agency, was marginally exceeded once during the reporting period. Overall the results are maintaining much the same downward trend as reported in 2015 and 2016, as peat extraction continues, and this is in-line with the downwards trends submitted to the EPA in 2013 as required by condition 6.14. It has been established that the most relevant influencing variable on Ammonia is rainfall and the trend analysis above indicates linkage between high rainfall events and higher ammonia concentrations.

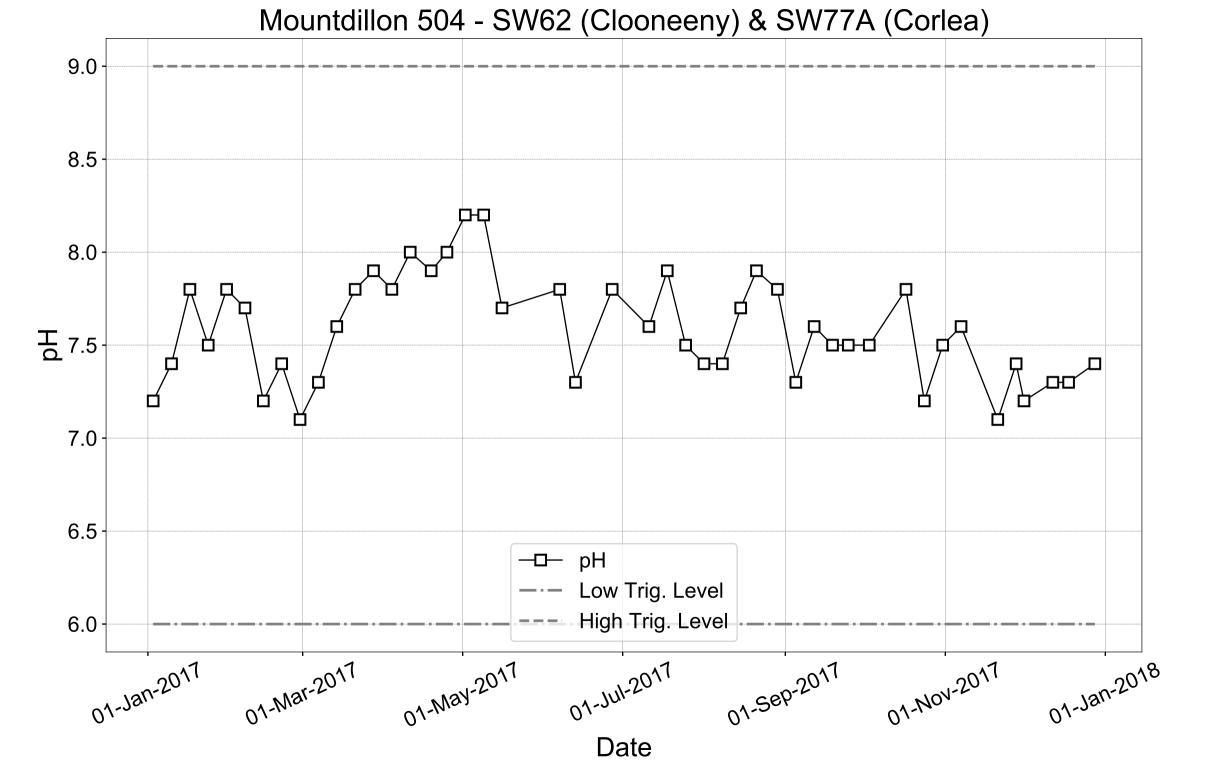


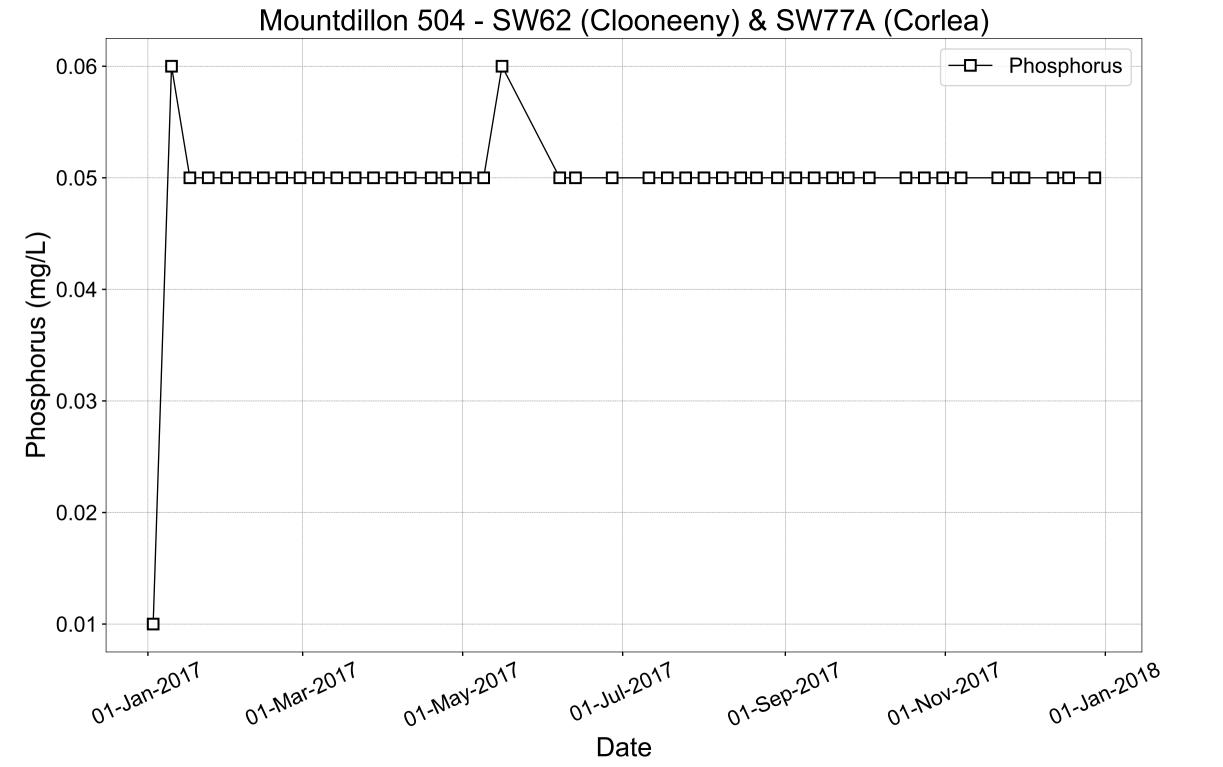
Corlea bog is an active production bog with the composite sampler relocated to this bog at SW 77A in March 2017. The composite sampler takes a flow proportional composite sample over a 24 hour period. This location returned 31 weekly ammonia results during the 2017 period (March to December) at its location at Corlea Bog during this reporting period, which is a return of 83%. The balance of weeks where no sample was returned was during periods when there was no summer discharge, water was backed up in the Winter/Spring from the receiving water or technical issues. The ammonia trigger level of 1.42mg/l, as agreed with the Agency, was exceeded once during the reporting period. Overall the results are maintaining a downward trend as peat extraction continues, and this is in-line with the downwards trends submitted to the EPA in 2013 as required by condition 6.14. This location will need up to two years data to better inform this Ammonia trend. It has been established that the most relevant influencing variable on Ammonia is rainfall and the trend analysis above indicates linkage between high rainfall events and ammonia concentrations.

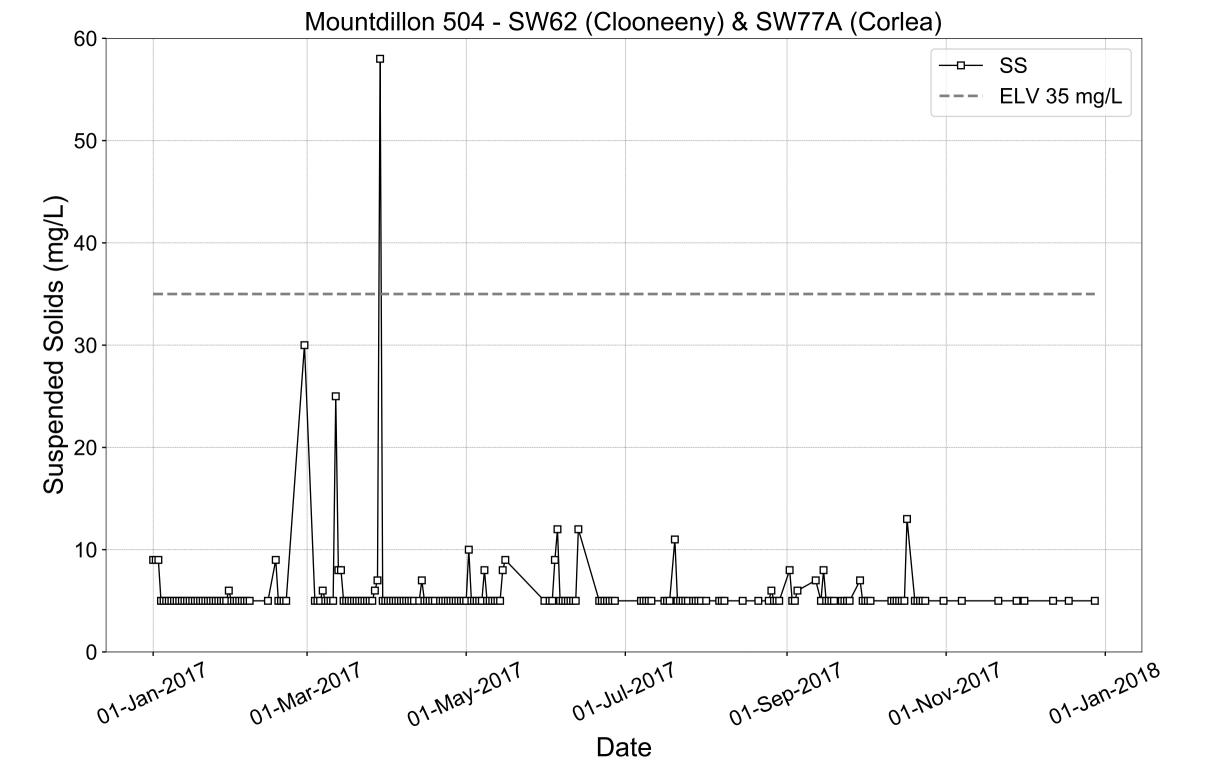
Mountdillon 504 - SW62 (Clooneeny) & SW77A (Corlea) 1.6 Ammonia Trig. Level (1.42 mg/L) 1.4 1.2 Ammonia (mg/L) 0.4 0.2 0.0 01-May-2017 01-Jan-2017 01-Jul-2017 01-Mar-2017 Date

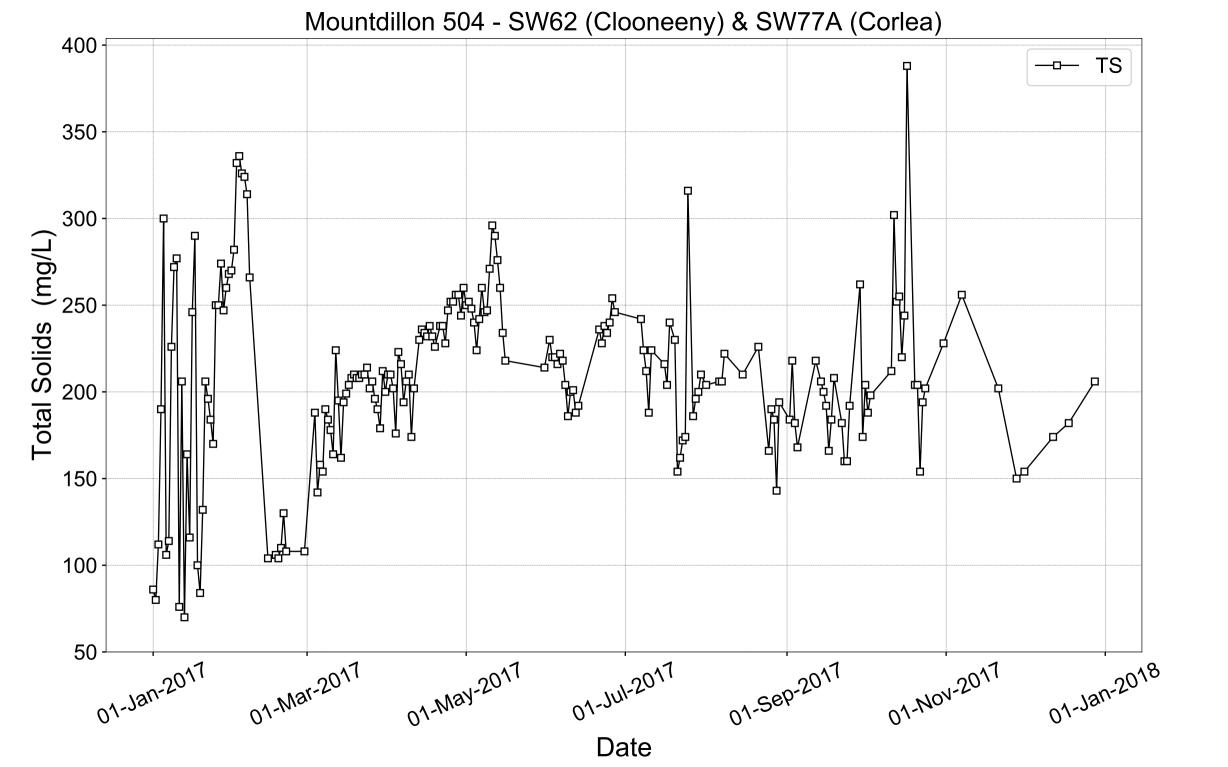












Yard Discharge Results 2017 Licence: P0504-01 Works: Mt Dillon

Month	W/Shop SWE 1 COD	W/Shop SWE 2 COD	Yard SWE 1 COD	Yard SWE 2 COD	C na Gun SWE1 COD	P Station SWE 1 COD
Jan	71	52	NF	NF	67	NF
Feb	64	59	NF	NF	58	NF
Mar	84	65	50	NF	NF	NF
Apr	73	49	NF	NF	64	NF
May	52	37	NF	NF	49	NF
June	50	29	NF	NF	38	NF
July	26	34	NF	NF	42	NF
Aug	62	NF	NF	NF	NF	NF
Sep	NF	NF	NF	NF	NF	NF
Oct	88	58	NF	NF	80	NF
Nov	96	NF	NF	NF	NF	NF
Dec	82	14	NF	NF	NF	NF

Note: NF denotes no flow at emission point on day of sampling



| PRTR# : P0504 | Facility Name : Bord na Mona Lanesboro (Longford) | Filename : P0504_2017.xls | Return Year : 2017 |

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Guidance to completing the PRTR workbook

PRTR Returns Workbook

REFERENCE YEAR 2017 1. FACILITY IDENTIFICATION Parent Company Name Bord na Mona Energy Limited
Facility Name Bord na Mona Lanesboro (Longford)
PRTR Identification Number | P0504
Licence Number | P0504-01 Classes of Activity Address 1 Mountdillon Group Address 2 c/o Mountdillon Works Address 3 Lanesboro Address 4 Longford Country Ireland
Coordinates of Location -7.92868 53.6697
River Basin District IEGBNISH
NACE Code 0892 NACE Code

Main Economic Activity
Extraction of peat

AER Returns Contact Name
Enda Mc Donagh
AER Returns Contact Tenail Address
Enda Mc Donagh
AER Returns Contact Position
AER Returns Contact Position
AER Returns Contact Telephone Number
O579345911
AER Returns Contact Mobile Phone Number
O882370816
AER Returns Contact Fax Number
Production Volume
Production Volume
Production Volume
In Tonnes
Number of Installations
Number of Operating Hours in Year
Number of Employees
User Feedback/Comments
User Feedback/Comments 142 In accordance with licence condition 6.2 of Technical Amendment A, quarterly sampling is now rotated every quarter and therefore suspended solids results are not factored into loading. Due to technical difficulties experienced with the composite sampler annual loading was not possible to calculate. All composite sampler results are attached for review in the AER document. Web Address www.bnm.ie 2. PRTR CLASS ACTIVITIES
Activity Number
50.1 Activity Name General 3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002) Is it applicable? No. 144 or 2002)

Have you been granted an exemption?

If applicable which activity class applies (as per Schedule 2 of the regulations)?

Is the reduction scheme compliance route being . WASTE IMPORTED/ACCEPTED ONTO SITE Guidance on waste imported/accepted onto s Do you import/accept waste onto your site for on-site treatment (either recovery or disposa

(of dispusar) activities) ? No
This question is only applicable if you are an IPPC or Quarry site

4.1 RELEASES TO AIR

Link to previous years emissions data

| PRTR# : P0504 | Facility Name : Bord na Mona Lanesboro (Longford) | Filename : P0504_2017.xls | Return Year : 2017 |

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SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

	RELEASES TO AIR				Please enter all quantities	in this section in KGs		
	POLLUTANT	METHOD						
				Method Used				
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0) 00	0.0

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

	RELEASES TO AIR	Please enter all quantities in this section in KGs									
	POLLUTANT		METH	OD						QUANTITY	
			Met	thod Used	DM01	DM02	DM05	DM06			
										A (Accidental)	F (Fugitive)
Pollutant No.	. Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	Emission Point 3	Emission Point 4	T (Total) KG/Year	KG/Year	KG/Year
210	0 Dust		OTH	VDI 2119 Blatt 2/Part 2	0.0	0.0	0.0	0.0	0.04494	0.0	0.04494
* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button											

Additional Data Requested from Land	dfill operators					
(Methane) flared or utilised on their facilities to accompa	use Gases, landfill operators are requested to provide summary data on landfill gas any the figures for total methane generated. Operators should only report their Net methane for Section A: Sector specific PRTR pollut					
Landfill:	Bord na Mona Lanesboro (Longford)					
Please enter summary data on the	,					
quantities of methane flared and / or						
utilised			Meth	nod Used		-
				Designation or	Facility Total Capacity	
	T (Total) kg/Year	M/C/E	Method Code	Description	m3 per hour	
Total estimated methane generation (as per						
site model)					N/A	
Methane flared						(Total Flaring Capacity)
Methane utilised in engine/s					0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section						
A above)	0.0				N/A	

4.2 RELEASES TO WATERS

Link to previous years emissions data

| PRTR# : P0504 | Facility Name : Bord na Mona Lanesboro (Longford) | Filename : P0504_2017.xls | Return Year : 2017 |

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SECTION A: SECTOR SPECIFIC PRTR POLLUTANTS

Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only concerns Releases from your facility

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

		RELEASES TO WATERS				Please enter all quantitie	s in this section in	KGs			
		POLLUTANT							QUANTITY		
					Method Used	SW62	SW77A				
										F	
									A (Accidental)	(Fu	ugitive)
	Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	T (Total) KG/Year	KG/Year	KG	3/Year
					G/19 Based on						
					ALPHA,1998,20th Edition,						
240		Suspended Solids	E	OTH	Method 2540D	0.	.0 0.0		0.0	0.0	0.0

4.3 RELEASES TO WASTEWATER OR SEWER

Link to previous years emissions data

| PRTR# : P0504 | Facility Name : Bord na Mona Lanesboro (Longford) | Filename : P0504_2017.xls

08/03/2018 09:51

SECTION A: PRTR POLLUTANTS

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

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

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

OLOTION D. KLIMAINING I OLLOTAIN LIIN	olotto (as required in your Election)			_				
OFFSITE TRAN	SFER OF POLLUTANTS DESTINED FOR WASTE-W	VATER TRE	EATMENT OR SEWER		Please enter all quantities	in this section in KGs		
PO	LLUTANT		METHO	D				
			Met	hod Used				
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

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

Link to previous years emissions data Page 1 of 1

4.4 RELEASES TO LAND

Link to previous years emissions data

| PRTR# : P0504 | Facility Name : Bord na Mona Lanesboro (Longford) | Filename : P0504_2017.xls | Return Year : 2017 |

08/03/2018 09:52

SECTION A: PRTR POLLUTANTS

	RELEASES TO LAND				Please enter all quantities	is		
PO	LLUTANT		MET	HOD			QUANTITY	
			N	Method Used				
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental)) KG/Year
					0.0		0.0	0.0

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

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

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

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE | PRTR#: P0504 | Facility Name: Bord na Mona Lanesboro (Longford) | Filename: P0504_2017.xls | Return Year: 2017 |

08/03/2018 09:53

			Please enter	all quantities on this sheet in Tonnes								19
			Quantity (Tonnes per Year)				Method Used		Licence/Permit No of Next Destination Facility Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste: Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
	European Waste				Waste Treatment			Location of				
Fransfer Destination	Code	Hazardous		Description of Waste	Operation	M/C/E	Method Used	Treatment				
				wastes from mineral non-metalliferous					Bord na Mona Energy	Mountdillon,Lanesboro,Long		
Vithin the Country	01 01 02	No	1463.98	excavation	D1	E	Volume Calculation	Onsite of generat		ford,.,Ireland		
Vithin the Country	01 01 02	No	1994 08	wastes from mineral non-metalliferous excavation	D1	М	Weighed	Onsite of generat	Bord na Mona Energy i Ltd. P0504-01	Mountdillon,Lanesboro,Long ford,.,Ireland		
,								, , ,		Cappincur, Tullamore, Offaly,.		
Vithin the Country	02 01 04	No	0.0	waste plastics (except packaging)	R3	M	Weighed	Offsite in Ireland	AES Ltd,053/OY/39/02	,Ireland		
Vithin the Country	02 01 04	No	433.88	waste plastics (except packaging)	R3	М	Weighed	Offsite in Ireland	Walker Recycling, NWCPO	Clonkeen,Portlaoise,Co Laois,,,Ireland		
o Other Countries		Yes		degreasing wastes containing dangerous substances	R2	С	Volume Calculation		Safety Clean Ltd,99-1	Tallaght,Dublin,,,,,Ireland	Solvent Recovery Management,PP33345F,We eland Rd,Knottingly,West Yorks,WF118DZ,United Kingdom Enva Ireland Ltd,184-	Weeland Rd,Knottingly,Wes Yorks,WF118DZ,United Kingdom
										Clonminam Indust	1,Clonminam Indust	Clonminam Indust
Vithin the Country	13 02 05	Yes	12.4	mineral-based non-chlorinated engine, gear and lubricating oils	R1	С	Volume Calculation	Offsite in Ireland	Enva Ireland Ltd,184-1	Estate, Portlaoise, Laois, ,, Irel and	Estate,Portlaoise,Laois,.,Irel and	Estate, Portlaoise, Laois, ., Irel and
riamir and occurriny	10 02 00		.2	and labilitating one		Ü	voidino Galediation	Onono in noiana	Ziiva iiolaila Zia, io i i			
Vithin the Country	15 01 01	No	2.56	paper and cardboard packaging	R3	M	Weighed	Offsite in Ireland	Mulleadys Ltd,S/E 152/2002			
Vithin the Country	15.01.02	No	2.16	wooden packaging	R1	М	Weighed	Offsite in Iroland	AES Ltd,053/OY/39/02	Cappincur, Tullamore, Offaly,. ,Ireland		
o Other Countries	15 02 02	Yes	0.45	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	R1	М	Weighed	Abroad	Enva Ireland Ltd,184-1 Clonminam Indust Estate Portlaoise Laois . Ireland	Clonminam Indust Estate, Portlaoise, Laois, ,, Irel and Clonminam Indust Estate, Portlaoise, Laois, ,, Irel	Lindenschmidt ,E97095037,Kreuztal,,Ge rmany RD Recycling,51727/1/KD,Hauth	Kreuztal,.,,,,Germany
o Other Countries	16 01 07	Yes	2.28	oil filters	R4	С	Volume Calculation	Abroad	Enva Ireland Ltd,184-1	and Cappincur, Tullamore, Offaly,	alen,.,.,Belgium	Hauthalen,.,,,,Belgium
Vithin the Country	17 04 07	No	76.15	mixed metals	R4	М	Weighed	Offsite in Ireland	AES Ltd,053/OY/39/02	,Ireland		
•										Cappincur, Tullamore, Offaly,.		
Vithin the Country	20 03 01	No	19.36	mixed municipal waste	D5	М	Weighed	Offsite in Ireland	AES Ltd,053/OY/39/02	,Ireland Cappincur,Tullamore,Offaly,.		
Vithin the Country	20 03 01	No	0.95	mixed municipal waste	D5	С	Volume Calculation	Offsite in Ireland	AES Ltd,053/OY/39/02 Tank Pipe & Drain,NWCPO-	,Ireland		
Vithin the Country	20 03 04	No	12.4	septic tank sludge	R10	С	Volume Calculation	Offsite in Ireland		Clonterm,Longford,,Ireland		
o Other Countries		Yes Yes		lead batteries	R4 R1	M C	Weighed Volume Calculation	Abroad Offsite in Ireland	Enva Ireland Ltd,184-1 Enva Ireland Ltd,184-1 Clonminam Indust Estate Portlaoise Laois . Ireland	Clonminam Indust Estate,Portlaoise,Laois,.,Irel and Clonminam Indust Estate,Portlaoise,Laois,.,Irel and	Campine Recycling,MLAV/05- 173/GVDA,Beerse,,Belgi um	Beerse,,,Belgium
Vithin the Country		No		alkaline batteries (except 16 06 03)	R4	М	Weighed		KMK Metal Recycling Ltd,NWCPO-08-10607-02	Cappincur Ind Estate, Daingean Rd, Tullamore , Co Offaly, Ireland Cappincur Ind Estate, Daingean		
				fluorescent tubes and other mercury-					KMK Metal Recycling	Rd,Tullamore ,Co		
Vithin the Country	20 01 21	Yes		the Description of Waste then click the delete button	R4	М	Weighed	Offsite in Ireland	Ltd,NWCPO-08-10607-02	Offaly, Ireland		

Yes 0.06 containing waste

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

			Quantity (Tonnes per Year)				Method Used		Licence/Permit No of Next Destination Facility Mon Haz Waste: Name and Licence/Permit No of Recover/Disposer	Destination Facility	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination
					Waste							
	European Waste				Treatment			Location of				
Transfer Destination	Code	Hazardous		Description of Waste	Operation	M/C/E	Method Used	Treatment				

Link to previous years waste data
Link to previous years waste summary data & percentage change
Link to Waste Guidance

National Grid Reference (6E, 6 N) Class/Classes of Activity Site Location NACE Code Name of site **AER Reporting Year** Licence Register Number Facility Information Summary P0506-01 2017 Bord na Mona, Leabeg, Tullamore, Co Offaly Bord na Mona Kilberry 180050, 319540 0892 1.4

applicable) and what they relate to e.g. air, compliance with your licence listing all infrastructural changes, environmental increases or decreases on site, any the site for the reporting year. This should A description of the activities/processes at exceedances of licence limits (where the reporting year and an overview of performance which was measured during include information such as production

complete service / overhaul which included the replacement of some of the major component parts. achieved was approximately 194227 tonnes. Infrastructurally, there was no bog development. From an outloading facilities for transportation to a Power Station, Moss Peat Factory or direct to the Docks. Production some technical difficulties during the reporting period and it was therefore decided to send it away for a Decommissioning and Rehabilitation works are described in an attachment. The composite sampler experienced ponds received two cleanings, some individual ponds received more, inspections dictating cleaning schedules complaint received during the reporting period, which was resolved. In relation to silt pond cleaning, 100 % of reached during the reporting period, 1 related to Ammonia and 9 related to COD. There was one environmenta The composite sampling regeime was also 100% compliant in relation to ELV's. There were 10 trigger levels reporting period. The quarterly grab sampling was 100% compliant, with only 4 trigger levels reached, 4 x Cod environmental perspective silt pond upgrade work is ongoing . Dust monitoring was fully compliant during the Activities on site can be divided into two components, firstly the milling, harrowing, ridiging and harvesting of peat into stockpiles and secondly the transportation of that peat via an internal rail network to the lorry

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)

·	ons and complete all tables	where relevant								
Does your site										
reporting year		ons. If you do not I	have licenced emis	nd A2 below for the current ssions and do not complete a amplete the tables	No		Additional informati			
Period	ic/Non-Continuous M	onitoring								
Are there any res	sults in breach of licence req	uirements? If yes ple TableA1 below	V	etails in the comment section of	No All results within license limits					
	ing carried out in accordance nd using the basic air monite		Basic air monitoring checklist	AGN2	Yes					
Table A1: Lice	ensed Mass Emissions	/Ambient data- _l	periodic monito	oring (non-continuous)						
Emission		Frequency of	ELV in licence or any revision			Unit of	Compliant with		Annual mass	Comments - reason for change in % mass load from previous year
reference no:	Parameter/ Substance	Frequency of Monitoring	therof	Licence Compliance criteria	Measured value	measurement	licence limit	Method of analysis	load (kg)	if applicable
	SELECT			SELECT		SELECT	yes	SELECT		
	SELECT			SELECT SELECT		SELECT SELECT	SELECT SELECT	SELECT		
Note 1: Volumetr	SELECT ic flow shall be included as a	roportable paramet	ror.	SELECT		SELECT	SELECT	SELECT		
Note 1. Volumetri	ic now shall be included as a	reportable paramet	.ei							
	Continuous N	lonitoring								
Does your site ca	rry out continuous air emiss	ions monitoring?			No					
If yes please revi		ring data and report relevant Emission Lir		below in Table A2 and compare					•	
Did continuous m	onitoring equipment experi	ence downtime? If ye	es please record dov	wntime in table A2 below	No					
Do you have a pro	pactive service agreement fo	or each piece of conti	inuous monitoring e	quipment?	No					
	site experience any abatem	ent system bypasses	? If yes please detai	them in table A3 below	No					

 AIR-summary template
 Lic No:
 P0506-01
 Year
 2017

Table A2: Summary of average emissions -continuous monitoring

Emission	Parameter/ Substance		Averaging Period	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:					measurement			Equipment	exceedences in	
		ELV in licence or any						downtime (hours)	current	
		revision therof							reporting year	
DM-01	Total Particulates	350	Daily	Daily average < ELV	mg/m2/day	0.03626	344	0	0	
	SELECT				SELECT					
	SELECT				SELECT					

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

Table A3: Abatement system bypass reporting table

Bypass protocol

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

^{*} this should include all dates that an abatement system bypass occurred

	Solvent	use and managemer	nt on site							
8	Do you have a total	l Emission Limit Value of di	rect and fugitive emis	isions on site? if yes	s please fill out tables A4 and A5			No		
		ent Management Pla ssion limit value		Solvent regulations	Please refer to linked solven complete table 5 a					
	Reporting year	Total solvent input on site (kg)		emissions as %of solvent input	Total Emission Limit Value (ELV) in licence or any revision therof	Compliance				
						SELECT	1			
l	Table A5:	Solvent Mass Balanc	e summary			SELECT				
		(I) Inputs (kg)			(0)	Outputs (kg)				l
	Solvent	(I) Inputs (kg)		Solvents lost in water (kg)		Fugitive Organic Solvent (kg)	other ways e.g. by- passes (kg)		Total emission of Solvent to air (kg)	1
			ļ	<u> </u>						1
		ļJ	ļ						1	
										1
								Total		

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

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER) Lic No: P0506-01 Year 2017 Additional information Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions. If you do not have licenced emissions you <u>only</u> need to complete table The continuous sampler experienced technical difficulties which inhibited the collection of flow data and subsequent annual loading calculations. It was therefore decided to present the sampling results in graph form as an W1 and or W2 for storm water analysis and visual inspections attachment. Was it a requirement of your licence to carry out visual inspections on any surface water 2 discharges or watercourses on or near your site? If yes please complete table W2 below Quarterly COD of yard run-off is attached. summarising only any evidence of contamination noted during visual inspections Table W1 Storm water monitoring

Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Compliance	Measured value	Unit of measurement	Compliant with licence	Comments
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	

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

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

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
			SELECT		
			SELECT		

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

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

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

Lab Quality

Assessment of checklist results checklist

External /Internal Characteristics (SELECT)

Assessment of checklist results checklist

External /Internal Characteristics (SELECT)

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		ELV or trigger values in licence or any revision therof ^{Note 2}		Measured value		Compliant with licence			Annual mass load (kg)	Comments
	SELECT	SELECT	SELECT		SELECT		SELECT		SELECT	SELECT	SELECT	SELECT		

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

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

AER Monito	ring returns su	ımmary template-W	ATER/WASTEW	ATER(SEWER)		Lic No:	P0506-01		Year	2017	
Continuous	monitoring						Additional Information		_		
5 Does your site	carry out continuo	us emissions to water/sew	er monitoring?		Yes						
	mmarise your con ssion Limit Value (tinuous monitoring data b ELV)	elow in Table W4 an	d compare it to					_		
6 Did continuous table W4 below		nent experience downtime	? If yes please record	d downtime in	Yes		151 Day in 365				
site?		ntract for each piece of co			Yes	Annual c	alibration schedule and trouble shoo	oting service.]		
8 Did abatement	system bypass occ	ur during the reporting yea	ar? If yes please comp	olete table W5	No						
Table W4: S	ummary of av	erage emissions -cor	ntinuous monito	ring							
Emission	Emission		ELV or trigger values in licence or any revision	Averaging	Compliance	Units of	Annual Emission for current	% change +/- from previous reporting year		Number of ELV exceedences in	

reporting year (kg)

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

Table W5: Abatement system bypass reporting table

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

^{*}Measures taken or proposed to reduce or limit bypass frequency

und/Pipeline te	sting template				Lic No:	P0506-01		Year	2017					
Bund testing		dropdown menu cl	lick to see options				Additional information							
	our licence to undertake int	tegrity testing on bunds and conta	ainment structures 2 if yes nie	ase fill out table R1 below I	listing all new hunds and									
		bunds which failed the integrity t				e Yes								
		e licenced testing period (mobile				103	Three of the bunds are now replaced							
							with double skinned tanks.							
	ty testing frequency period					Other (2 Yearly)								
pes the site maintair pe units and mobile		rground pipelines (including storn	nwater and foul), Tanks, sump	s and containers? (contain	ers refers to "Chemstore"	Yes								
ow many bunds are						Tes	3							
		in the required test schedule?					0 The bunds are obsolete							
·							This includes barrel trays located							
w many mobile bur							6 within workshops							
	included in the bund test s					No								
		ted within the required test sched	ule?				0							
	site are included in the inte imps are integrity tested wi						0							
	ntegrity failures in table B1						0	1						
	nbers have high level liquid					SELECT		1						
es to Q11 are these	failsafe systems included i	in a maintenance and testing prog	gramme?			SELECT								
the Fire Water Rete	ntion Pond included in you	r integrity test programme?				SELECT								
_				7										
1a	ble B1: Summary details of	f bund /containment structure int	tegrity test											
									Integrity reports					
nd/Containment									maintained on		Integrity test failure		Scheduled date	9
	Туре	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	site?	Results of test	explanation <50 words	Corrective action taken	for retest	
	SELECT	Specify Other type	Product containment	Actual capacity	Capacity required*	SELECT	Other test type	Test date	SELECT	SELECT	explanation <50 words	SELECT	for retest	
ructure ID	SELECT SELECT		Product containment	Actual capacity	Capacity required*			Test date			explanation <50 words		for retest	
ructure ID Capacity required should cor	SELECT SELECT mply with 25% or 110% containment			Actual capacity	Capacity required*	SELECT	Other test type Commentary	Test date	SELECT	SELECT	explanation <50 words	SELECT	for retest	_
ructure ID apacity required should cor as integrity testing by	SELECT SELECT mply with 25% or 110% containment een carried out in accordan	rule as detailed in your licence		Actual capacity bunding and storage guide		SELECT SELECT SELECT		Test date	SELECT	SELECT	explanation <50 words	SELECT	for retest	
apacity required should cor as integrity testing be e with BS8007/EPA e channels/transfer	SELECT SELECT mply with 25% or 110% containment een carried out in accordar Guidance? systems to remote contain	rule as detailed in your licence nce with licence requirements and				SELECT SELECT SELECT SELECT		Test date	SELECT	SELECT	explanation <50 words	SELECT	for retest	
apacity required should cor as integrity testing be e with BS8007/EPA e channels/transfer	SELECT SELECT mply with 25% or 110% containment een carried out in accordar Guidance? systems to remote contain	rule as detailed in your licence				SELECT SELECT SELECT		Test date	SELECT	SELECT	explanation <50 words	SELECT	for retest	
apacity required should cor as integrity testing be with BS8007/EPA e channels/transfer	SELECT SELECT mply with 25% or 110% containment een carried out in accordar Guidance? systems to remote contain	rule as detailed in your licence nce with licence requirements and				SELECT SELECT SELECT SELECT		Test date	SELECT	SELECT	explanation <50 words	SELECT	for retest	
apacity required should cor is integrity testing b e with BS8007/EPA e channels/transfer re channels/transfer	SELECT SELECT mply with 25% or 110% containment een carried out in accordar Guidance? systems to remote contain	rule as detailed in your licence nce with licence requirements and				SELECT SELECT SELECT SELECT		Test date	SELECT	SELECT	explanation <50 words	SELECT	for retest	
pacity required should cor is integrity testing be e with BS8007/EPA e channels/transfer e channels/transfer	SELECT SELECT mply with 25% or 110% containment een carried out in accordar Guidance? systems to remote contain r systems compliant in both	rule as detailed in your licence nce with licence requirements and				SELECT SELECT SELECT SELECT		Test date	SELECT	SELECT	explanation <50 words	SELECT	for retest	
pacity required should core is integrity testing by ewith BS807/EPA e channels/transfer e channels/transfer Pipeline/undergr	SELECT SE	rule as detailed in your licence ce with licence requirements and ament systems tested? integrity and available volume?	d are all structures tested in	bunding and storage guide	olines	SELECT SELECT SELECT SELECT SELECT SELECT		Test date	SELECT	SELECT	explanation <50 words	SELECT	for retest	
ucture ID apachy required should cor is integrity testing by e with BS8007/EPA e channels/transfer e channels/transfer Pipeline/undergr e you required by ye derground structur.	SELECT SELECT	rule as detailed in your licence cee with licence requirements and mment systems tested? n integrity and available volume? tegrity testing* on underground s ich failed the integrity test and al	d are all structures tested in	bunding and storage guide	olines	SELECT SELECT SELECT SELECT SELECT SELECT SELECT		Test date	SELECT	SELECT	explanation <50 words	SELECT	for retest	
apachy required should consist integrity testing by with BSB007/EPA e channels/transfer re channels/transfer pipeline/undergr e you required by ye deferound structure asse provide integrit	SELECT SELECT SELECT sply with 15% or 110% containment een carried out in accordan Guidance? systems to remote contain rysystems compliant in both cound structure testing our licence to undertake int es and pipelines on site with y testing frequency period	rule as detailed in your licence ce with licence requirements and mment systems tested? integrity and available volume? tegrity testing* on underground s ich failed the integrity test and al	are all structures tested in	bunding and storage guide	olines	SELECT SELECT SELECT SELECT SELECT SELECT		Test date	SELECT	SELECT	explanation <50 words	SELECT	for retest	
pacty required should cor sintegrity testing b with BS8007/EPA c channels/transfer e channels/transfer Pipeline/undergr e you required by w derground structur ase provide integrit	SELECT SELECT SELECT sply with 15% or 110% containment een carried out in accordan Guidance? systems to remote contain rysystems compliant in both cound structure testing our licence to undertake int es and pipelines on site with y testing frequency period	rule as detailed in your licence cee with licence requirements and mment systems tested? n integrity and available volume? tegrity testing* on underground s ich failed the integrity test and al	are all structures tested in	bunding and storage guide	olines	SELECT SELECT SELECT SELECT SELECT SELECT SELECT		Test date	SELECT	SELECT	explanation <50 words	SELECT	for retest	
pacty required should con- pacty required should con- integrity testing by with BS8007/EPA channels/transfer e channels/transfer Pipeline/undergr e you required by y derground structur ase provide integrity ease note integrity	SELECT SELECT SELECT SELECT SELECT SELECT SELECT GUIDANCE SELECT GUIDANCE G	rule as detailed in your licence ce with licence requirements and mment systems tested? integrity and available volume? tegrity testing* on underground s ich failed the integrity test and al	are all structures tested in structures e.g. pipelines or sur il which have not been tested sipelines (as required under ye	bunding and storage guide	olines	SELECT SELECT SELECT SELECT SELECT SELECT SELECT		Test date	SELECT	SELECT	explanation <50 words	SELECT	for retest	
apacity required should cor is integrity testing b is with 85800/FPA e channels/transfer re channels/transfer re channels/transfer re you required by ye deferground structur ease provide integrit lease note integrity	SELECT SELECT SELECT SELECT SELECT SELECT SELECT GUIDANCE SELECT GUIDANCE G	rule as detailed in your licence ce with licence requirements and ment systems tested? integrity and available volume? tegrity testing * on underground s ich failed the integrity test and al mess testing for process and foul p	are all structures tested in structures e.g. pipelines or sur il which have not been tested sipelines (as required under ye	bunding and storage guide	olines	SELECT SELECT SELECT SELECT SELECT SELECT SELECT		Test date	SELECT	SELECT	explanation <50 words	SELECT	for retest	
apachy required should cor is integrity testing be with 858007/EPA e channels/transfer re channels/transfer Pipeline/undergr e you required by ye deteground structur asse provide integrit lease note integrity	SELECT SELECT SELECT SELECT SELECT SELECT SELECT GUIDANCE SELECT GUIDANCE G	rule as detailed in your licence ce with licence requirements and ment systems tested? integrity and available volume? tegrity testing * on underground s ich failed the integrity test and al mess testing for process and foul p	are all structures tested in structures e.g. pipelines or sur il which have not been tested sipelines (as required under ye	bunding and storage guide	olines	SELECT SELECT SELECT SELECT SELECT SELECT SELECT		Test date	SELECT	SELECT	explanation <50 words	SELECT	for retest	
pacity required should con- is integrify testing by with BS8007/EPA channels/transfer e channels/transfer e channels/transfer e you required by y derground structur ase provide integrify ease note integrify	SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT GUIDANCE G	rule as detailed in your licence ce with licence requirements and ment systems tested? integrity and available volume? tegrity testing * on underground s ich failed the integrity test and al mess testing for process and foul p	are all structures tested in structures e.g. pipelines or sur il which have not been tested sipelines (as required under ye	bunding and storage guide has etc ? If yes please fill ou withing the integrity test p ur licence)	olines	SELECT SELECT SELECT SELECT SELECT SELECT SELECT		Test date	SELECT	SELECT	explanation <50 words	SELECT	for retest	
pacity required should con- is integrify testing by with BS8007/EPA channels/transfer e channels/transfer e channels/transfer e you required by y derground structur ase provide integrify ease note integrify	SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT GUIDANCE G	rule as detailed in your licence ce with licence requirements and ment systems tested? integrity and available volume? tegrity testing * on underground s ich failed the integrity test and al mess testing for process and foul p	are all structures tested in structures e.g. pipelines or sur il which have not been tested sipelines (as required under ye	bunding and storage guide	olines	SELECT SELECT SELECT SELECT SELECT SELECT SELECT			SELECT	SELECT	explanation <50 words	SELECT	for retest	
pacty required should con- pacty required should con- integrity testing by with BS8007/EPA channels/transfer e channels/transfer Pipeline/undergr e you required by y derground structur ase provide integrity ease note integrity	SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT GUIDANCE G	rule as detailed in your licence ce with licence requirements and ment systems tested? integrity and available volume? tegrity testing * on underground s ich failed the integrity test and al mess testing for process and foul p	d are all structures tested in structures e.g., pipelines or sur Il which have not been tested pipelines (as required under you	bunding and storage guide nps etc ? if yes please fill or withing the integrity test p ur licence) Type of secondary	olines	SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT		Integrity test	SELECT SELECT	SELECT SELECT		SELECT	for retest	
octure ID actly required should cor integrity testing by with BS8007/EPA channels/transfer e channels/transfer Pipeline/undergr you required by y derground structur ase provide integrit ease note integrity Tabi	SELECT SE	rule as detailed in your licence cree with licence requirements and ment systems tested? integrity and available volume? tegrity testing * on underground s ich failed the integrity test and al ness testing for process and foul p sipeline/underground structures i	are all structures tested in structures e.g. pipelines or sur lawhich have not been tested eipelines (as required under yountegrity test	bunding and storage guide nps etc ? if yes please fill or withing the integrity test p ur licence) Type of secondary	at table 2 below listing all seriod as specified	SELECT	Commentary	Integrity test failure explanation	SELECT SELECT Corrective action	SELECT SELECT Scheduled date	Results of retest(if in current	SELECT	for retest	
acity required should con integrity testing be with BS8007/EPA channels/transfer c channels/transfer pipeline/undergr you required by ye reground structure ase provide integrity ase note integrity	SELECT SELECT	nule as detailed in your licence nce with licence requirements and nument systems tested? integrity and available volume? tegrity testing * on underground s ich failed the integrity test and all ness testing for process and foul p pipeline/underground structures i Material of construction:	are all structures tested in structures e.g. pipelines or sur II which have not been tested ipelines (as required under yountegrity test Does this structure have Secondary containment?	bunding and storage guide appeter ? If yes please fill or withing the integrity test p ur licence) Type of secondary containment	ult table 2 below listing all beriod as specified	SELECT SELECT	Commentary Results of test	Integrity test	SELECT SELECT	SELECT SELECT	Results of retest(if in current reporting year)	SELECT	for retest	
acity required should cor integrity testing by with BS8007/EPA channels/transfer channels/transfer Pipeline/undergr you required by y erground structure see provide integrity assessment integrity Tabil	SELECT SE	rule as detailed in your licence cree with licence requirements and ment systems tested? integrity and available volume? tegrity testing * on underground s ich failed the integrity test and al ness testing for process and foul p sipeline/underground structures i	are all structures tested in structures e.g. pipelines or sur lawhich have not been tested eipelines (as required under yountegrity test	bunding and storage guide nps etc ? if yes please fill or withing the integrity test p ur licence) Type of secondary	at table 2 below listing all seriod as specified	SELECT	Commentary	Integrity test failure explanation	SELECT SELECT Corrective action	SELECT SELECT Scheduled date	Results of retest(if in current	SELECT	for retest	
octure ID actly required should cor integrity testing by with BS8007/EPA channels/transfer e channels/transfer Pipeline/undergr you required by y derground structur ase provide integrit ease note integrity Tabi	SELECT SELECT	nule as detailed in your licence nce with licence requirements and nument systems tested? integrity and available volume? tegrity testing * on underground s ich failed the integrity test and all ness testing for process and foul p pipeline/underground structures i Material of construction:	are all structures tested in structures e.g. pipelines or sur II which have not been tested ipelines (as required under yountegrity test Does this structure have Secondary containment?	bunding and storage guide appeter ? If yes please fill or withing the integrity test p ur licence) Type of secondary containment	ult table 2 below listing all beriod as specified	SELECT SELECT	Commentary Results of test	Integrity test failure explanation	SELECT SELECT Corrective action	SELECT SELECT Scheduled date	Results of retest(if in current reporting year)	SELECT	for retest	
ucture ID pactry required should cor s integrity testing be with 858007/EPA e channels/transfer e channels/transfer Pipeline/undergr e you required by y derground structur asse provide integrit lease note integrity Tabi	SELECT SELECT	nule as detailed in your licence nce with licence requirements and nument systems tested? integrity and available volume? tegrity testing * on underground s ich failed the integrity test and all ness testing for process and foul p pipeline/underground structures i Material of construction:	are all structures tested in structures e.g. pipelines or sur II which have not been tested ipelines (as required under yountegrity test Does this structure have Secondary containment?	bunding and storage guide appeter ? If yes please fill or withing the integrity test p ur licence) Type of secondary containment	ult table 2 below listing all beriod as specified	SELECT SELECT	Commentary Results of test	Integrity test failure explanation	SELECT SELECT Corrective action	SELECT SELECT Scheduled date	Results of retest(if in current reporting year)	SELECT	for retest	
ucture ID pacty required should cor integrity testing be with BS8007/EPA channels/transfer e channels/transfer Pipeline/undergr e you required by y derground structur ase provide integrit ease note integrity Tabi	SELECT SELECT	nule as detailed in your licence nce with licence requirements and nument systems tested? integrity and available volume? tegrity testing * on underground s ich failed the integrity test and all ness testing for process and foul p pipeline/underground structures i Material of construction:	are all structures tested in structures e.g. pipelines or sur II which have not been tested ipelines (as required under yountegrity test Does this structure have Secondary containment?	bunding and storage guide appeter ? If yes please fill or withing the integrity test p ur licence) Type of secondary containment	ult table 2 below listing all beriod as specified	SELECT SELECT	Commentary Results of test	Integrity test failure explanation	SELECT SELECT Corrective action	SELECT SELECT Scheduled date	Results of retest(if in current reporting year)	SELECT	for retest	
ucture ID apacty required should cor is integrity testing be with 858007/EPA e channels/transfer e channels/transfer e channels/transfer e pyu required by y derground structur asse provide integrit lease note integrity Tabi	SELECT SELECT	nule as detailed in your licence nce with licence requirements and nument systems tested? integrity and available volume? tegrity testing * on underground s ich failed the integrity test and all ness testing for process and foul p pipeline/underground structures i Material of construction:	are all structures tested in structures e.g. pipelines or sur II which have not been tested ipelines (as required under yountegrity test Does this structure have Secondary containment?	bunding and storage guide appeter ? If yes please fill or withing the integrity test p ur licence) Type of secondary containment	ult table 2 below listing all beriod as specified	SELECT SELECT	Commentary Results of test	Integrity test failure explanation	SELECT SELECT Corrective action	SELECT SELECT Scheduled date	Results of retest(if in current reporting year)	SELECT	for retest	
ucture ID pacity required should cor integrity testing be with BS8007/EPA channels/transfer e channels/transfer Pipeline/undergr yelorequired by yelderground structur ase provide integrit ease note integrity Tabi	SELECT SELECT	note as detailed in your licence role as detailed in your licence rece with licence requirements and imment systems tested? integrity and available volume? Itegrity testing " on underground s ich failed the integrity test and all hess testing for process and foul p joipeline/underground structures i Material of construction: SELECT	are all structures tested in structures e.g. pipelines or sur II which have not been tested ipelines (as required under yountegrity test Does this structure have Secondary containment?	bunding and storage guide hops etc? If yes please fill on withing the integrity test p ur licence) Type of secondary containment SELECT	ut table 2 below listing all seriod as specified Type integrity testing SELECT	SELECT SELECT	Commentary Results of test	Integrity test failure explanation	SELECT SELECT Corrective action	SELECT SELECT Scheduled date	Results of retest(if in current reporting year)	SELECT	for retest	

		Comments	
1 Are you required to carry out groundwater monitoring as part of your licence requirements?	no		Please provide an interpretation of groundwater monitoring data in the
2 Are you required to carry out soil monitoring as part of your licence requirements?	no		interpretation box below or if you require additional space please
Do you extract groundwater for use on site? If yes please specify use in comment section	no		include a groundwater/contaminated land monitoring results interpretaion as an additional section in this AER
Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there 4 an upward trend in results for a substance? If yes, please complete the Groundwater Monitoring Guideline Template Groundwater Report (link in cell G8) and submit separately through ALDER as a monitoring licensee return AND answer questions 5-12 below.	NA NA		
5 Is the contamination related to operations at the facility (either current and/or historic)	NA		
6 Have actions been taken to address contamination issues?If yes please summarise remediation strategies proposed/undertaken for the site	NA		1
7 Please specify the proposed time frame for the remediation strategy	NA		
8 Is there a licence condition to carry out/update ELRA for the site?	NA		
9 Has any type of risk assesment been carried out for the site?	NA		
10 Has a Conceptual Site Model been developed for the site?	NA		
11 Have potential receptors been identified on and off site?	NA		
12 Is there evidence that contamination is migrating offsite?	NA		Please enter interpretation of data here

P0506-01

Year

2017

Lic No:

Table 1: Upgradient Groundwater monitoring results

Groundwater/Soil monitoring template

Ground	water/Soil m	nonitoring to	emplate		Lic No:	P0506-01		Year 201		1	
Date of sampling	Sample location reference	Parameter/ Substance		Monitoring frequency	Maximum Concentration++	Average Concentration+	unit	GTV's*		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

Tubic 2.	Downgraule	ne Grounav								
										Upward trend in
										yearly average
										pollutant
	Sample									concentration over
Date of	location	Parameter/		Monitoring	Maximum	Average				last 5 years of
sampling	reference	Substance	Methodology	frequency	Concentration	Concentration	unit	GTV's*	SELECT**	monitoring data
							SELECT			SELECT
							SELECT			SELECT

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 riteria (GAC) and risk assessment tools is available 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
urface	regulations	(private supply
tor FOC	CTV/o	eto o do udo

Drinking water (public Interim Guideline supply) standards Values (IGV)

Table 3: Soil results

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

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

Environmental Liabilities template Lic No: P0506-01 Year 2017

<u>Click here to access EPA guidance on Environmental Liabilities and Financial provision</u>

			Commentary
1	ELRA initial agreement status	Not a Licence Requirement	
2	ELRA review status	NA	
3	Amount of Financial Provision cover required as determined by the latest ELRA	NA	
4	Financial Provision for ELRA status	NA	
5	Financial Provision for ELRA - amount of cover	NA	
6	Financial Provision for ELRA - type	NA	
	··		
7	Financial provision for ELRA expiry date	NA	
8	Closure plan initial agreement status	NA	Internal Budget Provision
9	Closure plan review status	NA	Internal Budget Provision
10	Financial Provision for Closure status	NA	Internal Budget Provision
11	Financial Provision for Closure - amount of cover	NA	Internal Budget Provision
12	Financial Provision for Closure - type	NA	Internal Budget Provision
13	Financial provision for Closure expiry date	NA	

	Environmental Management Programme/Continuous Improvement Programme	. template	Lic No:	P0506-01	Year	2017
	Highlighted cells contain dropdown menu click to view		Additional Information	1		
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in					
•	additional information	Yes	Int	ternal unaccredited EMS		
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	Yes				
	Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance					
3	with the licence requirements	Yes				
	Do you maintain an environmental documentation/communication system to inform the public on					
4	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	Training.Continue to	100		Section Head	Reduced emissions
	train all employees in		training in 2017. Hydraulic		
	environmental matters.		harrows were depolyed at		
			dust sensitive areas.		
	Training will be by means		Headland peat was collected		
	of the screening of an		during the production season.		
	environmental DVD,		during the production season.		
	followed by a power				
	point presentation.				
	Deploy Hydraulic				
	Harrows at dust sensitive				
	areas				
	Headland Peat				
	Collection.				
	Continue with the				
	collection of headland				
	peat, particularly at dust				
	sensitive locations.				
Waste reduction/Raw material usage	Waste Streamlining.It is	100	Quarterly waste reports are	Individual	Improved Environmental
efficiency	planned to continue with		returned for records/filing		Management Practices
······································			and waste streams are		
	and where possible		segrated on site to maximise		
	improve the current				
	waste management		recycling potential.		
	service provided by AES				
	Ltd				
	210				
Reduction of emissions to Water	Training. Continue to	100	In total 13 personnel received	Section Head	Reduced emissions
	train all employees in		training in 2017. Training		
	environmental matters.		covered SOP's in relation to		
	Training will be by means		silt control and general IPC		
			license awareness.		
	of the screening of an				
	environmental DVD,				
	followed by a power				
	point presentation.				
Materials Handling/Storage/Bunding	Increased bund capacity	0	No additional bund capacity	Section Head	Improved Environmental
	will be provided where		was required during 2017		Management Practices
	required.				
Waste reduction/Raw material usage	Continue with the	100	In total 186.86 tonnes were	Individual	Reduced emissions
efficiency		1.7	sent off site for recycling.		
emclency	recycling of polyethylene.				
	The sourcing of more		Procurement also exploring		
	recycling contractors will		the possibility of securing		
	be ongoing.		further recyclers.		
Sphagnum Project	A small scale trial is to	100	The Kiberry Sphagnum	Individual	Improved Environmental
	commence in 2012. Its		farming project is progressing		Management Practices
			with plots still in early stages		
	purpose is to trial grow				
	sphagnum moss on a		of development.		
	small area of cutaway in		Establishment of Sphagnum		
	Kilberry bog.		has been slow due to		
	Kilberty bog.		flucating water levels. Some		
			plots are developing well.		
			plots are developing well.		
			plots are developing well.		

	ľ	Noise monitor	ing summary	report			Lic No:	P0506-01	Year	2017	
	_	ce requirement fo		?				No			
if yes please f	ili in table N1 no	oise summary bel	ow				Noico		1		
	U	d out using the EP	,	U	•	the	Noise Guidance note NG4	NA			
	Checklist for noise measurement report" included in the guidance note as table 6? oes your site have a noise reduction plan							NA			
•		on plan last update	ed?					Enter date			
Have there b	een changes re	levant to site nois	e emissions (e.g. survey?	plant or ope	rational cha	nges) since	the last noise	NA			
Table N1: Noi	se monitoring	summarv				1					
		1									
Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA_{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
								SELECT	SELECT		SELECT
*Please ensure tha	t a tonal analysis has	been carried out as per g	guidance note NG4. Thes	se records must b	oe maintained on	isite for future in	spection				
									m 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: P0506-01 Year 2017

Meditional information

When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below

Oct-17

SEAI - Large Industry
Is the site a member of any accredited programmes for reducing energy usage/water conservation such as the SEAI programme
Inlined to the right? If yes please list them in additional information

Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

NA

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)	2546.993	2785.44		
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (MWHrs)				
Electricity Consumption (MWHrs)	142.83	141.9		
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	236.607	260.166		
Natural gas (m3)				
Coal/Solid fuel (metric tonnes)				
Peat (metric tonnes)	, and the second			
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	
			Production +/- %			Volume used i.e not	
			compared to	Energy Consumption	Volume Discharged	discharged to	
	Water extracted	Water extracted	previous reporting	+/- % vs overall site	back to	environment e.g. released	
Water use	Previous year m3/yr.	Current year m3/yr.	year**	production*	environment(m ³ yr):	as steam m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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

2017

Year

Resource Usage/Energy efficiency summary

Lic No: P0506-01

Table R3 Waste Stream Summary					
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	18.74	0	0.29	18.45	0
Non-Hazardous (Tonnes)	406.08	10.61	0	148.47	247

Table R4: Energy Audit finding	recommendations		1					
		Description of		Predicted energy				Status and
Date of audit	Recommendations	Measures proposed	Origin of measures	savings %	Implementation date	Responsibility	Completion date	comments
			SELECT					
			SELECT					
			SELECT					

	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 di	d Incidents summary templat	re e			Lic No:	P0506-01		Year	2017			1	
		Compla	ints		LIC NO.	F0300-01		Teal	2017			J	
e you received	d any environmental complaints in the details of complaints receiv	current reporting year? If yes		Yes	Additional information There was one environmental complaints during reporting period								
Tabl	e 1 Complaints summary		1										
ate	Category	Other type (please specify)	Brief description of complaint (Free txt <20 words)	Corrective action< 20 words	Resolution status	Resolution date	Further information						
			Claim of peat silt on turf bank outfall and access	Bord na Mona cleaned drain and levelled the									
19/03/20:	17 Water		road.	access road.	Complete	20/04/2017							
obtal complaints oben at start of porting year tatal new omplaints receive uring reporting ear tatal complaints obtal complaints of omplaints end of porting year	0 d d 1 1 0												
		Incide	nts										
					Additional information	ļ.							
	nts occurred on site in the current repo year in Tat on how to report and what constitutes an incident		ents for current reporting	Yes	All reportable incidents related to trigger levels for Ammonia and COD								
Table 2 Incidents s	ummary												
ate of occurrence		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		olution status
14/03/2017 15/05/2017	Trigger level reached Trigger level reached	SW6A Ummerus SW4 Ummerus	1. Minor 1. Minor	Water Water		Naturally Occuring Naturally Occuring		INCI011854 INCI012197	New New	Inspected Outfall Inspected Outfall	NA NA		nplete nplete
09/06/2017	Trigger level reached	SW1 Kilberry	1. Minor	Water		Naturally Occuring		INCI012197	New	Inspected Outfall	NA NA		mplete
09/06/2017	Trigger level reached	SW2 Kilberry	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI012340	New	Inspected Outfall	NA	Co	mplete
09/06/2017	Trigger level reached	SW3 Kilberry	1. Minor	Water		Naturally Occuring	Normal activities	INCI012393	New	Inspected Outfall	NA		mplete
12/06/2017 06/06/2017	Trigger level reached Trigger level reached	SW4 Ummerus SW4 Ummerus	1. Minor 1. Minor	Water Water	Other (add details) Other (add details)	Naturally Occuring Naturally Occuring	Normal activities Normal activities	INCI012434 INCI012509	New New	Inspected Outfall Inspected Outfall	NA NA		mplete mplete
03/07/2017	Trigger level reached Trigger level reached	SW4 Ummerus	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities Normal activities	INCI012509	New	Inspected Outfall	NA NA		mplete mplete
24/07/2017	Trigger level reached	SW4 Ummerus	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI012471	New	Inspected Outfall	NA		mplete
01/08/2017	Trigger level reached	SW4 Ummerus	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI012700	New	Inspected Outfall	NA		mplete
01/08/2017	Trigger level reached	SW4 Ummerus	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI012787	New	Inspected Outfall	NA		mplete
08/092017	Trigger level reached	SW4 Ummerus	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI012852	New	Inspected Outfall	NA	Co	mplete
	Trigger level reached	SW4 Ummerus	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI012942	New	Inspected Outfall	NA		mplete
18/09/2017	Tripped level see sheet	SW4 Ummerus	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI1013618	New	Inspected Outfall	NA	Cor	mplete
	Trigger level reached												

WASTE SUMMARY	Υ				Lic No:	P0506-01		Year	2017			1
_	ON SITE WASTE TREATMENT AND	WASTE TRANSFERS TAB- 1	TO BE COMPLETED B	Y ALL IPPC AND WA	STE FACILITIES	PRTR facility logon		_	ist click to see options			•
								-				
SECTION B- WASTI	E ACCEPTED ONTO SITE-TO BE CO	MPLETED BY ALL IPPC AN	D WASTE FACILITIES]						
	7,002, 120 0,110 0,12 10 02 00						Additional Information	on				
	ted onto your site for recovery or disposal o	r treatment prior to recovery or d	isposal within the boundar	ies of your facility ?; (was								
1 to be captured through						SELECT		_				
If yes please enter detai	ils in table 1 below							1				
2 Did your site have any re	ejected consignments of waste in the currer	nt reporting year? If yes please giv	e a brief explanation in the	additional information		SELECT						
	s waste accepted onto your site that was ge of waste accepted onto your					SELECT e as these w	l ill have heen r	_ enorted in vour Pl	RTR workhook)			
Licenced annual	EWC code		Description of waste	Quantity of waste	Quantity of waste accepted in previous	Reduction/	Reason for	Packaging Content (%)-	Disposal/Recovery or treatment	Quantity of	Comments -	1
tonnage limit for your site (total			accepted Please enter an accurate	accepted in current reporting year (tonnes)	reporting year (tonnes)	Increase over previous year +/ -	reduction/increase from previous	only applies if the waste has a packaging	operation carried out at your site and the description of this	waste remaining on site at the		
tonnes/annum)			and detailed description -	,		%	reporting year	component	operation	end of reporting		
			which applies to relevant EWC code							year (tonnes)		4
												1
	European Waste Catalogue EWC codes		European Waste Catalogue EWC codes									
												4
												1
												-
	L		I.	I.	l .	ı	I	I.			ı	4
SECTION C-TO BE O	COMPLETED BY ALL WASTE FACIL	ITIFS (waste transfer static	ons, Composters, Ma	terial recovery facil	lities etc) FXCFPT LANDFILL SITE	s						
			,	,	,							
										ī		
4 Is all waste processing in	nfrastructure as required by your licence an	d approved by the Agency in place	e? If no please list waste pr	ocessing infrastructure re	equired onsite	SELECT				1		
F 15 - 11	and the second s		f		1	CELECT				Ī		
-	astructure as required by your licence and a	pproved by the Agency in place? I	f no please list waste storag	ge infrastructure required	I on site	SELECT				1		
	relevant nuisance controls in place? nanagement system in place for your facility	r? If no why?				SELECT SELECT						
8 Do you maintain a sludg		,				SELECT				1		
SECTION D-TO BE	COMPLETED BY LANDFILL SITES O	NLY]									
Table 2 Waste typ	e and tonnage-landfill only		-		1							
Wests two	Authorized/licency-111	Actual intake for disposal in	Remaining licensed									
Waste types permitted for disposal	Authorised/licenced annual intake for disposal (tpa)	Actual intake for disposal in reporting year (tpa)	capacity at end of reporting year (m3)	Comments								
-					1							
]							
		<u> </u>	l	l	J							
Table 3 General in	formation-Landfill only											
										Total disposal	Lined disposal	Unline
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	area occupied by waste	area occupied by waste	Uniin
				Орстанси		-cuse minuming	usacstus	Libratus.	year			
										SELECT UNIT	SELECT UNIT	SELEC

WASTE SUMMARY	1				Lic No:	P0506-01		Year	2017	
Table 4 Environme	ental monitoring-landfill only	Landfill Manual-Monitoring Stan	dards			-	•	•		
Was meterological monitoring in compliance with Landfill Directive (LD) standard in reporting year +	Was leachate monitored in compliance	Was Landfill Gas monitored in compliance with LD standard in reporting year			Were emission limit values agreed with	of the site surveyed in	Has the statement under S53(A)(5) of WMA been submitted in reporting year	Comments		
.+ please refer to Landfil Table 5 Capping-La	Manual linked above for relevant Landfill [Directive monitoring standards								
Table 5 Capping-La	I I I I I I I I I I I I I I I I I I I						ו			
Area uncapped*	Area with temporary cap			Area with waste that should be permanently						
SELECT UNIT	SELECT UNIT	Area with final cap to LD Standard m2 ha, a	Area capped other	capped to date under licence	What materials are used in the cap	Comments				
]			
*please note this include	'									
Table 6 Leachate-L	andfill only	_					-			

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

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

Volume of leachate in reporting year(m3)	,	Leachate (NH4) mass load (kg/annum)	Leachate (Chloride) mass load kg/annum	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	

Kilberry Decommissioning and Rehabilitation AER Overview 2017.

Within the Kilberry licensed area (P0506-01) there were no bog areas available for rehabilitation in 2017. Ongoing monitoring of cutaway within the Kilberry bogs was carried out with re-survey work carried out on Mouds bog.

Draft rehabilitation plans for the Kilberry bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015 and 2017.

Ongoing rehabilitation trials (cutaway re-wetting and *Sphagnum* inoculation) are being monitoring at Kilberry Bog.

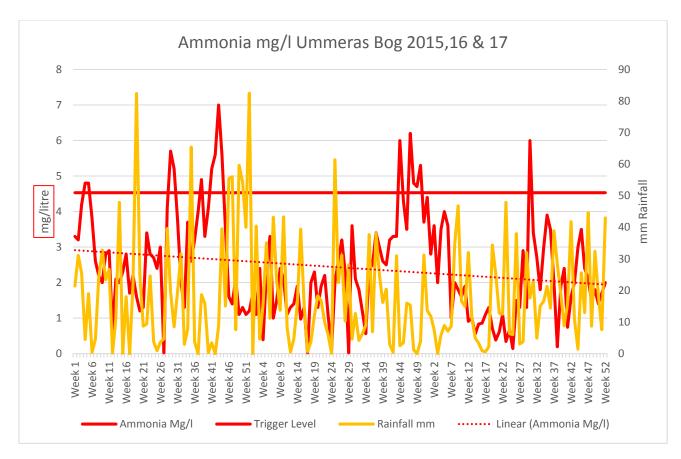
The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in February 2017, this included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.

A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

As required by condition 10.2 Cutaway Bog Rehabilitation Plans, draft peatland rehabilitation plans for all the individual bog units were submitted to the agency in 2013, reviewed and amended in 2015 and re-submitted to the agency in 2015. All draft rehabilitation plans have been reviewed in 2017. These reviewed and amended plans will be re-submitted to the agency in due course.

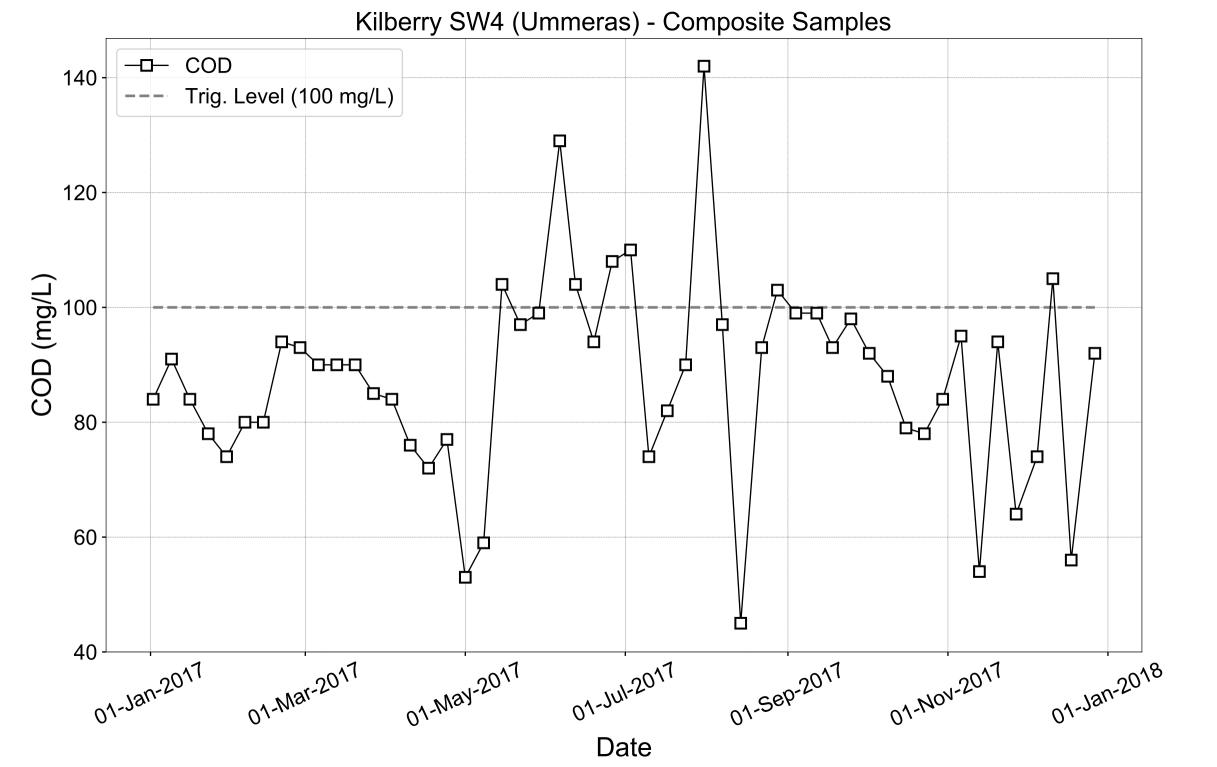
Bord na Mona Kilberry
IPPC Licence P0506-01
Quarterly Grab 2017

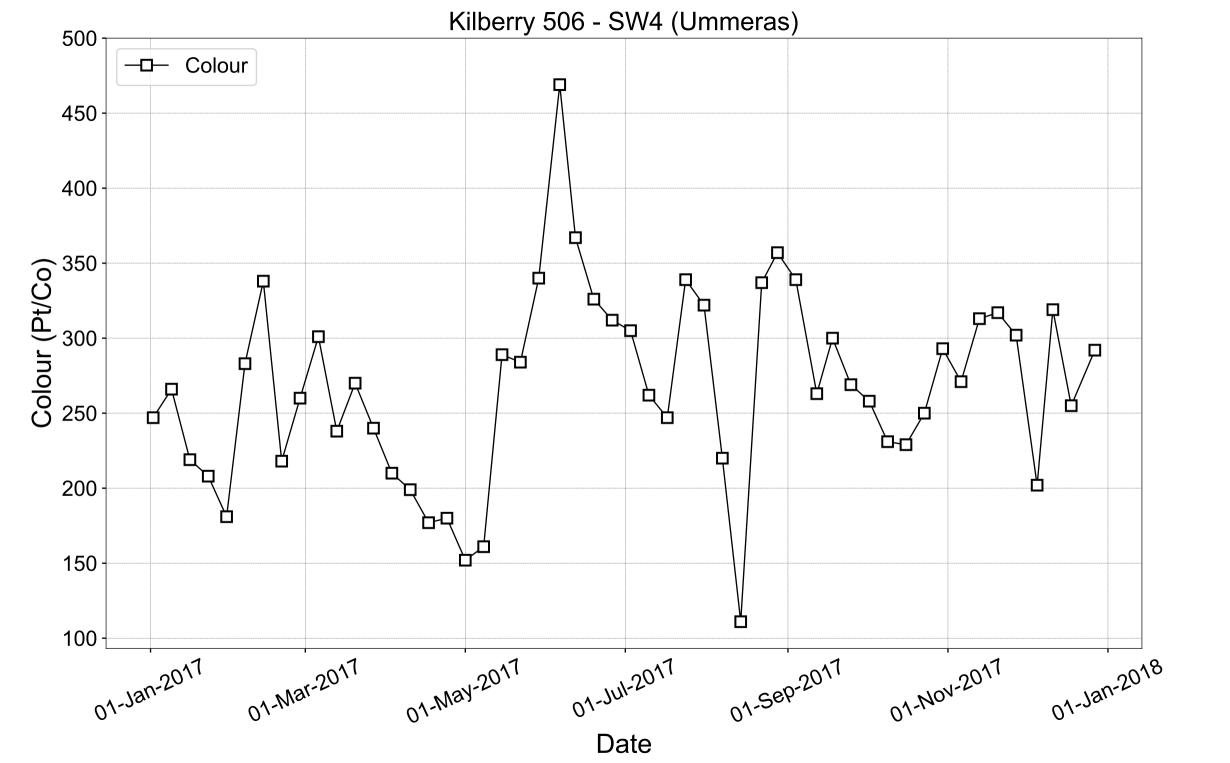
Х	Υ	Bog	SW	Monitoring	Sampled	pН	SS	TS	Ammonia	TP	COD	Colour
262581.53	214669.12	Ummeras	SW-6	Q1 17	14/03/2017	7.4	5	248	2.5	0.05	90	332
262280.17	215578.65	Ummeras	SW-6A	Q1 17	14/03/2017	7.8	5	294	1.3	0.05	100	255
283610.02	228467.98	Prosperous	SW-15	Q1 17	14/03/2017	7.7	5	212	3.6	0.05	58	159
266654.80	199892.88	Kilberry	SW-1	Q2 17	09/06/2017	7.4	5	161	3.3	0.05	108	345
267239.42	201958.36	Kilberry	SW-2	Q2 17	09/06/2017	7.1	5	156	0.76	0.06	112	450
267200.77	201949.29	Kilberry	SW-3	Q2 17	09/06/2017	7.1	5	158	1.1	0.06	115	453
268870.08	199128.68	Kilberry	SW-3A	Q2 17	09/06/2017	7	6	126	2.1	0.05	96	334
270082.33	199354.32	Kilberry	SW-3B	Q2 17	09/06/2017	7.9	8	258	0.08	0.08	82	125
270684.25	201649.88	Kilberry	SW3-C	Q2 17	09/06/2017	7.8	5	260	0.08	0.05	97	243
279548.84	233696.75	Gilltown	SW-7	Q3 17	15/09/2017	7.6	5	157	2.2	0.05	48	114
280775.39	233404.44	Gilltown	SW-9	Q3 17	15/09/2017	7.9	5	192	1.9	0.05	71	99
279677.46	231646.85	Gilltown	SW-11	Q3 17	15/09/2017	7.7	7	90	2.7	0.05	69	218
283497.47	230604.25	Prosperous	SW-16	Q3 17	15/09/2017	7.2	5	110	0.38	0.05	62	234
284083.62	229490.13	Prosperous	SW-17	Q3 17	15/09/2017	7.8	5	188	2.1	0.05	61	106
283610.02	228467.98	Prosperous	SW-15	Q3 17	15/09/2017	7.4	7	112	0.39	0.05	68	191
282032.94	221405.51	Allen	SW-13	Q4 17	05/12/2017	7.4	5	372	1.6	0.05	41	221
279374.51	221128.33	Allen	SW-14	Q4 17	01/12/2017	5.1	5	94	0.6	0.05	79	224
279522.44	220979.75	Allen	SW-14A	Q4 17	01/12/2017	5.6	2	126	0.16	0.05	101	397



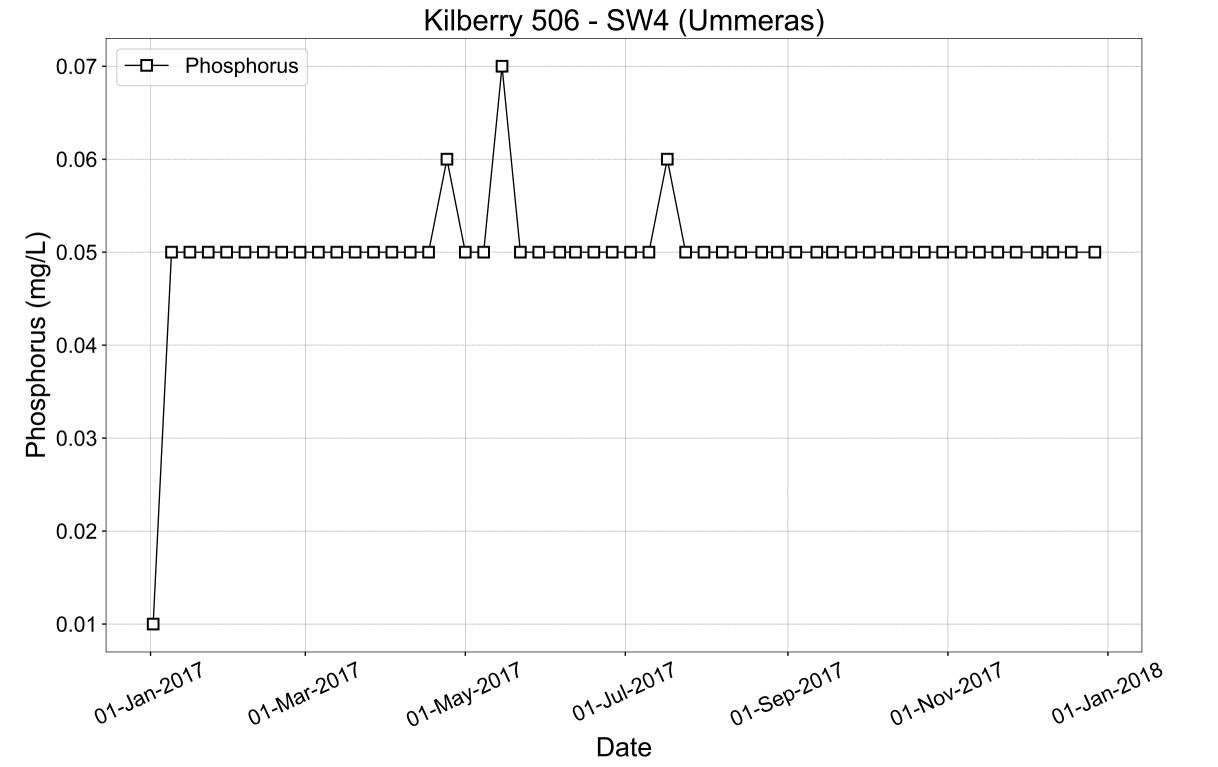
Ummeras bog is an active production bog with the composite sampler located here during 2015, 16 & 17. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had limited downtime during the period and returned 52 weekly ammonia results during the period of this 2017 AER. The ammonia trigger level of 4.53mg/l, as agreed with the Agency, was exceeded once during the reporting period. Overall the results, which showed a neutral trend in 15 and 16 has started to show a downward trend over the 3yrs data analysis as peat extraction continues and this is in-line with typical trends submitted to the EPA in 2013 as required by condition 6.14. It has been established that the most relevant influencing variable on Ammonia is rainfall and the trend analysis above indicates linkage between high rainfall events and ammonia concentrations.

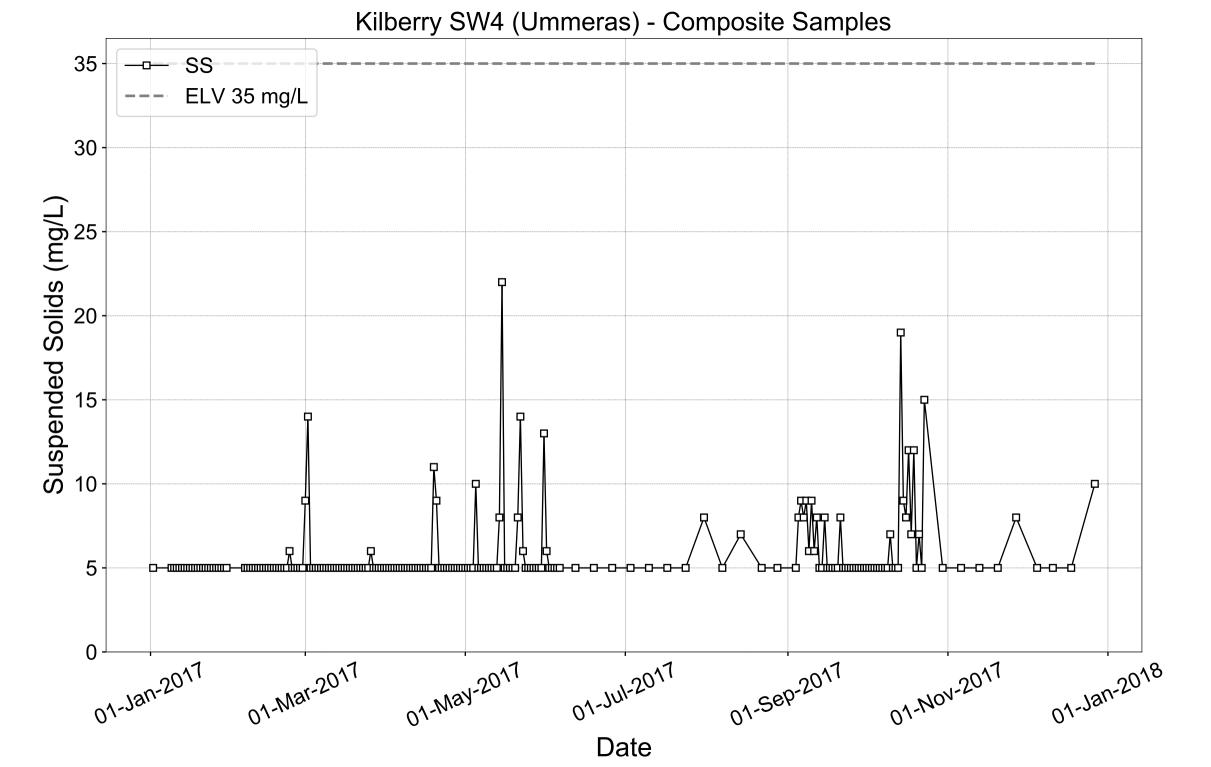
Kilberry 506 - SW4 (Ummeras) Ammonia Trig. Level (4.53 mg/L) 5 Ammonia (mg/L) 0 01-Mar-2017 01-NOV-2017 01-May-2017 01-Jan-2017 01-Jul-2017 01-Sep-2017 01-Jan-2018 Date

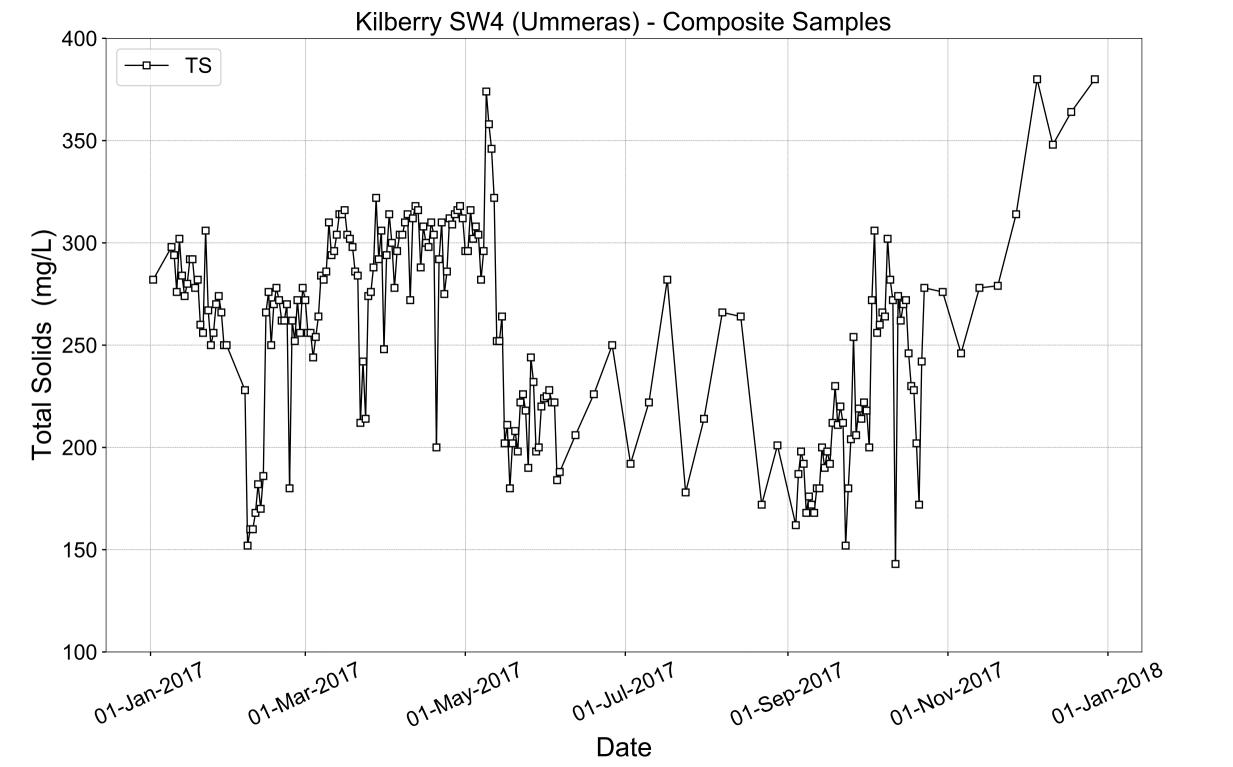




Kilberry 506 - SW4 (Ummeras) 9.0 рΗ Low Trig. Level High Trig. Level 8.5 8.0 \Box 口只 ρ 표 7.5 7.0 6.5 6.0 01-NOV-2017 01-May-2017 01-Mar-2017 01-Jul-2017 01-Sep-2017 01-Jan-2017 01-Jan-2018 Date







Yard Discharge Quarterly Results

Licence: P0506-01

Works: Kilberry

Month	Ummerus SWE 1 COD	Allen SWE 1 COD	Gilltown SWE 1 COD	Prosperous SWE 1 COD	Trigger Levels
Jan					100
Feb					100
Mar	72	52	55	70	100
Apr					100
May					100
June	90	63	46	55	100
July					100
Aug					100
Sep	40	85	73	84	100
Oct					100
Nov					100
Dec	55	59	46	50	100



| PRTR#: P0506 | Facility Name: Bord na Môna Energy Limited (Kilberry) | Filename: P0506_2017.xls | Return Year: 201

Guidance to completing the PRTR workbook

PRTR Returns Workbook

I. FACILITY DESTIFICATION

1. FACILITY DESTIFICATION

FIGURE 1997 TO See 1 Month of the control of the control

| PRTR# : P0506 | Facility Name : Bord na Môna Energy Limited (Kilberry) | Filename : P0506_2017.xls | Return Year : 2017 |

4.1 RELEASES TO AIR

Link to previous years emissions data

| PRTR# : P0506 | Facility Name : Bord na Môna Energy Limited (Kilberry) | Filename : P0506_2017.xls | Return Year : 2017 |

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SECTION A: SECTOR SPECIFIC PRTR POLLUTANTS

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

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

SECTION B: REMAINING PRTR POLLUTANTS

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

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

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

		RELEASES TO AIR				Please enter all quantities	in this section in KGs		
				METHOD	QUANTITY				
					Method Used	DM01			
	Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
210		Dust	E	OTH	VDI 2119 Blatt 2/Part 2	0.0	0.03626	0.0	0.03626
		* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button							

Additional	Data Rec	uested	from	Landfill	operators	

For the purposes of the National inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methans) litered or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under Tytical (NGV) for Section A Section specific PRTP oplituants above. Please complete the table below:

Landilli:
Please enter summary data on the
quantities of methane flared and / or
utilised

Landfill:	Bord na Móna Energy Limited (Kilberry)					
Please enter summary data on the quantities of methane flared and / or utilised			Meth	od Used		
				Designation or	Facility Total Capacity	
	T (Total) kg/Year	M/C/E	Method Code	Description	m3 per hour	
Total estimated methane generation (as per						
site model)	0.0				N/A	
Methane flared	0.0					(Total Flaring Capacity)
Methane utilised in engine/s					0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section						
A above)	0.0				N/A	

4.2 RELEASES TO WATERS

Link to previous years emissions data

| PRTR# : P0506 | Facility Name : Bord na Móna Energy Limited (Kilberry) | Filename : P0506_2017.xls | Return Year : 2017 |

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SECTION A: SECTOR SPECIFIC PRTR POLLUTANTS

Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only concerns Releases from your facility

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

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

SECTION B : REMAINING PRTR POLLUTANTS

	RELEASES TO WATERS				Please enter all quantit	es in this s	ection in KGs		
	POLLUTANT							QUANTITY	
				Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					_	0.0	0.0	0.0	0.0

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

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

			RELEASES TO WATERS				Please enter all quantitie	s in this section in K	Gs	
		POLLUTANT							QUANTITY	
						Method Used	SW4			
	Pollutant No.		Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
						G/19 Based on				
						ALPHA,1998,20th Edition,				
2	40	Suspended Solids		Е	OTH	Method 2540D	0.	.0 0	0.0	0.0

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

4.3 RELEASES TO WASTEWATER OR SEWER

Link to previous years emissions data

| PRTR# : P0506 | Facility Name : Bord na Móna Energy Limited (Kilberry) | Filename : P0506_2017.

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SECTION A: PRTR POLLUTANTS

J	OFFSITE TRANS	SFER OF POLLUTANTS DESTINED FOR WASTE-W	ATER TRE	EATMENT OR SEWER		Please enter all quantities	in this section in KGs			
	PO	LLUTANT		METHO)D			QUANT	ITY	
I				Met	hod Used					
	No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accid	lental) KG/Year	F (Fugitive) KG/Year
1						0.0	(0.0	0.0	0.0

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

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

OLOTION D. KLIMAINING I OLLOTAIN LIIN	olorio (as required in your Election)					_		
OFFSITE TRAN	SFER OF POLLUTANTS DESTINED FOR WASTE-W	ATER TRE	EATMENT OR SEWER		Please enter all quantities	in this section in KGs		
PO	LLUTANT		METHO)D			QUANTITY	
			Met	hod Used				
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

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

Link to previous years emissions data Page 1 of 1

4.4 RELEASES TO LAND

Link to previous years emissions data

PRTR#: P0506 | Facility Name: Bord na Móna Energy Limited (Kilberry) | Filename: P0506_2017.xls | Return Year: 2017 |

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SECTION A: PRTR POLLUTANTS

		RELEASES TO LAND				Please enter all quantities	in this section in KGs	
	PO	LLUTANT		METHO	D			QUANTITY
ı				Meth	nod Used			
	No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
						0.0	1	0.0 0.0

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

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

	RELEASES TO LAND				Please enter all quan	tities in this section in K	Gs
	POLLUTANT		M	ETHOD			QUANTITY
				Method Used			
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
						0.0	0.0 0.

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE | PRTR# : P0506 | Facility Name : Bord na Môna Energy Limited (Kilberry) | Filename : P0506_2017.xls | Return Year : 2017 |

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			Please enter	all quantities on this sheet in Tonnes								3
									Licence/Permit No of Next Destination Facility Non	Haz Waste : Address of Next	Name and License / Permit No. and	
			Quantity						Haz Waste: Name and	Destination Facility	Address of Final Recoverer /	Actual Address of Final Destination
			(Tonnes per						Licence/Permit No of	Non Haz Waste: Address of	Disposer (HAZARDOUS WASTE	i.e. Final Recovery / Disposal Site
			Year)				Method Used		Recover/Disposer	Recover/Disposer	ONLY)	(HAZARDOUS WASTE ONLY)
					Waste							
	European Waste				Treatment			Location of				
Transfer Destination	Code	Hazardous		Description of Waste	Operation	M/C/E	Method Used	Treatment				
				wastes from mineral non-metalliferous					Bord na Mona Energy	Boora,Leabeg,Tullamore,Co		
Within the Country	01 01 02	No	247.0	excavation	D1	E	Volume Calculation	Onsite of generat	i Ltd,IPPC P0506-01	Offaly, Ireland		
									Ryston Industeries Ltd,WFP-			
									KE-12-0066-01 & WCP-KE-	Castledermot,Co		
Within the Country	02 01 04	No	129.86	waste plastics (except packaging)	R3	M	Weighed	Offsite in Ireland	10-0569-01	Kildare,,,,,Ireland		
											Enva Environmental Ltd,184-	
										Clonminam Ind	1,Clominam Ind	Clominam Ind
				mineral-based non-chlorinated engine, gear						Estate,Portlaoise,Co	Est,.,Portlaoise,Co Laois	Est,.,Portlaoise,Co Laois
Within the Country	13 02 05	Yes	2.24	and lubricating oils	R1	С	Volume Calculation	Offsite in Ireland	Enva Ireland Ltd,184-1	Laois,,,Ireland	,Ireland	,Ireland
										Cappincue, Tullamore, Co		
Within the Country	17 04 07	No	9.41	mixed metals	R4	M	Weighed	Offsite in Ireland	AES Ltd,053/OY/39/02	Offaly,,,Ireland		
										Cappincue, Tullamore, Co		
Within the Country	20 03 01	No	9.6	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	AES Ltd,053/OY/39/02	Offaly,,,Ireland		
										Cappincue, Tullamore, Co		
Within the Country	20 03 01	No	1.01	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	AES Ltd,053/OY/39/02	Offaly,,,Ireland		
										Clonminam Ind		
										Estate,Portlaoise,Co		
Within the Country	20 03 04	No	9.23	septic tank sludge	R10	С	Volume Calculation	Offsite in Ireland	Enva Ireland Ltd,184-1	Laois,,,Ireland		
										Clonminam Ind		
										Estate,Portlaoise,Co		
Within the Country	13 05 03	Yes	16.0	interceptor sludges	R1	С	Volume Calculation	Offsite in Ireland	Enva Ireland Ltd,184-1	Laois,,,Ireland		
										Clonminam Ind	R.D. Recycling, Reg no	
										Estate, Portlaoise, Co	51727/1/KD, Houthalen, ., ., ., B	
To Other Countries	16 01 07	Yes	0.21	oil filters	R4	С	Volume Calculation	Abroad	Enva Ireland Ltd,184-1	Laois,,,Ireland	elgium	Houthalen,.,.,,Belgium
				absorbents, filter materials (including oil							-	
				filters not otherwise specified), wiping						Clonminam Ind		
				cloths, protective clothing contaminated by						Estate,Portlaoise,Co		
Within the Country	15 02 02	Yes	0.29	dangerous substances	R1	С	Volume Calculation	Offsite in Ireland	Enva Ireland Ltd,184-1	Laois,.,Ireland		
To Other Countries				-				Abroad				

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

Link to previous years waste data
Link to previous years waste summary data & percentage change
Link to Waste Guidance

National Grid Reference (6E, 6 N) Class/Classes of Activity NACE Code Site Location Name of site Licence Register Number **AER Reporting Year** Facility Information Summary P0507-01 2017 Boora, Leabeg, Tullamore, Co Offaly Bord na Mona Cuil na Mona 180050, 319540 0892 1.4

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

Activities on site can be divided into two components, firstly the milling, harrowing, ridiging and harvesting of peat into stockpiles and secondly the transportation of that peat via an internal rail network to the lorry outloading facilities for transportation to a Moss Peat Factory or direct to the Docks. There was no Production achieved. Infrastructurally, there was no bog development. From an environmental perspective silt pond upgrade work is ongoing. The quarterly grab sampling was 100% compliant with the licence ELV, with 3 trigger level relating to COD and 1 Ammonia reached. The composite sampling regeime was also fully compliant with ELV, with trigger levels reached on 16 occasions for COD. There were no environmental complaint received during the reporting period. In relation to silt pond cleaning, 100% of ponds received two cleanings, inspections dictating cleaning schedules. Decommissioning and Rehabilitation works are described in an attachment. The composite sampler experienced some technical difficulties during the reporting period and it was therefore decided to send it away for a complete service / overhaul which included the replacement of some of the major component parts.

Declaration:

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

AIR-summary					Lic No:	P0507-01		P0507-01	201	17
Answer all question	ons and complete all table	es where relevant					Additional informat	ion		
reporting year a		tions. If you do not	have licenced emi	and A2 below for the current ssions and do not complete a complete the tables	No		st sensetive locations tions within the licer	or dust monitoring		
Periodi	c/Non-Continuous N	Monitoring								
Are there any res	sults in breach of licence r	equirements? If yes p of TableA1 belo		details in the comment section	NA				+	
	ng carried out in accordan d using the basic air moni		Basic air monitoring checklist	AGN2	NA					
Table A1: Lice	nsed Mass Emission	s/Ambient data-	periodic monito	oring (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	Method of analysis	Annual mass	Comments - reason for change in % mass load from previous year if applicable
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		
Note 1: Volumetri	c flow shall be included as	s a reportable parame	ter							
	Continuous I	Monitoring								
				ields below in Table A2 and	SELECT					
Did continuous me				owntime in table A2 below	SELECT					
Dia continuous iii		f	tinuous monitoring	equipment?	SELECT				<u> </u>	
	active service agreement	for each piece of con								

 AlR-summary template
 Lic No:
 P0507-01
 P0507-01
 2017

2

Table A2: Summary of average emissions -continuous monitoring

Emission	Parameter/ Substance		Averaging Period	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:					measurement			Equipment	exceedences in	
		ELV in licence or						downtime (hours)	current	
		any revision therof							reporting year	
	SELECT			SELECT	SELECT					
	SELECT				SELECT					

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

Table A3: Abatement system bypass reporting table Bypass protocol

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

^{*} this should include all dates that an abatement system bypass occurred

	Solvent	use and manageme	nt on site							
8	Do you have a tota	l Emission Limit Value of d	irect and fugitive emi	issions on site? if y	es please fill out tables A4 and A	5		SELECT		
		ent Management Pla ssion limit value		Solvent regulations	Please refer to linked solven complete table 5 a	and 6				
	Reporting year	Total solvent input on site (kg)		s to Air emissions as %of cire site solvent input Total Emission Limit Value						
				SELECT						
				SELECT						
	Table A5:	Solvent Mass Balanc	e summary							
		(I) Inputs (kg)				Outputs (kg)				
	Solvent	(I) Inputs (kg)		Solvents lost in water (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)	
Į										
								Total		

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

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER) Lic No: P0507-01 Year P0507-01 Additional information Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions. If you do not have licenced emissions you <u>only</u> need to complete table The continuous sampler experienced technical difficulties which inhibited the collection of flow data and subsequent annual loading calculations. It was therefore decided to present the sampling results in graph form as an W1 and or W2 for storm water analysis and visual inspections attachment Was it a requirement of your licence to carry out visual inspections on any surface water 2 discharges or watercourses on or near your site? If yes please complete table W2 below Quarterly Grab sampling results are attached. summarising only any evidence of contamination noted during visual inspections Table W1 Storm water monitoring

Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Compliance	Measured value	Unit of measurement	Compliant with licence	Comments
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	

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

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

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
			SELECT		
			SELECT		

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

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

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 a require improvement in additional information and section of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail what areas the control of the EPA? If no please detail w

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		ELV or trigger values in licence or any revision therof ^{Note 2}		Measured value		Compliant with licence			Annual mass load (kg)	Comments
	SELECT	SELECT	SELECT		SELECT		SELECT		SELECT	SELECT	SELECT	SELECT		

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

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

AER I	Monitori	ing returns su	mmary template-W	ATER/WASTEW	ATER(SEWER)		Lic No:	P0507-01		Year	P0507-01		
5 Does y	your site ca	rry out continuou	tinuous monitoring data b	-	d compare it to	Yes		Additional Information]			
6 Did corr table W 7 Do you site? 8 Did aba below	le W4: Summary of average emissions -continuous monitoring				equipment on	Yes Yes	Annual calibration s	Total of 66 days over 365 days schedule and trouble shooting servi	ce				
Emissio	ion	Emission		ELV or trigger values in licence or any revision	Averaging	Compliance	Units of	Annual Emission for current	% change +/- from previous reporting year	Monitoring Equipment	Number of ELV exceedences in		

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

Table W5: Abatement system bypass reporting table

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

^{*}Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline test	ting template				Lic No:	P0507-01		Year	201	7				
Bund testing	1	dropdown menu cli	ick to see ontions				Additional information							-
Are you required by you containment structures	s on site, in addition to al	ntegrity testing on bunds and conta Il bunds which failed the integrity t he licenced testing period (mobile b	ainment structures ? if yes ple est-all bunding structures wh	ich failed including mobile		e Yes	No fixed Bunds on site.							
Please provide integrity	y testing frequency perio	d				Other (2 Yearly)								
type units and mobile b How many bunds are but How many of these but How many mobile bunds in How many of these mo How many of these sun Please list any sump inf Do all sumps and chaml If yes to Q11 are these l	bunds) ns itle? nds have been tested wit ds are on site? ncluded in the bund test bible bunds have been tes te are included in the int mps are integrity tested w tegrity failures in table B bers have high level liqui failsafe systems included	sted within the required test schedi egrity test schedule? vithin the test schedule? i1 d alarms? in a maintenance and testing prog	ule?	ss and containers? (containe	rs refers to "Chemstore"	No	There are no fixed bunds in the Cuil na Mona licence and therefore integrity testing is not an issue. Built fuel is stored at Cuil na Mona factory which is not part of the licence footprint.	:						
	Table 81: Summary details of bund /containment structure integrity test							_						
Bund/Containment									Integrity reports maintained on		Integrity test failure		Scheduled date	
structure ID	Type SELECT	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test SELECT	Other test type	Test date	site? SELECT	Results of test SELECT	explanation <50 words	Corrective action taken SELECT	for retest	rep
	SELECT					SELECT			SELECT	SELECT		SELECT		I
	ply with 25% or 110% containmen						Commentary	_						
las integrity testing be- ine with BS8007/EPA G		ince with licence requirements and	are all structures tested in	bunding and storage guide	lines	SELECT								
Are channels/transfer s	systems to remote contai					SELECT								
Are channels/transfer s	systems compliant in bot	h integrity and available volume?				SELECT								
Pipeline/undergro	ound structure testing							7						
Are you required by you	ur licence to undertake in	ntegrity testing* on underground s	tructures e.g. pipelines or sur	nps etc ? if yes please fill ou	t table 2 below listing all									
		hich failed the integrity test and al	I which have not been tested	withing the integrity test p	eriod as specified	SELECT								
	y testing frequency perior	d tness testing for process and foul pi	inelines (as required under vo	our licence)		SELECT								
				-										
Table	e B2: Summary details of	pipeline/underground structures in	ntegrity test									1		
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	reporting year)			
	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT			+	SELECT			
Ĺ									1	1				
		Please use comm	mentary for additional details	not answered by tables/ qu	estions above		_							

Groundwater/Soil monitoring template	Lic No:	P0507-01	Year 2017	
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Comments

1 Are you required to carry out groundwater monitoring as part of your licence requirements?	No	Please provide an interpretation of groundwater monitoring data in the
2 Are you required to carry out soil monitoring as part of your licence requirements?	No	interpretation box below or if you require additional space please include
3 Do you extract groundwater for use on site? If yes please specify use in comment section	No	a groundwater/contaminated land monitoring results interpretaion as an additional section in this AER
Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there 4 an upward trend in results for a substance? If yes, please complete the Groundwater Monitoring Guideline Template Groundwater Report (link in cell G8) and submit separately through ALDER as a licensee return AND answer questions 5-12 below. template	SELECT	
5 Is the contamination related to operations at the facility (either current and/or historic)	SELECT	
6 Have actions been taken to address contamination issues?If yes please summarise		
remediation strategies proposed/undertaken for the site	SELECT	
7 Please specify the proposed time frame for the remediation strategy	SELECT	
8 Is there a licence condition to carry out/update ELRA for the site?	SELECT	
9 Has any type of risk assesment been carried out for the site?	SELECT	
10 Has a Conceptual Site Model been developed for the site?	SELECT	
11 Have potential receptors been identified on and off site?	SELECT	
12 Is there evidence that contamination is migrating offsite?	SELECT	Please enter interpretation of data here

Ground	water/Soil n	nonitoring t	emplate		Lic No:	P0507-01		Year	201	7		
able 1:	Upgradient	Groundwa	ter monitori	ng results								_
Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration++	Average Concentration+	unit SELECT	GTV's*	SELECT**	Upward trend in pollutant concentration ove last 5 years of monitoring data	r	
		s arithmetic me		ļ			SELECT		1	SELECT		
.++ maximı	um concentrati	on indicates the	e maximum mea	sured concentratio	n from all monitoring	g results produced o	luring the reporting year				7	
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 ove last 5 years of monitoring data	r	
							SELECT SELECT		1	SELECT SELECT		
upward t please con	rend in results for nplete the Grour nation on the use	or a substance in ndwater Monitor e of soil and grou	dicates that furthering Guideline Tem a ndwater standard	er interpretation of m plate Report at the li s otherwise instructe	ionitoring results is req nk provided and submi d by the EPA.	uired. In addition to c t separately through	Guideline Value (IGV) or an ompleting the above table, ALDER as a licensee return or Contaminated Land and Contaminated Land and Co	r	undwater monito			
guidance (se	ee the link in G31	1)										
to the GTV	e.g. if the site is o	close to surface v	vater compare to	Surface Water Enviro		ards (SWEQS), If the s	rds should be used in addition ite is close to a drinking wate		Groundwater regulations GTV's	Drinking water (private supply) standards	Drinking water (public supply) standards	Interim Guideli Values (IGV)
Table 3:	Soil results	1	1		_	•	ı	_				
Date of	Sample location	Parameter/		Monitorina	Maximum	Average						

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

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

Environmental Liabilities template

P0507-01

Year

2017

Click here to access EPA guidance on Environmental Liabilities and Financial provision

			Commentary
1	ELRA initial agreement status		
		Not a licence requirement	
2	ELRA review status	NA	
3	Amount of Financial Provision cover required as determined by the latest ELRA	NA	
4	Financial Provision for ELRA status	NA	
5	Financial Provision for ELRA - amount of cover	NA	
6	Financial Provision for ELRA - type	NA	
7	Financial provision for ELRA expiry date	NA	
8	Closure plan initial agreement status	NA	Internal budget provision
9	Closure plan review status	NA	Internal budget provision
10	Financial Provision for Closure status	NA	Internal budget provision
11	Financial Provision for Closure - amount of cover	NA	Internal budget provision
12	Financial Provision for Closure - type	NA	Internal budget provision
13	Financial provision for Closure expiry date	NA	

Lic No:

Environmental Management Programme/Continuous Improvement Programme template Lic No: P0507-01 Yea								
	Highlighted cells contain dropdown menu click to view		Additional Informa	ation	_			
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in							
-	additional information	Yes		Internal unaccredited EMS				
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	Yes						
	Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance							
3	with the licence requirements	Yes						
	Do you maintain an environmental documentation/communication system to inform the public on							
4	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	Training.Continue to train all employees in environmental matters. Training will be by means of the screening of an environmental DVD, followed by a power point presentation. Deploy Hydraulic Harrows at dust sensitive areas Headland Peat Collection. Continue with the collection of headland peat, particularly at dust sensitive locations.	70	No personnel received training in 2017 as no production, with limited activities in general.	Section Head	Improved Environmental Management Practices
Waste reduction/Raw material usage efficiency	Waste Streamlining.It is planned to continue with and where possible improve the current waste management service provided by AES Ltd	100	Quarterly waste reports are returned for records/filing and waste streams are segrated on site to maximise recycling potential. As activities limited there was no waste produced in 2017.	Section Head	Improved Environmental Management Practices
Reduction of emissions to Water	Training. Continue to train all employees in environmental matters. Training will be by means of the screening of an environmental DVD, followed by a power point presentation.	100	No personnel received training in 2017 as no production, with limited activities in general.	Section Head	Improved Environmental Management Practices
Materials Handling/Storage/Bunding	Increased bund capacity will be provided where required.	0	No additional bund capacity was required during 2017	Individual	Improved Environmental Management Practices
Waste reduction/Raw material usage efficiency	Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing.	100	No polyethyelene was sent off site in 2017. Procurement also exploring the possibility of securing further recyclers.	Individual	Improved Environmental Management Practices

ç

		loise monitor	ing summary	report			Lic No:	P0507-01	Vear	2017	
1 Was noise monitoring a licence requirement for the AER period? If yes please fill in table N1 noise summary below 2 Was noise monitoring carried out using the EPA Guidance note, including completion of the "Checklist for noise measurement report" included in the guidance note as table 6? 3 Does your site have a noise reduction plan 4 When was the noise reduction plan last updated? 5 Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise							Guidance note NG4	No NA NA Enter date NA	Year	2017	
Table N1: No	ise monitoring s	ummary	survey?			Ī		NA			
Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA_{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
				,				SELECT	SELECT		SELECT
*Please ensure tha	t a tonal analysis has b	peen carried out as per g	guidance note NG4. The	ese records must b	e maintained on	site for future in	spection			-	
	If no	ise limits exceed	ed as a result of	noise attribut	ted to site a	ctivities, plea	ase choose th	e corrective action from	n 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:	P0507-01	Year	2017
itesource osuge, Ellergy	Cificiency Julilliary	LIC INO.	1 0307 01	icai	2017

			Additional information
1	When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below	Oct-17	
			The site attained
	SEAI - Large Industry		accrediation to the
	Is the site a member of any accredited programmes for reducing energy usage/water conservation such <u>Energy Network</u>		energy standard
2	as the SEAI programme linked to the right? If yes please list them in additional information (LIEN)	Yes	50001
	Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in		
3	additional information	NA	

Table R1 Energy usag	e on site			
Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	691.818	88.81		
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (N	/WHrs)			
Electricity Consumption (MWHrs)	3.116	7.044		
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	67.779	8.048		
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	e on site				Water Emissions	Water Consumption	
	Water extracted			consumption if it	Volume Discharged back to	Volume used i.e not discharged to environment e.g. released as steam	
Water use	Previous year m3/yr.	Current year m3/yr.	year**	production*	environment(m³yr):	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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

Resource Usage/Energy efficiency summary

Lic No:

P0507-01

Year

2017

Table R3 Waste Stream	Summary				
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	0	0	0	0	0
Non-Hazardous (Tonnes)	140.4	0	0	0	140.4

	Table R4: Energy Au	dit finding recommenda	tions						
			Description of		Predicted energy				Status and
Date of audi	it	Recommendations	Measures proposed	Origin of measures	savings %	Implementation date	Responsibility	Completion date	comments
				SELECT					
				SELECT					
				SELECT					

Table R5: Power Generation: Where po	ower is generate	d onsite (e.g. power ger	neration facilities/foo	od and drink industry	please complete the follow
	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: P0507-01 Year 2017

13

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

There were no complaints of an environmental nature.

Table	1 Complaints summary						
			Brief description of				
			complaint (Free txt <20	Corrective action< 20			Further
Date	Category	Other type (please specify)	words)	words	Resolution status	Resolution date	information
	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

All reportable incidents
related to trigger levels for
Ammonia and COD

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

Ves

year in Table 2 Delow

Complaints and Incidents summary template

*For information on how to report and what constitutes an incident What is an incident

const	titutes an incident	What is an incident	1										
able 2 Incidents sum	nmary		I										
						Other	Activity in						
			Incident category*please			cause(please	progress at time			Corrective action<20		Resolution	
ate of occurrence	Incident nature	Location of occurrence	refer to guidance	Receptor	Cause of incident	specify)	of incident	Communication	Occurrence	words	Preventative action <20 words	status	Likelihood of reoccurence
						Naturally							
						Occuring					ENSURE SILT PONDS ARE CLEANED		
27/02/2017	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)		Normal activities	INCI011766	New	Inspected Outfall	AS PER LICENCE CONDITION	Complete	Medium
						Naturally							
						Occuring					ENSURE SILT PONDS ARE CLEANED		
07/03/2017	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)		Normal activities	INCI011814	Recurring	Inspected Outfall	AS PER LICENCE CONDITION	Complete	Medium
						Naturally							
						Occuring					ENSURE SILT PONDS ARE CLEANED		
13/03/2017	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)	_	Normal activities	INCI011855	Recurring	Inspected Outfall	AS PER LICENCE CONDITION	Complete	Medium
						Naturally					ENSURE SILT PONDS ARE CLEANED		
20/02/2017	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)	Occuring	Normal activities	INCI010966	Maria	Inspected Outfall	AS PER LICENCE CONDITION	Complete	Medium
20/03/2017	rrigger lever reactieu	SWO CUII IIA WIUIIA	1. WIIIO	water	Other (and octain)		Normal activities	114C1010300	ivew	inspected Outrain	AOTEN EIGENCE CONDITION	Complete	wedidiii
						Naturally							
						Occuring					ENSURE SILT PONDS ARE CLEANED		
15/05/2017	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)		Normal activities	INCI012342	New	Inspected Outfall	AS PER LICENCE CONDITION	Complete	Medium
l						Naturally					ENSURE SILT PONDS ARE CLEANED		
00/05/2017	Trigger level reached	SW9 Cuil na Mona	1. Minor	Water	Other (add details)	Occuring	Normal activities	INCI012241	New	Inspected Outfall	AS PER LICENCE CONDITION	Complete	Medium
09/06/2017	rrigger level reached	Swo cuii na Mona	1. millor	avater.	ounce (aud details)		rvormai activities	IIVCIU12341	INCM	inspected Outrall	AG . E. E. CENCE CONDITION	complete	ivieuidm
l						Naturally							
l						Occuring					ENSURE SILT PONDS ARE CLEANED		
09/06/2017	Trigger level reached	SW14a Cuil na Mona	1. Minor	Water	Other (add details)		Normal activities	INCI012394	New	Inspected Outfall	AS PER LICENCE CONDITION	Complete	Medium
						Naturally							
12/05/2017	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)	Occuring	Normal activities	INCI012435	New	Inspected Outfall	ENSURE SILT PONDS ARE CLEANED AS PER LICENCE CONDITION	Complete	Medium
12/06/2017	i rigger ievei reached	SW8 Cuil na Mona	1. Milnor	water	Other (add details)		Normal activities	INCIU12435	New	inspected Outrali	AS PER LICENCE CONDITION	Complete	Medium
						Naturally							
						Occuring					ENSURE SILT PONDS ARE CLEANED		
19/07/2017	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)		Normal activities	INCI012506	New	Inspected Outfall	AS PER LICENCE CONDITION	Complete	Medium
						Naturally							
			1 Minor			Occuring					ENSURE SILT PONDS ARE CLEANED		Medium
22/08/2017	Trigger level reached	SW16 Cuil na Mona	1. Minor	Water	Other (add details)		Normal activities	INCI012788	New	Inspected Outfall	AS PER LICENCE CONDITION	Complete	Medium
						Naturally							
						Occuring					ENSURE SILT PONDS ARE CLEANED		
18/09/2017	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)		Normal activities	INCI012943	Recurring	Inspected Outfall	AS PER LICENCE CONDITION	Complete	Medium
						Naturally							
						Occuring					ENSURE SILT PONDS ARE CLEANED		
28/09/2017	Trigger level reached	SW1 Cuil na Mona	1. Minor	Water	Other (add details)		Normal activities	INCI013018	New	Inspected Outfall	AS PER LICENCE CONDITION	Complete	Medium
						Naturally							
l						Occuring					ENSURE SILT PONDS ARE CLEANED		
25/09/2017	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)		Normal activities	INCI013160	Recurring	Inspected Outfall	AS PER LICENCE CONDITION	Complete	Medium
l						Naturally							
00/40/20:-	Total Control of the Control of	CHO C. 7 14	4.46		000 (-14 4-1-7-)	Occuring	Managed and Ar	1115104 22 40			ENSURE SILT PONDS ARE CLEANED	C	
09/10/2017	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)		Normal activities	INCI013248	Recurring	Inspected Outfall	AS PER LICENCE CONDITION	Complete	Medium
l						Naturally							
l						Occuring					ENSURE SILT PONDS ARE CLEANED		
16/10/2017	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)		Normal activities	INCI013290	Recurring	Inspected Outfall	AS PER LICENCE CONDITION	Complete	Medium
l						Naturally							
						Occuring					ENSURE SILT PONDS ARE CLEANED		
23/10/2017	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)	ļ	Normal activities	INCI013338	Recurring	Inspected Outfall	AS PER LICENCE CONDITION	Complete	Medium
						Naturally							
l						Occuring					ENSURE SILT PONDS ARE CLEANED		
31/10/2017	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)	Occurring	Normal activities	INCI013391	Recurring	Inspected Outfall	AS PER LICENCE CONDITION	Complete	Medium
33, 33, 2327	~				(l							
l						Naturally							
l						Occuring					ENSURE SILT PONDS ARE CLEANED		
20/11/2017	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)		Normal activities	INCI013465	Recurring	Inspected Outfall	AS PER LICENCE CONDITION	Complete	Medium
l						Naturally					ENSURE SILT PONDS ARE CLEANED		
11/12/2017	Trigger level reached	SW8 Cuil na Mona	1 Minor	Water	Other (add details)	Occuring	Normal activities	INCI013619	Decursion	Inspected Outfall	AS PER LICENCE CONDITION	Complete	Medium
11/12/2017	rrigger level reached	Sevo cuii na Mona	a. minor	water	Other (add details)	1	rvormai activities	IIVCIU13019	Recurring	inspected Outrall	AS FER LICENCE CONDITION	complete	ivieuidm
						Naturally							
						Occuring					ENSURE SILT PONDS ARE CLEANED		
12/06/2017	Trigger level reached	SW6 Cuil na Mona	1. Minor	Water	Other (add details)	Occuring	Normal activities	INCI012299	Recurring	Inspected Outfall	ENSURE SILT PONDS ARE CLEANED AS PER LICENCE CONDITION	Complete	Medium

Total number of incidents current year 20
Total number of incidents previous year 11
Sr reduction/

SECTION A-PATR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES Additional information SELECT Was waste 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) for yes please enter details in table 1 below 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 Table 1 Details of waste accepted onto your site that was generated outside the Republic of Irreland? If yes please state the quantity in tonnes in additional information Table 1 Details of waste accepted onto your site that was generated outside the Republic of Irreland? If yes please state the quantity in tonnes in additional information Table 1 Details of waste accepted onto your site that was generated outside the Republic of Irreland? If yes please state the quantity in tonnes in additional information Table 1 Details of waste accepted onto your site that was generated outside the Republic of Irreland? If yes please state the quantity in tonnes in additional information Table 1 Details of waste accepted onto your site for recovery, disposal or treatment (do not include wastes generated at your site, as these will have been reported in your PRTR workbook) Licenced annual tonnage limit for your additional information EWC code Source of waste accepted onto your site for recovery, disposal or treatment (do not include wastes generated at your site, as these will have been reported in your PRTR workbook) Licenced annual tonnage limit for your additional information EWC code Source of waste accepted in previous reporting year (tonnes) Additional information SELECT Quantity of waste accepted in previous reporting year (tonnes) Additional information SELECT Disposal/Recovery or treatment (with your site of the waste of the description	Additional Information Additional Information Additional Information Additional Information SELECT SELECT SELECT Was waste accepted onto your site that was generated outside the Republic of Ireland? If yes please give a brief explanation in the additional information Was waste accepted onto your site that was generated outside the Republic of Ireland? If yes please state the quantity in tonnes in additional information SELECT SELECT SELECT SELECT SELECT Concept Source of waste accepted onto your site that was generated outside the Republic of Ireland? If yes please state the quantity in tonnes in additional information SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT Concept Source of waste accepted onto your site that was generated outside the Republic of Ireland? If yes please state the quantity in tonnes in additional information SELECT SE	WASTE SUMMARY					Lic No:	P0507-01		Year	2017		
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 so be captured through PRTR reporting) If yes please enter details in table 1 below 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 Was waste accepted onto your site that was generated outside the Republic of Ireland? If yes please state the quantity in tonnes in additional information Table 1 Details of waste accepted onto your site for recovery, disposal or treatment (do not include wastes generated at your site, as these will have been reported in your PRTR workbook) Licenced annual tonnage limit for your site (total tonnes/annum) EWC code Source of waste accepted Please enter an accurate and detailed description—which applies to relevant EWC code European Waste Catalogue EWC codes Additional Information SELECT SELECT SELECT Quantity in tonnes in additional information SELECT SELECT Quantity of waste accepted in your SELECT Quantity of waste accepted in previous reporting year (tonnes) Increase over previous year +/- from previous per which applies if the waste and detailed description—which applies to relevant EWC code European Waste Catalogue EWC codes European Waste Catalogue EWC codes European Waste Catalogue EWC codes Additional Information SELECT Quantity of waste excepted within your boundaries is SELECT SELECT Quantity of waste excepted at your site, as these will have been reported in your PRTR workbook) Reason for Packaging Content (%)- Disposal/Recovery or treatment of reporting year (tonnes) Not previous	Additional information SELECT Was waste 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 obe captured through PRTR reporting) fyes please enter details in table 1 below Was waste accepted onto your site that was generated outside the Republic of Ireland? If yes please state the quantity in tonnes in additional information Table 1 Details of waste accepted onto your site that was generated outside the Republic of Ireland? If yes please state the quantity in tonnes in additional information Table 1 Details of waste accepted onto your site for recovery, disposal or treatment (do not include wastes generated at your site, as these will have been reported in your PRTR workbook) Licenced annual EWC code Source of waste accepted Please enter an accurate and detailed description of waste accepted in propur site (total tonnes/annum) EWC code Source 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) Readuction/ Increase or reduction/ Increase or reductio	SECTION A-PRTR O	N SITE WASTE TREATMENT AND	WASTE TRANSFERS TAB-	TO BE COMPLETED B	Y ALL IPPC AND WA	ASTE FACILITIES	PRTR facility logor	<u>1</u>	dropdown l	st click to see options		
tonnage limit for your site (total strength of the waste (total tonnes/annum) site (total tonnes/annu	tonnage limit for your site (total tonnes/annum) Component Co	Were any wastes accepte to be captured through P f yes please enter details Did your site have any rej Was 1 Table 1 Details o	d onto your site for recovery or disposal on RTR reporting) in table 1 below ected consignments of waste in the currer waste accepted onto your site that was get f waste accepted onto your site that was get	r treatment prior to recovery or or nt reporting year? If yes please given nerated outside the Republic of Ir site for recovery, dispu	disposal within the boundar we a brief explanation in the reland? If yes please state th osal or treatment (additional information ne quantity in tonnes in a do not include w	dditional information vastes generated at your sit	SELECT SELECT SELECT e, as these w	Additional Information	ported in your Pl	RTR workbook)	Quantity of	Comme
	Catalogue EWC codes	tonnage limit for your site (total		Source of waste accepted	accepted Please enter an accurate and detailed description - which applies to relevant EWC code	accepted in current		Increase over previous year +/ -	reduction/ increase from previous	only applies if the waste has a packaging	operation carried out at your site and the description of this	waste remaining on site at the end of reporting	Comme
	SECTION C-TO BE COMPLETED BY ALL WASTE FACILITIES (waste transfer stations, Composters, Material recovery facilities etc) EXCEPT LANDFILL SITES		European Waste Catalogue EWC codes										
	SECTION C-TO BE COMPLETED BY ALL WASTE FACILITIES (waste transfer stations, Composters, Material recovery facilities etc) EXCEPT LANDFILL SITES												
	SECTION C-TO BE COMPLETED BY ALL WASTE FACILITIES (waste transfer stations, Composters, Material recovery facilities etc) EXCEPT LANDFILL SITES												
	SECTION C-TO BE COMPLETED BY ALL WASTE FACILITIES (waste transfer stations, Composters, Material recovery facilities etc) EXCEPT LANDFILL SITES												
s 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 SELECT SELECT SELECT SELECT		an waste storage IIII as	a acture as required by your incence and ap	pproved by the Agency in place? I	ii iio picase iist waste St0fd[se mirastructure requiret	on site	SEEECI	1			1	

Remaining licensed capacity at end of reporting year (m3)

Actual intake for disposal in reporting year (tpa)

Table 2 Waste type and tonnage-landfill only

Authorised/licenced annual intake for disposal (tpa)

Waste types permitted for disposal

Comments on liner type

2017

Total disposal area occupied by waste Lined disposal area occupied by waste

SELECT UNIT SELECT UNIT SELECT UNIT

WASTE SUMMARY					Lic No:	P0507-01		Year
Table 3 General in	formation-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?
Cell 8								
ceiro		1	.1			1		
Table 4 Environme	ntal monitoring-landfill only	Landfill Manual-Monitoring Stan	dards					
Was meterological monitoring in compliance with Landfill Directive (LD) standard in reporting year +	Was leachate monitored in compliance with LD standard in reporting year	Was Landfill Gas monitored in compliance with LD standard in reporting year	Was SW monitored in compliance with LD standard in reporting year	Have GW trigger levels been established	Were emission limit values agreed with the Agency (ELVs)	of the site surveyed in	Has the statement under S53(A)(5) of WMA been submitted in reporting year	Comments
	 Manual linked above for relevant Landfill							
.+ please refer to Landfil Table 5 Capping-La		Directive monitoring standards						
rubic 5 cupping L	linami omy						1	
Area uncapped*	Area with temporary cap			Area with waste that should be permanently				
SELECT UNIT	SELECT UNIT	Area with final cap to LD Standard m2 ha, a	Area capped other	capped to date under licence	What materials are used in the cap	Comments		
*please note this includ	es daily cover area	l				ı	J	
Table 6 Leachate-L	•							
	e treated in a Waste Water Treatment Plan					SELECT]	
Is leachate released to	surface water? If yes please complete leach	ate mass load information below				SELECT	1	
		Leachate (COD) mass load	Leachate (NH4) mass load	Leachate (Chloride)		Specify type of	Comments]
Volume of leachate in reporting year(m3)	Leachate (BOD) mass load (kg/annum)				Leachate treatment on-site	leachate treatment		
Volume of leachate in reporting year(m3)	Leachate (BOD) mass load (kg/annum)	(kg/annum)	(kg/annum)	mass load kg/annum	Leachate treatment on-site	leachate treatment	Comments	
		(kg/annum)	(kg/annum)	mass load kg/annum		leachate treatment	Comments	}
reporting year(m3)	Please ensure that all information rep	(kg/annum)	(kg/annum)	mass load kg/annum		leachate treatment	Comments	}
	Please ensure that all information rep	(kg/annum)	(kg/annum)	mass load kg/annum		leachate treatment	Connents	}
reporting year(m3)	Please ensure that all information rep	(kg/annum)	(kg/annum)	mass load kg/annum		leachate treatment	Comments]
reporting year(m3)	Please ensure that all information rep	(kg/annum)	(kg/annum)	mass load kg/annum		leachate treatment	Comments]
reporting year(m3)	Please ensure that all information rep	(kg/annum)	(kg/annum) consistent with the Landfill Was surface emissions	mass load kg/annum		leachate treatment	Comments	<u> </u>
reporting year(m3) Table 7 Landfill Ga	Please ensure that all information rest.	(kg/annum)	(kg/annum) consistent with the Landfill Was surface emissions monitoring performed	mass load kg/annum		leachate treatment	Comments	1
reporting year(m3)	Please ensure that all information rest.	(kg/annum)	(kg/annum) consistent with the Landfill Was surface emissions monitoring performed during the reporting	mass load kg/annum		leachate treatment	Commens	

Cuil na Mona Decommissioning and Rehabilitation AER Overview 2017.

Within the Cuil na Mona licensed area (P0507-01) there were no entire bog units available for rehabilitation in 2017. Ongoing monitoring of cutaway within the Cuil na Mona bogs was carried out. Biomass trials have been established in Cuil na Mona in 2016.

Draft rehabilitation plans for the Cuil na Mona bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015 and 2017.

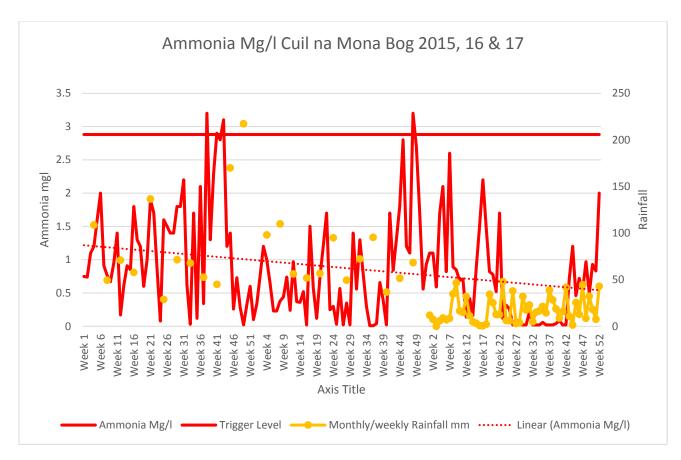
Rehabilitation work was carried out on a small area of cutaway in Cashel bog (38 ha) in 2017. This area of naturally colonising cutaway was re-wetted by drain-blocking. Abbeyliex Bog has now been removed from the Cuil na Mona IPC licenced area. An EPA inspection audit was carried out in 2017 and the EPA inspector was satisfied that Abbeyleix bog has been decommissioned and successfully rehabilitated. This bog, still in the ownership of BnM, is now leased to the local community for amenity, conservation and education.

The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in February 2017, this included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.

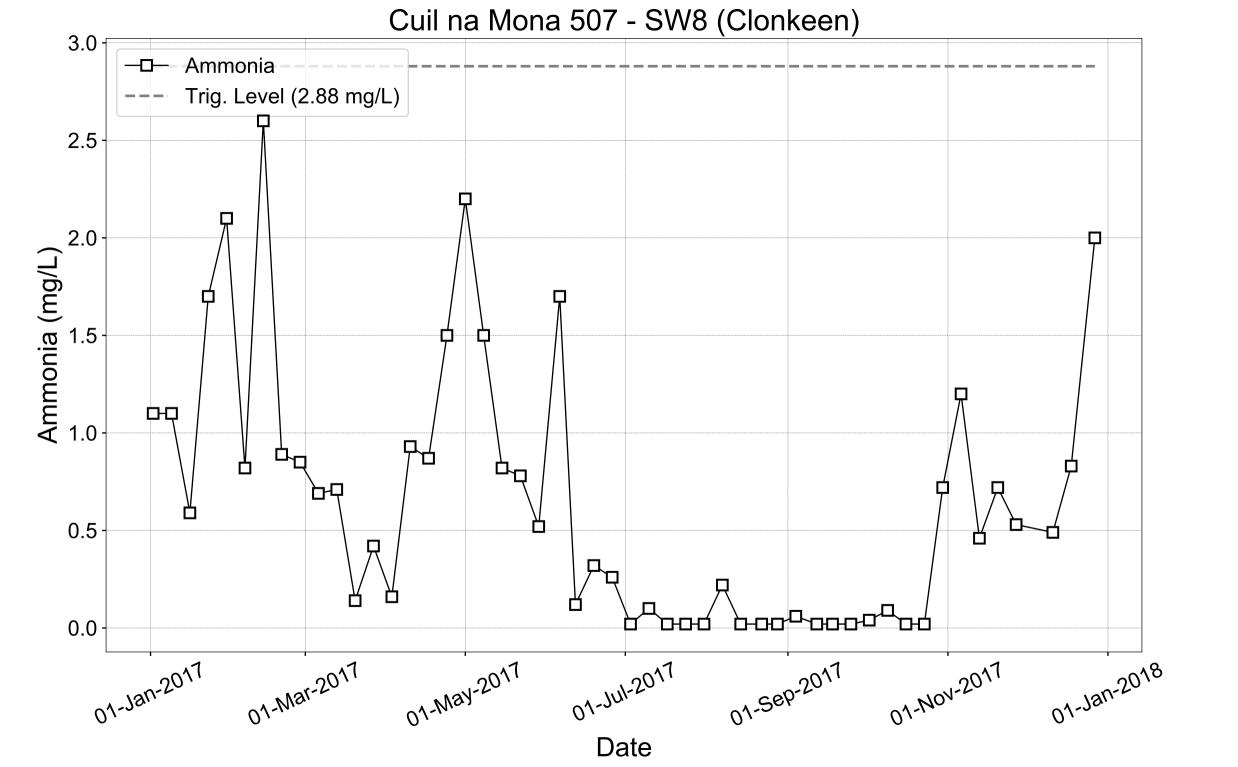
A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

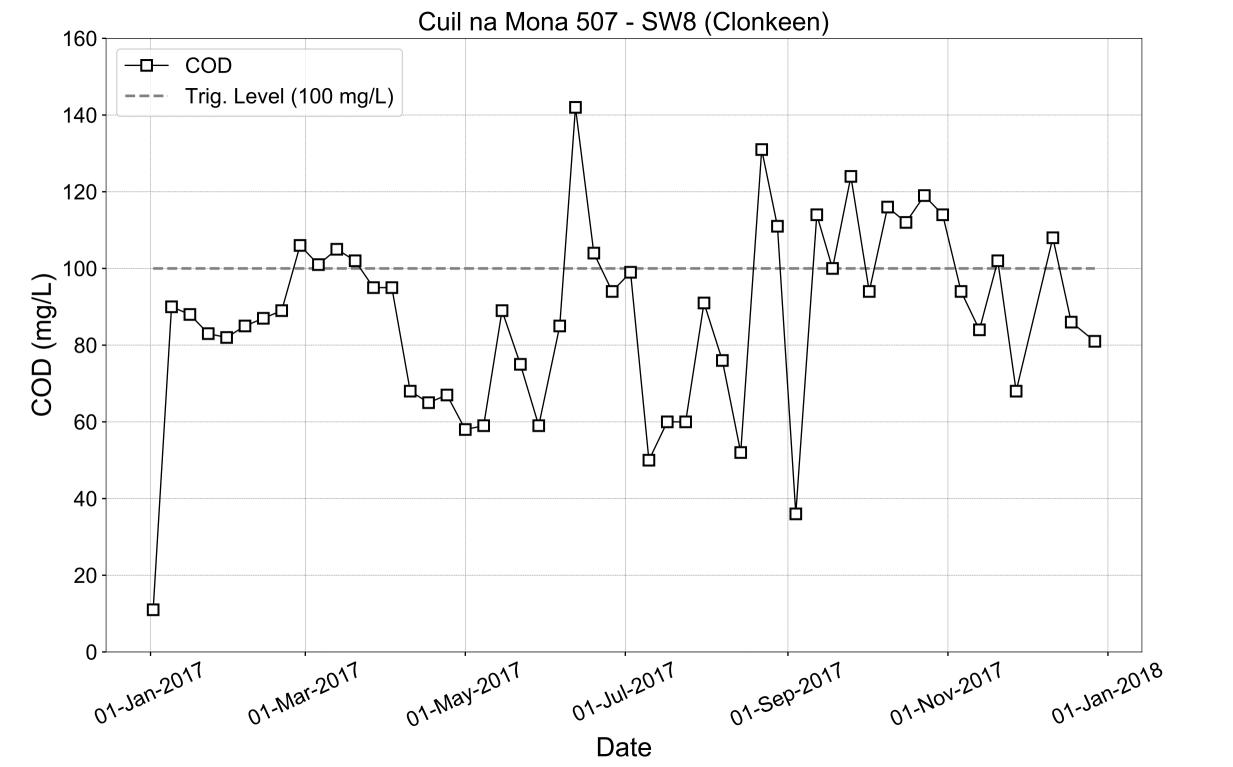
As required by condition 10.2 Cutaway Bog Rehabilitation Plans, draft peatland rehabilitation plans for all the individual bog units were submitted to the agency in 2013, reviewed and amended in 2015 and re-submitted to the agency in 2015. All draft rehabilitation plans have been reviewed in 2017. These reviewed and amended plans will be re-submitted to the agency in due course.

Bord na Mo												
IPPC Licen		1										
Quarterly G	Frab 2017			1								
X	Υ	Bog	SW	Monitoring	Sampled	pН	SS	TS	Ammonia	TP	COD	Colour
246065.49	191080.85	Cashel	SW-17	Q1 17	14/03/2017	7.1	5	112	0.1	0.06	85	392
241983.51	195773.17	Coolnamona	SW-8	Q1 17	14/03/2017	7.2	5	186	0.06	0.05	104	410
244939.80	195193.19	Coolnacarton	SW-13	Q1 17	14/03/2017	7.6	12	308	0.64	0.05	72	227
241044.03	196363.06	Coolnamona	SW-6	Q2 17	09/06/2017	7.1	5	158	0.65	0.05	107	422
243248.85	196667.60	Coolnamona	SW-9	Q2 17	09/06/2017	7.5	8	266	0.48	0.05	120	516
244939.80	195193.19	Coolnacarton	SW-13	Q2 17	09/06/2017	7.3	5	176	1	0.05	90	367
243650.14	192140.24	Coolnacarton	SW-14	Q2 17	09/06/2017	7.2	5	140	1.8	0.05	87	273
243409.81	192198.71	Coolnacarton	SW-14A	Q2 17	09/06/2017	7.2	5	194	0.78	0.05	106	421
241454.18	198643.31	Coolnamona	SW-1	Q3 17	28/09/2017	7.8	5	166	3.5	0.05	78	185
240535.90	197955.63	Coolnamona	SW-2	Q3 17	28/08/2017	7.5	5	116	0.83	0.05	66	308
242328.78	198179.85	Coolnamona	SW-3	Q3 17	28/09/2017	7.6	5	264	0.81	0.05	86	275
241983.51	195773.17	Coolnamona	SW-8	Q3 17	28/09/2017	7.3	5	172	0.55	0.05	100	426
242800.57	192359.54	Coolnacarton	SW-12	Q4 17	07/12/2017	7.4	5	258	1	0.05	77	260
245488.42	191084.90	Cashel	SW-16	Q4 17	07/12/2017	7	7	158	0.9	0.05	86	329
246075.03	192615.14	Cashel	SW-18	Q4 17	07/12/2017	7.4	13	278	1.7	0.05	92	253
246065.49	191080.85	Cashel	SW-17	Q4 17	07/12/2017	7.3	6	226	1.1	0.05	98	328

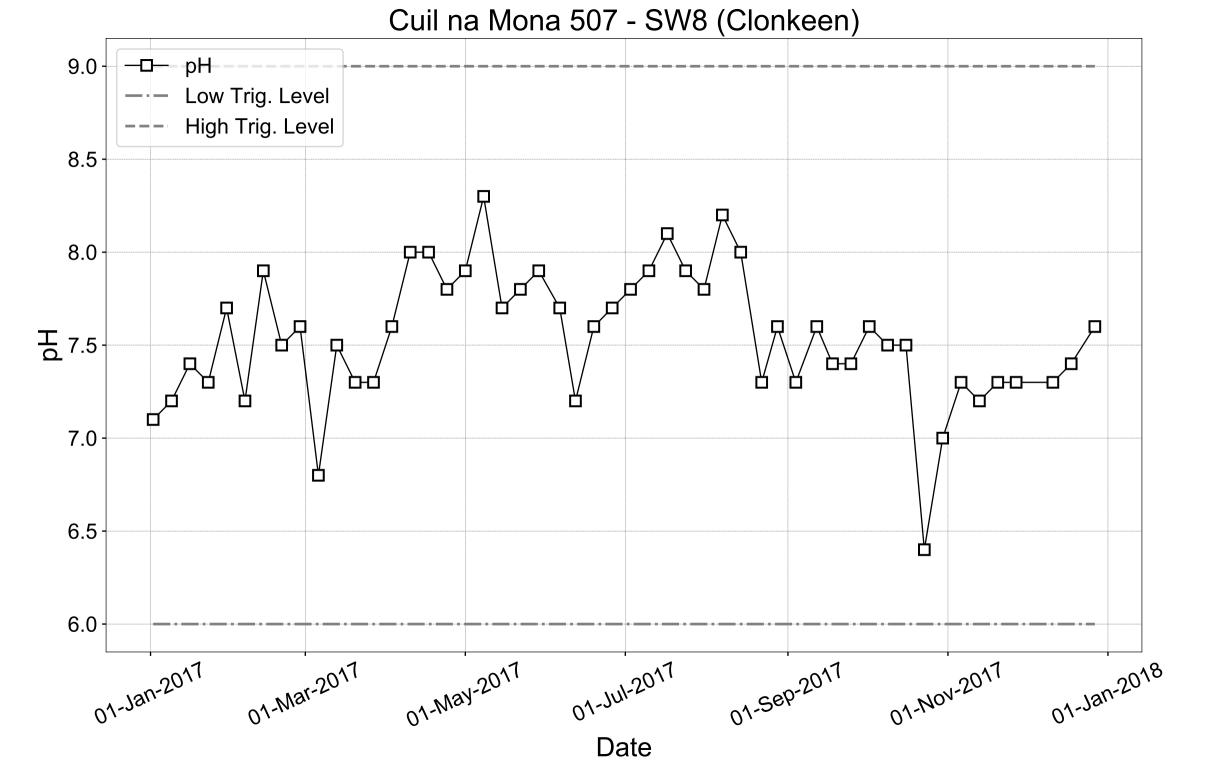


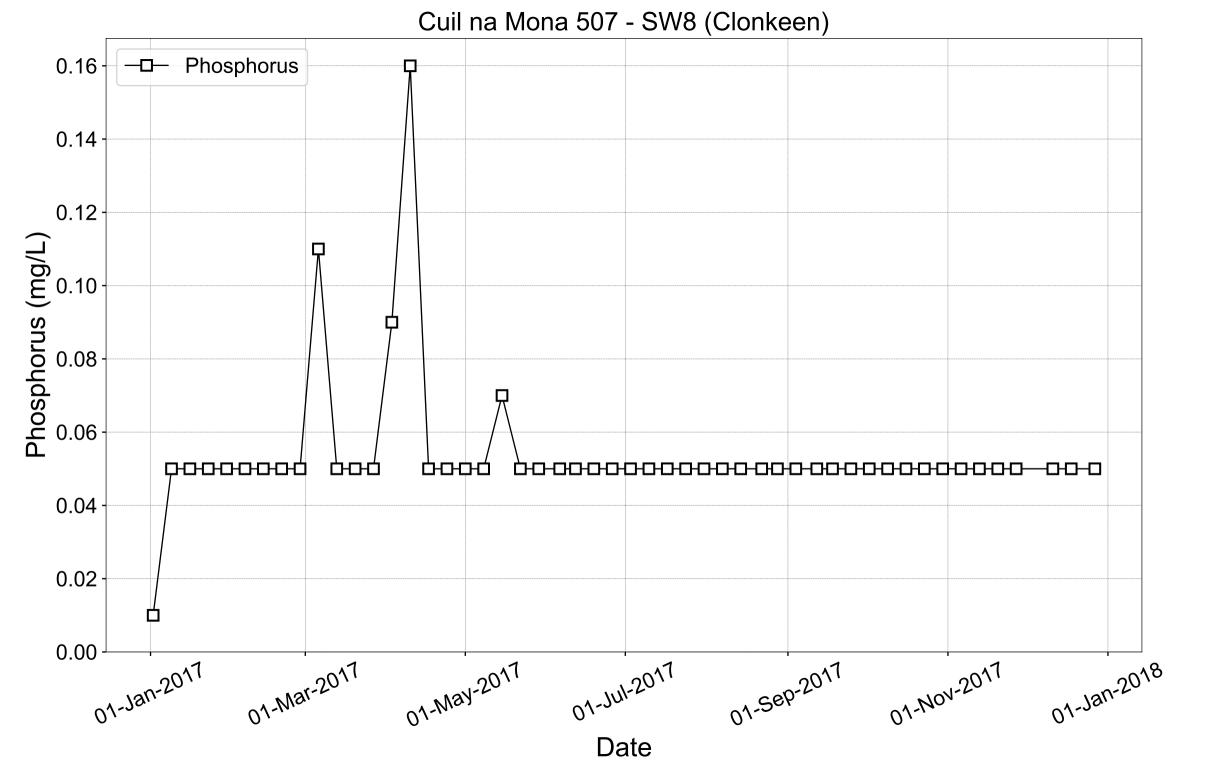
Cuil na Mona bog was not in active production during 2017 with the composite sampler located here during 2015, 2016 & 2017. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had limited downtime during the period but returned 52 weekly ammonia results during the period of this 2017 AER. The ammonia trigger level of 2.88mg/l, as agreed with the Agency, was not exceeded during the period. Combining the 2015, 16 & 17 results above, shows concentrations continuing to trend downwards and this is in-line with the downwards/level trends submitted to the EPA in 2013 as required by condition 6.14. As has been establish previously, there is no obvious link between activities and ammonia concentrations. Comparing monthly rainfall from the nearest met station at Gurteen shows an expected link between rainfall and higher ammonia concentrations.

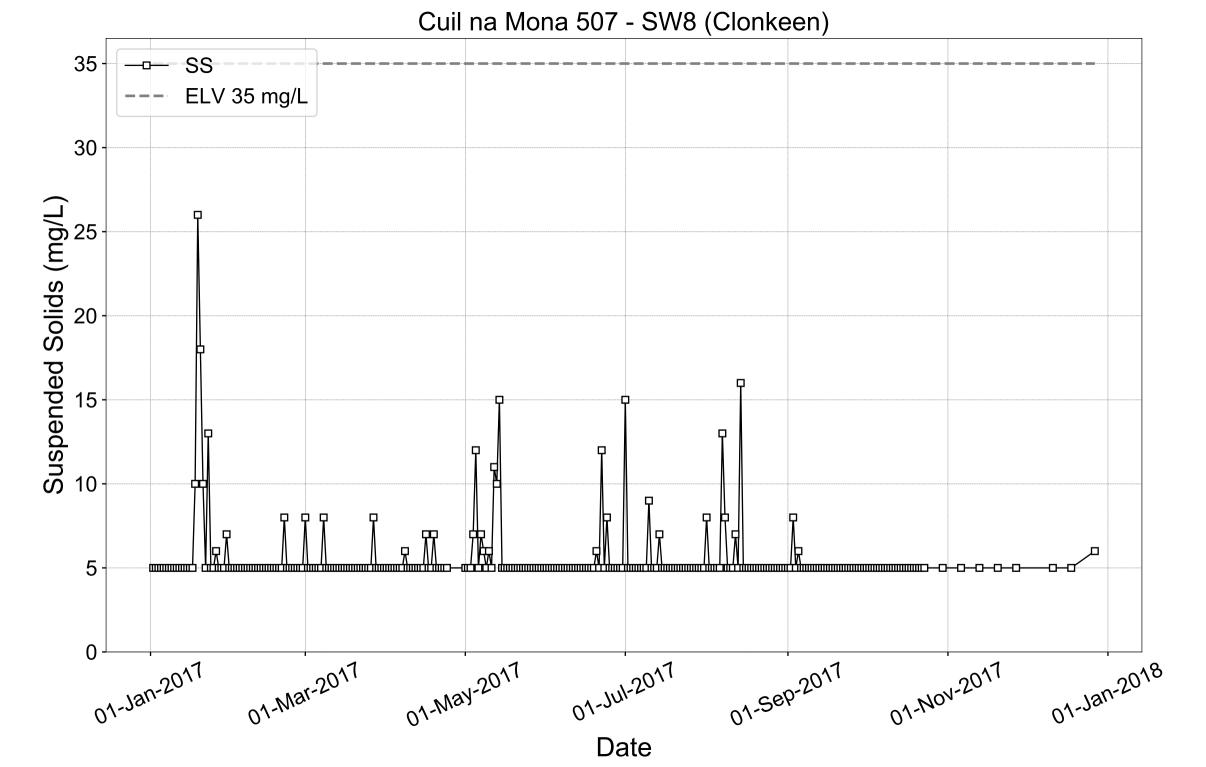


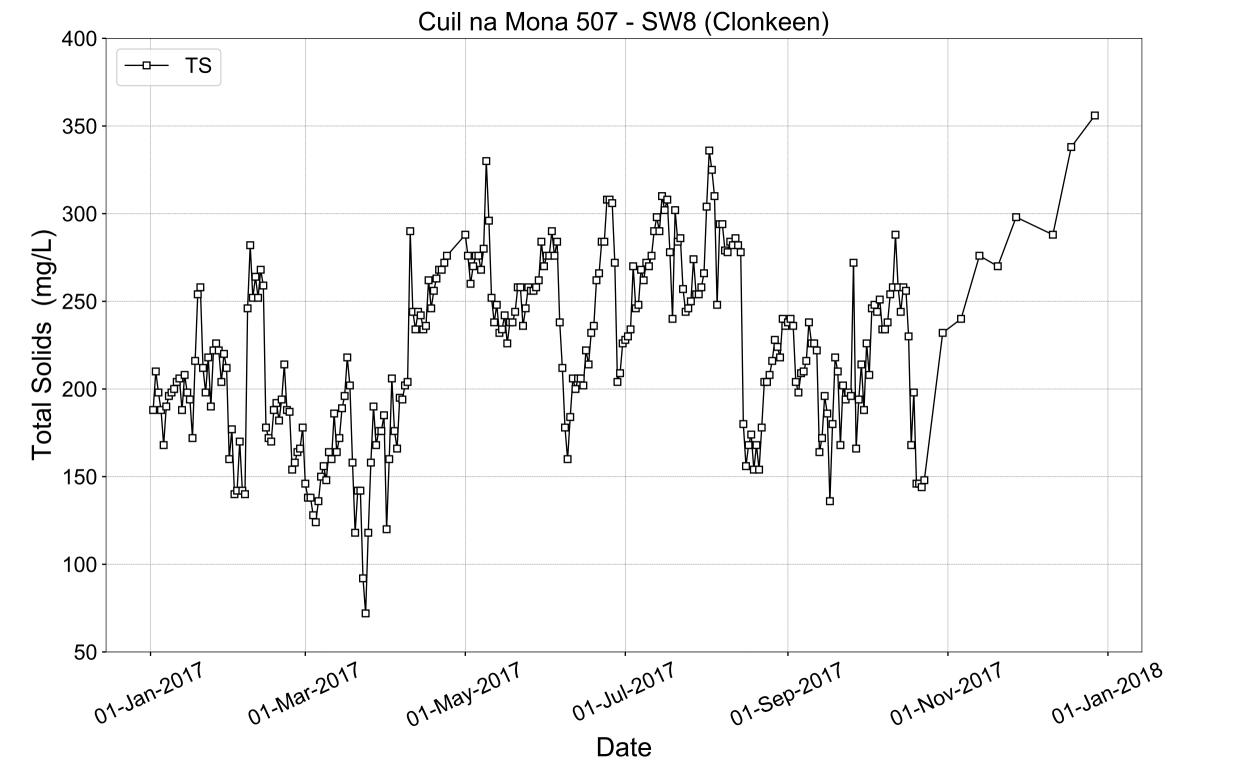


Cuil na Mona 507 - SW8 (Clonkeen) Colour 500 400 Colour (Pt/Co) 200 100 0 01-Mar-2017 01-May-2017 01-Sep-2017 01-NOV-2017 01-Jan-2017 01-Jul-2017 01-Jan-2018 Date











| PRTR# : P0507 | Facility Name : Bord Na Mona Energy Limited (Boora) | Filename : P0507_2017.xls | Return Year : 2017 |

08/03/2018 11:29

Guidance to completing the PRTR workbook

PRTR Returns Workbook

,,,,,,	Version 1.1.19
REFERENCE YEAR	2017
1. FACILITY IDENTIFICATION	
Parent Company Name	Bord na Mona Energy Limited
Facility Name	Bord Na Mona Energy Limited (Boora)
PRTR Identification Number	P0507
Licence Number	P0507-01
	,,
Classes of Activity	
	class name
110	Refer to PRTR class activities below
	Trade to 1 Triti state delimited below
Address 1	Cúil na Móna Group
	c/o Boora Works
Address 3	
Address 4	35514
Address 4	
	Offalv
Country	
Coordinates of Location	*1.02912-00.0022
River Basin District	
NACE Code	
Main Economic Activity	
AER Returns Contact Name	
AER Returns Contact Email Address	
	Head Of Environmental Management
AER Returns Contact Telephone Number	
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	
Production Volume	0.0
Production Volume Units	Tonnes
Number of Installations	2
Number of Operating Hours in Year	2216
Number of Employees	2
User Feedback/Comments	
	In accordance with licence condition 6.2 of Technical Amendment A, quarterly sampling is now rotated every quarter and therefore
	suspended solids results are not factored into loading. Due to technical difficulties experienced with the composite sampler annual
	loading was not possible to calculate. All composite sampler results are attached for review in the AER document.
Web Address	
2. PRTR CLASS ACTIVITIES	
Activity Number	Activity Name
50.1	General
3. SOLVENTS REGULATIONS (S.I. No. 543 of 20	
Is it applicable?	No
Have you been granted an exemption ?	
If applicable which activity class applies (as per	
Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being	
used ?	
dood .	
4. WASTE IMPORTED/ACCEPTED ONTO SITE	Guidance on waste imported/accepted onto site
Do you import/accept waste onto your site for on-	Guanito of maste imported accepted onto site
site treatment (either recovery or disposal	
activities) ?	No
activities) :	This question is only applicable if you are an IPPC or Quarry site

No
This question is only applicable if you are an IPPC or Quarry site

4.1 RELEASES TO AIR

Link to previous years emissions data

PRTR#: P0507 | Facility Name: Bord Na Mona Energy Limited (Boora) | Filename: P0507_2017.xls | Return Year: 2017 |

08/03/2018 11:30

SECTION A: SECTOR SPECIFIC PRTR POLLUTANTS

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

	RELEASES TO AIR				Please enter all quantities	in this section in KO	s			
PO	LLUTANT		M	ETHOD			QUANTITY	1		
				Method Used						
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Acciden	tal) KG/Year	F (Fugitive) KG/Year	
					0.0)	0.0	0.0	0.0	

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

Additional Data Requested from Landfill operators

For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T(total) KGlyr for Section A: Sector specific PRTR pollutants above. Please complete the table below:

Please enter summary data on the	
quantities of methane flared and / or utilised Method Used	
Designation or Facility Total Capacity m3	
T (Total) kg/Year M/C/E Method Code Description per hour	
Total estimated methane generation (as per site	
model) 0.0 N/A	
Methane flared 0.0 0.0 (Total Flarin	ing Capacity)
Methane utilised in engine/s 0.0 0.0 (Total Utilisi	sing Capacity)
Net methane emission (as reported in Section	
A above) 0.0 N/A	

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4.2 RELEASES TO WATERS

Link to previous years emissions data

| PRTR# : P0507 | Facility Name : Bord Na Mona Energy Limited (Boora) | Filename : P0507_2017.xls | Return Year : 2017 |

08/03/2018 11:31

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only concerns Releases from your facility

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

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

SECTION B: REMAINING PRTR POLLUTANTS

CECTION D : REMAINING TRIRT CEECTAIN	•							
	RELEASES TO WATERS				Please enter all quantities	in this section in KGs		
PO	LLUTANT						QUANTITY	
				Method Used				
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

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

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

02011011 0 1 1121111 1111110 1 0220 171111 2								
	RELEASES TO WATERS				Please enter all quantities	s in this section in KGs		
	POLLUTANT						QUANTITY	
				Method Used				
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
				_	0.	0.0	0.0	0.0

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

4.3 RELEASES TO WASTEWATER OR SEWER

Link to previous years emissions data

| PRTR# : P0507 | Facility Name : Bord Na Mona Energy Limited (Boora) | Filename : P0507_2017.x

08/03/2018 11:32

SECTION A: PRTR POLLUTANTS

	OFFSITE TRANS	SFER OF POLLUTANTS DESTINED FOR WASTE-W	ATER TRE	EATMENT OR SEWER		Please enter all quantities	n this section in KGs		
- [PO	LLUTANT		METHO)D			QUANTITY	
- [Met	hod Used				
	No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Y	ear F (Fugitive) KG/Year
Ī						0.0	(0.0	0.0 0.0

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

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

OLOTION D. KLIMAINING I OLLOTAIN LIIN	olotto (as required in your Election)					_			
OFFSITE TRAN	SFER OF POLLUTANTS DESTINED FOR WASTE-W	VATER TRE	EATMENT OR SEWER		Please enter all quantities	in this section in KGs			
PO	LLUTANT	METHOD			QUANTITY				
			Met	hod Used					
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
					0.0	0.0	0.0	0.0	

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

Link to previous years emissions data Page 1 of 1

4.4 RELEASES TO LAND

Link to previous years emissions data

| PRTR# : P0507 | Facility Name : Bord Na Mona Energy Limited (Boora) | Filename : P0507_2017.xls | Return Year : 2017 |

08/03/2018 11:33

SECTION A: PRTR POLLUTANTS

		RELEASES TO LAND				Please enter all quantities	in this section in KGs	
	PO	LLUTANT		METHO	D			QUANTITY
ı				Meth	nod Used			
	No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
						0.0	1	0.0 0.0

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

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

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

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE | PRTR#: P0507 | Facility Name : Bord Na Mona Energy Limited (Boora) | Filename : P0507_2017.xls | Return Year : 2017 |

08/03/2018 11:34

			Please enter a	all quantities on this sheet in Tonnes								3
Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation		Method Used	Location of Treatment	Licence/Permit No of Next Destination Facility Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste: Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
				wastes from mineral non-metalliferous	Сроиния		1		Bord na Mona Energy	Boora,Leabeg,Tullamore,Co		
Within the Country	01 01 02	No	140.4	excavation	D1	E	Volume Calculation			Offaly, Ireland		
									Ryston Industeries Ltd,WFP-			
Within the Country	02 01 04	No	0.0	waste plastics (except packaging)	R3	М	Weighed	Offsite in Ireland	KE-12-0066-01 & WCP-KE- 10-0569-01	Castledermot,Co Kildare,,Ireland		
,							3			Cappincue, Tullamore, Co		
Within the Country	20 03 01	No	0.0	mixed municipal waste	D1	E	Volume Calculation	Offsite in Ireland	AES Ltd,053/OY/39/02	Offaly,.,Ireland		

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

Link to previous years waste data Link to previous years waste summary data & percentage change Link to Waste Guidance



Annual Environmental Report 2018

Bord na Mona Energy Ltd (Boora Group of Bogs) IPC Licence P0500-01 **Facility Information Summary**

AER Reporting Year Licence Register Number Name of site Site Location NACE Code Class/Classes of Activity National Grid Reference (6E, 6 N)

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.

2018	
0500-01	
Bord na M	ona Boora
Leabeg, Boora, Tu	llamore, Co Offaly
08	92
1	.4
180050,	319540

Activities at the site can be divided into two components, firstly the milling, harrowing, ridging and harvesting of peat into stockpiles and secondly the transportation of that peat via an internal rail network to the Electricity Generating Station and lorry outloading facilities. Production achieved was approximately 748996 tonnes. Infrastructurally, there was no new bog development. There were no environmental complaints received during 2018. There were 5 incidents 1 in relation to dust and the remainder to water. In relation to silt pond cleaning, 100% of ponds received two cleanings with inspections dictating if a pond received further cleaning. A number of initiatives are in place in terms of fuel and electricity usage. Formalised management meetings take place weekly with environmental issues on the agenda for discussion. We are operating a Quality Management System to I.S. EN ISO 9001:2015. We are "committed to conducting all aspects of our business activities with a focus on minimising the impact on the environment". Rehabilitation works are described in an attachment.

Declaration:

All the data and information presented in this report has been checked and certified as being

Signature

Group/Facility manager

(or nominated, suitably qualified and experienced deputy)

	AIR-summary	y template				Lic No:	P0500-01		Year	2018	8	
		ions and complete all ta	bles where relevar	t								
1	current reportir	ng year and answer furt	her questions. If y	ou do not have	e A1 and A2 below for the licenced emissions and do not need to complete the	No		dditional informat				
	Periodic	/Non-Continuous N	/lonitoring									
2	•		section of TableA1		brief details in the comment	No						
3		e AG2 and using the basi checklist?		monitoring checklist	AGN2	Yes						
	Table A1: Lic	ensed Mass Emissio	ons/Ambient d	ata-periodic m	nonitoring (non-continu	ious)						
	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	
		SELECT			SELECT		SELECT	SELECT	SELECT			
		SELECT			SELECT		SELECT	SELECT	SELECT			
		SELECT			SELECT		SELECT	SELECT	SELECT			
		SELECT			SELECT		SELECT	SELECT	SELECT			
	Note 1: Volumet	ric flow shall be included	d as a reportable pa	rameter								
		Continuous N	lonitoring									
		Continuous IV	Tomtornig									
4	Does your site ca	arry out continuous air e	missions monitorir	g?		No						
	If yes please re		-		ed fields below in Table A2							
5	Did continuous n below		to its relevant Emis operience downtim		ELV) cord downtime in table A2	No						
6	Do you have a pr	oactive service agreeme	nt for each piece o	f continuous moni	toring equipment?	No						
7	Did your site e	experience any abateme	nt system bypasses	? If yes please det	ail them in table A3 below	No						

Table A2: Summary of average emissions -continuous monitoring

Emission	Parameter/ Substance		Averaging	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:			Period		measurement			Equipment	exceedences	
		ELV in licence or						downtime (hours)	in current	
		any revision							reporting year	
		therof								
		350mg/m2/day	84			29120	651	0	1	Reported to
DM-01	Total Particulates			Daily average < ELV	mg/m2/day					Agency
DM-02	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	14224	250	0	0	
DM-03	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	19348	360	0	0	
	SELECT				SELECT					

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

Table A3: Abatement system bypass reporting table

Bypass protocol

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

^{*} this should include all dates that an abatement system bypass occurred

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

Solvent (use and manageme	nt on site							
Do you have a tot	al Emission Limit Value	of direct and fugitiv	e emissions on si	te? if yes please fill out table	s A4 and A5		No		
	vent Management ission limit value	Plan Summary	Solvent regulations	Please refer to linked solve complete table 5					
Reporting year	Total solvent input on site (kg)	from entire site	Total VOC emissions as %of solvent input (ELV) in licence or any revision therof						
					SELECT				
					SELECT				
Table A5: S	olvent Mass Balan	ce summary				-			
	(I) Inputs (kg)			(0)	Outputs (kg)				
Solvent	(I) Inputs (kg)	Organic solvent emission in waste gases(kg)		Collected waste solvent (kg)	Fugitive Organic Solvent (kg)	in other ways		Total emission of Solvent to air (kg)	
			1	I	l	l	Total		

AER Monitoring	returns sumn	nary template-WA	TER/WASTEW	ATER(SEWER	4)	Lic No:	P0500-01		Year	2018					
						•									
Does your site have licensed emissions direct to surface water or direct to sewer? If yes 1 please complete table W2 and W3 below for the current reporting year and answer further 1 questions. If you do not have licenced emissions you only need to complete table W1 and or W2 for storm water analysis and visual inspections						The continuous monitoring sampler was relocated during the reporting period. The sampler experienced technical difficulties. It was therefore decided to present the sampling results in graphical form as an attachment.									
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 Table W1 Storm water monitoring					Yes	Monthly COD analysis of yard runoff is attached in a separate document.									
Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments					
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT		1				
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT]				
Location Reference	Date of inspection	ions-Please only enter details where contamination was Description of contamination				Source of contamination	Corrective acti	Comments							
						SELECT			+						
Licensed Emissions to water and /or wastewater(sewer)-periodic monitoring (non-cor Was there any result in breach of licence requirements? If yes please provide brief details in the comment section of Table W3 below 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 Quality checklist Table W3: Licensed Emissions to water and /or wastewater (sewer)-periodic monitoring						Surface water mor Monthly COD yard	Additional information nitoring was carried out on a quarunoff results are also attached	sults of which are a	ittached.						
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 therof ^{Note 2}	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Method of analysis	APHA / AWWA "Standard	Procedural reference standard number 4500-NH3	Annual mass load (kg) NA	Comments One off Grab sample One off Grab sample
Note 1: Volumetric flo	ow chall be included	lad as a reportable para	meter												

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)	Lic No:	P0500-01	Year	2018
Continuous monitoring			Additional Information	1	
₅ Does your site carry out continuous emissions to water/sewer monitoring?	Yes		See note above		
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					
	Yes		Total of 166 days over 365 days.		
$_{\bf 7}$ Do you have a proactive service contract for each piece of continuous monitoring equipment on					
site?	Yes	Annual calibration	schedule and trouble shooting service		
$_{\rm g}$ Did abatement system bypass occur during the reporting year? If yes please complete table W5					
below	No				

Table W4: Summary of average emissions -continuous monitoring

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

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

Table W5: Abatement system bypass reporting table

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

^{*}Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline to	esting template				Lic No:	P0500-01		Year	2018	3				
Bund testing	1	dropdown menu cli	ck to see ontions				Additional information							_
•	✓ vour licence to undertak	te integrity testing on bunds an	•	if ves nlease fill out tabl	e R1 helow listing all		Additional mormation							
new bunds and conta	a inment structures on si	te, in addition to all bunds whi	ch failed the integrity test-	all bunding structures wh	ich failed including									
mobile bunds must b	e listed in the table bel	ow, please include all bunds or	utside the licenced testing	period (mobile bunds an	d chemstore included)	Yes								
2 Please provide integr						Other (2 Yearly)								
Does the site mainta 3 "Chemstore" type un		nderground pipelines (includir	ng stormwater and foul), Ta	nks, sumps and containe	rs? (containers refers to	Yes								
4 How many bunds are						1	1							
F. 11-11-11-11-11-11-11-11-11-11-11-11-11-		within the required test sched					2 remaining bunds scheduled to be tested in							
5 now many of these b	ounds have been tested	within the required test sched	uier				9 2019 This includes barrel trays located within							
6 How many mobile bu						No 2	7 workshops							
	the mobile bunds included in the bund test schedule? v many of these mobile bunds have been tested within the required test schedule?													
	v many sumps on site are included in the integrity test schedule?					NA NA								
	v many of these sumps are integrity tested within the test schedule? ase list any sump integrity failures in table B1													
Please list any sump i 11 Do all sumps and char						N/A		l						
		ded in a maintenance and testi	ng programme?			N/A								
13 Is the Fire Water Rete	ention Pond included in	your integrity test programme	?			N/A								
Table	B1: Summary details of	bund /containment structure in	ntegrity test											
	,													
														Results
														retest(
Bund/Containment									Integrity reports maintained on		Integrity test failure		Scheduled dat	current
structure ID	Туре	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	site?	Results of test	explanation <50 words	Corrective action taken	for retest	year)
	SELECT					SELECT			SELECT	SELECT		SELECT		\blacksquare
*Capacity required should o	SELECT comply with 25% or 110% conta	inment rule as detailed in your licence				SELECT	Commentary		SELECT	SELECT		SELECT		
Has integrity testing I	been carried out in acco	rdance with licence requireme												
15 tested in line with BS 16 Are channels/transfe		ntainment systems tested?		bunding and storage guide	elines	SELECT SELECT								
		both integrity and available vol	lume?			SELECT								
Pipeline/undergro	ound structure testing	1												
		e integrity testing* on undergr												
1 test period as specific		pipelines on site which failed	the integrity test and all wr	iich nave not been testet	withing the integrity	Yes								
2 Please provide integr	rity testing frequency p					Other (2 Yearly)								
*please note integrit	ty testing means water t	ightness testing for process and	d foul pipelines (as require	d under your licence)										
Table B2	2: Summary details of pi	peline/underground structures	integrity test								•	_		
				Type of secondary										
				containment				Integrity test						
			Does this structure have			Integrity reports		failure explanation <50	Corrective action	Scheduled date	Results of retest(if in			
Structure ID	Type system	Material of construction:	Secondary containment?		Type integrity testing	maintained on site?	Results of test	words	taken	for retest	current reporting year)			
	SELECT SELECT SELECT SELECT					SELECT	SELECT				SELECT	-		
												-		
							7							
	1	Please use commer	ntary for additional details r	not answered by tables/	questions above									

Groundwater/Soil monitoring template	Lic No:	P0500-01		Year 2018
			Comments	
1 Are you required to carry out groundwater monitoring requirements?	as part of your licence	no		Please provide an interpretation of groundwater monitoring data
2 Are you required to carry out soil monitoring as part o	f your licence requirem	eino		in the interpretation box below or if you require additional space
Do you extract groundwater for use on site? If yes plead comment section	ase specify use in	no	Domestic Use Only	please include a groundwater/contaminated land monitoring results interpretaion as an additional section in this AER
Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded there an upward trend in results for a substance? If ye 4 please complete the Groundwater Monitoring Guideli Template Report (link in cell GS) and submit separatel through ALDER as a licensee return AND answer quest 5-12 below.	d or is es, ine y <u>Groundwater</u>	SELECT		
5 Is the contamination related to operations at the facili and/or historic)	ity (either current	N/A		
6 Have actions been taken to address contamination iss summarise remediation strategies proposed/undertal		N/A		
7 Please specify the proposed time frame for the remed	diation strategy	N/A		<u> </u>
8 Is there a licence condition to carry out/update ELRA f	or the site?	N/A		_
9 Has any type of risk assesment been carried out for th	e site?	N/A		_
10 Has a Conceptual Site Model been developed for the	site?	N/A		_
11 Have potential receptors been identified on and off si	te?	N/A		
12 Is there evidence that contamination is migrating offs	ite?	N/A		Please enter interpretation of data here

Table 1: Upgradient Groundwater monitoring results

										Upward trend in
										pollutant
										concentration
	Sample									over last 5 years
Date of	location	Parameter/		Monitoring	Maximum	Average				of monitoring
sampling	reference	Substance	Methodology	frequency	Concentration++	Concentration+	unit	GTV's*	SELECT**	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 and the second sec

Table 2: Downgradient Groundwater monitoring results

	able 2. Downgradient droundwater monitoring results													
										Upward trend in				
										yearly average				
										pollutant				
										concentration				
	Sample									over last 5 years				
Date of	location	Parameter/		Monitoring	Maximum	Average				of monitoring				
sampling	reference	Substance	Methodology	frequency	Concentration	Concentration	unit	GTV's*	SELECT**	data				
							SELECT			SELECT				
							SELECT			SELECT				

*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
ssessment criteria (DAC) and risk assessment tools is available in the EPA

Guidance on the Management of Contaminated Land and Groundwater at EPA Ucensed Sites (EPA 2013)
unblished 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 sed 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 Standards (DWS).

Groundwater Drinking water Drinking water Surface regulations (private supply) (public supply) Interim Guideline water EQS GTV's standards standards

Table 3: Soil results

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

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

Environmental Liabilities template

Lic No:

P0500-01

Year

2018

Click here to access EPA guidance on Environmental Liabilities and Financial provision

<u>complete</u>		Commentary
ELRA initial agreement status		
-	Not a Licence Requirement	
	Not a Licence Requirement	
ELRA review status	NA	
Amount of Financial Provision cover required as determined by the latest		
ELRA	NA	
Financial Provision for ELRA status	NA	
Financial Provision for ELRA - amount of cover	NA	
Financial Provision for ELRA - type	NA	
Financial provision for ELRA expiry date	NA	
Closure plan initial agreement status	NA	Internal Budget Provision
Closure plan review status	NA	Internal Budget Provision
Financial Provision for Closure status	NA	Internal Budget Provision
Financial Provision for Closure - amount of cover	NA	Internal Budget Provision
Financial Provision for Closure - type	NA	Internal Budget Provision
Financial provision for Closure expiry date	NA	

Environmental Management Programme/Continuou	s Improvement Programme template	Lic No:	P0500-01	Year	20:
Highlighted cells contain dropdown menu click	to view	Additional Informa	tion		
Do you maintain an Environmental Mangement System (EMS) for detail in additional information	or the site. If yes, please Yes	Int	ternal unaccredited EMS		
Does the EMS reference the most significant environmental aspec					
on-site Does the EMS maintain an Environmental Management Program	Yes				
3 accordance with the licence requirement					
Do you maintain an environmental documentation/communicat					
4 public on environmental performance of the facility, as req	uired by the licence Yes				

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	Training. Continue to	Status (/o completeu)	In total 71 Personnel received	Responsibility	intermediate outcomes
Reduction of emissions to All	train all employees in		training in 2018. Training now also		
	environmental matters.		includes an energy awareness		
	Training will be by		component. Ten hydraulic		
	means of the screening		harrows were deployed at five		
	of an environmental		production areas including all dust		
	DVD, followed by a		sensitive areas. Headland peat		
	power point		was collected at six production		
	presentation. Deploy		areas and returned as part of		
	Hydraulic Harrows at		overall production.		
	dust sensitive areas				
	headland Peat				
	collection.				
					Improved Environmenta
		90		Individual	Management Practices
Vaste reduction/Raw material usage	Waste Streamlining.It is		Quarterly waste reports are		
efficiency	planned to continue with		returned for records/filing and		
	and where possible		waste streams are segrated on site		
	improve the current		to maximise recycling potential.		
	waste management				
	service provided by AES				
	Ltd				
					Improved Environmenta
		100		Section Head	Management Practices
Reduction of emissions to Water	Training. Continue to		All silt ponds were cleaned at least		
	train all employees in		twice as per licence condition .		
	environmental matters.				
	Training will be by				
	means of the screening				
	of an environmental				
	DVD, followed by a				
	power point				
	presentation.				Improved Environmenta
		90		Individual	Management Practices
Vaste reduction/Raw material usage	Continue with the		In total 49.54 tonnes were sent off		
fficiency	recycling of		site for recycling. Procurement		
	polyethylene. The		also exploring the possibility of		
	sourcing of more		securing further recyclers.		
	recycling contractors will				Improved Environmenta
	be ongoing.	100		Individual	Management Practices
nergy Efficiency/Utility conservation	As part of an energy	100	There was further reduced activity	marviadai	ivianagement i ractices
chergy Emclency, ourity conservation	management process, an		at Boora Workshop .The		
	ongoing review of		unoccupied areas are sectioned of.		
	energy usage is in place.		Consequently there is no		
	energy usage is in place.		requirement for lighting or heating		
			in those areas. The site achieved		
			the Energy standard ISO50001		
			during the reporting period.		
					Improved Environment
		100	1	Section Head	Management Practices

	No	ise monitor	ing summar	y report			Lic No:	P0500-01	Year	2018	
If yes please	fill in table N1	ence requireme noise summar	y below		ding compl	letion of	Noise Guidance	No NA]		
	-	asurement rep					note NG4				
Does your sit	te have a noise	reduction plan	1					NA			
When was th	ne noise reduct	ion plan last up	odated?					Enter date			
Have there been changes relevant to site noise emissions (e.g. plant or operation: last noise survey?						onal chang	es) since the	NA			
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	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
				,				SELECT	SELECT		SELECT
*Please ensure that a tonal analysis has been carried out as per guidance note NG4. These records must be maintained onsite for future inspection											

SELECT

** please explain the reason for not taking action/resolution of noise issues?
picuse explain the reason for not taking action/resolution of noise issues:
Any additional comments? (less than 200 words)
, , ,

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

2

Lic No:

When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below

Sep-18 Report on file

ISO50001
accreditation
attained from
Certification Europe

Additional information

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 Action Network (LIEN)

Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

Table R1 Energy usag	e on site			
Energy Use	Previous year		Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	11375	14335.26		
Total Energy Generated (MWHrs)				
Total Renewable Energy Generate	d (MWHrs)			
Electricity Consumption (MWHrs)	611.494	657.287		
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	1057.016	1346.125		
Natural gas (m3)				
Coal/Solid fuel (metric tonnes)	4.5	0		
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	e on site				Water Emissions	Water Consumption	
	Water extracted	Water extracted	·	Consumption +/-	Volume Discharged	environment e.g.	
Wateruse	Previous year m3/yr.	Current year m3/yr.	reporting year**	production*	:	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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

Resourc	ce Usage/Energy efficiency	summary			Lic No:	P0500-01	Year	2018
	Table R3 Waste Stream	Summary						
		Total	Landfill	Incineration	Recycled	Other		
	Hazardous (Tonnes)	4.5	0	0	0	0		
	Non-Hazardous (Tonnes)	821.12	0	0	0	0		

Table R4: Energy Au	dit finding recommend	lations					
Date of audit		Description of Measures proposed	_	Predicted energy savings %	•	Responsibility	Status and comments
			SELECT				
			SELECT				
			SELECT				

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

	Unit ID	Unit ID	Unit ID	Unit ID	Station Total
Technology					
Primary Fuel					
Thermal Efficiency					
Unit Date of Commission					
Total Starts for year					
Total Running Time					
Total Electricity Generated (GWH)					
House Load (GWH)					
KWH per Litre of Process Water					
KWH per Litre of Total Water used	on Site				

Complaints and Incidents summary template		Lic No:	P0500-01	Year	2018
Complaints					
		Additional infor	mation		
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				
			- '		

Table 1	Complaints summary						
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		
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 inform
Have any incidents occurred on site in the current	reporting year? Please list	all incidents for current		
reporting year i	n Table 2 below		Yes	
				_
*For information on how to report and what				
constitutes an incident	What is an incident			

Complaints and	d Incidents summary t	emplate			Lic No:	P0500-01		Year	2018					
ble 2 Incidents su	ummary											-		
			Incident category*please refer		Cause of	Other cause(please	A - + i - i + - i			Corrective	Preventative action <20	Resolution	Resolution	Likelihood
ate of						***	Activity in progress at		_					
	Incident nature	Location of occurrence		Receptor	incident	specify)	time of incident	Communication	Occurrence		words	status	date	reoccurenc
16/05/2018	Trigger level reached	SW34 Composite sampler - Bellair	1. Minor	Water	Not related to site activities		Normal activities	EPA Ref No. INCIO14667	New	Follow up sampling and monitoring				
											NA	Complete	17/05/2018	Low
06/06/2018	Trigger level reached	SW34 Composite sampler - Bellair	1. Minor	Water	Not related to site activities		Normal activities	EPA Ref No. INCI014668	New	Follow up sampling and monitoring				
											NA	Complete	07/06/2018	Low
07/06/2018	Breach of ELV	SW34 Composite sampler - Bellair	1. Minor	Water	Adverse weather - Wind		Normal activities	EPA Ref No. INCI015097	New		Dust control measures to remain in place	Complete	12/06/2018	3 Low
29/08/2018	Breach of ELV	SW34 Composite sampler - Bellair	1. Minor	Water	Not related to site activities		Normal activities	EPA Ref No. INCI015799		Follow up sampling and monitoring	NA	Complete	29/08/2018	3 Low
12/05/2018	Breach of ELV	DM01 - Clongawney	1. Minor	Air	Adverse weather - Wind		Normal activities	EPA Ref No. INCI016023			Production to cease during high winds	Complete	27/06/2018	

incidents current year Total number of incidents previous year % reduction/ increase 0%

67%

WASTE SUMMAR					Lic No:	P0500-01		Year	2018		
SECTION A-PRTR	ON SITE WASTE TREATMENT A	AND WASTE TRANSFERS	TAB- TO BE COME	PLETED BY ALL IPPO	AND WASTE FACILITIES	PRTR facility log	<u>on</u>	dropdown lis	st click to see options		
SECTION B- WAST	E ACCEPTED ONTO SITE-TO BE	COMPLETED BY ALL IP	PC AND WASTE FA	CILITIES							
							Additional Informa	tion 1			
	nted onto your site for recovery or displaced through PRTR reporting)	posal or treatment prior to rec	overy or disposal withir	the boundaries of you	r facility ?; (waste generated within	N/A					
f yes please enter deta	ails in table 1 below							1			
Did your site have any r	rejected consignments of waste in the	e current reporting year? If yes	please give a brief exp	lanation in the addition	al information	SELECT					
Was waste acc	cepted onto your site that was genera	ted outside the Republic of Ire	eland? If yes please stat	e the quantity in tonne	s in additional information	SELECT					
	of waste accepted onto you					our site, as th	ese will have l	been reported in	your PRTR workbook)	
Licenced annual tonnage limit for your site (total tonnes/annum)	EWC code	Source of waste accepted	accepted Please enter an accurate and detailed description - which applies to relevant	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	remaining on	Comme
l'	European Waste Catalogue EWC codes		EWC code European Waste Catalogue EWC codes								
ļ.			ļ	4		1		1			
SECTION C-TO BE	COMPLETED BY ALL WASTE FA	ACILITIES (waste transfe	r stations. Compo	sters. Material rec	overy facilities etc) FXCFPT	LANDFILL SITE	S				
		,			, , , , , , , , , , , , , , , , , , , ,						
s all waste processing	infrastructure as required by your lice	nce and approved by the Ager	ncy in place? If no please	e list waste processing i	nfrastructure required onsite	SELECT					
s all waste storage infr	astructure as required by your licence	and approved by the Agency	in place? If no please lis	st waste storage infrastr	ructure required on site	SELECT					
Does your facility have	relevant nuisance controls in place?					SELECT				1	
	nanagement system in place for your	facility? If no why?				SELECT				1	
Do you maintain a slud		•				SELECT					
			-								

ioi disposii	сиз розні (гра)	reporting year (cpa)	reporting year (inc)	Comments							
					1						
					1						
					_						
able 3 General i	nformation-Landfill only										
										Total disposal	Lined d
										area occupied by	
				Private or Public		Predicted date to	Licence permits	Is there a separate cell	Accepted as bestos in reporting	waste	waste
Area ID	Date landfilling commenced	Date landfilling ceased	Currently landfilling	Operated	Inert or non-hazardous	cease landfilling	asbestos	for asbestos?	year	waste	waste
				•					· ·		
										SELECT UNIT	SELEC
										SELECT UNIT	SELEC
Cell 8											
.eli 8										4	
Table 4 Environm	ental monitoring-landfill only	Landfill Manual-Monitoring S	<u>standards</u>						_		
Was meterological									I		
monitoring in			Was SW monitored in			Was topography	Has the statement		I		
compliance with Landfill		Was Landfill Gas monitored in	compliance with LD			of the site	under S53(A)(5) of				
	Was leachate monitored in compliance	compliance with LD standard in	standard in reporting	Have GW trigger levels	Were emission limit values agreed with	surveyedin	WMA been submitted	1			
in reporting year +	with LD standard in reporting year	reporting year	year	been established	the Agency (ELVs)	reporting year	in reporting year	Comments			
	,	1 0,							†		
	fill & do	- dell bi	to a decide						1		
	fill Manual linked above for relevant l	andfill Directive monitoring s	tandards								
Table 5 Capping-I	andfill only										
				Area with waste that							
Area uncapped*	Area with temporary cap			should be permanently							
. II cu uncuppeu	лиси мин комроли у сир	Area with final cap to LD		capped to date under							
SELECT UNIT	SELECT UNIT	Standard m2 ha, a	Area capped other	licence	What materials are used in the cap	Comments					
		Standard IIIZ IIa, a	Area capped other	ncence	what materials are used in the cap	Comments	-				
*	L						J				
*please note this inclu	•										
Table 6 Leachate	-Landfill only										
Is leachate from your s	site treated in a Waste Water Treatme	nt Plant?				SELECT					
	o surface water? If yes please complet		tion helow			SELECT	İ				
is icacitate released to	o surface water: if yes piease complet	e reacriate mass road milorma	don below			SEEECT	1				
						Specify type of		1			
Volume of leachate in		Leachate (COD) mass load	Leachate (NH4) mass load	Leachate (Chloride)		leachate					
	Leachate (BOD) mass load (kg/annum)	(kg/annum)	(kg/annum)	mass load kg/annum	Leachate treatment on-site	treatment	Comments				
reporting year (m5)	Leachate (BOD) mass road (kg/annum)	(kg/aimum)	(Kg/aiiiiuiii)	mass road kg/amidin	Leachate ir eatment on-site	treatment	Comments	-			
Plea	se ensure that all information reporte	d in the landfill gas section is	consistent with the Land	fill Gas Survey submitt	ed in conjunction with PRTR returns						
Table 7 Landfill G	as-I andfill only				-						
Table / Landini G	as-Landini Only				7						
					1						
			Was surface emissions								
			monitoring performed								
Gas Captured&Treated			during the reporting		1						
by LFG System m3	Power generated (MW / KWh)	Used on-site or to national grid	year?	Comments							
o, La Go yaciii IIIo	zonei generateu(mm / RWII)	coca off-site of to hadrodal grid		Committee							
	1		SELECT								

Remaining licensed

capacity at end of

Lic No:

P0500-01

Year

2018

Unlined area

SELECT UNIT

Comments or liner type

WASTE SUMMARY

SECTION D-TO BE COMPLETED BY LANDFILL SITES ONLY Table 2 Waste type and tonnage-landfill only

Waste types permitted Authorised/licenced annual intake for Actual intake for disposal in

European Waste Code	Description of Waste (in line	Hazardous –	Quantity			Name, Address & Licence/Permit No. of FINAL	Country
(EWC)	with applicable EWC code)	YES/NO	(Tonnes)	Agent/Carrier	/ Recycled	Destination	
02 01 04	waste plastics (except packaging)	No	49.54	ADN Materials Ltd.WFP- MN-12-0001-04	R03 - Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)	ADN Materials Ltd., Lossetts, Carrickmacross, Co. Monaghan - WFP-MN-12-0001- 04	Ireland
13 02 05*	mineral-based non- chlorinated engine, gear and lubricating oils	Yes	15	Enva Ireland Limited - L1745	R01 - Use principally as a fuel or other means to generate energy	R.D. Recycling, Houthalen, Reg No: 51727/1KD	Belgium
17 04 07	mixed metals	No	73.74	AES Ltd WP-OY-08- 601-02	R04 - Recycling/reclamation of metals and metal compounds	AES LTD, Cappincur, Tullamore, Co. Offaly - WP- OY-08-601-01	Ireland
20 03 01 B	Municipal mixed residual non-household	No	11.82	AES Ltd WP-OY-08- 601-02	D05 - Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP- OY-08-601-01	Ireland
20 03 01 A	Municipal mixed residual household	No	9.68	AES Ltd WP-OY-08- 601-02	D05 - Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP- OY-08-601-01	Ireland
11 01 13*	degreasing wastes containing hazardous substances	Yes	1.75	Safety Kleen Ireland Ltd - W0099	R11 - Use of waste obtained from any of the operations numbered R 1 to R 10	Solvent Recovery Management, PP33345F, Wheeland Rd., Knottingly, West Yorks	UK

Boora

Decommissioning and Rehabilitation Bog Rehabilitation Progress Report 2018.

Within the Boora licensed area (P0500-01) there was one entire bog unit (Derrybrat) available for rehabilitation in 2018. Ongoing monitoring of cutaway sites within the Boora Bog Group was carried out with bogs such as Noggusboy West, Belair South and Turraun re-surveyed in 2018. The surveys comprised of baseline walkover surveys to identify and map pioneer and established habitats on the cutaway.

An invasive aquatic plant species (Parrots Feather *Myriophyllum aquaticum*) was identified in the amenity areas of Boora in 2016, actions to control its spread have been enacted along with the notification of the presence of this species to the relevant authorities.

Cutaway rehabilitation commenced at Derrybrat Bog in 2018 (68 ha). Peat dams were used to block the drains on a section of bog that had formerly been managed for industrial peat production. The work aims to raise water levels at this site to stabilise the bog (establish wetland habitats), control silt run-off and slow water movement off the bog.

Rehabilitation of the cutaway at the Derries was also undertaken in 2018. Targeted drain blocking was undertaken in a section of cutaway (16 ha) in the western section of the site while surface water levels were adjusted to optimal levels where wetlands have established in the centre of the site.

Draft rehabilitation plans for the Boora bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015 and 2017.

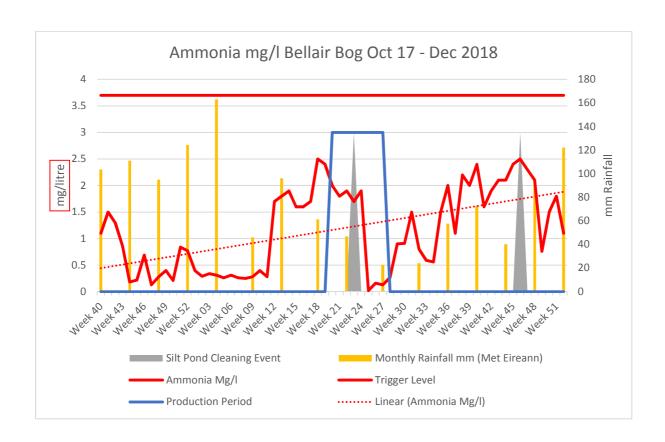
The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in May 2018, this included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.

A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

As required by condition 10.2 Cutaway Bog Rehabilitation Plans, draft peatland rehabilitation plans for all the individual bog units were submitted to the agency in 2013, reviewed and amended in 2015 and re-submitted to the agency in 2015. All draft rehabilitation plans have been reviewed in 2017. These reviewed and amended plans will be re-submitted to the agency in due course.

Organic certification was sought for the majority of the Bord na Móna property with the aim of using some areas for the cultivation of plants for use in herbal medicine (Mona Herbs), this project is ongoing.

Grab Sampli	ing 2018											
Х	Υ	Bog	sw	Monitoring	Sampled	рН	SS	TS	Ammonia	TP	COD	Colour
217216.92	227527.32	Lemonaghan	SW-19	Q1 18	Grab	7.4	5	222	1.4	0.05	56	217
217481.75	227345.36	Lemonaghan	SW-19A	Q1 18	Grab	8	5	356	0.51	0.05	43	86
214970.51	226491.33	Lemonaghan	SW-19B	Q1 18	Grab	8.1	5	330	0.61	0.05	35	88
218645.63	229597.18	Lemonaghan	SW-22	Q1 18	Grab	7.9	5	364	0.16	0.05	16	69
216900.19	229545.11	Lemonaghan	SW-22A	Q1 18	Grab	7.8	5	180	2.6	0.05	34	90
216151.75	230069.09	Lemonaghan	SW-22B	Q1 18	Grab	7.9	5	190	3	0.05	43	118
215947.19	230315.10	Lemonaghan	SW-22C	Q1 18	Grab	6.2	5	70	0.26	0.05	46	189
215079.20	231196.83	Lemonaghan	SW-22D	Q1 18	Grab	5.6	5	60	0.7	0.05	57	164
218809.08	227041.46	Lemonaghan	SW-23	Q2 18	Grab	8.1	11	408	0.28	0.23	50	67
208557.05	205482.23	Killaun	SW-29	Q2 18	Grab	8.1	5	240	0.05	0.06	97	307
208726.96	206088.96	Killaun	SW-29A	Q2 18	Grab	7.8	5	282	0.03	0.05	87	182
209922.39	207800.47	Killaun	SW-30	Q2 18	Grab	7.7	5	305	0.65	0.05	77	177
208127.88	210599.82	Galros	SW-32	Q2 18	Grab	8	5	452	0.67	0.05	14	25
234556.96	216406.12	Monettia	SW-25	Q2 18	Grab	7.8	5	546	0.32	0.05	30	37
237185.96	215178.41	Monettia	SW-26	Q2 18	Grab	7.6	5	352	1.7	0.06	25	67
237043.63	216670.04	Monettia	SW-26A	Q2 18	Grab	7.8	5	426	0.29	0.05	20	48
212352.39	217427.89	Drinagh	SW-9	Q3 18	Grab	8.1	5	420	0.02	0.05	29	40
212948.34	217756.09	Derrybrat	SW-9A	Q3 18	Grab	8	5	314	0.05	0.05	37	38
213631.82	220692.54	Noggusboy	SW-10	Q3 18	Grab	7.6	5	560	0.19	0.017	57	-
214515.48	219480.49	West Boora	SW-11	Q3 18	Grab	7.7	5	358	1.5	0.05	52	173
215354.86	221941.82	Derries	SW-14	Q3 18	grab	7.6	5	396	0.02	0.05	33	66
214889.87	221778.27	Derries	SW-14A	Q3 18	grab	7.9	21	336	0.78	0.05	60	125
236128.81	221965.17	Derryclure	SW-28	Q3 18	grab	7.6	12	392	0.02	0.31	72	-
236939.60	220629.01	Derryclure	SW-27	Q3 18	grab	7.8	5	430	0.52	0.05	44	45
220650.17	210315.60	Derrinboy	SW-38	Q4 18	Grab	7.3	18	136	0.67	0.06	84	145
220483.33	210276.48	Derrinboy	SW-39	Q4 18	Grab	7.2	18	174	0.65	0.05	83	140
219663.49	210038.82	Derrinboy	SW-40	Q4 18	Grab	7.1	8	84	0.83	0.06	48	170
215361.95	232965	Bellair South	SW-33	Q4 18	Grab	6.7	5	78	1.3	0.05	66	199
214495.84	232938	Bellair South	SW-34	Q4 18	Grab	7.2	5	98	1.3	0.05	62	236
214987.18	232598	Bellair South	SW-34A	Q4 18	Grab	7.1	5	128	1.8	0.07	59	228
213906.46	231885	Bellair South	SW-35	Q4 18	Grab	5.8	5	100	0.44	0.06	73	186
215477.01	233062	Bellair North	SW-37B	Q4 18	Grab	7.2	5	368	0.46	0.05	72	217

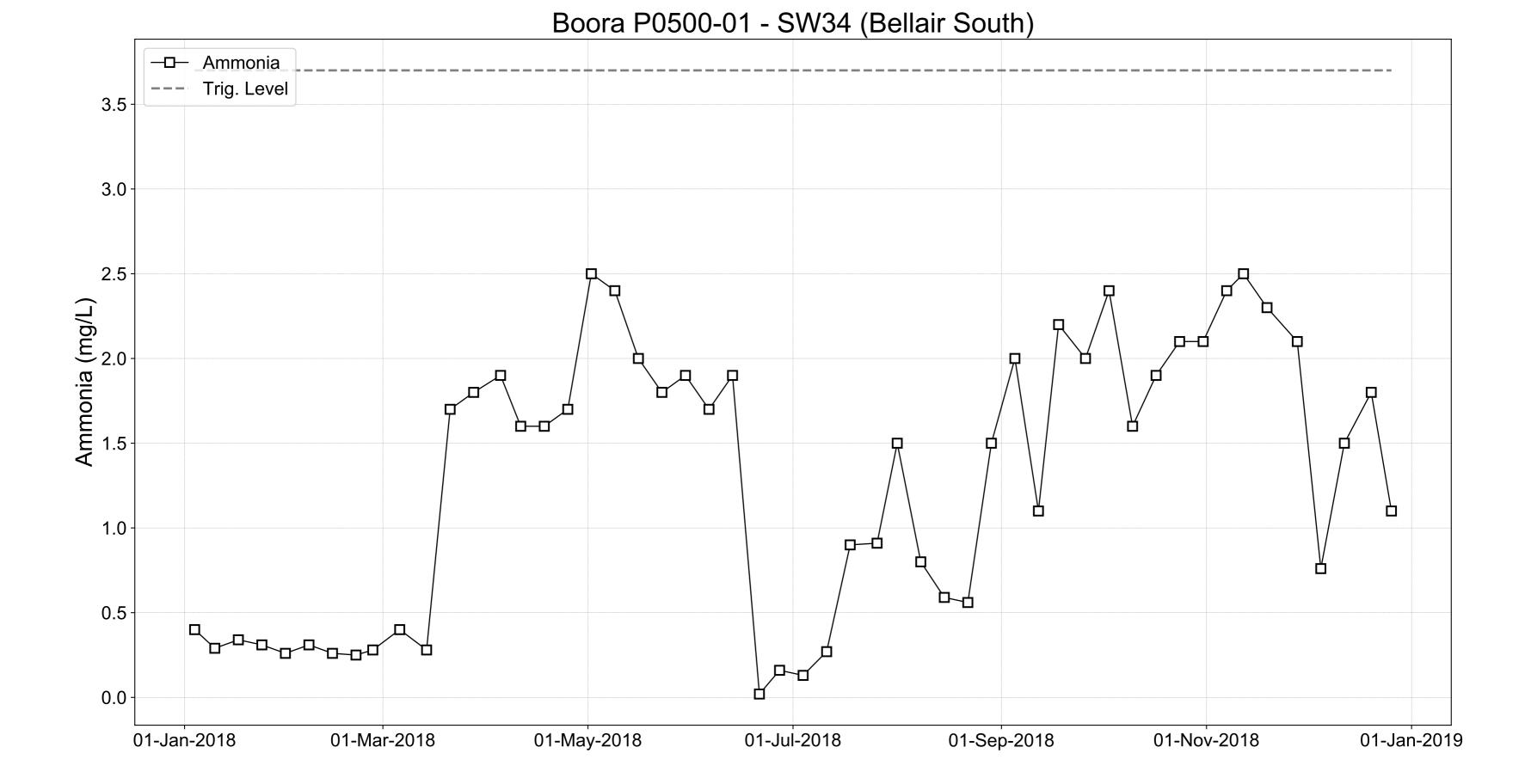


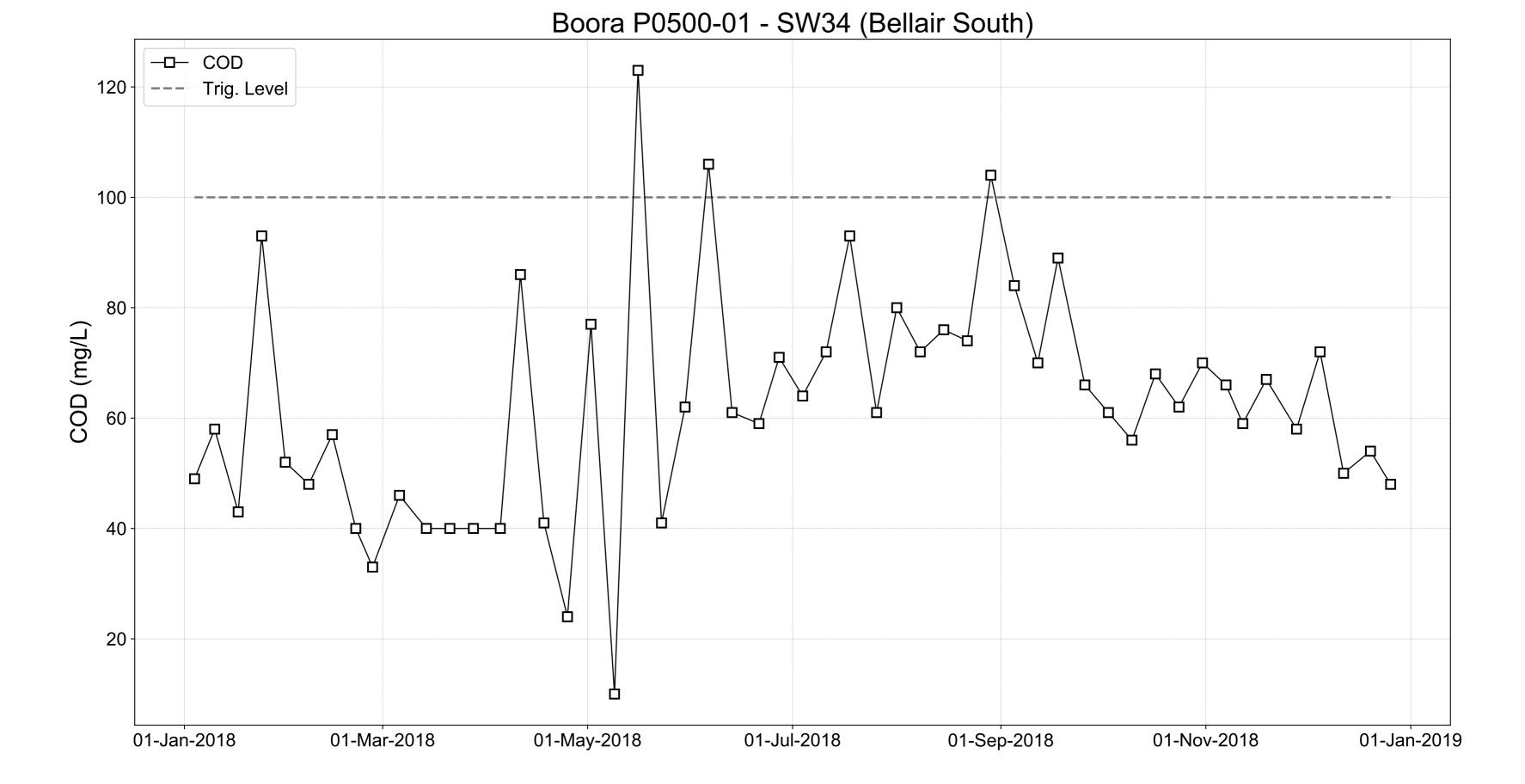
Bellair Bog

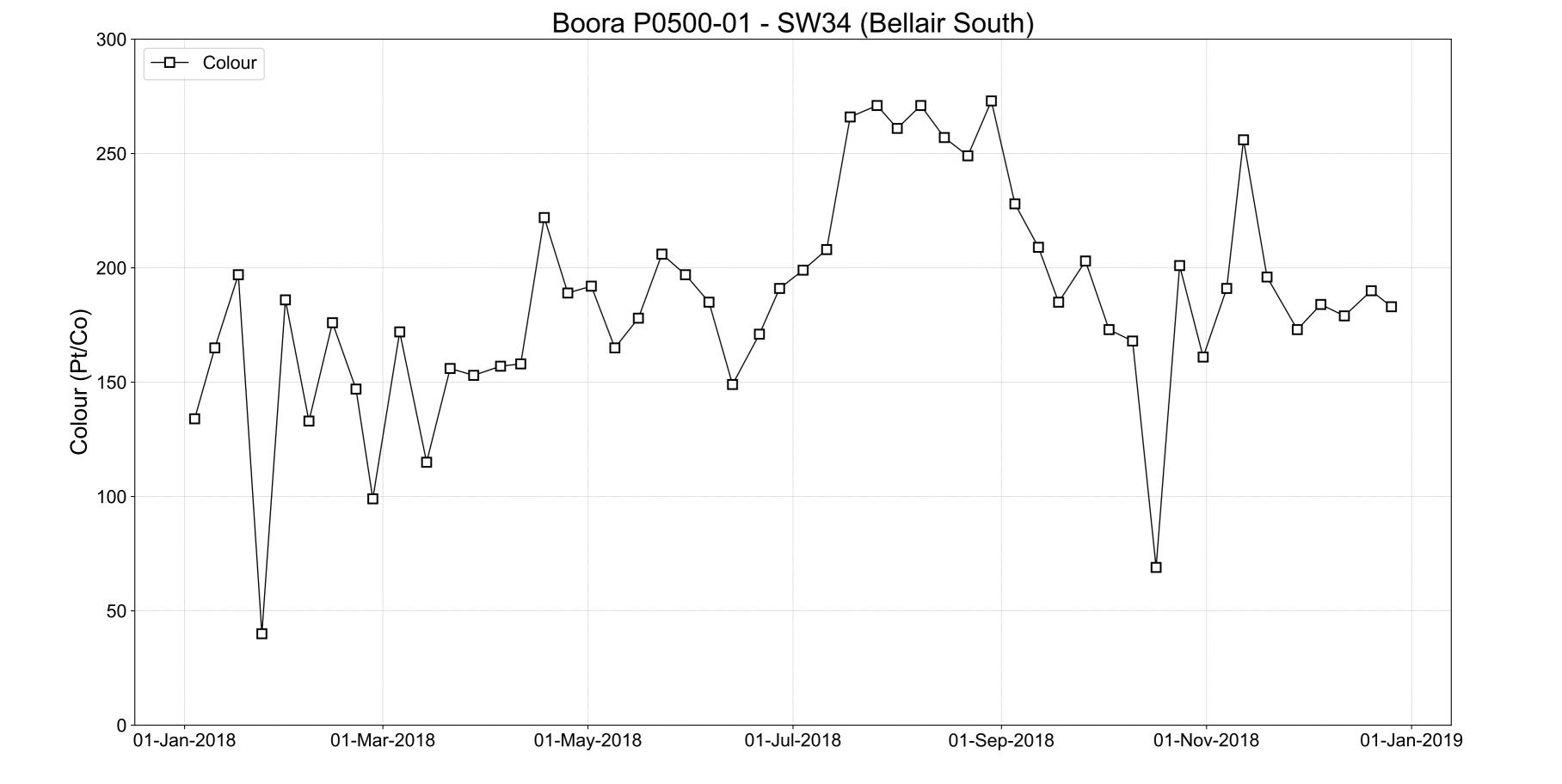
Bellair bog is an active production bog with the composite sampler located here from the last week in September 2017 to December 2018. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had 45% downtime during the period being reported, but suitable weekly grab samples were taken during these downtimes, primarily due to battery fault, flood events, the sampler was being serviced/overhauled or due to technical faults. The ammonia trigger level of 3.7mg/l, as agreed with the Agency, was not exceeded during the period being reported. The above graph show concentrations trending upwards over the 15-month period, as peat extraction continues.

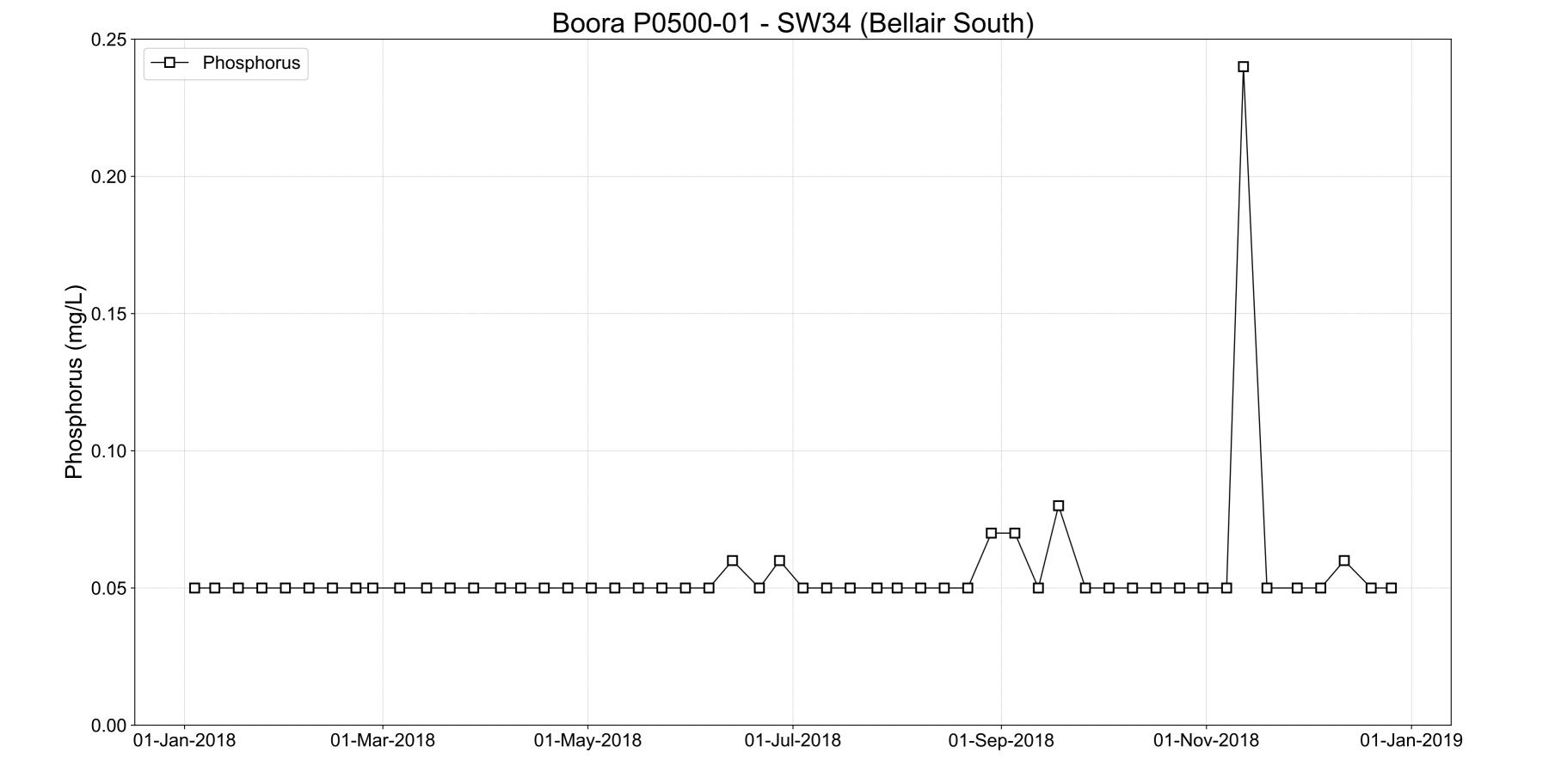
It is not possible to identify any obvious link between the summer production, winter maintenance or silt pond maintenance events on the concentration of ammonia disharging from the peatlands. The only link expected would be that related to rainfall events and seasonal weather patterns and the subsequent surfacewater runoff and associated ammonia concentrations, but again this is not evident except during the latter half of 2018.

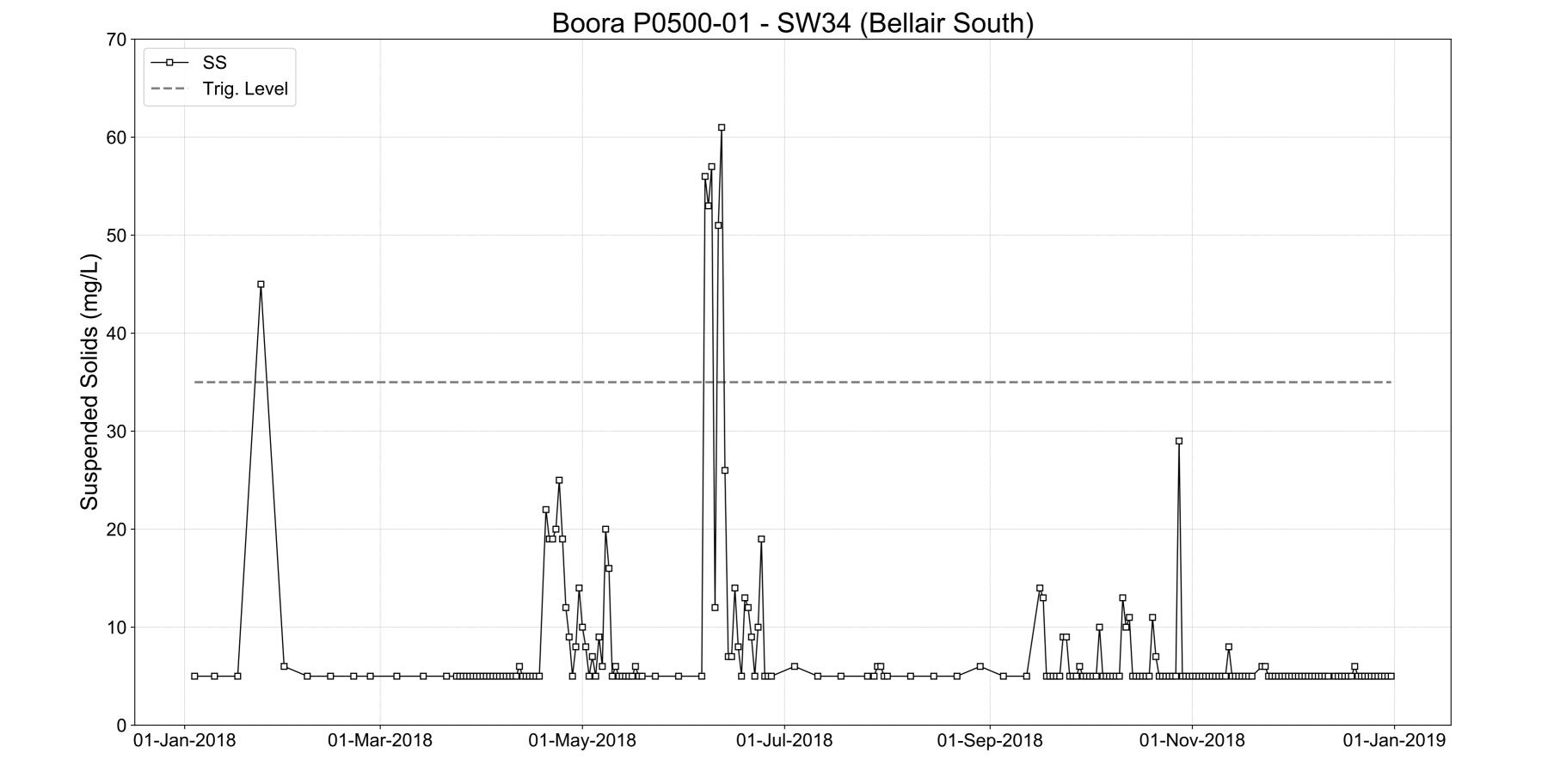
The sampler at this location may be relocated to fill any information gaps on other peatland catchments and to reflect the need to support the information gathering required for the Water Framework Directive's River Basin Management Plan. There is also an EPA lead research project commencing in 2019, called the SWAMP project, whose aims are to appraise and understand the nutrient impact from peatlands, to evaluate treatment technologies and to propose predictive tools for watershed management.

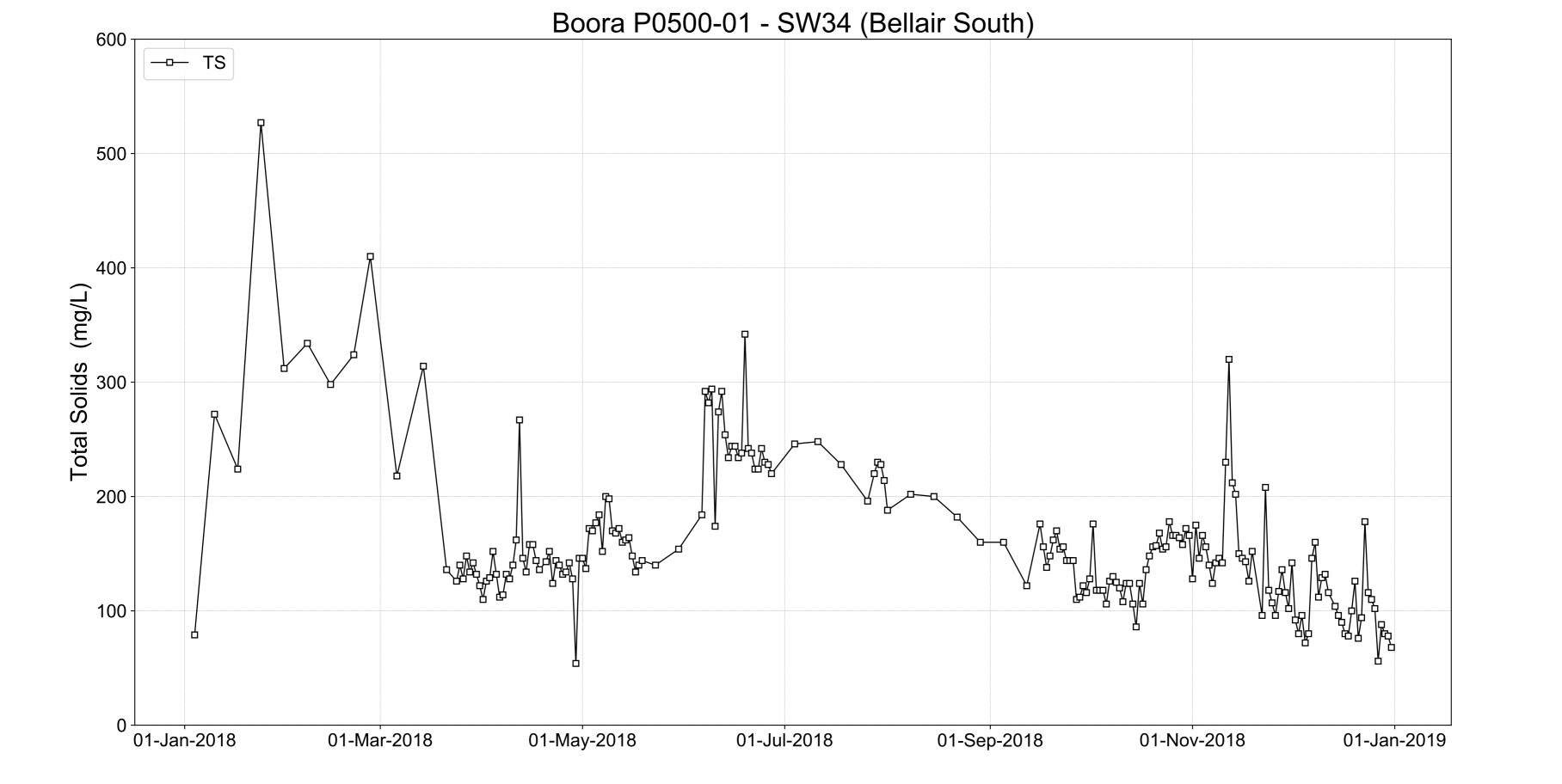


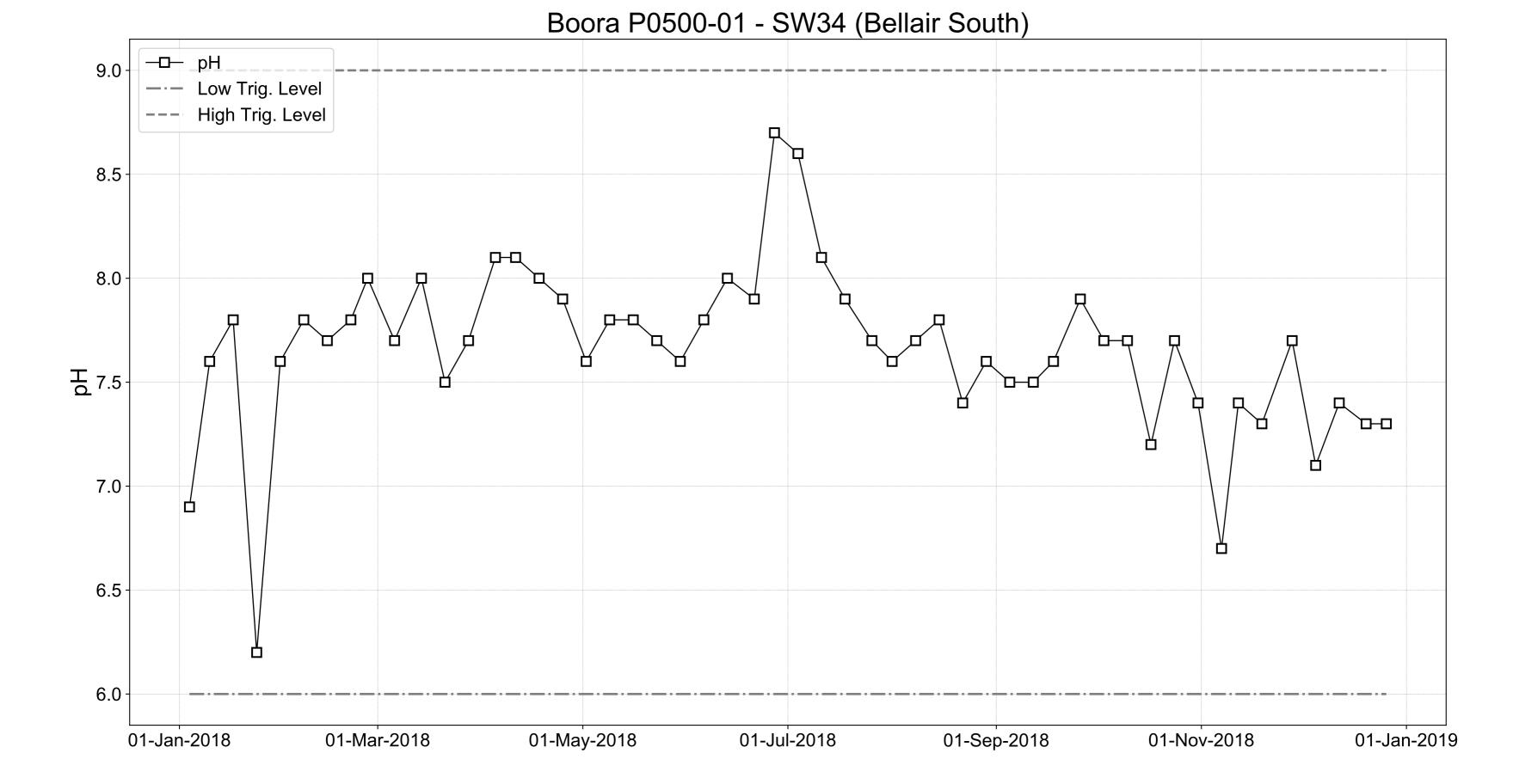












Yard Discharge Results 2018

Licence: P0500-01

Works: Boora

WORKS: BOOTA														
Month	SWE 1A	SWE 1B	SWE 2	SWE3	SWE 3A	SWE 4A	SWE 4B	SWE 5A	SWE 5B	SWE 6A	SWE 6B	SWE7	SWE 8	SWE 9
Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar	83	13	0	0	0	0	0	0	0	0	0	0	0	0
Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May	39	51	0	0	0	0	0	0	0	48	0	0	0	0
June	0	0	0	0	0	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov	18	10	0	0	0	0	0	0	0	68	10	0	0	0
Dec	10	32	12	0	0	0	0	0	0	53	56	0	0	0

Note: 0 denotes no flow at emission point on day of sampling

Extractive Waste Management Plan Implementation AER Update.

March 2019.

IPC Licence P0500-01.

1.0 Extractive Wastes.

Waste classified as extractive waste from peat extraction operations arise from two operations associated with this activity.

- Silt Pond excavations and maintenance
- Bog Timbers

There has been no change to the type and nature of these three waste streams and no new waste streams added to this list. These wastes streams continue to be stored and maintained at between 1 and 3 metres in height.

2.0 Condition 7.5 Extractive Waste Management

- An extractive waste management plan (EWMP) was submitted to the Agency in September 2012 and was approved.
- The EWMP was reviewed in September 2017. There were no substantial changes to the operation of the plan, associated waste facilities or to the waste deposited.

3.0 Minimisation

- The IPC Licence has various conditions that require the installation, inspections and maintenance of silt ponds for operational areas and as such these requirements dictate the need for silt ponds and associated excavation materials and cleanings.
- Bog timbers arise from the active production footprint and are naturally occurring. The active footprint is dictated by the peat production targets and customer supply contract and service level agreements.

4.0 Treatment

- Silt pond excavation and maintenance materials do not require any treatment and are stored as per the EWMP, adjacent to the associated silt pond.
- There is no treatment of bog timbers arising and these are stockpiled at various locations in associated bogs.

5.0 Recovery

- As per the EWMP, there is still no opportunity to recover these silt pond associated materials
- Bog timbers stored on the bog are natural to the peat bog and while there have been trails to recover this waste material, these have not proved viable.

6.0 Disposal

- Silt pond cleanings continue to be disposed of adjacent to the associated silt pond and will be incorporated back into the rehabilitation plans for these bogs, post production and decommissioning.
- Bog timbers will continue to be stockpiled at suitable locations to be either incorporated back into the bog, as a supply of bog timbers for the crafting industry or will continue to decay naturally.



Annual Environmental Report 2018

Bord na Mona Energy Ltd (Derrygreenagh Group of Bogs) IPC Licence P0501-01

Facility Information Summary

AER Reporting Year Licence Register Number Name of site Site Location NACE Code Class/Classes of Activity

National Grid Reference (6E, 6 N)

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.

2018	
P0501-01	
Bord na	Mona Derrygreenagh
Derrygreenagh, F	Rochfortbridge, Co Westmeath
	0892
	1.4
2.	49450, 238140

Activities on site can be divided into two components, firstly the milling, harrowing, ridiging and harvesting of peat into stockpiles and secondly the transportation of that peat via an internal rail network to the Power Station and lorry outloading facilities. Production achieved was approximately 268,559 tonnes which was slightly up on the 2017 figure. Infrastructurally, there was no bog development. Quarterly grab sampling was 100% compliant, with the continuous composite sampling returning no non-compliances for suspended solids. There were three environmental complaints received during the reporting period, this was dust related and was resolved to the satisfaction of the complainants. The number of incidents reported rose in 2018. These were mainly trigger level exceedences for ammonia and COD due to the exceptionally dry summer we experienced. In relation to silt pond cleaning, 75% of ponds received two cleanings. The remaining 25% of silt ponds serviced a bog that was not operational in 2018 but were cleaned in December 2017, June 2018 and again in January 2019, so did receive two cleaning within the 12month period. Inspections dictate cleaning schedules. Decommissioning and Rehabilitation works are described in an attachment. During the period of reporting, a draft Rehabilitation plan was submitted along with consent sought and approved for two new trail projects, namely the trial cultivation of herbs and wildcrafting for indigenous herbs and plant water

Declaration:

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

	AIR-summary	/ template				Lic No:	P0501-01		Year	2018	3
	Answer all questi	ions and complete all ta	bles where relevar	nt				Additional informat	ion		
1	current reportin	ng year and answer furt	ther questions. If y	ou do not have	e A1 and A2 below for the licenced emissions and do not_need to complete the	No	F				
	Periodic,	/Non-Continuous N	Monitoring								
2	·		section of TableA1		brief details in the comment	No					
3		e AG2 and using the basi checklist?		monitoring checklist	AGN2	Yes					
	Table A1: Lice	ensed Mass Emissi	ons/Ambient d	ata-periodic n	nonitoring (non-continu	uous)					
	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
		SELECT			SELECT		SELECT	SELECT	SELECT		
		SELECT			SELECT		SELECT	SELECT	SELECT		
		SELECT SELECT		1	SELECT SELECT		SELECT SELECT	SELECT	SELECT SELECT		
		ric flow shall be included	I d as a reportable pa	rameter	BELECT		SELECT	SELECT	SELECT		1
		Continuous N	/onitoring								
		Continuous N	nonitoring "								
4	Does your site ca	arry out continuous air e	missions monitorir	ıg?		No				_	
	If yes please re				ed fields below in Table A2						
5	Did continuous m below	•	to its relevant Emis xperience downtim		ecord downtime in table A2	No]	
6	Do you have a pro	oactive service agreeme	ent for each piece o	f continuous moni	toring equipment?	No				_	
7	Did your site e	xperience any abateme	nt system bypasses	? If yes please det	ail them in table A3 below	No					

AIR-summary template Lic No: P0501-01 Year 2018

Table A2: Summary of average emissions -continuous monitoring

Emission	Parameter/ Substance		Averaging	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:			Period		measurement			Equipment	exceedences	
		ELV in licence or						downtime (hours)	in current	
		any revision therof							reporting year	
DM-01	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	8176	71	0		Dust monitioring took place on 5 occasions for 28 days each time between April and September
DM-02	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	14448	178	0	0	
DM-03	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	30688	305	0	0	
DM-04	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	14280	178	0	0	
	SELECT				SELECT		·			·

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

Table A3: Abatement system bypass reporting table

Bypass protocol

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

^{*} this should include all dates that an abatement system bypass occurred

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

Solvent	use and manageme	ent on sito											
Solvent	use and manageme	int on site											
Do you have a to	tal Emission Limit Value	of direct and fugitiv	e emissions on si	te? if yes please fill out table	s A4 and A5		SELECT						
Table A4: Sol	able A4: Solvent Management Plan Summary Solvent Please refer to linked solvent regulations to												
	otal VOC Emission limit value regulations complete table 5 and 6												
	otal voc Emission limit value												
Reporting year	Total solvent input on	Total VOC	Total VOC		Compliance	†							
	site (kg)	emissions to Air	emissions as										
		from entire site	%of solvent	Total Emission Limit Value									
		(direct and	input	(ELV) in licence or any									
		fugitive)		revision therof		1							
					SELECT								
					SELECT								
Table A5:	Solvent Mass Balan	ce summary				_							
	(I) Inputs (kg)			(O)	Outputs (kg)								
Solvent		Organic solvent	Solvents lost in	Collected waste solvent (kg)	Fugitive Organic	Solvent released	Solvents	Total emission of					
	(I) Inputs (kg)	emission in waste			Solvent (kg)			Solvent to air (kg)					
	1		I	I.	ı	1	Total						

AER Monito	ring returns	summary template	-WATER/WAS	TEWATER(SE	WER)	Lic No:	P0501-01		Year	2018					
						T	Additional information		1						
yes please of answer furthe complete ta Was it a required water discharge W2 below so Table W	relative to 1 PRTR Parameter 1														
reference	site activities		Parameter	date	revision	criteria		measurement	licence						
	SELECT	SELECT	SELECT		thereof*	SELECT		SELECT	SELECT						
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT						
Location Reference	Source of								Comm	ents					
						SELECT									
						SELECT									
Licensed Emissions to water and /or wastewater(sewer)-periodic monitoring (non-continuous) Was there any result in breach of licence requirements? If yes please provide brief details in the comment section of Table W3 below 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 External Assessment of detail what areas require improvement in additional information box An information box 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 therof ^{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

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 1: Volumetric flow shall be included as a reportable parameter

AER Monitoring returns summary template-WATER/WASTEWATER(S	EWER)	Lic No:	P0501-01	Ye	ar	2018	
Continuous monitoring 5 Does your site carry out continuous emissions to water/sewer monitoring?	Yes		Additional Information	pling			
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	Yes		Total of 101 days over 365 day	S			
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 WS below	Yes						

Table W4: Summary of average emissions -continuous monitoring

Emission reference no:	Emission released to		ELV or trigger values in licence or any revision thereof	Averaging			from previous reporting year	downtime	Number of ELV exceedences in reporting year	Comments
SW43	Water	Suspended Solids	35	24 hour	All results < 1.5 times ELV, plus from ten 8 results must be ELV >	mg/L			0	
SW43	Water	Ammonia (as N)	2.78	Weekly	NA	mg/L				
SW43	Water	Total phosphorus	NA	Weekly	NA	mg/L			, and the second	
SW43	Water	COD	100	Weekly	NA	mg/L				
SW43	Water	volumetric flow	NA	24 hour	NA	m3/day		2424		Down time due to battery failure, and sampler repairs. Agency informed of repairs.
SW43	Water	Total Dissolved Solids	NA	Weekly	NA	mg/L				

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

Table W5: Abatement system bypass reporting table

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

^{*}Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline to	esting template				Lic No:	P0501-01		Year	2018					
Bund testing	1	dropdown menu cl	lick to see ontions				Additional information							
			•	2:6	. Ballista - Parkis - III		Additional miorination							
		e integrity testing on bunds a te, in addition to all bunds wh												
		ow, please include all bunds of												
1			V		,	Yes								
2 Please provide integ		erioa nderground pipelines (includi				Other (2 Yearly)		-						
3 "Chemstore" type un		nderground pipelines (includi	ing stormwater and rour), ra	anks, sumps and container	is: (containers refers to	Yes								
4 How many bunds are						1		-						
		within the required test sched	dule?			1								
6 How many mobile bu														
7 Are the mobile bund						No								
		tested within the required te	est schedule?			0		_						
9 How many sumps on		d within the test schedule?				0		-						
	integrity failures in table							_						
11 Do all sumps and cha						N/A								
		ded in a maintenance and test				N/A								
13 Is the Fire Water Ret	ention Pond included in	your integrity test programm	e?			N/A								
Table	B1: Summary details of t	ound /containment structure i	integrity test	1										
19979			.,	· ·										
														Results o
														retest(if i
									Integrity reports					current
Bund/Containment									maintained on		Integrity test failure			reporting
structure ID	Туре	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	site?	Results of test	explanation <50 words	Corrective action taken	date for retest	year)
Derrygreenagh Bund NO:501-37-01	reinforced concrete		Gas Oil	110,592	45000	Hydraulic test		22/05/2017	Yes	Pass	N/A	N/A	N/A	N/A
		inment rule as detailed in your licence rdance with licence requireme					Commentary	7						
15 tested in line with BS		ruance with ricence requirem	ents and are an structures	bunding and storage guide	elines	SELECT								
		tainment systems tested?				SELECT								
17 Are channels/transfe	er systems compliant in l	both integrity and available vo	olume?			SELECT								
Pipeline/undergro	ound structure testing	1												
Are you required by	our licence to undertak	រ e integrity testing* on underg					No underground tanks or							
		pipelines on site which failed	the integrity test and all w	hich have not been tested	d withing the integrity		pipelines on site							
1 test period as specifi 2 Please provide integ		wind				Yes SELECT		-						
		rriou ightness testing for process ar	nd foul pipelines (as require	ed under vour licence)		SELECT								
	,	оо		_										
Table B2	: Summary details of pip	peline/underground structure	es integrity test							1		1		
				Type of secondary										
				containment				Integrity test						
				Contaminent				failure						
Standard 12	T	Make siel of constructi	Does this structure have		Tona internite to the	Integrity reports	Danilla of took	explanation <50	Corrective		Results of retest(if in			
Structure ID	Type system SELECT	Material of construction: SELECT	Secondary containment? SELECT	SELECT	Type integrity testing SELECT	maintained on site? SELECT	Results of test SELECT	words	action taken	for retest	current reporting year) SELECT			
				J.L.C.	J.L.C.				1			1		
									1]		
							7							

Control of the Institute of the Institut			
Groundwater/Soil monitoring template	Lic No:	P0501-01	Year 2018

			Comments	
	1 Are you required to carry out groundwater monitoring as part of your licence requirements?	no		Please provide an interpretation of groundwater monitoring data
	2 Are you required to carry out soil monitoring as part of your licence requireme	no		in the interpretation box below or if you require additional space
	Do you extract groundwater for use on site? If yes please specify use in		Drinking water well	please include a groundwater/contaminated land monitoring
-	comment section	yes	Drinking water well	results interpretaion as an additional section in this AER
	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,			
	4 please complete the Groundwater Monitoring Guideline			
	Template Report (link in cell G8) and submit separately Groundwater			
	through ALDER as a licensee return AND answer questions monitoring			
	5-12 below. <u>template</u>	no		
	5 Is the contamination related to operations at the facility (either current			
	and/or historic)	no		
	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?	N/A		
	9 Has any type of risk assesment been carried out for the site?	N/A		
	10 Has a Conceptual Site Model been developed for the site?	N/A		

Table 1: Upgradient Groundwater monitoring results

11 Have potential receptors been identified on and off site?

12 Is there evidence that contamination is migrating offsite?

. ubic I	. opp. aa.c	c G. Gariati	acci illoille	or ring results						
										Upward trend in
										pollutant
										concentration
	Sample									over last 5 years
Date of	location	Parameter/		Monitoring	Maximum	Average				of monitoring
sampling	reference	Substance	Methodology	frequency	Concentration++	Concentration+	unit	GTV's*	SELECT**	data
							SELECT			SELECT
							SELECT			SELECT

N/A

N/A

Please enter interpretation of data here

^{.+} where average indicates arithmetic mean

 $^{. +} t \, maximum \, concentration \, indicates \, the \, maximum \, measured \, concentration \, from \, all \, monitoring \, results \, produced \, during \, the \, reporting \, year \, concentration \, from \, all \, monitoring \, results \, produced \, during \, the \, reporting \, year \, concentration \, from \, all \, monitoring \, results \, produced \, during \, the \, reporting \, year \, concentration \, from \, all \, monitoring \, results \, produced \, during \, the \, reporting \, year \, concentration \, from \, all \, monitoring \, results \, produced \, during \, the \, reporting \, year \, concentration \, from \, all \, monitoring \, results \, produced \, during \, the \, reporting \, year \, concentration \, from \, all \, monitoring \, results \, produced \, during \, the \, reporting \, year \, concentration \, from \, all \, monitoring \, results \, produced \, during \, the \, reporting \, year \, concentration \, from \, all \, monitoring \, results \, produced \, during \, the \, reporting \, year \, concentration \, from \, all \, monitoring \, results \, produced \, during \, the \, reporting \, year \, concentration \, from \, all \, monitoring \, results \, produced \, during \, the \, reporting \, year \, concentration \, from \, all \, produced \, during \, the \, produced \, during \, the \, reporting \, year \, concentration \, from \, all \, produced \, during \, the \, produced \, during \, t$

Ground	water/Soil	monitoring	g tempiate		Lic No:	P0501-01		Year	2018	1		
able 2:	Downgrad	lient Grour	dwater mo	nitoring resu	ilts							
Date of	Sample location	Parameter/		Monitoring	Maximum	Average				Upward trend in yearly average pollutant concentration over last 5 years of monitoring		
sampling	reference	Substance	Methodology	frequency	Concentration	Concentration	unit	GTV's*	SELECT**	data		
							SELECT			SELECT		
							SELECT			SELECT		
or an upwa above tabl More inforr	rd trend in resu e, please comp mation on the u	llts for a substa lete the Ground se of soil and g	nce indicates that water Monitorin as a licensee r coundwater stan	at further interpret g Guideline Templ eturn or as otherw dards/generic	ation of monitoring res ate Report at the link pr vise instructed by the EF	ults is required. In a covided and submit PA.	erim Guideline Value (IGV) addition to completing the separately through ALDER	<u> </u>	dwater monito			
or an upwa above tabl More inforr	rd trend in resu e, please comp mation on the u	ilts for a substa lete the Ground se of soil and g and risk assess	nce indicates that water Monitorin as a licensee r coundwater stan	at further interpret ig Guideline Templ eturn or as otherw	ation of monitoring res ate Report at the link pr vise instructed by the EF	ults is required. In a covided and submit PA.	addition to completing the	<u> </u>				
More inforrassessment published g	rd trend in resu e, please comp mation on the u t criteria (GAC) guidance (see th ding on location ddition to the G	ilts for a substa lete the Ground se of soil and gr and risk assess te link in G31) n of the site and TV e.g. if the site	nce indicates the water Monitorin as a licensee r coundwater stan ment tools is ava proximity to oth	at further interpret ig Guideline Templ eturn or as otherw dards/ generic silable in the EPA er sensitive recept ace water compare	ation of monitoring res ate Report at the link pr vise instructed by the EF Guidance on the A	ults is required. In a covided and submit to A. Anagement of Covided was a covided with the covided was a covided with the covided was a covided with the covided was a c	addition to completing the separately through ALDER ontaminated Land and Gullity standards should be standards (SWEQS), if the	<u> </u>	Groundwater regulations		Drinking water (public supply) standards	<u>Interim Guideli</u> <u>Values (IGV)</u>
or an upwa above tabl More inforr assessment bublished g **Depend used in ad	rd trend in resu e, please comp mation on the u t criteria (GAC) guidance (see the ding on location ddition to the G s Soil result	alts for a substa lete the Ground se of soil and go and risk assess te link in G31) of the site and TV e.g. if the site ite is close to a	nce indicates the water Monitorin as a licensee r coundwater stan ment tools is ava proximity to oth	at further interpret ig Guideline Templ eturn or as otherw dards/ generic silable in the EPA er sensitive recept ace water compare	ation of monitoring res ate Report at the link pr vise instructed by the EF Guidance on the A cors alternative Recepto to Surface Water Envir	ults is required. In a covided and submit to A. Anagement of Covided was a covided with the covided was a covided with the covided was a covided with the covided was a c	addition to completing the separately through ALDER ontaminated Land and Gullity standards should be standards (SWEQS), if the	sroundwater Surface	Groundwater regulations	d Sites (EPA 2013) Drinking water (private supply)	(public supply)	
or an upwa above tabl More inforr assessment bublished g **Depend used in ad	rd trend in resu e, please comp mation on the u t criteria (GAC) guidance (see the ding on location ddition to the G	alts for a substa lete the Ground se of soil and go and risk assess te link in G31) to of the site and TV e.g. if the site ite is close to a	nce indicates the water Monitorin as a licensee r coundwater stan ment tools is ava proximity to oth	at further interpret ig Guideline Templ eturn or as otherw dards/ generic silable in the EPA er sensitive recept ace water compare	ation of monitoring res ate Report at the link pr vise instructed by the EF Guidance on the A cors alternative Recepto to Surface Water Envir	ults is required. In a covided and submit to A. Anagement of Covided was a covided with the covided was a covided with the covided was a covided with the covided was a c	addition to completing the separately through ALDER ontaminated Land and Guits standards should be standards (SWEQS), if the S)	sroundwater Surface	Groundwater regulations	d Sites (EPA 2013) Drinking water (private supply)	(public supply)	
or an upwa above tabl More inforr assessment published g **Depend used in ac Table 3:	rd trend in resule, please compound to the ut criteria (GAC) guidance (see the ding on location ddition to the Gast Soil result Sample location	ilts for a substa lete the Ground se of soil and grand risk assess the link in G31) of the site and TV e.g. if the site ite is close to a	nce indicates the water Monitorin as a licensee roundwater stanment tools is available proximity to others close to surfadrinking water s	at further interpret g Guideline Templ eturn or as otherw dards/ generic ailable in the EPA er sensitive recept ace water compare upply compare res	ation of monitoring res ate Report at the link pr gise instructed by the EF Guidance on the IA cors alternative Recepto to Surface Water Envir sults to the Drinking Wa Maximum	ults is required. In ovided and submit A. Assagement of Country o	addition to completing the separately through ALDER ontaminated Land and Guilty standards should be standards (SWEQS), if the S)	sroundwater Surface	Groundwater regulations	d Sites (EPA 2013) Drinking water (private supply)	(public supply)	

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

Environmental Liabilities template	Lic No:	P0501-01	Year 2018	2018
Click here to access EPA guidance on Environmental Liabilities and Financial	_			
<u>provision</u>				

		Commentary
ELRA initial agreement status	Not a licence requirement	
ELRA review status	NA	
Amount of Financial Provision cover required as determined by the latest ELRA	NA	
Financial Provision for ELRA status	NA	
Financial Provision for ELRA - amount of cover	NA	
Financial Provision for ELRA - type	NA	
Financial provision for ELRA expiry date	NA	
Closure plan initial agreement status	NA	Internal budget provision
Closure plan review status	NA	Internal budget provision
Financial Provision for Closure status	NA	Internal budget provision
Financial Provision for Closure - amount of cover	NA	Internal budget provision
Financial Provision for Closure - type	NA	Internal budget provision
Financial provision for Closure expiry date	NA	·

E	nvironmental Management Programme/Continuous Improvement Programme tem	plate	Lic No:	P0501-01	Year	2018
	Highlighted cells contain dropdown menu click to view		Additional Inform	nation	_	
1 [o you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional					
-	information	Yes	Ir	nternal unaccredited EMS.		
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	Yes				
	Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance with					
3	the licence requirements	Yes				
	Do you maintain an environmental documentation/communication system to inform the public on					
4		Yes				

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	Continue to train all employees in environmental matters. Training will be by means of a new four module training programme delivered by dedicated Bodr and Mona training specialists. This new training specialists. This new training programme includes environmental compliance-IPPC, Biodiversity, Archaeology and Energy management. Hydraulic harrows will be deployed at dust sensitive locations. Continue with the collection of headland peat.	90	In total 34 personnel received training during 2018. Hydraulic harrows were depolyed at 4 locations. Headland peat was collected at all locations during the way with the production figures.	Individual	Reduced emissions
Waste reduction/Raw material usage efficiency	Waste streamlining is a project we are particularly interested in continuing and hope to reduce wastes further in the future and be more efficient in dealing with all aspects of waste management	80	installed a waste management system. Monthly waste reports are returned for records/filing and waste streams are segrated on site to maximise recycling potential.	Section Head	improved Environmental Management Practices
Waste reduction/Raw material usage efficiency	Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing.	100	In total 80.9 tonnes of polyethiene were sent off site for recycling. Procurement also exploring the possibility of securing further recyclers. In an attempt to curtail illegal dumping on Bord na Mona remain in contact with Meath and Westmeath Co Councils.	Individual	Improved Environmental Management Practices
Energy Management	As part of an Energy Awareness campaign all aspects of energy consumption will be communicated to personnel with the intention of reducing consumption through awareness	100	The monthly consumption of energy was regurally communicated to the relevant personnel. This included the KPI's for peat production, maintenance and transportation as well as bog pumping and workshop electrical consumption.	Section Head	Reduce overall energy output while maintaining productivity.
Reduction of emissions to Water	Continue to train all employees in environmental matters. Training will be by means of a new four module training programme delivered by dedicated Bord na Mona training specialists. This new training programme includes environmental compliance-1PPC, Biodiversity, Archaeology and Energy management. Continue with the collection of headland peat.	90	in total 34 Personnel received training in 2018. Personnel are trained every two years in Environmental matters. Headland peat was collected at all locations and included as part of overall peat returns.	Individual	Improved Environmental Management Practices

										_	•
	No	ise monitor	ing summar	y report			Lic No:	P0501-01	Year	2018	
	-	ence requireme noise summar	ent for the AER y below	period?			Noise	No]		
	-	-	e EPA Guidance ort" included ir				Guidance note NG4	NA			
3 Does your si	te have a noise	reduction plar	ı	Ü				NA			
		tion plan last up						Enter date			
5 Have there	e been changes	relevant to sit	e noise emissio ne last noise sur	ns (e.g. plan rvey?	nt or opera	tional chang	ges) since	NA			
Table N1: No	oise monitorin	g summary									
Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA_{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
								SELECT	SELECT		SELECT
*Please ensure	that a tonal analysi	s has been carried o	out as per guidance n	ote NG4. These	records must	be maintained	onsite for futur	e inspection			
	If noise lim	iits exceeded a	s a result of noi	se attribute	d to site a	ctivities, ple	ease 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)

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 SEAI - Large Industry Energy Network (UEN)

Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

	,	Auditional milorination
3		
	Sep-18	Report on file
		ISO50001
		accreditation
37		attained from
N)	Yes	Certification Europe
2		Not a Licence
	NA	requirement

Table R1 Energy usag	e on site			
Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	6100	5858	NA	NA
Total Energy Generated (MWHrs)				
Total Renewable Energy Generate	d (MWHrs)			
Electricity Consumption (MWHrs)	451	226	NA	NA
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	555.988	1692		
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

where site production informat	ion is available please	enter percentage inc	lease of decrease	compared to previo	ius yeai		
Table R2 Water usage	e on site				Water Emissions	Water Consumption	
	Water extracted			Consumption +/-	Volume Discharged	environment e.g.	
Water use	Previous year m3/yr.	Current year m3/yr.	reporting year**	production*	:	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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

Table R3 Waste Stream					
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	92.8				
Non-Hazardous (Tonnes)	332.73				

Table R4: Energy Au	Table R4: Energy Audit finding recommendations							
		Description of	Origin of	Predicted energy	Implementation			Status and
Date of audit	Recommendations	Measures proposed	measures	savings %	date	Responsibility	Completion date	comments
			SELECT					
			SELECT					
			SELECT					

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

	Unit ID	Unit ID	Unit ID	Unit ID	Station Total
Technology					
Primary Fuel					
Thermal Efficiency					
Unit Date of Commission					
Total Starts for year					
Total Running Time					
Total Electricity Generated (GWH)					
House Load (GWH)					
KWH per Litre of Process Water					
KWH per Litre of Total Water used	on Site				

Complaints and Incidents summary template		Lic No:	P0501-01	Year	2018	
Complaints	•	•				
_		Additional informa	tion			
	Yes					
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						

Table 1	Complaints summary						
			Brief description of				
		Other type (please	complaint (Free txt <20	Corrective action< 20			Further
ate	Category	specify)	words)	words	Resolution status	Resolution date	information
04/04/2018	Dust		Complaint about dust	Moved stockpile	Complete	05/04/2018	Reported to
			blowing into adjoining				Agency
			land and silage				Ref:LR034726
				No peat production			
			Complaint about dust	adjacent to the			Reported to the
			blowing into their	homeowner in			Agency
14/06/2018	Dust		house and property	question	Complete	15/06/2018	Ref:LR035599
			Complaint about dust	Employees reminded			Reported to the
			blowing into their	of their environmental			Agency
25/08/2018	Dust		house and property	training.	Complete	25/08/2018	Ref:LR036695
	SELECT				SELECT		
	SELECT				SELECT		

Total complaints open at start of reporting year 0
Total new complaints received during reporting year 3
Total complaints closed during reporting year 3
Balance of complaints end of reporting year 0

(Complaints and Incidents summary temp	plate			Lic No:	P0501-01	Year	2018
		Incidents						
					Additional informa	ation		
	Have any incidents occurred on site in the current in	reporting year? Please list a	II incidents for current	Yes				
_	reporting year in	n Table 2 below				1		
	*For information on how to report and what							
L	constitutes an incident	What is an incident						

Table 2 Incidents s	ummary													
			Incident				Activity in				Preventative			
Date of			category*please refer			Other cause (please	progress at time			Corrective	action <20	Resolution	Resolution	Likelihood of
occurrence	Incident nature	Location of occurrence	to guidance	Receptor	Cause of incident	specify)	of incident	Communication	Occurrence	action<20 words	words	status	date	reoccurence
16/02/2018	Trigger level reached	Lisclogher SW-20	1. Minor	Water	Other (add details)	Unknown	Normal activities	EPA INCI014018	New	Investigate	None Required	Complete	07/03/2018	Low
											Material			
											excavated and			
											removed.			
											Incident			
											reporting re-			
						Plant or equipment					emphasised to			
05/04/2018	Spillage	Toar Bog	1. Minor	Ground	Other (add details)	breakdown	Normal activities	EPA INCI014221	New	Investigate	all personnel.	Complete	05/04/2018	Low
24/04/2018	Trigger level reached	Rossan Bog SW-43	1. Minor	Water	Other (add details)	Unknown	Normal activities	EPA INCI014395	New	Investigate	None Required	Complete	15/05/2018	Medium
07/06/2018	Trigger level reached	Ballivor Bog SW-35	1. Minor	Water	Other (add details)	Unknown	Normal activities	EPA INCI014714	New	Investigate	None Required	Complete	02/07/2018	Medium
07/06/2018	Trigger level reached	Ballivor Bog SW-38	1. Minor	Water	Other (add	Unknown	Normal activities	EPA INCI014715	New	Investigate	None Required	Complete	02/07/2018	Medium
07/06/2018	Trigger level reached	Ballivor Bog SW-39	1. Minor	Water	Other (add details)	Unknown	Normal activities	EPA INCI014716	New	Investigate	None Required	Complete	02/07/2018	Medium
07/06/2018	Trigger level reached	Ballivor Bog SW-40	1. Minor	Water	Other (add details)	Unknown	Normal activities	EPA INCI014717	New	Investigate	None Required	Complete	02/07/2018	Medium
07/06/2018	Trigger level reached	Ballivor Bog SW-41	1. Minor	Water	Other (add details)	Unknown	Normal activities		New	Investigate	None Required		02/07/2018	Medium
07/06/2018	Trigger level reached	Carranstown Bog SW-31	1. Minor	Water	Other (add details)	Unknown	Normal activities		New	Investigate	None Required		02/07/2018	
07/06/2018	Trigger level reached	Carranstown Bog SW-32	1. Minor	Water	Other (add details)	Unknown	Normal activities		New	Investigate	None Required		02/07/2018	
07/06/2018	Trigger level reached	Carranstown Bog SW-33	1. Minor	Water	Other (add details)	Unknown	Normal activities		New	Investigate	None Required	Complete	02/07/2018	Medium
07/06/2018	Trigger level reached	Carranstown Bog SW-34	1. Minor	Water	Other (add details)	Unknown	Normal activities		New	Investigate	None Required	Complete	02/07/2018	Medium
12/06/2018	Trigger level reached	Rossan Bog SW-43	1. Minor	Water	Other (add details)	Unknown	Normal activities	EPA INCI014736	Recurring	Investigate	None Required	Complete	02/07/2018	Medium
26/06/2018	Trigger level reached	Rossan Bog SW-43	1. Minor	Water	Other (add details)	Unknown	Normal activities		New	Investigate	None Required	Complete	02/07/2018	Medium
01/10/2018	Trigger level reached	Rossan Bog SW-43	1. Minor	Water	Other (add details)	Unknown	Normal activities		Recurring	Investigate	None Required		18/10/2018	Medium
11/10/2018	Trigger level reached	Ballybeg Bog SW-12	1. Minor	Water	Other (add details)	Unknown	Normal activities	EPA INCI015377	New	Investigate	None Required	Complete	18/10/2018	Medium
11/10/2018	Trigger level reached	Ballybeg Bog SW-13	1. Minor	Water	Other (add details)	Unknown	Normal activities	EPA INCI015378	New	Investigate	None Required	Complete	18/10/2018	Medium
11/10/2018	Trigger level reached	Ballybeg Bog SW-13A	1. Minor	Water	Other (add details)	Unknown	Normal activities	EPA INCI015379	New	Investigate	None Required	Complete	18/10/2018	Medium
11/10/2018	Trigger level reached	Toar Bog SW-14	1. Minor	Water	Other (add details)	Unknown	Normal activities	EPA INCI015380	New	Investigate	None Required	Complete	18/10/2018	Medium
15/10/2018	Trigger level reached	Rossan Bog SW-43	1. Minor	Water	Other (add details)	Unknown	Normal activities	EPA INCI015381	Recurring	Investigate	None Required	Complete	18/10/2018	Medium
24/09/2018	Trigger level reached	Rossan Bog SW-43	1. Minor	Water	Other (add details)	Unknown	Normal activities	EPA INCI015382	Recurring	Investigate	None Required	Complete	25/09/2018	Medium
06/11/2018	Trigger level reached	Rossan Bog SW-43	1. Minor	Water	Other (add details)	Unknown	Normal activities	EPA INCI015641	Recurring	Investigate	None Required	Complete	05/12/2018	Medium
Total number of														
incidents current														
year Total number of	22	4												_
Total number of														
incidents previous														
year	6	4												
% reduction/														
increase	366%													
iliciease	300/6	_			1	1	l	L	l	1	1			

SECTION A-PRIR	ON SHE WASTE TREATMENT A	AND WASTE TRANSFER	1 AB- 10 BE COMP	LETED BY ALL IPPO	AND WASTE FACILITIES	PRTR facility log	<u>on</u>	dropdown lis	st click to see options		
SECTION B- WAST	TE ACCEPTED ONTO SITE-TO BI	E COMPLETED BY ALL IP	PC AND WASTE FA	CILITIES							
							Additional Informat	ion			
14/	pted onto your site for recovery or dis			4h - h	- 6 ilite - 2 - 6						
		posar or treatment prior to rec	overy or disposal within	the boundaries of you	riacility r, (waste generated within						
1 your boundaries is to b	pe captured through PRTR reporting)					N/A					
If yes please enter det	ails in table 1 below										
2 Did your site have any	rejected consignments of waste in the	e current reporting year? If ye	s please give a brief expl	anation in the addition	al information	N/A					
	ccepted onto your site that was genera					N/A					
Table 1 Details of	of waste accepted onto you	ır site for recovery, di	sposal or treatme	ent (do not includ	de wastes generated at yo	ur site, as th	ese will have l	een reported in	your PRTR workbook)	
Licenced annual	EWC code	Source of waste accepted	Description of waste	Quantity of waste	Quantity of waste accepted in	Reduction/	Reason for	Packaging Content	Disposal/Recovery or	Quantity of	Comments -
tonnage limit for			accepted	accepted in current	previous reporting year (tonnes)	Increase over	reduction/	(%)- only applies if	treatment operation carried	waste	
your site (total			Please enter an	reporting year	promote reperimg year (termot)	previous year	increase from	the waste has a	out at your site and the	remaining on	
tonnes/annum)			accurate and detailed	(tonnes)		+/-%			description of this operation	site at the end	
tonnes, annum,			description - which	(tornics)		1, 70	year	packaging component	description of this operation	of reporting	
			applies to relevant				year			year (tonnes)	
			EWC code							year (torries)	
	European Waste Catalogue EWC		European Waste								
	codes		Catalogue EWC codes								
						1					
						-					
SECTION C-TO BE	COMPLETED BY ALL WASTE FA	ACILITIES (waste transfe	er stations. Compos	ters. Material rec	overy facilities etc) EXCEPT I	LANDFILL SITE	S				
		•		,							
										1	
L Is all waste processing	infrastructure as required by your lice	ence and approved by the Age	ncy in place? If no please	list waste processing i	nfrastructure required onsite	SELECT					
у ст			, р								
										1	
S Is all waste storage info	rastructure as required by your licence	and annroyed by the Agency	in nlace? If no nlease lis	t waste storage infrastr	ucture required on site	SELECT					
o is all waste storage iiii	rastructure as required by your ricerice	and approved by the Agency	in place: il no please ils	t waste storage illinasti	acture required on site	SELECT				i	
Door your facility be	relevent nuisance centrals i= =12					SELECT				1	
	relevant nuisance controls in place?	6					-			f	
	management system in place for your	racility? If no wny?				SELECT				1	
B Do you maintain a slud	ige register on site?					SELECT				1	
			1								
	COMPLETED BY LANDFILL SIT	ES ONLY									
Table 2 Waste typ	pe and tonnage-landfill only										
,,	,										
			Remaining licensed								
Waste types permitted	Authorised/licenced annual intake for	Actual intake for disposal in	capacity at end of								
for disposal	disposal (tpa)	reporting year (tpa)	reporting year (m3)	Comments							

Lic No:

P0501-01

Year

2018

WASTE SUMMARY

WASTE SUMMARY					Lic No:	P0501-01		Year	2018		
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 as bestos	Is there a separate cell for as bestos?	Accepted as bestos in reporting year	Total disposal area occupied by waste	Lined disposal area occupied waste
										SELECT UNIT	SELECT UNI
		-				•	•	•	•	•	
Table 4 Environn	mental monitoring-landfill only	Landfill Manual-Monitoring S	tandards_						_		
Was meterological monitoring in compliance with Landfill Directive (LD) standard in reporting year +	Was leachate monitored in compliance with LD standard in reporting year	Was Landfill Gas monitored in compliance with LD standard in reporting year	Was SW monitored in compliance with LD standard in reporting year	Have GW trigger levels been established	Were emission limit values agreed with the Agency (ELVs)	Was topography of the site surveyed in reporting year	Has the statement under S53(A)(5) of WMA been submitted in reporting year	Comments			
yem i	man 225 Sunnan em reporting yeur	reporting year	year.	been established	the lightly (22/13)	reporting year	reporting year	Commence			
.+ please refer to Lan	dfill Manual linked above for relevant I	Landfill Directive monitoring st	andards						<u>.</u>		
Table 5 Capping-	-Landfill only	-									
Area uncapped*	Area with temporary cap			Area with waste that should be permanently							
SELECT UNIT	SELECT UNIT	Area with final cap to LD		capped to date under							
		Standard m2 ha, a	Area capped other	licence	What materials are used in the cap	Comments	-				
*please note this inc	ludes daily cover area	.1					_				
Table 6 Leachate	e-Landfill only										
9 Is leachate from your	r site treated in a Waste Water Treatme	ent Plant?				SELECT					
Is leachate released	to surface water? If yes please complet	te leachate mass load informat	ion below			SELECT					
		_				la 18		•			
Volume of leachate in		Leachate (COD) mass load	Leachate (NH4) mass	Leachate (Chloride)		Specify type of leachate					
	Leachate (BOD) mass load (kg/annum)		load (kg/annum)	mass load kg/annum	Leachate treatment on-site	treatment	Comments				
	ase ensure that all information reporte	d in the landfill gas section is c	onsistent with the Land	Ifill Gas Survey submitt	ed in conjunction with PRTR returns						
Ple Table 7 Landfill (Gas-Landfill only										
	Gas-Landfill only										
	Gas-Landfill only										
	Gas-Landfill only		Was surface emissions								
	Gas-Landfill only		Was surface emissions monitoring performed								
Table 7 Landfill (1		monitoring performed during the reporting								
Table 7 Landfill (Used on-site or to national grid	monitoring performed during the reporting year?	Comments							
Table 7 Landfill (1		monitoring performed during the reporting	Comments							

Comments on liner type

European Waste Code (EWC)	Description of Waste (in line with applicable EWC code)	Hazardous - Yes/No	Quantity (Tonnes)	Name & Permit No. of Agent/Carrier	Treatment Type – Recovered / Disposed /	Name, Address & Licence/Permit No. of FINAL Destination	Location of Treatment - Country
02 01 04	waste plastics (except packaging)	No	80.9	ADN Materials Ltd.WFP-MN-12- 0001-04	R05 - Recycling/reclamation of other inorganic materials	ADN Materials Ltd., Lossetts, Carrickmacross, Co. Monaghan - WFP-MN-12-0001- 04	Ireland
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances	Yes	1	Enva Ireland Limited (Portlaoise) - W0184	R02 - Solvent reclamation/regeneration	Recyfuel Ltd., Enghis - BE0459.735.458	Belgium
11 01 13*	degreasing wastes containing hazardous substances	Yes	0.27	Safety Kleen Ireland Ltd - W0099	R11 - Use of waste obtained from any of the operations numbered R 1 to R 10	Solvent Recovery Management, PP33345F, Wheeland Rd., Knottingly, West Yorks	UK
13 02 05*	mineral-based non- chlorinated engine, gear and lubricating oils	Yes	10.37	Enva Ireland Limited (Portlaoise) - W0184	R01 - Use principally as a fuel or other means to generate energy	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland
13 05 03*	interceptor sludges	Yes	46.14	Enva Ireland Limited (Portlaoise) - W0184	R01 - Use principally as a fuel or other means to generate energy	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland
15 01 03	wooden packaging	No	12.08	AES Ltd WP-OY-08-601-01	R01 - Use principally as a fuel or other means to generate energy	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
15 02 02*	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	Yes	1.01	Enva Ireland Limited (Portlaoise) - W0184	R01 - Use principally as a fuel or other means to generate energy		Germany
16 01 07*	oil filters	Yes	1.06	Enva Ireland Limited (Portlaoise) - W0184	R04 - Recycling/reclamation of metals and metal compounds	R.D. Recycling, Houthalen, Reg No: 51727/1KD	Belgium
16 06 01*	lead batteries	Yes	0.96	Enva Ireland Limited (Portlaoise) - W0184	R04 - Recycling/reclamation of metals and metal compounds	Campine Recycling, Beerse - MLAV/05173/GVDA	Belgium
17 04 07	mixed metals	No	57.78	AES Ltd WP-OY-08-601-01	R04 - Recycling/reclamation of metals and metal compounds	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
20 03 01 A	Municipal mixed residual household	No	5.79	AES Ltd WP-OY-08-601-01	D05 - Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
20 03 01 B	Municipal mixed residual non- household	No	20.62	AES Ltd WP-OY-08-601-01	D05 - Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
17 05 03*	soil and stones containing hazardous substances	Yes	31.98	Enva Ireland Limited (Portlaoise) - W0184	D10 - Incineration on land	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland

Derrygreenagh

Decommissioning and Rehabilitation Bog Rehabilitation Progress Report 2018.

Within the Derrygreenagh licensed area (P0501-01) there were no entire bog units available for rehabilitation in 2018. Ongoing monitoring of cutaway within the Derrygreenagh licensing area included the re-survey of Drumman bog. Monitoring of cutaway sites within the Derrygreenagh Bog Group is ongoing with Lisclogher East re-surveyed in 2018. The surveys comprised of baseline walkover surveys to identify and map pioneer and established habitats on the cutaway and to assess the condition of raised bog remnants along bog margins.

Some fertiliser (Ground Rock Phosphate) was applied to an area within Derryarkin Bog in 2018 to speed up natural recolonization, as part of the rehabilitation plan for this bog.

Bog restoration and drain-blocking is being carried out at a remnant section of high bog at Daingean Rathdrum. This work was completed in 2018.

Draft rehabilitation plans for the Derrygreenagh bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015, and 2017.

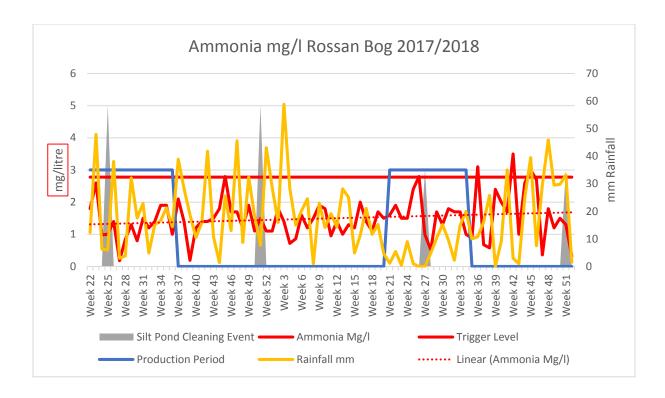
The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in February 2017, this included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.

A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

As required by condition 10.2 Cutaway Bog Rehabilitation Plans, draft peatland rehabilitation plans for all the individual bog units were submitted to the agency in 2013, reviewed and amended in 2015 and re-submitted to the agency in 2015. All draft rehabilitation plans have been reviewed in 2017. These reviewed and amended plans will be re-submitted to the agency in due course.

Organic certification was sought for the majority of the Bord na Móna property with the aim of using some areas for the cultivation of plants for use in herbal medicine, this project is ongoing.

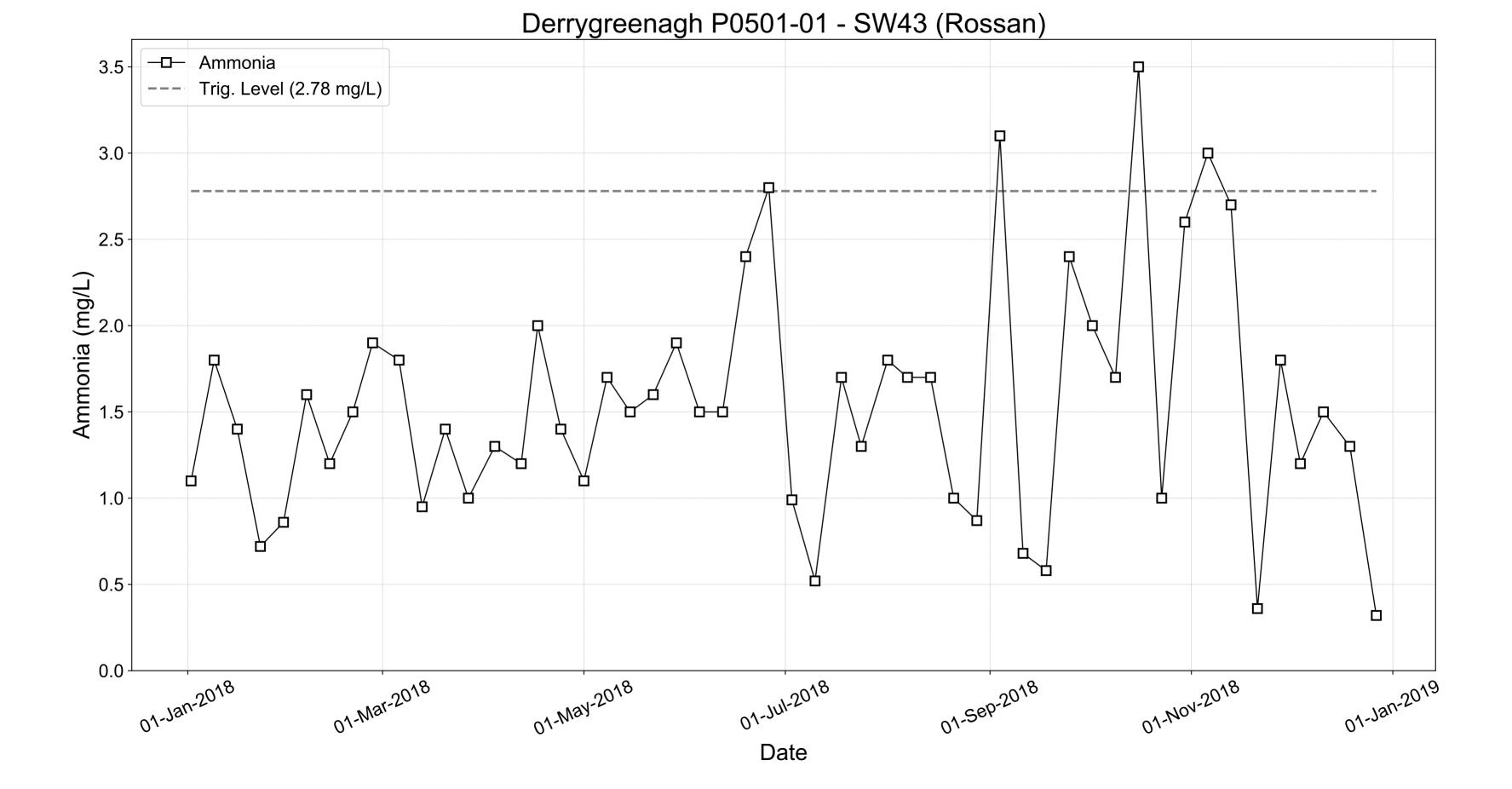
Bord na Mona Derry	greenagh PO501-01											
Grab Sampling 2018												
Х	Υ	Bog	SW	Monitoring	Sampled	рН	SS	TS	Ammonia	TP	COD	Colour
262436.96	258824.82	Lisclogher	SW-19	Q1 18	16/02/2018	6.8	5	124	0.1	0.05	72	340
262935.72	258722.5	Lisclogher	SW-20	Q1 18	16/02/2018	5.8	5	160	0.14	0.05	119	548
262969.12	258691.34	Lisclogher	SW-21	Q1 18	16/02/2018	5.4	5	116	0.11	0.05	96	417
263432.94	258465.16	Lisclogher	SW-22	Q1 18	16/02/2018	6.9	5	164	0.96	0.05	93	544
263467.21	258446.56	Lisclogher	SW-23	Q1 18	16/02/2018	7.3	5	196	1.6	0.06	82	399
263740.8	258367.96	Lisclogher	SW-24	Q1 18	16/02/2018	4.3	5	60	0.09	0.05	47	212
266022.62	259613.57	Lisclogher	SW-25	Q1 18	20/02/2018	7.4	5	358	2.9	0.12	85	277
260583.98	256514.28	Bracklin	SW-26	Q1 18	16/02/2018	6.4	5	96	0.71	0.06	57	191
260609.41	256526.33	Bracklin	SW-27	Q1 18	16/02/2018	7.1	5	224	1.6	0.05	72	326
263649.63	255035.41	Carranstown	SW-31	Q2 18	07/06/2018	7.6	5	171	0.03	0.05	126	230
265553.99	255989.11	Carranstown	SW-32	Q2 18	07/06/2018	7.6	5	394	0.54	0.1	140	176
265632.83	254865.04	Carranstown	SW-33	Q2 18	07/06/2018	7.1	35	414	2.8	0.65	124	178
265886.95	254984.18	Carranstown	SW-34	Q2 18	07/06/2018	7.4	12	432	0.99	0.12	142	272
265140.06	254114.54	Ballivor	SW-35	Q2 18	07/06/2018	7.7	15	476	0.06	0.09	144	242
265878.97	253506.58	Ballivor	SW-38	Q2 18	07/06/2018	8	8	212	0.24	0.08	136	238
265888.99	253456.63	Ballivor	SW-39	Q2 18	07/06/2018	7.9	5	286	0.07	0.11	115	104
266366.86	251598.58	Ballivor	SW-40	Q2 18	07/06/2018	7.6	9	436	1.6	0.12	124	134
266386.45	251579.18	Ballivor	SW-41	Q2 18	07/06/2018	7.8	6	356	0.02	0.07	110	102
255381.16	243606.05	Derryhinch	SW-1	Q3 18	10/09/2018	7.7	7	344	0.51	0.09	78	95
254528.83	242354.28	Derryhinch	SW-2	Q3 18	10/09/2018	7.6	5	228	1.1	0.06	61	119
253369.19	242417.94	Derryhinch	SW-3	Q3 18	10/09/2018	7.7	5	214	2.3	0.05	49	201
252602.78	242540.17	Derryhinch	SW-4	Q3 18	10/09/2018	7.8	5	432	0.08	0.05	52	105
252623.61	241470.16	Carrick	SW-4A	Q3 18	10/09/2018	7.9	5	288	0.95	0.05	61	227
252468.68	240919.32	Carrick	SW-5	Q3 18	10/09/2018	7.5	5	394	0.09	0.05	42	59
252409.71	241163.33	Carrick	SW-6	Q3 18	10/09/2018	7.6	5	462	0.1	0.05	42	66
252473.21	241162.01	Carrick	SW-7	Q3 18	10/09/2018	7.6	5	462	0.09	0.06	42	142
252275.61	239871.62	Drumman	SW-8	Q3 18	10/09/2018	8	5	366	0.35	0.05	50	166
252950.37	238421.69	Drumman	SW-9	Q3 18	10/09/2018	7.5	5	240	0.04	0.07	62	146
251559.92	235341.71	Ballybeg	SW-11	Q4 18	15/10/2018	7.2	5	418	0.12	0.05	61	119
252206.09	235207.02	Ballybeg	SW-12	Q4 18	15/10/2018	7.1	5	358	3	0.05	83	213
251880.6	234593.13	Ballybeg	SW-13	Q4 18	15/10/2018	7.3	5	368	3.7	0.05	74	184
252250.49	235061.45	Ballybeg	SW-13A	Q4 18	15/10/2018	7.2	5	402	3	0.05	71	148
240485.16	235706.33	Toar	SW-14	Q4 18	11/10/2018	7.2	14	396	3.2	0.05	35	42
244391.76	235128.93	Toar	SW-15	Q4 18	11/10/2018	7.5	9	418	0.42	0.05	37	44
244435.64	235093.42	Toar	SW-16	Q4 18	11/10/2018	7.8	5	452	0.15	0.25	44	59
240425.65	234997.32	Toar	SW-17	Q4 18	11/10/2018	8.1	5	328	0.02	0.1	10	32
259415.3	256855.75	Bracklin	SW-29	Q4 18	15/10/2018	7	5	164	2.6	0.28	91	345
259519.45	257618.44	Bracklin	SW-30	Q4 18	15/10/2018	6.6	5	136	2.4	0.05	95	90

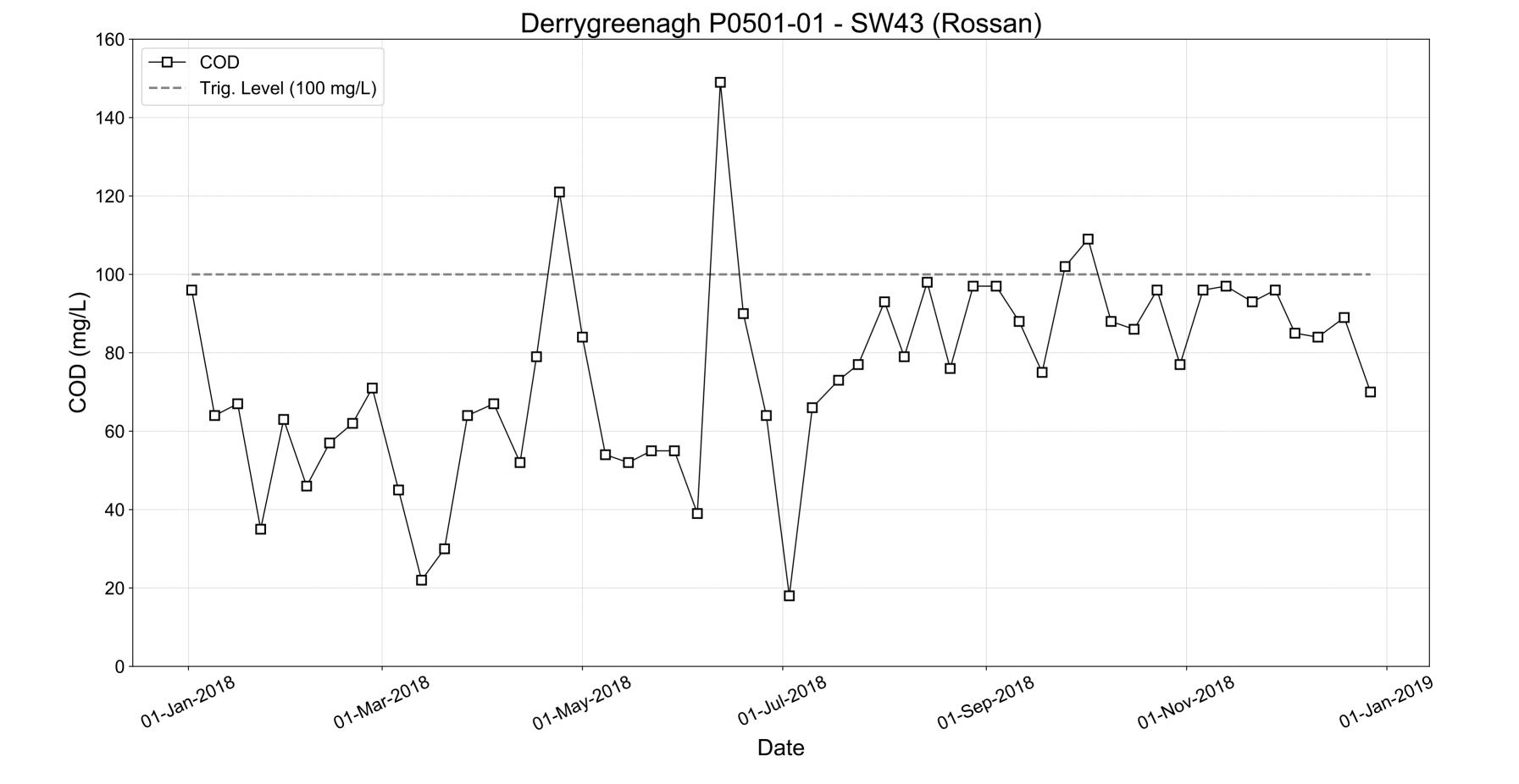


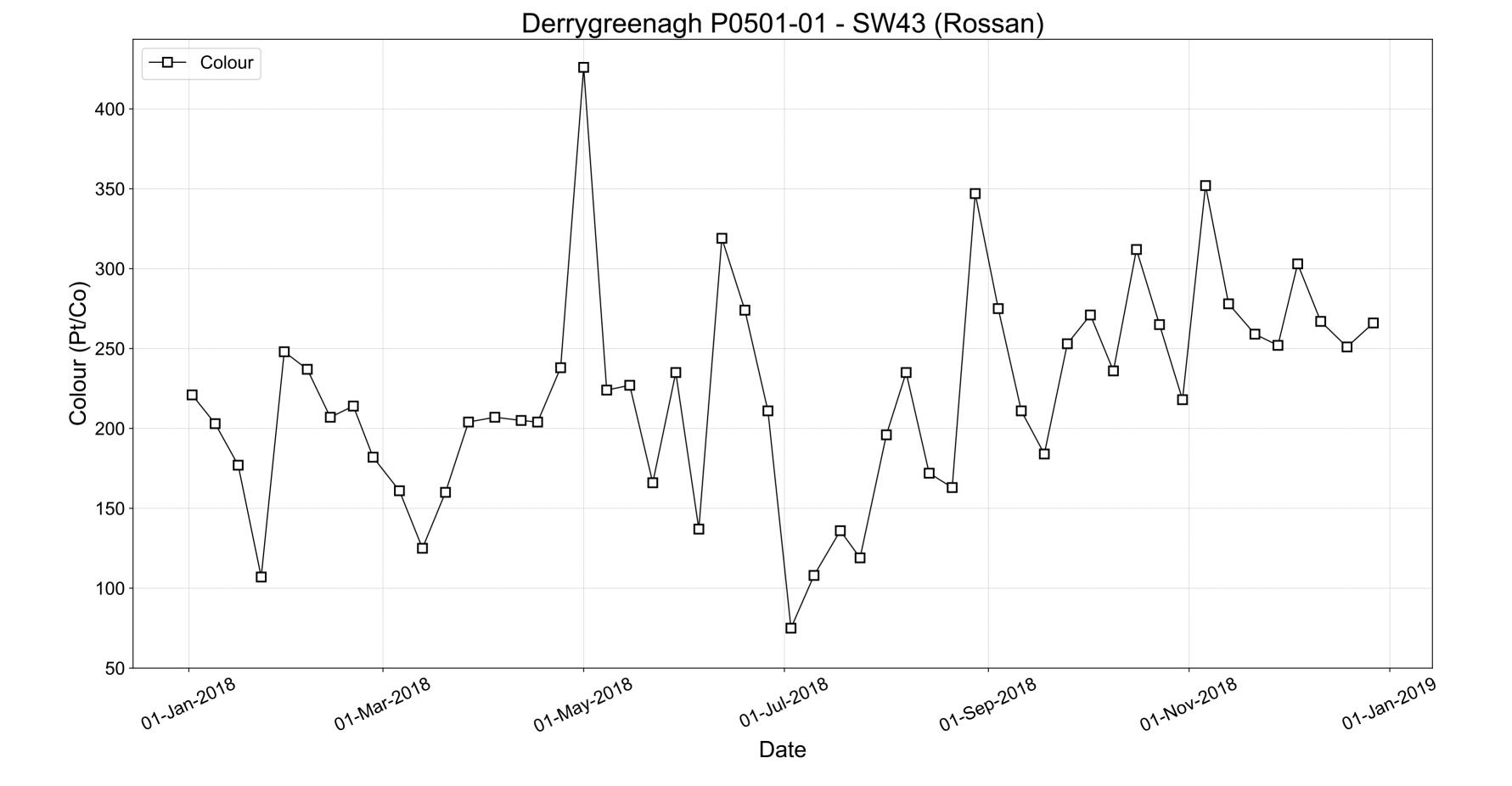
Rossan bog is an active horticultural production bog with the composite sampler located here from May 2017 where it was moved from Toar Bog within the Derrygreenagh IPC Licence. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had 0% downtime during this reporting period and returned 52 weekly ammonia results during the period. The ammonia trigger level of 2.78mg/l, as agreed with the Agency, was exceeded four times during the period, all reported to the Agency. Overall the sampling period of 82 weeks showed a slightly increasing trend in ammonia.

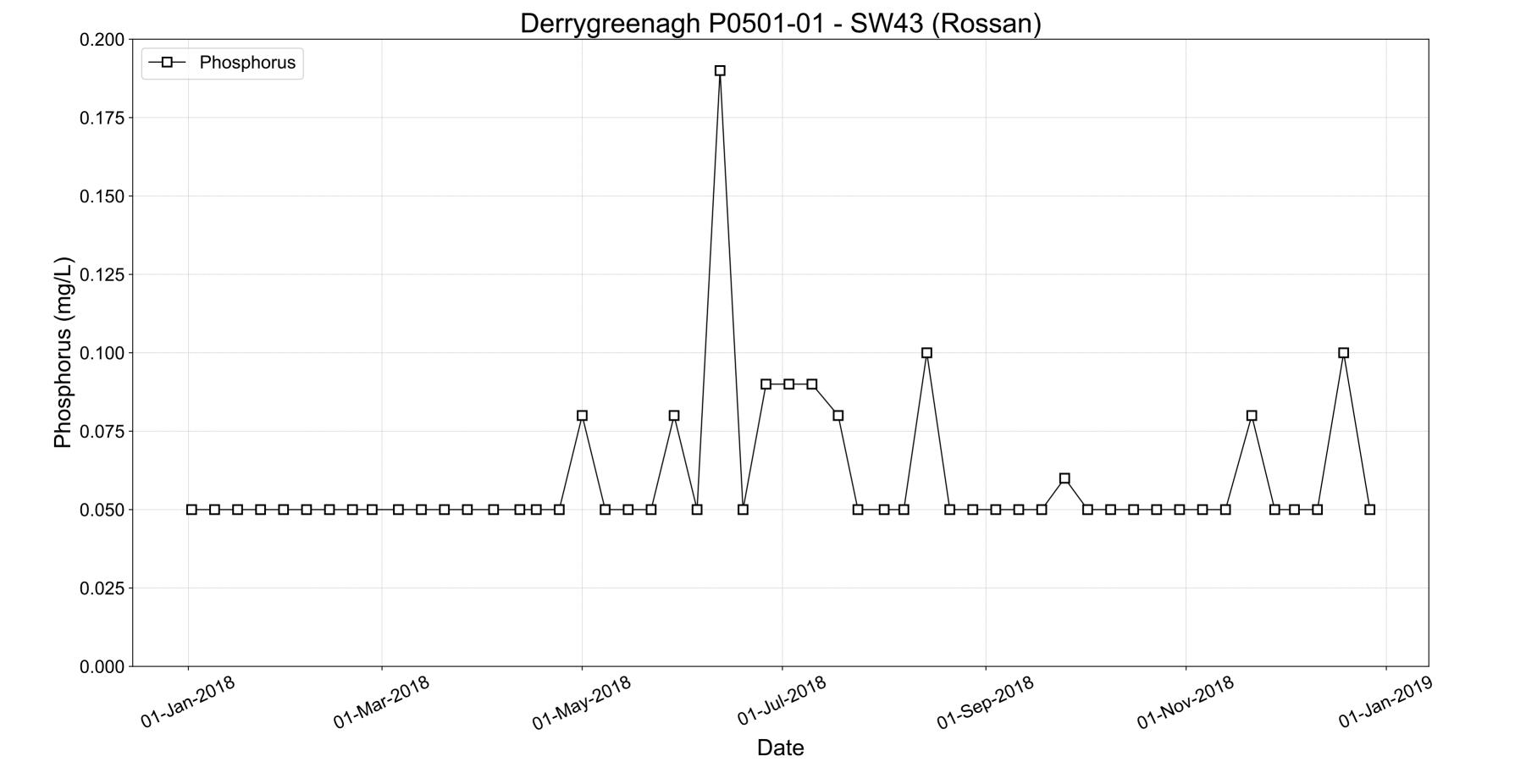
There is no obvious link between the summer production, winter maintenance, or silt pond maintenance events on the concentration of Ammonia discharging from this peatland. The only link expected would be that related to rainfall events and seasonal weather patterns and the subsequent surfacewater runoff and associated ammonia concentrations.

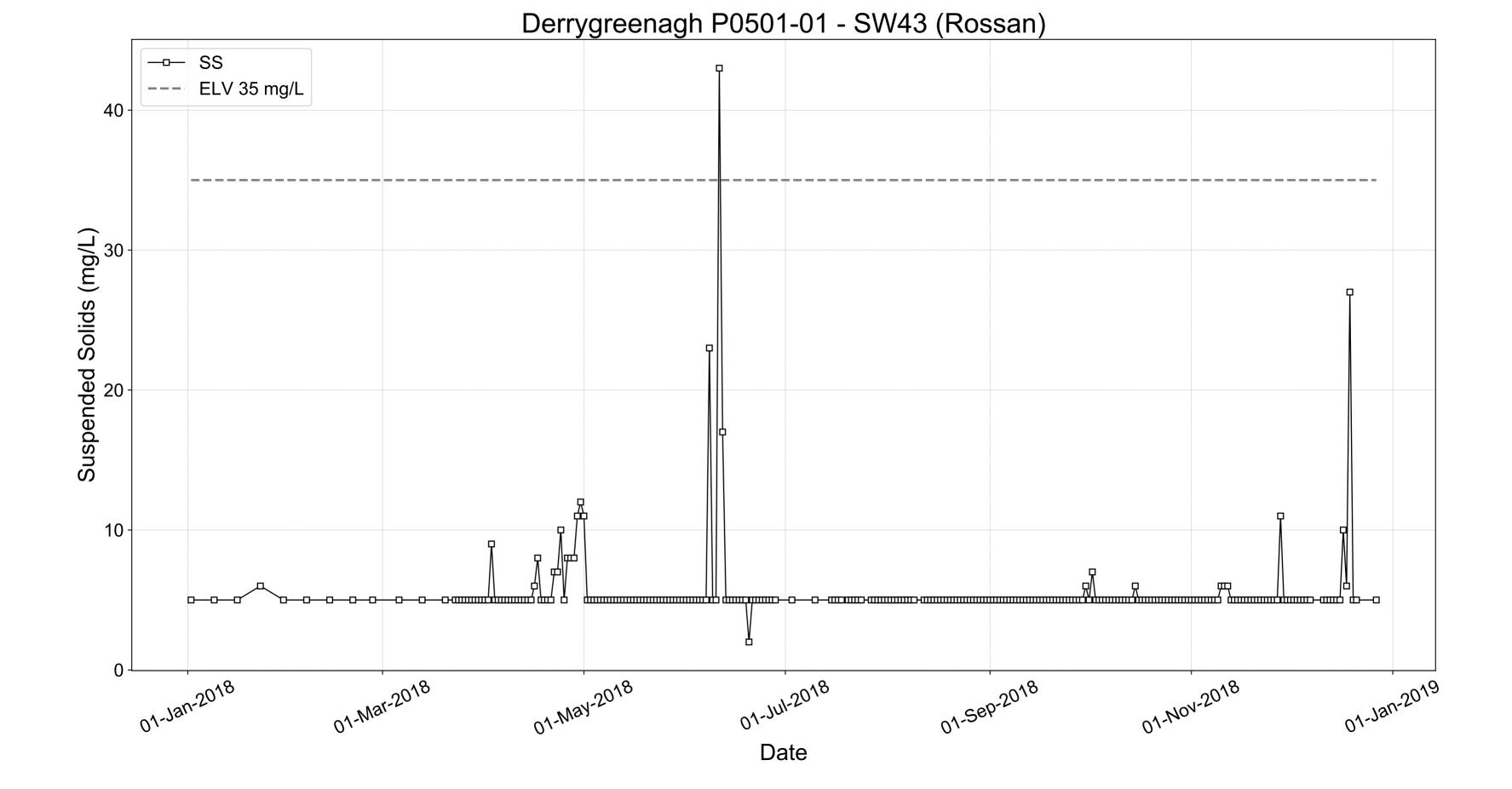
The sampler at this location may be relocated to fill any information gaps on other peatland catchments and to reflect the need to support the information gathering required for the Water Framework Directive's River Basin Management Plan. There is also an EPA lead research project commencing in 2019, called the SWAMP project, whose aims are to appraise and understand the nutrient impact from peatlands, to evaluate treatment technologies and to propose predictive tools for watershed management.

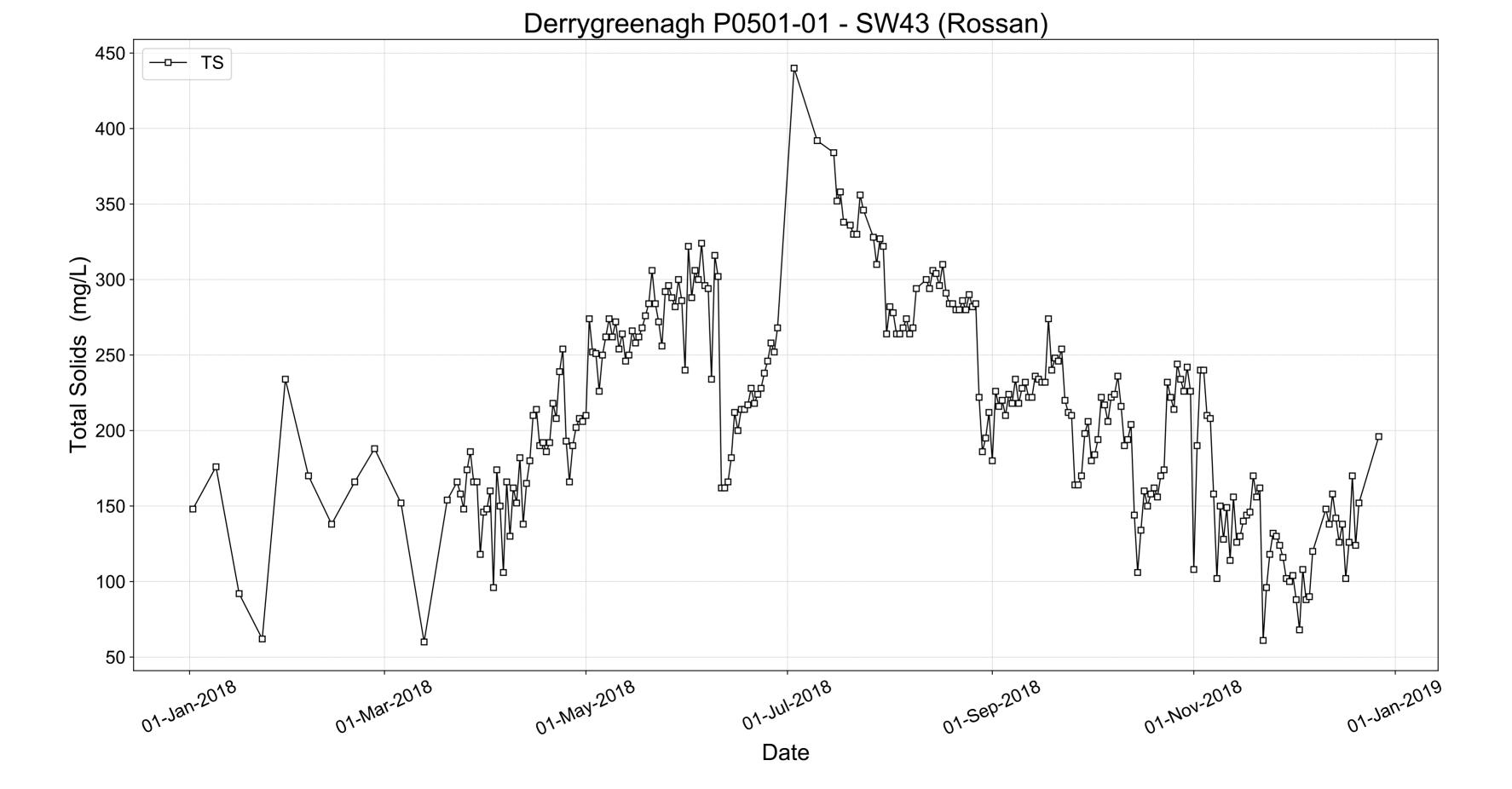


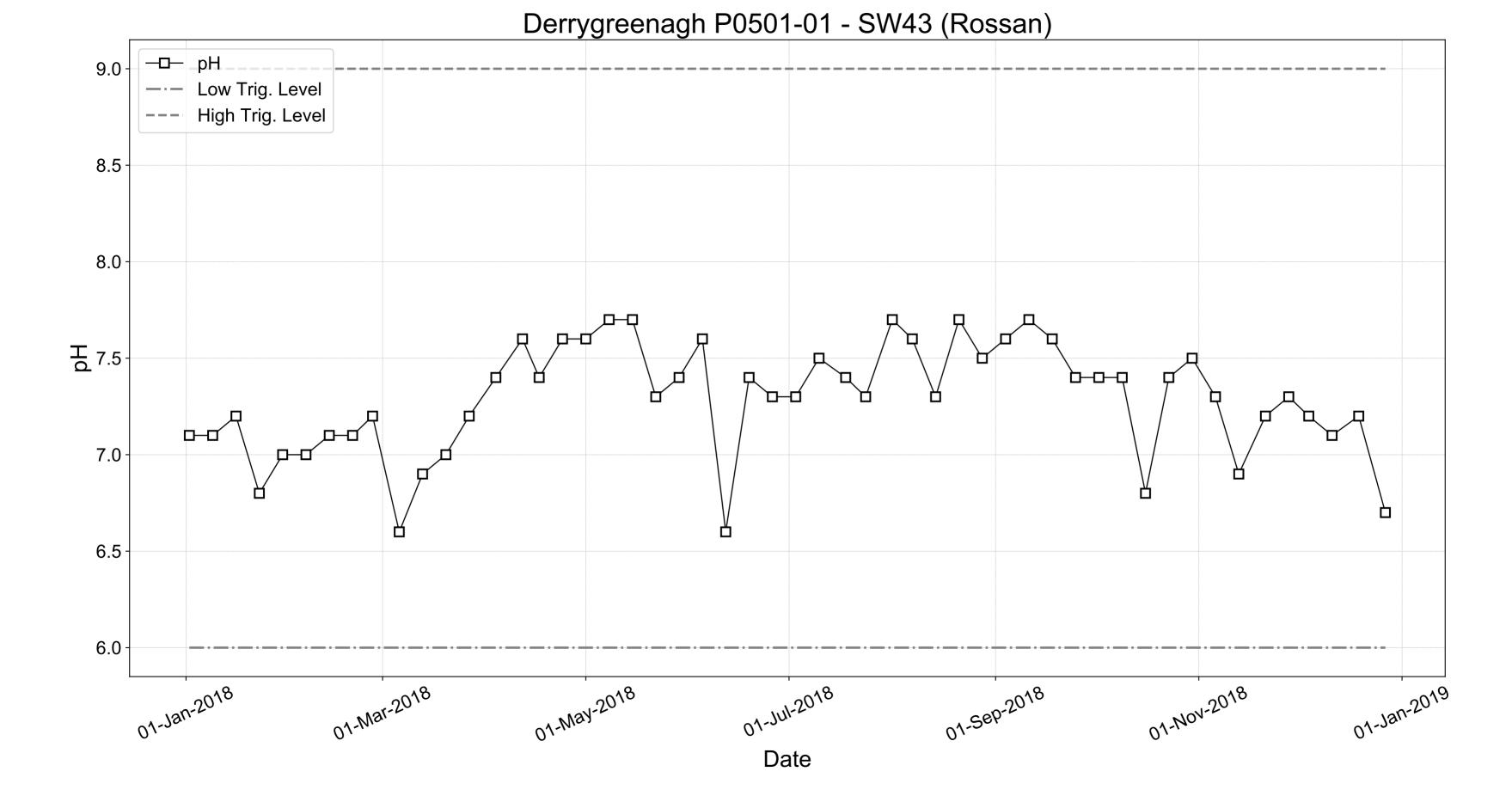












Licence: P0501-01

Works: Derrygreenagh

Month	D/Greenagh SWE 2 COD	Rossan SWE 1 COD
Jan	49	52
Feb	18	56
Mar	18	29
Apr	32	53
May	10	48
June	0	0
July	0	0
Aug	0	0
Sep	40	68
Oct	10	21
Nov	21	60
Dec	34	21

Note: 0 denotes no flow at emission point on day of sampling

Extractive Waste Management Plan Implementation AER Update.

March 2019.

IPC Licence P0501-01.

1.0 Extractive Wastes.

Waste classified as extractive waste from peat extraction operations arise from two operations associated with this activity.

- Silt Pond excavations and maintenance
- Bog Timbers

There has been no change to the type and nature of these two waste streams and no new waste streams added to this list. These wastes streams continue to be stored and maintained at between 1 and 3 metres in height.

2.0 Condition 7.5 Extractive Waste Management

- An extractive waste management plan (EWMP) was submitted to the Agency in September 2012 and was approved.
- The EWMP was reviewed in September 2017. There were no substantial changes to the operation of the plan, associated waste facilities or to the waste deposited.

3.0 Minimisation

- The IPC Licence has various conditions that require the installation, inspections and maintenance of silt ponds for operational areas and as such these requirements dictate the need for silt ponds and associated excavation materials and cleanings.
- Bog timbers arise from the active production footprint and are naturally occurring. The active footprint is dictated by the peat production targets and customer supply contract and service level agreements.

4.0 Treatment

- Silt pond excavation and maintenance materials do not require any treatment and are stored as per the EWMP, adjacent to the associated silt pond.
- There is no treatment of bog timbers arising and these are stockpiled at various locations in associated bogs.

5.0 Recovery

- As per the EWMP, there is still no opportunity to recover these silt pond associated materials
- Bog timbers stored on the bog are natural to the peat bog and while there have been trails to recover this waste material, these have not proved viable.

6.0 Disposal

- Silt pond cleanings continue to be disposed of adjacent to the associated silt pond and will be incorporated back into the rehabilitation plans for these bogs, post production and decommissioning.
- Bog timbers will continue to be stockpiled at suitable locations to be either incorporated back into the bog, as a supply of bog timbers for the crafting industry or will continue to decay naturally.



Annual Environmental Report 2018

Bord na Mona Energy Ltd (Blackwater Group of Bogs) IPC Licence P0502-01

Facility Information Summary

AER Reporting Year Licence Register Number Name of site Site Location NACE Code Class/Classes of Activity National Grid Reference (6E, 6 N)

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.

2018	
P0502-01	
Bord na Mo	na Blackwater
Shannonbridge, At	hlone, Co Westmeath
	892
	1.4
200125	, 225050

Activities at the site can be divided into two components, firstly the milling, harrowing, ridging and harvesting of peat into stockpiles and secondly the transportation of that peat via an internal rail network to the Electricity Generating Station and lorry outloading facilities. Production achieved was approximately 1064910 tonnes. Infrastructurally, there was no new bog development. There were 3 environmental complaints during the year. There were 4 incidents and they all related to water. In relation to silt pond cleaning, 100% of ponds received two cleanings with inspections dictating if a pond received further cleaning. A number of initiatives are in place in terms of fuel and electricity usage. Formalised management meetings take place weekly with environmental issues on the agenda for discussion. We are operating a Quality Management System to I.S. EN ISO 9001:2015. We are "committed to conducting all aspects of our business activities with a focus on minimising the impact on the environment". Rehabilitation works are described in an attachment.

Declaration:

All the data and information presented in this report has been checked and certified as being

Signature

Group/Facility manager

(or nominated, suitably qualified and experienced deputy) Date

	AIR-summary	y template				Lic No:	P0502-01		Year	2018	3	_
	Answer all quest	ions and complete all ta	bles where relevan	nt								
1	current reportir	ng year and answer furt	ther questions. If y	ou do not have	e A1 and A2 below for the licenced emissions and do not need to complete the	No		Additional informat				
	Periodic	/Non-Continuous N	Monitoring									
2	Was all monit		section of TableA1		brief details in the comment AGN2	No Yes						
	Table A1: Lice	ensed Mass Emissi	ons/Ambient d	ata-periodic m	nonitoring (non-continu	uous)						
	Emission reference no:	, , , , , , , , , , , , , , , , , , , ,					Unit of measurement SELECT SELECT	Compliant with licence limit SELECT SELECT	Method of analysis SELECT SELECT	Annual mass load (kg)	Comments - reason for change in % mass load from previous year if applicable	ask M.Mulhall
		SELECT			SELECT		SELECT	SELECT	SELECT			
	Note 1: Volumet	SELECT ric flow shall be included	d as a reportable as	pramatar	SELECT		SELECT	SELECT	SELECT			J
	Note 1: Volumet	ric flow shall be include:	u as a reportable pa	arameter								
		Continuous N	Monitoring				1					
4		arry out continuous air e				No						
5		and compare it	to its relevant Emis	sion Limit Value (I	ed fields below in Table A2 ELV) cord downtime in table A2	No]		
6	Do you have a pr	oactive service agreeme	ent for each piece o	f continuous moni	toring equipment?	No						
7	Did your site e	experience any abateme	nt system bypasses	? If yes please det	ail them in table A3 below	No						

Table A2: Summary of average emissions -continuous monitoring

Emission	Parameter/ Substance		Averaging	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:			Period		measurement			Equipment	exceedences	
		ELV in licence or						downtime (hours)	in current	
		any revision							reporting year	
		therof								
DM-01	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	14840	278	0	0	
DM-02	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	9100	194	0	0	
DM-03	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	11648	253	0	0	
DM-04	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	9156	151	0	0	
	SELECT				SELECT					

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

Table A3: Abatement system bypass reporting table

Bypass protocol

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

^{*} this should include all dates that an abatement system bypass occurred

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 Please refer to linked solvent regulations to Table A4: Solvent Management Plan Summary Solvent complete table 5 and 6 Total VOC Emission limit value Reporting year Total solvent input on Total VOC Total VOC Compliance emissions as site (kg) emissions to Air from entire site %of solvent Total Emission Limit Value (direct and input (ELV) in licence or any fugitive) revision therof SELECT SELECT Table A5: Solvent Mass Balance summary (I) Inputs (kg) (O) Outputs (kg) Organic solvent | Solvents lost in | Collected waste solvent (kg) | Fugitive Organic | Solvent released | Solvents Total emission of Solvent mission in waste water (kg) Solvent (kg) in other ways destroyed onsite Solvent to air (kg) (I) Inputs (kg) gases(kg) through physical e.g. by-passes reaction e.g. Total

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

AER Monitoring r	returns summ	nary template-WA	TER/WASTEW	ATER(SEWER)	Lic No:	P0502-01		Year	2018					
Does your site have please complete tabl questions. If you do	e licensed emiss le W2 and W3 b not have licend	sions direct to surface opelow for the current reced emissions you only ater analysis and visu	water or direct to eporting year and need to complet	sewer? If yes answer further		difficulties w subsequent annua	Additional information us monitoring sampler experier hich inhibited the collection of I loading calculations. It was th pling results in graphical form a	flow data and erefore decided to							
discharges or water	rcourses on or n	e to carry out visual in lear your site? If yes pl of contamination note	ease complete ta	ble W2 below	Yes	Monthly COD a	nalysis of yard runoff is attache document.	ed in a separate							
Table W1	Storm water	monitoring									.				
Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments					
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT						
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT						
Location Reference	ation Reference Date of inspection Description of contamination					Source of contamination SELECT SELECT	Corrective act	ion	Comn	nents					
	t in breach of lice	and /or wastewate	es please provide		ing (non-conti		Additional information				I				
guidance and checkli Data Reported to th	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 Quality checklist Yes						itoring was carried out on a qua runoff results are also attached		sults of which are a	attached.					
Table W3: Licenso	ed Emissions	to water and /or v	vastewater (se	ewer)-period	ic monitoring	(non-continuo	us)								
Emission reference	Emission released to	Parameter/ SubstanceNote 1	Type of sample	Frequency of monitoring	Averaging period	ELV or trigger values in licence or any revision therof ^{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

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

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

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)	Lic No:	P0502-01		Year	2018		
Continuous monitoring			Additional Information				
5 Does your site carry out continuous emissions to water/sewer monitoring?	Yes						
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	Yes		Total of 115 days over 365 days.				
7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site?	Yes	Annual calibration	n schedule and trouble shooting	service			
8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 below	No						
Table W4: Summary of average emissions -continuous monitoring		-					
ELV or trigger				% change +/- from			
values in licence Emission reference Emission or any revision	Compliance	Units of	Annual Emission for current			Number of ELV exceedences in	
no: released to Parameter/Substance thereof Averaging Period	Criteria	measurement	reporting year (kg)			reporting year	Comments

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

Table W5: Abatement system bypass reporting table

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

^{*}Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline	testing template				Lic No:	P0502-01		Year	2018				
Bund testing		dropdown menu cli	ick to see options				Additional information						
	vour licence to undertal	ke integrity testing on bunds ar		2 if yes please fill out tabl	e R1 helow listing all								
		ite, in addition to all bunds whi											
		low, please include all bunds o											
				(,	Yes							
	grity testing frequency p					Other (2 Yearly)							
		ınderground pipelines (includi	ng stormwater and foul), T	anks, sumps and containe	rs? (containers refers to								
	inits and mobile bunds)					Yes							
How many bunds ar	e on site?					1	2 bunds scheduled to be tested in						
How many of those	hunds have been tested	within the required test sched	lulo 2				1 2019						
now many or mese	bullus liave been testeu	within the required test scried	uier			-	This includes barrel trays located						
How many mobile b	ounds are on site?					4	5 within workshops						
	ds included in the bund t	est schedule?				No							
		tested within the required te	st schedule?				0						
		integrity test schedule?					0						
How many of these	sumps are integrity teste	ed within the test schedule?					0						
Please list any sump	p integrity failures in tab	e B1											
	ambers have high level I					N/A							
		ded in a maintenance and testi				N/A							
s the Fire Water Re	tention Pond included in	your integrity test programme	?			N/A							
Table	a R1: Summany details of	bund /containment structure in	ntegrity test	٦									
Table	E D1. Summary details of	bana / contaminent structure ii	integrity test										
,									Integrity reports				
Bund/Containment									maintained on		Integrity test failure		Scheduled da for retest
structure ID	Type SELECT	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test SELECT	Other test type	Test date		SELECT	explanation <50 words	Corrective action taken SELECT	for retest
	SELECT					SELECT				SELECT		SELECT	
* Capacity required should		ainment rule as detailed in your licence	1		ļ.	JEELET	Commentary		JEEEC!	JEEC !	ļ	JEEEC!	
		ordance with licence requireme	ents and are all structures				·						
	3S8007/EPA Guidance?			bunding and storage guid	elines	SELECT							
		ntainment systems tested?				SELECT							
Are channels/transf	fer systems compliant in	both integrity and available vo	lume?			SELECT							
Disalias /dass	round structure testing	7											
Pipeline/undergr													
Are you required by		ke integrity testing* on underg											
Are you required by below listing all und	derground structures and												
Are you required by below listing all und test period as specif	derground structures and fied	ke integrity testing* on underg I pipelines on site which failed				Yes							
Are you required by below listing all und test period as specification. Please provide inter	derground structures and fied grity testing frequency p	ke integrity testing* on underg pipelines on site which failed eriod	the integrity test and all w	hich have not been teste		Yes Other (2 Yearly)							
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Are you required by eel you listing all unc test period as specif Please provide inter 'please note integri Table E	derground structures and fied grity testing frequency p ity testing means water to 32: Summary details of pi	We integrity testing * on underg pipelines on site which falled eriod gightness testing for process an peline/underground structure:	the integrity test and all w d foul pipelines (as require s integrity test Does this structure have	ed under your licence) Type of secondary containment	withing the integrity	Other (2 Yearly)	Results of test SELECT	failure explanation <50					
Are you required by below listing all unc test period as specif Please provide integrables en testing a provide integrables en testing Table E	derground structures and fled grity testing frequency p ity testing means water to 32: Summary details of pi	We integrity testing* on underg pipelines on site which failed eriod lightness testing for process an peline/underground structure: Material of construction:	the integrity test and all with displaying the displaying test integrity test Does this structure have Secondary containment?	thich have not been tested under your licence) Type of secondary containment	withing the integrity	Other (2 Yearly) Integrity reports maintained on site?		failure explanation <50			current reporting year)		
Are you required by below listing all unc test period as specif Please provide integrables en testing a provide integrables en testing Table E	derground structures and fled grity testing frequency p ity testing means water to 32: Summary details of pi	We integrity testing* on underg pipelines on site which failed eriod lightness testing for process an peline/underground structure: Material of construction:	the integrity test and all with displaying the displaying test integrity test Does this structure have Secondary containment?	thich have not been tested under your licence) Type of secondary containment	withing the integrity	Other (2 Yearly) Integrity reports maintained on site?		failure explanation <50			current reporting year)		
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**Depending on location of the site and proximity to other sensitive receptors alternative Receptor based Water Quality standards should be and in addition to the GTV e.g. if the site is c dose to a writace 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 (SWEQS), if the site is close to a drinking water supply compare results to the Drinking Water Standards (SWEQS), if the site is close to a drinking water supply compare results to the Drinking Water Standards (SWEQS), if the site is close to a drinking water supply compare results to the Drinking Water Standards (SWEQS), if the site is close to a drinking water supply compare results to the Drinking Water Standards (SWEQS), if the site is close to a drinking water supply compare results to the Drinking Water Standards (SWEQS), if the site is close to a drinking water supply compare results to the Drinking Water Standards (SWEQS), if the site is close to a drinking water supply compare results to the Drinking water. Surface regulations. (Drinking water Drinking water Drinking water supply) (public supply) water EQS GTV's standards standards (SWEQS), if the site is close to a drinking water supply compare results to the Drinking water supply compare results to the Drinking water supply compare results to the Drinking water supply compare results to the Drinking water supply compare results to the Drinking water supply compare results to the Drinking water supply compare supply compare results to the Drinking water supply compare results to the Drinking water supply compare results to the Drinking water supply compare results to the Drinking water supply compare results to the Drinking water supply compare results to the Drinking water supply compare results to the Drinking water supply compare results to the Drinking water supply compare results to the Drinking water supply compare results to the Drinking water supply compare results to the Dr	In addition to the GTV eg. If the site is close to surface water compare to Surface Water Environmental Quality Standards (SWEQS), If the site of close to a drinking water supply compare results to the Drinking Water Standards (DWS) Die 3: Soil results Sample Tocation Parameter Para	In addition to the GTV-eg. If the site is close to surface water compare to Surface Water Environmental Quality Standards (SWEQS), If the site water EQS GTV's standards (private supply) (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply) standards (public supply	able 3:		Substance	Methodology	irequency	Concentiation		SELECT				
**Depending on location of the site and proximity to other sensitive receptors alternative Receptor based Water Quality standards should be and in addition to the GTV eg.; if the site is close to a drinking water compare to Surface Water Environmental Quality Standards (SWEQS), if the site subject to surface water compare to Surface Water Environmental Quality Standards (SWEQS), if the site water EQS GTV's standards standards SWEQS) and surface water EQS GTV's standards standards standards SWEQS). **Surface regulations (private supply) (public supply) standards SWEQS) if the site water EQS GTV's standards standards standards SWEQS). **Surface regulations (private supply) (public supply) standards SWEQS) if the site water EQS GTV's standards standards SWEQS). **Surface regulations (private supply) (public supply) standards SWEQS) if the site water EQS GTV's standards standards SWEQS). **Surface regulations (private supply) (public supply) standards SWEQS) if the site water EQS GTV's standards standards SWEQS). **Surface regulations (private supply) (public supply) standards SWEQS) if the site water EQS GTV's standards standards SWEQS). **Surface regulations (private supply) (public supply) standards SWEQS) if the site water EQS GTV's standards standards SWEQS). **Surface regulations (private supply) (public supply) standards SWEQS) if the site water EQS GTV's standards standards SWEQS). **Surface regulations (private supply) (public supply) standards SWEQS) if the site water EQS GTV's standards SWEQS (public supply) standards SWEQS (public supply) standards SWEQS (public supply) standards SWEQS (public supply) standards SWEQS (public supply) standards SWEQS (public supply) standards SWEQS (public supply) standards SWEQS (public supply) standards SWEQS (public supply) standards SWEQS (public supply) standards SWEQS (public supply) standards SWEQS (public supply) standards SWEQS (public supply) standards SWEQS (public supply) standards SWEQS (public supply) standards SWEQS (public supply) standards SWEQS (In addition to the GTV eg. 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) Sample Parameter/ Parameter/ Popular Parameter/ Popu	In addition to the GTV eg. 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) Sample Parameter Parameter Popular Popular Parameter Popular Pop	able 3:		Substance	Methodology	liequency	Concentration						
Depending on location of the site and proximity to other sensitive receptors alternative Receptor based Water Quality Standards (SWEQS), If the site is close to surface water compare to Surface Water Environmental Quality Standards (SWEQS), If the site is close to surface water compare to Surface Water Environmental Quality Standards (SWEQS), If the site is close to surface water supply compare results to the Drinking Water Standards (DWS) **Soli results **Soli results** **Soli results** **Soli results** **Drinking water Pointing water regulations (private supply) standards (DWS) **Soli results** **Soli results** **Drinking water regulations (private supply) standards (DWS) **Soli results**	In addition to the GTV eg. 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) Sample Parameter/ Parameter/ Popular Parameter/ Popu	In addition to the GTV eg. 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) Sample Parameter Parameter Popular Popular Parameter Popular Pop	able 3:		Substance	Methodology	irequency	Concentration						

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

Environmental Liabilities template

P0502-01

2018 Year

Click here to access EPA guidance on Environmental Liabilities and Financial provision

			Commentary
1	ELRA initial agreement status	Not a Licence Requirement	
2	FLRA review status	NA	
2		IVA	
3	Amount of Financial Provision cover required as determined by the latest ELRA	NA	
4	Financial Provision for ELRA status	NA	
5	Financial Provision for ELRA - amount of cover	NA	
6	Financial Provision for ELRA - type	NA	
7	Financial provision for ELRA expiry date	NA	
8	Closure plan initial agreement status	NA	Internal Budget Provision
9	Closure plan review status	NA	Internal Budget Provision
10	Financial Provision for Closure status	NA	Internal Budget Provision
11	Financial Provision for Closure - amount of cover	NA	Internal Budget Provision
12	Financial Provision for Closure - type	NA	Internal Budget Provision
13	Financial provision for Closure expiry date	NA	

Lic No:

	Environmental Management Programme/Continuous Improvement Progr	amme template	Lic No:	P0502-01	Year	2018
	Highlighted cells contain dropdown menu click to view		Additional Info	rmation		
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional information	Yes		Internal unaccredited EMS		
	$Does \ the \ EMS \ reference \ the \ most \ significant \ environmental \ aspects \ and \ associated \ impacts$					
2	on-site	Yes				
3	Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance with the licence requirements	Yes				
	Do you maintain an environmental documentation/communication system to inform the				1	
4	public on environmental performance of the facility, as required by the licence	Yes				

Environmental Management Program	ime (EMP) report				
Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	Training.Continue to	()	In total 162 Personnel	,	
	train all employees in		received training in 2018.		
	environmental matters.		Ten Hydraulic Harrows		
	Training will be by		were deployed at six		
	means of the screening		locations including the		
	of an environmental		four sensitive areas.		
	DVD, followed by a		Headland peat was		
	power point		collected in five areas and		
	presentation .Employees		returned with overall		
	get environmental		production figures.		
	training at a minium of		J		
	every two years and				
	updates are carried out				
	from time to time in				
	addition to that .				Improved Environmental
Waste reduction/Raw material usage	Marka Characalla la la la	98	0	Individual	Management Practices
	Waste Streamlining.It is		Quarterly waste reports		
efficiency	planned to continue with		are returned for		
	and where possible		records/filing and waste		
	improve the current		streams are segrated on		
	waste management		site to maximise recycling		
	service provided by AES Ltd		potential.		
	Ltd				Improved Environmental
		100		Section Head	Management Practices
Reduction of emissions to Water	Training. Continue to		Silt pond cleaning and		
	train all employees in		upgrade was on target		
	environmental matters.		with two machines		
	Training will be by		designated full time at silt		
	means of the screening		control.		
	of an environmental				
	DVD, followed by a				
	power point presentation.				
	presentation.				Improved Environmental
		90		Individual	Management Practices
Materials Handling/Storage/Bunding	Increased bund capacity		There were no additional		
	will be provided where		bund requirements.		
	required. Bund integrity				
	testing will be carried				Improved Environmental
	out where required.	90		Individual	Management Practices
Waste reduction/Raw material usage	Continue with the	50	In total 360.84 tonnes	muividuai	ivianagement Fractices
efficiency	recycling of		were sent off site for		
emacincy	polyethylene. The		recycling.		
	sourcing of more		recycling.		
	recycling contractors will				
	be ongoing.				Improved Environmental
		100		Individual	Management Practices
Groundwater protection	It is proposed to upgrade		Septic tanks are		
	existing septic tank		continually being assessed		
	systems where required.		and upgrade works		
			scheduled where		Improved Environmental
		95	required.	Section Head	Management Practices
		33	1	Section flead	

	No	ise monitor	ing summar	y report			Lic No:	P0502-01	Year	2018	
	nonitoring a lice e fill in table N1	•	ent for the AER y below	period?				No]		
	-	-	e EPA Guidance ort" included in				Noise Guidance note NG4	NA			
	te have a noise			tile garaan		table of	note ive	NA			
	he noise reduct	•						Enter date			
			noise emissions last noise surve		or operatio	onal change	es) since the	NA			
Table N1: No	oise monitoring	summary									
		Noise	Noise sensitive location -NSL					Tonal or Impulsive	If tonal /impulsive noise was identified was 5dB penalty	Comments (ex. main noise sources on site, & extraneous noise	Is <u>site</u> compliant with noise limits (day/evening/night)?
Date of monitoring		location (on site)	(if applicable)	LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}	noise* (Y/N)	applied?	ex. road traffic)	
		,	•	LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}	noise* (Y/N) SELECT	applied? SELECT	ex. road traffic)	SELECT

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)	

			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 SEAI - Large Industry Energy Network (LIEN)		
2	Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state	No	Not a Licence

Table R1 Energy usag	e on site			
			Production +/- % compared to previous	Energy Consumption +/- % vs overall site
Energy Use	Previous year	Current year	reporting year**	production*
Total Energy Used (MWHrs)	12464.785	21439.87		
Total Energy Generated (MWHrs)				
Total Renewable Energy Generate	d (MWHrs)			
Electricity Consumption (MWHrs)	1683.585	1425		
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	1950.703	1969.774		
Natural gas (m3)				
Coal/Solid fuel (metric tonnes)	8			
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 extracted			Consumption +/-	Volume Discharged	environment e.g.	
Water use	Previous year m3/yr.	Current year m3/yr.	reporting year**	production*	:	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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

Resour	ce Usage/Energy efficiency summary	Lic No:	P0502-01	Year	2018
	Table B2 Wests Character Community				

Table R3 Waste Stream Summary					
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	22.65				
Non-Hazardous (Tonnes)	4864.95				

Table R4: Energy A	udit finding recommend	dations					
Date of audit		Description of Measures proposed	_	Predicted energy savings %	·	Responsibility	Status and comments
			SELECT				
			SELECT				
			CELECT				

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:	P0502-01	Year	2018	
Complaints					
	Additional inform	mation			
Have you received any environmental complaints in the current reporting year? If yes please					

Table 1	Complaints summary		1				
Date		Other type (please specify)	Brief description of complaint (Free txt <20 words)	Corrective action < 20 words	Resolution status	Resolution date	Further information
05/09/2018	Air		Dust Complaint in Drumlosh Roscommon	The person was contacted and visited and issue is resolved	Complete	20/07/2018	
05/09/2018	Air		Dust Complaint	Env. Coordinator met with complainant to resolve the matter	Complete	11/07/2018	Boundary Estate Officer would meet with complainant at later date to discuss further
Total complaints open at start of reporting year Total new complaints	0						

complete summary details of complaints received on site in table 1 below

received during reporting year
Total complaints closed during reporting year
Balance of complaints end of reporting year

Complaints an	d Incidents summary tem	plate			Lic No:	P0502-01		Year	201	3]		
		Incidents												
					Additional info	rmation								
Have any incident	s occurred on site in the current reporting year i		all incidents for current	Yes										
*For information	on on how to report and what													
cons	titutes an incident	What is an incident	1											
Table 2 Incidents s	ummary		Т											
rable 2 moderns 5			Incident			Other					Preventative			
Date of			category*please refer		Cause of	cause(please	Activity in progress at			Corrective	action <20	Resolution		Likelihood of
	Incident nature	Location of occurrence	to guidance	Receptor	incident	specify)	time of incident	Communication	Occurrence	action<20 words	words	status	date	reoccurence
04/01/2018	Trigger level reached	SW 50 - Corneveagh	1. Minor	Water	Not related to site activities		Normal activities	EPA Ref No. INCI014669	New	None	NA			
2.12.12.2												Complete	05/01/2018	Low
24/01/2018	Trigger level reached	SW 50 - Corneveagh	1. Minor	Water	Not related to site activities		Normal activities	EPA Ref No. INCI014670	New	None	NA			
												Complete	25/01/2018	Low
09/02/2018	Trigger level reached	SW 50 - Corneveagh	1. Minor	Water	Not related to site activities		Normal activities	EPA Ref No. INCI014671	New	None	NA			
												Complete	09/02/2018	Low
24/01/2018	Breach of ELV	SW 50 - Corneveagh	1. Minor	Water	Adverse weather		Normal activities	EPA Ref No. INCI014672	New	Weekly monitoring	feeder silt ponds drains			
											inspected	Complete	05/02/2018	Low
Total number of incidents current year Total number of incidents previous		1										Complete	05/02/2018	μωw

year % reduction

55.56%

SECTION B- WAS	TE ACCEPTED ONTO SITE-TO BI	E COMPLETED BY ALL IP	PPC AND WASTE FA	CILITIES							
							Additional Informat	tion]			
	epted onto your site for recovery or dis be captured through PRTR reporting)	posal or treatment prior to re	covery or disposal withir	n the boundaries of you	r facility ?; (waste generated within	N/A					
If yes please enter de						,		1			
2 Did your site have an	y rejected consignments of waste in the	e current reporting year? If ye	s nlease give a hrief exn	lanation in the addition	nal information	SELECT					
z sia your site nave an	, rejected consignments of waste in the	c content reporting year. If ye	s preuse give a brief exp	and a decision		JEEC 1					
	accepted onto your site that was genera					SELECT					
Table 1 Details	of waste accepted onto you		·'	, <u>'</u>	de wastes generated at yo Quantity of waste accepted in	ur site, as th	ese will have be Reason for				Comments
tonnage limit for you		Source of waste accepted	Description of waste accepted	Quantity of waste accepted in current	previous reporting year (tonnes)	Increase over	reduction/	Packaging Content (%)- only applies if	Disposal/Recovery or treatment operation carried	Quantity of waste	Comments -
site (total tonnes/annum)			Please enter an accurate and detailed	reporting year (tonnes)		previous year +/	increase from previous reporting	the waste has a	out at your site and the description of this operation	remaining on site at the end	
,			description - which	(,-	year			of reporting	
			applies to relevant EWC code							year (tonnes)	
	European Waste Catalogue EWC codes		European Waste Catalogue EWC codes								
	codes		Catalogue LWC todes								
SECTION C-TO BE	COMPLETED BY ALL WASTE FA	ACILITIES (waste transfe	er stations, Compo	sters, Material red	covery facilities etc) EXCEPT	ANDFILL SITE	S				
										_	
4 Is all waste processin	g infrastructure as required by your lice	ence and approved by the Age	ncy in place? If no pleas	e list waste processing	infrastructure required onsite	SELECT					
		, ,			•						
5 Is all waste storage in	frastructure as required by your licence	e and approved by the Agency	in place? If no please lis	st waste storage infrast	ructure required on site	SELECT					
6 Does your facility hav	e relevant nuisance controls in place?					SELECT					
	r management system in place for your	facility? If no why?				SELECT					
8 Do you maintain a slu	age register on site?		_			SELECT				I	

Lic No:

SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES

PRTR facility logon.

P0502-01

Year

dropdown list click to see options

2018

WASTE SUMMARY

WASTE SUMMAR	ί Υ				Lic No:	P0502-01		Year	
ECTION D-TO BE	COMPLETED BY LANDFILL SIT	ES ONLY							
able 2 Waste typ	pe and tonnage-landfill only				-				
Waste types permitted	Authorised/licenced annual intake for	Actual intake for disposal in	Remaining licensed capacity at end of						
for disposal	disposal (tpa)	reporting year (tpa)	reporting year (m3)	Comments					
			-						
able 3 General in	nformation-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 as bestos?	Accept
cell 8									
able 4 Environme	ental monitoring-landfill only	Landfill Manual-Monitoring S	tandards						
Vas meterological nonitoring in ompliance with Landfill Directive (LD) standard n 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		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	
	fill Manual linked above for relevant L	andfill Directive monitoring st	andards						
able 5 Capping-L	andfill only						1		
	Area with temporary cap			Area with waste that should be permanently					
Area uncapped*		Area with final cap to LD Standard m2 ha. a	Area capped other	should be permanently capped to date under	What materials are used in the cap	Comments			
Area uncapped*	Area with temporary cap SELECT UNIT	Area with final cap to LD Standard m2 ha, a	Area capped other	should be permanently	What materials are used in the cap	Comments			
Area uncapped® ELECT UNIT	Area with temporary cap SELECT UNIT des daily cover area		Area capped other	should be permanently capped to date under	What materials are used in the cap	Comments			
Area uncapped* ELECT UNIT please note this incluitable 6 Leachate- leachate from your si	Area with temporary cap SELECT UNIT des daily cover area	Standard m2 ha, a		should be permanently capped to date under	What materials are used in the cap	Comments SELECT SELECT			
Area uncapped® ELECT UNIT Dlease note this inclusable 6 Leachate from your sileachate released to Volume of leachate in	Area with temporary cap SELECT UNIT Ides daily cover area Landfill only site treated in a Waste Water Treatmen o surface water? If yes please complete	Standard m2 ha, a nt Plant? e leachate mass load informat Leachate (COD) mass load	ion below	should be permanently capped to date under licence		SELECT SELECT Specify type of leachate	Comments		
Area uncapped® ELECT UNIT please note this inclusable 6 Leachate leachate from your si leachate released to Volume of leachate in	Area with temporary cap SELECT UNIT ides daily cover area -Landfill only ite treated in a Waste Water Treatmen	Standard m2 ha, a nt Plant? e leachate mass load informat	ion below	should be permanently capped to date under licence	What materials are used in the cap Leachate treatment on-site	SELECT SELECT Specify type of	Comments		
Area uncapped* ELECTUNIT please note this inclu able 6 Leachate- is leachate from your si leachate released to Volume of leachate in reporting year(m3)	Area with temporary cap SELECT UNIT Idea daily cover area Landfill only site treated in a Waste Water Treatmen o surface water? If yes please complete Leachate (BOD) mass load (kg/annum)	Standard m2 ha, a nt Plant? e leachate mass load informat Leachate (COD) mass load (kg/annum)	ion below Leachate (NH4) mass load (kg/annum)	should be permanently capped to date under licence Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	SELECT SELECT Specify type of leachate	Comments		
please note this inclu- please note this inclu- please note this inclu- please for a Leachate s leachate from your sis leachate released to Volume of leachate in reporting year(m3)	Area with temporary cap SELECT UNIT Ides daily cover area Landfill only ite treated in a Waste Water Treatmen o surface water? If yes please complete Leachate (BOD) mass load (kg/annum)	Standard m2 ha, a nt Plant? e leachate mass load informat Leachate (COD) mass load (kg/annum)	ion below Leachate (NH4) mass load (kg/annum)	should be permanently capped to date under licence Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	SELECT SELECT Specify type of leachate	Comments		
Area uncapped* BLECT UNIT please note this indu able 6 Leachate- leachate from your si leachate released to Volume of leachate in reporting year(m3)	Area with temporary cap SELECT UNIT Ides daily cover area Landfill only ite treated in a Waste Water Treatmen o surface water? If yes please complete Leachate (BOD) mass load (kg/annum)	Standard m2 ha, a nt Plant? e leachate mass load informat Leachate (COD) mass load (kg/annum)	ion below Leachate (NH4) mass load (kg/annum)	should be permanently capped to date under licence Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	SELECT SELECT Specify type of leachate	Comments		
Area uncapped* BLECT UNIT please note this indu able 6 Leachate- leachate from your si leachate released to Volume of leachate in reporting year(m3)	Area with temporary cap SELECT UNIT Ides daily cover area Landfill only ite treated in a Waste Water Treatmen o surface water? If yes please complete Leachate (BOD) mass load (kg/annum)	Standard m2 ha, a nt Plant? e leachate mass load informat Leachate (COD) mass load (kg/annum)	ion below Leachate (NH4) mass load (kg/annum)	should be permanently capped to date under licence Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	SELECT SELECT Specify type of leachate	Comments		
Area uncapped* BLECT UNIT please note this indu able 6 Leachate- leachate from your si leachate released to Volume of leachate in reporting year(m3)	Area with temporary cap SELECT UNIT Ides daily cover area Landfill only ite treated in a Waste Water Treatmen o surface water? If yes please complete Leachate (BOD) mass load (kg/annum)	Standard m2 ha, a nt Plant? e leachate mass load informat Leachate (COD) mass load (kg/annum)	leachate (NI4) mass load (kg/annum)	should be permanently capped to date under licence Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	SELECT SELECT Specify type of leachate	Comments		
Area uncapped* ELECTUNIT please note this inclu fable 6 Leachate- leachate from your si leachate released to Volume of leachate in reporting year(m3)	Area with temporary cap SELECT UNIT Ides daily cover area Landfill only ite treated in a Waste Water Treatmen o surface water? If yes please complete Leachate (BOD) mass load (kg/annum)	Standard m2 ha, a nt Plant? e leachate mass load informat Leachate (COD) mass load (kg/annum)	ion below Leachate (NH4) mass load (kg/annum) consistent with the Landi Was surface emissions	should be permanently capped to date under licence Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	SELECT SELECT Specify type of leachate	Comments		
Area uncapped* ELECTUNIT please note this inclu able 6 Leachate- is leachate from your si leachate released to Volume of leachate in reporting year(m3)	Area with temporary cap SELECT UNIT Ides daily cover area Landfill only ite treated in a Waste Water Treatmen o surface water? If yes please complete Leachate (BOD) mass load (kg/annum)	Standard m2 ha, a nt Plant? e leachate mass load informat Leachate (COD) mass load (kg/annum)	leachate (NI4) mass load (kg/annum)	should be permanently capped to date under licence Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	SELECT SELECT Specify type of leachate	Comments		

Lic No:

P0502-01

2018

Total disposal

SELECT UNIT

Lined disposal area occupied by waste area occupied by

SELECT UNIT

SELECT UNIT

Comments or liner type

WASTE SUMMARY

European						Name, Address &	Country
Waste Code	Description of Waste (in line	Hazardous –	Quantity	Name & Permit No. of	Treatment Type – Recovered / Disposed /	Licence/Permit No. of FINAL	•
(EWC)	with applicable EWC code)	YES/NO	(Tonnes)	Agent/Carrier	Recycled	Destination	
20 03 01 B	Municipal mixed residual non- household	No	47.6	AES Ltd WP-OY-08-601 02	D01 - Deposit into or on to land (e.g. landfill, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
20 03 01 A	Municipal mixed residual household	No	115	AES Ltd WP-OY-08-601 01	D01 - Deposit into or on to land (e.g. landfill, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
17 04 07	mixed metals	No	182.69	AES Ltd WP-OY-08-601	R04 - Recycling/reclamation of metals and metal compounds	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
15 01 03	wooden packaging	No	8.72	AES Ltd WP-OY-08-601 01	R01 - Use principally as a fuel or other means to generate energy	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
13 02 05*	mineral-based non- chlorinated engine, gear and lubricating oils	Yes	18.9	Enva Ireland Limited - L1745	R01 - Use principally as a fuel or other means to generate energy	R.D. Recycling, Houthalen, Reg No: 51727/1KD	Belgium
16 01 07*	oil filters	Yes	2	Enva Ireland Limited - L1745	R04 - Recycling/reclamation of metals and metal compounds	R.D. Recycling, Houthalen, Reg No: 51727/1KD	Belgium
11 01 13*	degreasing wastes containing hazardous substances	Yes	1.75	Safety Kleen Ireland Ltd - W0099	R11 - Use of waste obtained from any of the operations numbered R 1 to R 10	Solvent Recovery Management, PP33345F, Wheeland Rd., Knottingly, West Yorks	UK
02 01 04	waste plastics (except packaging)	No	360	ADN Materials Ltd.WFP- MN-12-0001-04	R03 - Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)	ADN Materials Ltd., Lossetts, Carrickmacross, Co. Monaghan - WFP-MN-12-0001- 04	Ireland

Blackwater

Decommissioning and Rehabilitation Bog Rehabilitation Progress Report 2018.

Several bogs within the Blackwater bogs licensed area (P0502-01) have been identified as having bog restoration value. Bog restoration work (drain-blocking) has been completed in sub-sections of Clonboley I, Clonboley II (Knock Bog and Clera Island Bog) and Killeglan. Restoration work at the Newtown/Lough Gore network of bogs is ongoing and proving successful. These bogs are currently being considered for SAC/NHA designation by the NPWS as part of the National Raised Bog Special Area of Conservation Management Plan and the National Review of Raised Bog NHAs. A Greenhouse Gas Monitoring programme has finished at Moyarwood Bog (a continuation of the NEROS (EPA-funded project)) to investigate carbon fluxes on this restored bog (completed in 2018). An additional site established at Blackwater Bog was part of REEDFLUX (EPA/BnM funded project) to investigate carbon fluxes of specific cutaway communities including Reedbeds has been finalised (April 2015).

A small area of Clooniff Bog has been rehabilitated in order to create a wetland (8 ha). Wetland vegetation have been introduced here in order to speed up the establishment of wetland vegetation such as common reed, reed mace and reed canary grass. It is intended to re-direct water from industrial peat production areas into this wetland during 2019.

Rehabilitation is ongoing (commenced in 2018) in Cloonkeen Bog. This work primarily involves targeted drain blocking at the site to raise water levels as part of the rehabilitation work programme for Cloonkeen.

Ongoing monitoring of peatland areas was carried out within the Blackwater licensing area with Newtown-Lough Gore being re-surveyed to identify areas of active raised bog and to inform the raised bog restoration work programme for this site.

Cuilliaghmore, Tirrur Derrymore and Cornafulla bog were also resurveyed as part of the ongoing biodiversity survey.

Draft rehabilitation plans for the Blackwater bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015 and 2017.

Japanese Knotweed (Invasive species) control is ongoing at Attymon. A small area was sprayed with herbicide in 2017 and 2018.

A section of remnant bog at the south of Lismanny Bog has been leased to the local community, restoration work is due to begin on this section in 2019. New signage was erected and this will complement the existing board walk that was constructed in 2009.

Ballydangan Bog has been managed for conservation since 2009. Many stakeholders are involved in this project which entails managing the site for the conservation of ground nesting birds, specifically Curlew and Red Grouse.

The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in May 2018. This included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA,

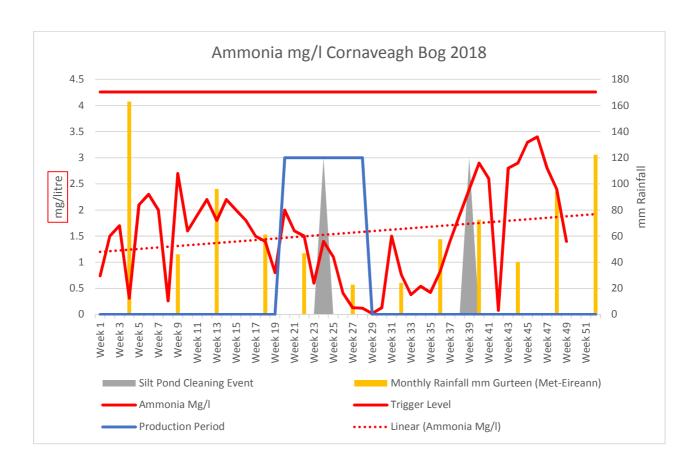
NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.

A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

As required by condition 10.2 Cutaway Bog Rehabilitation Plans, draft peatland rehabilitation plans for all the individual bog units were submitted to the agency in 2013, reviewed and amended in 2015 and re-submitted to the agency in 2015. All draft rehabilitation plans have been reviewed in 2017. These reviewed and amended plans will be re-submitted to the agency in due course.

Organic certification was sought for the majority of the Bord na Móna property with the aim of using some areas for the cultivation of plants for use in herbal medicine, this project is ongoing.

Bord na Mona	- Blackwater PO502-0	11									
Grab Sampling		<u>'-</u>									
x	Z019	Bog	SW	Monitoring	pH	SS	TS	Ammonia	TP	COD	Colour
204193.18	233292.08	Bloomhill	SW-45	Q1 18	7.5	5	134	1.5	0.05	46	119
209103.76	233133.72	Bloomhill	SW-46	Q1 18	7.9	5	410	0.04	0.05	43	108
206357.24	236321.59	Kilgarvin	SW-88	Q1 18	7.2	5	62	1.3	0.05	47	293
207140.85	235210.03	Kilgarvin	SW-89	Q1 18	7.7	5	146	4	0.05	43	142
207016.78	235121.11	Kilgarvin	SW-89A	Q1 18	7.7	5	182	3.8	0.05	46	132
208033.11	235779.32	Kilgarvin	SW-90	Q1 18	7.3	5	108	1.6	0.05	55	189
206651.86	235235.78	Kilgarvin	SW-91	Q1 18	7.8	5	396	4.4	0.05	36	211
206721.04	238609.93	Bunahinly	SW-92	Q1 18	6.7	5	88	0.17	0.05	52	183
206662.99	238274.82	Bunahinly	SW-93	Q1 18	6.2	5	70	0.23	0.05	70	215
205547.19	238164.83	Bunahinly	SW-94	Q1 18	7.2	5	106	0.9	0.05	41	167
206521.02	236852.02	Kilgarvin	SW-95	Q1 18	7.5	5	132	0.37	0.05	35	64
206966.18	236771.02	Kilgarvin	SW-96	Q1 18	7.4	5	153	0.02	0.05	75	220
206284.38	240035.71	Bunahinly	SW-97	Q1 18	7.5	5	192	0.15	0.05	69	153
196289.52	229517.21	Clooniff	SW-54	Q1 18	6.2	5	136	0.56	0.05	79	253
178464.41	246488.91	Gowla	SW-125	Q2 18	7.2	5	132	1	0.19	95	337
179332.06	244537.90	Gowla	SW-127	Q2 18	7.5	5	182	0.29	0.17	84	277
179271.28	244726.80	Gowla	SW-128	Q2 18	7.6	5	206	0.35	0.09	73	231
180966.12	244030.48	Derryfadda Bog	SW-107	Q2 18	7.6	5	234	2.2	0.05	56	176
180631.06	243928.81	Killaderry	SW-108	Q2 18	7.7	5	252	0.27	0.05	51	113
181456.84	243133.74	Killaderry	SW-109	Q2 18	7.7	5	220	1.2	0.05	69	197
182202.14	242638.34	Killaderry	SW-110	Q2 18	7.8	5	230	0.34	0.05	60	124
182203.20	241175.49	Killaderry	SW-114	Q2 18	7.7	5	214	1.7	0.05	73	227
181563.73	241235.50	Killaderry	SW-115	Q2 18	7.8	5	284	2.8	0.07	28	124
182457.16	240577.59	Castlegar	SW-117	Q2 18	7.9	5	302	0.55	0.09	54	174
182399.93	239909.95 241713.45	Castlegar	SW-118	Q2 18	7.8	5	186	0.71	0.05	89	324
182686.37 182715.77	241/13.45	Killaderry Killaderry	SW-111 SW-112	Q2 18 Q2 18	7.5 7.4	5	198 190	0.1 0.78	0.05 0.05	71 33	223 177
182704.22	240840.26	Killaderry	SW-112	Q2 18	7.4	6	288	0.78	0.05	70	210
182093.30	245946.00	Derryfadda Bog	SW-113	Q2 18 Q3 18	5.9	5	104	0.28	0.05	66	195
182388.81	245823.47	Derryfadda Bog	SW-100	Q3 18	7.1	5	110	0.79	0.05	62	286
182316.10	245297.50	Derryfadda Bog	SW-100	Q3 18	7.1	5	134	0.29	0.03	57	165
182139.73	245264.91	Derryfadda Bog	SW-101	Q3 18	7.2	5	156	0.02	0.05	78	302
183228.01	244324.76	Derryfadda Bog	SW-103	Q3 18	7.3	5	164	0.91	0.05	62	181
183590.31	240198.77	Castlegar	SW-119	Q3 18	7	5	118	2	0.05	60	181
184106.45	239849.36	Castlegar	SW-120	Q3 18	7.5	5	198	0.09	0.05	46	99
184125.26	239565.89	Castlegar	SW-121	Q3 18	5.1	5	135	0.02	0.05	121	425
184137.69	239522.07	Castlegar	SW-122	Q3 18	7.3	5	114	0.55	0.05	76	149
184479.03	239013.00	Castlegar	SW-123	Q3 18	7.3	5	170	0.97	0.05	74	208
183794.87	237417.33	Castlegar	SW-124	Q3 18	7.3	5	174	0.68	0.05	64	179
202648.98	224016.88	Blackwater Bog	SW-78	Q3 18	7.6	5	326	5.1	0.05	72	164
202934.41	224449.28	Blackwater Bog	SW-79	Q3 18	7.7	5	470	0.11	0.05	26	50
203526.10	225073.81	Blackwater Bog	SW-83	Q3 18	7.2	5	248	1.5	0.05	107	282
199689.01	233276.13	Cornafulla/Drumlosh	SW-64	Q4 18	7.4	5	168	2.5	0.08	67	218
201775.03	232438.69	Cornafulla/Drumlosh	SW-65	Q4 18	7.5	5	138	2	0.05	58	202
203060.63	233050.47	Cornafulla/Drumlosh	SW-67	Q4 18	6.3	5	152	1	0.05	77	198
202543.37	234207.99	Cornafulla/Drumlosh	SW-68	Q4 18	7.3	5	132	2.3	0.08	63	210
201809.59	235011.17	Cornafulla/Drumlosh	SW-69	Q4 18	7.3	5	150	2.5	0.05	66	179
200852.36	234070.07	Cornafulla/Drumlosh	SW-72	Q4 18	7	5	176	0.08	0.05	104	280
205374.69	227140.73	Derryharney	SW-20	Q4 18	7.4	5	198	1.6	0.05	62	161
206237.59	227777.74	Derryharney	SW-21	Q4 18	7.3	5	176	1.7	0.05	55	203
206148.95	228425.87	Derryhamey	SW-22	Q4 18	7.4	6	272	1.5	0.05	68	140
206514.58	228337.68	Derryhamey	SW-28	Q4 18	7.7	5	314	0.48	0.05	54	107
204150.77	225621.38	Blackwater Bog	SW-81	Q4 18	7.9	5	226	0.72	0.05	50	134
204328.91	225955.12	Blackwater Bog	SW-82	Q4 18	7.4	5	206	2.5	0.05	81	250
204544.16	226075.53	Blackwater Bog	SW-84	Q4 18	6.6	5	270	3.4	0.05	85	283
204397.36	225985.10	Blackwater Bog	SW-86	Q4 18	7.5	36	210	1.1	0.08	113	152

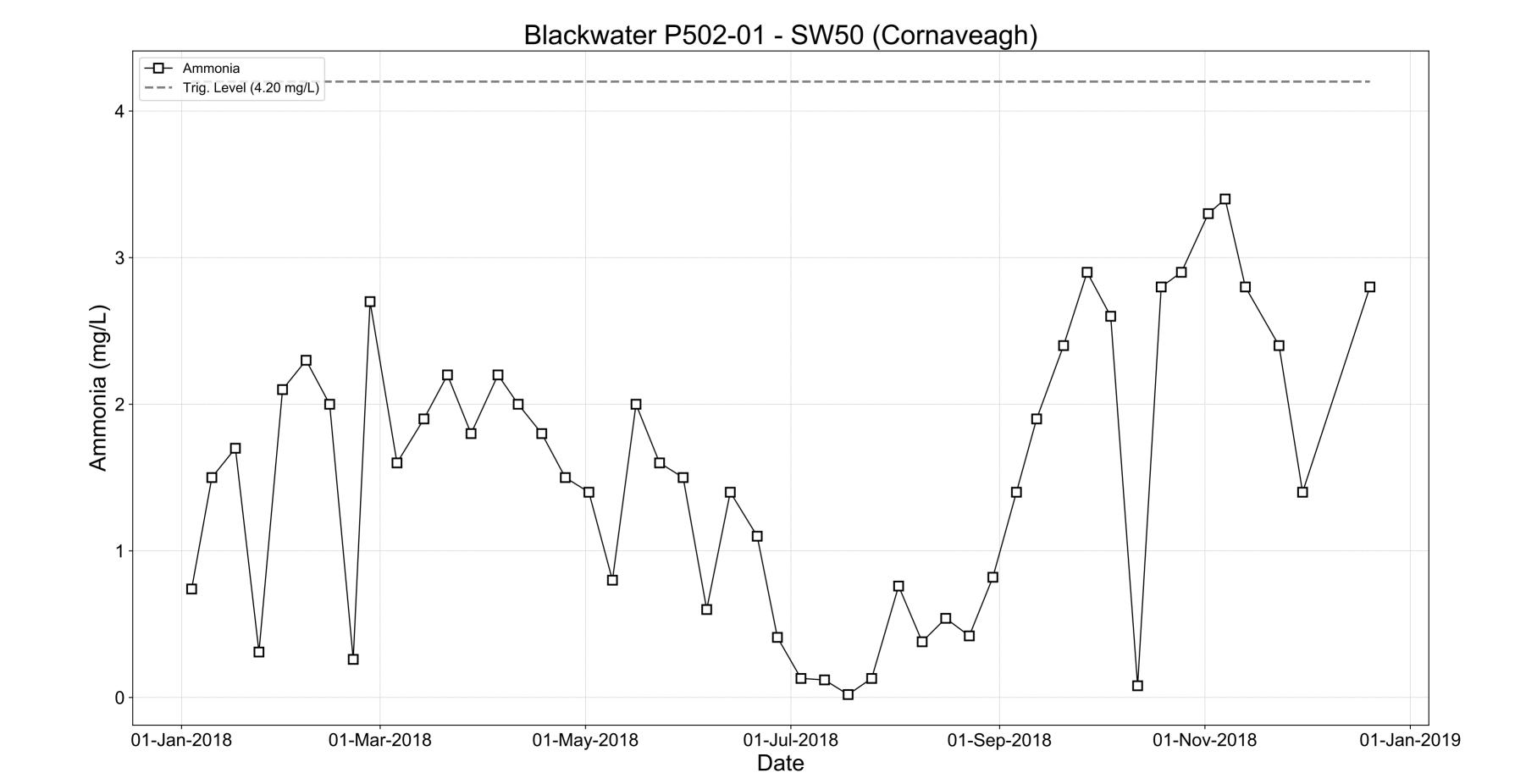


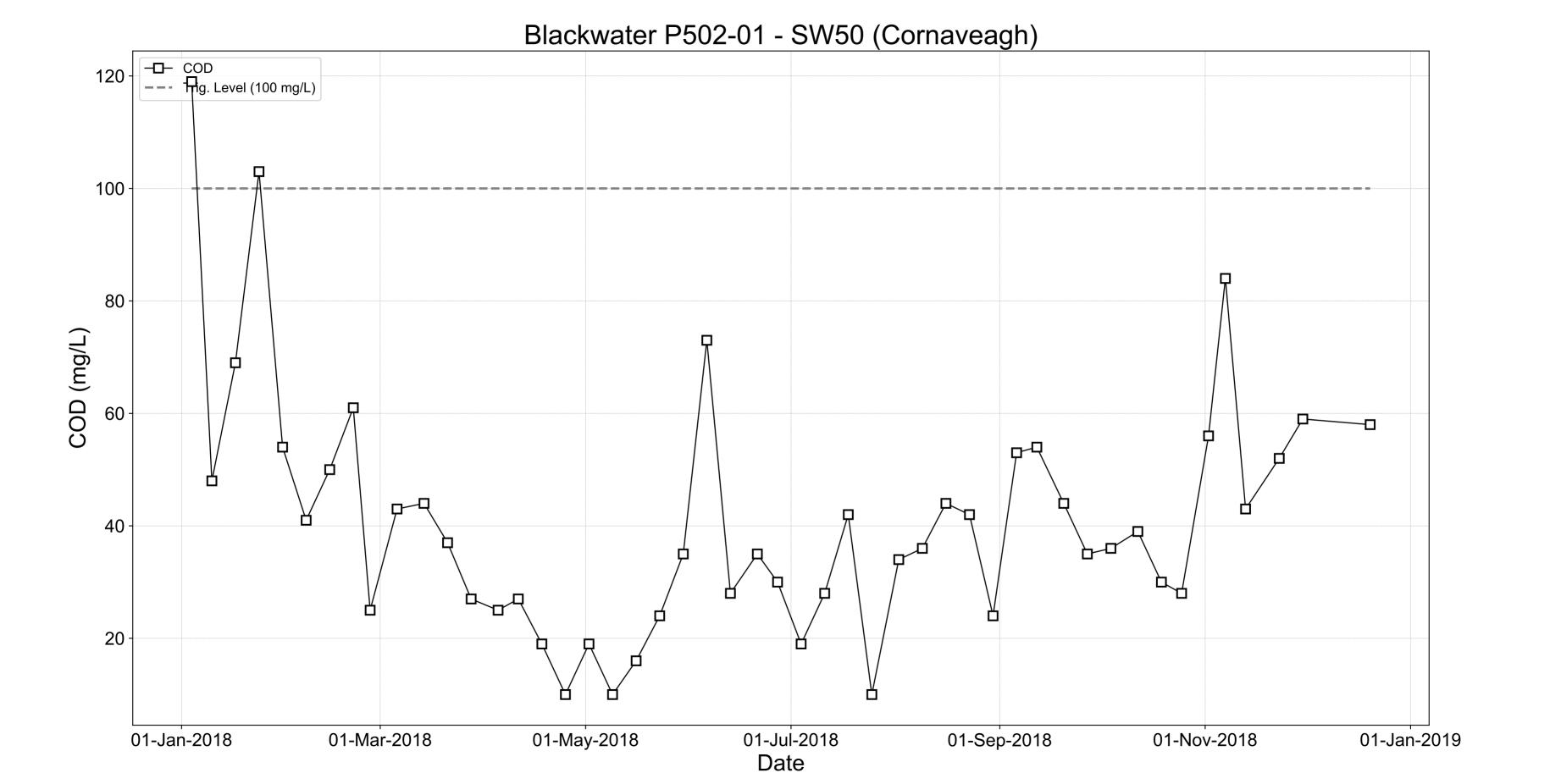
Cornaveagh Bog

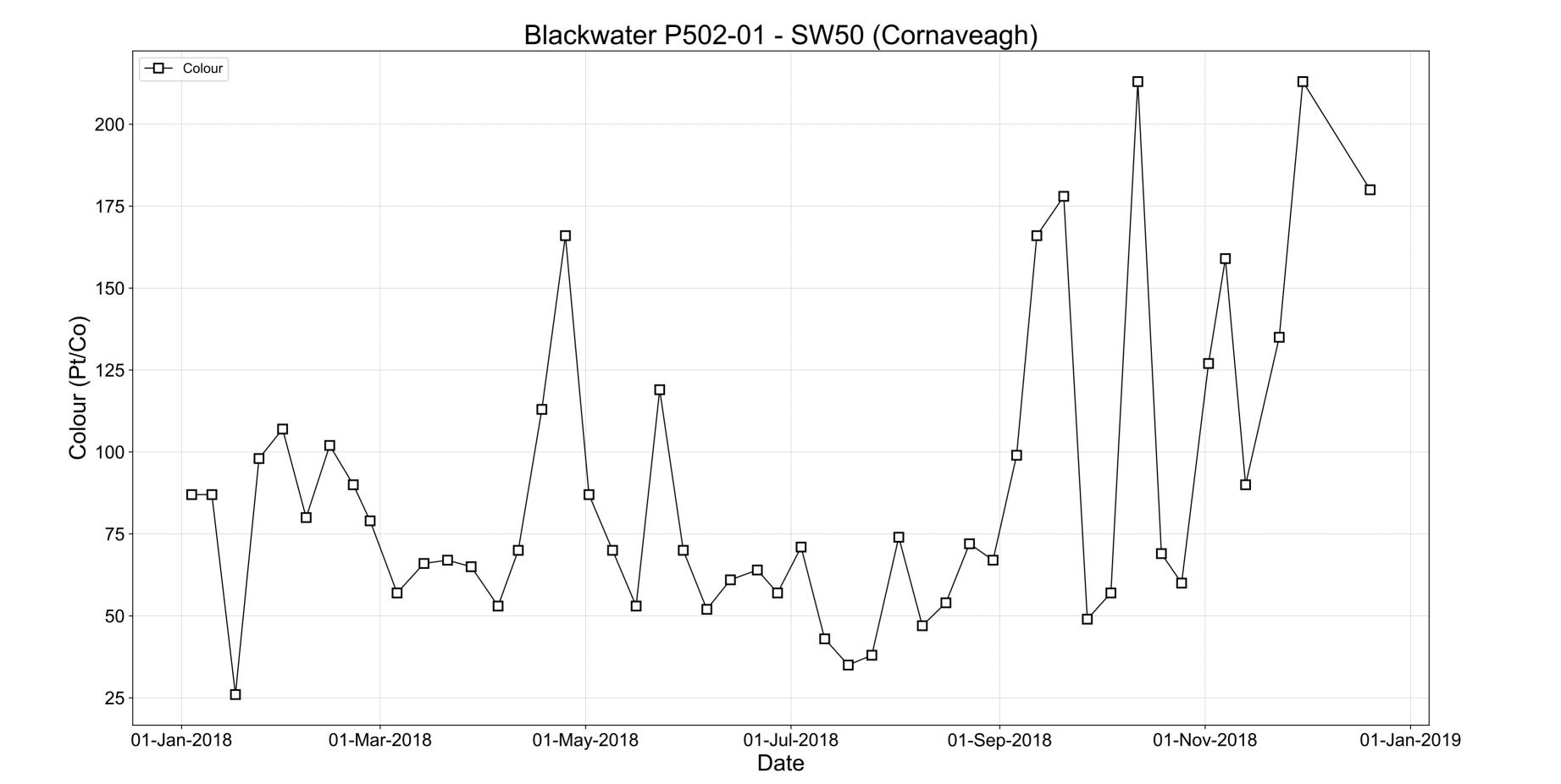
Cornaveagh Bog is an active production bog with the composite sampler located here during 2018. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had 42% downtime during the period mainly because it is located on the silt pond outlet from Cornaveagh Bog which has negative flow during winter flooding events, resulting in zero discharge during these events and limited safe access for a weekly grab sample. The ammonia trigger level of 4.26mg/l, as agreed with the Agency, was not exceeded during the period.

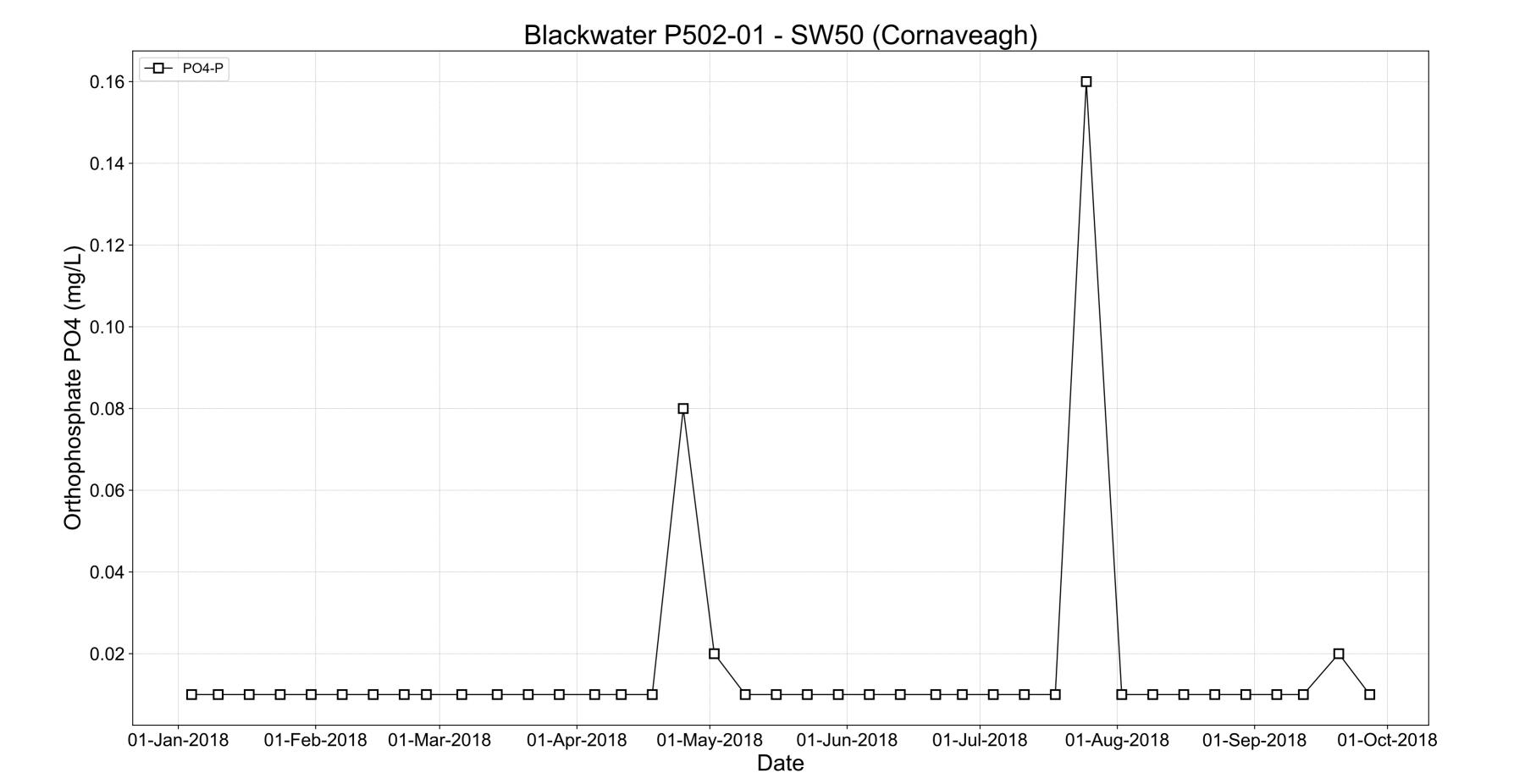
There is no obvious link between the summer production, winter maintenance or silt pond maintenance events on the concentration of ammonia disharging from the peatlands. The only link expected would be that related to rainfall events and seasonal weather patterns and the subsequent surfacewater runoff and associated ammonia concentrations.

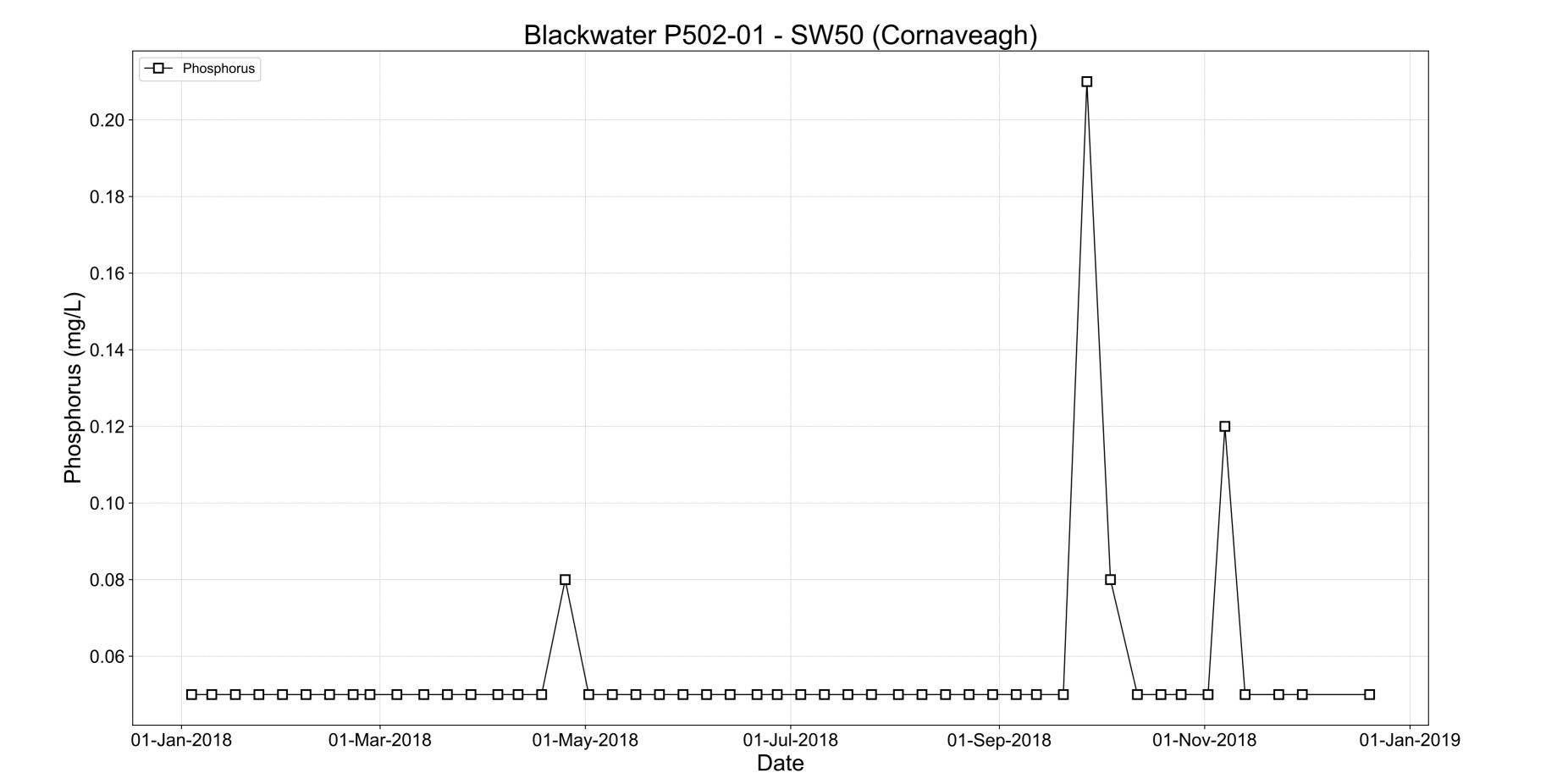
The sampler at this location may be relocated to fill any information gaps on other peatland catchments and to reflect the need to support the information gathering required for the Water Framework Directive's River Basin Management Plan. There is also an EPA lead research project commencing in 2019, called the SWAMP project, whose aims are to appraise and understand the nutrient impact from peatlands, to evaluate treatment technologies and to propose predictive tools for watershed management.

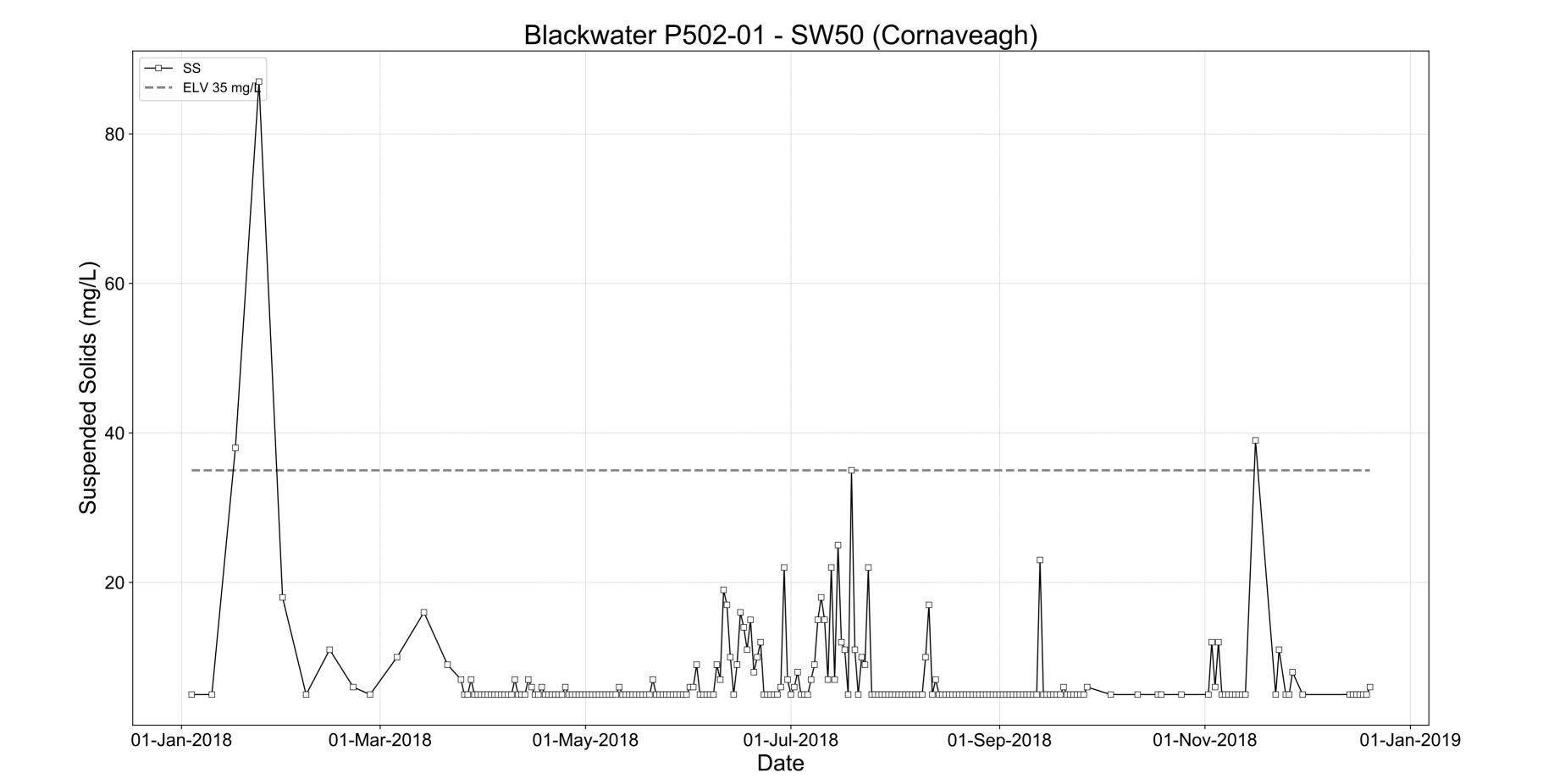


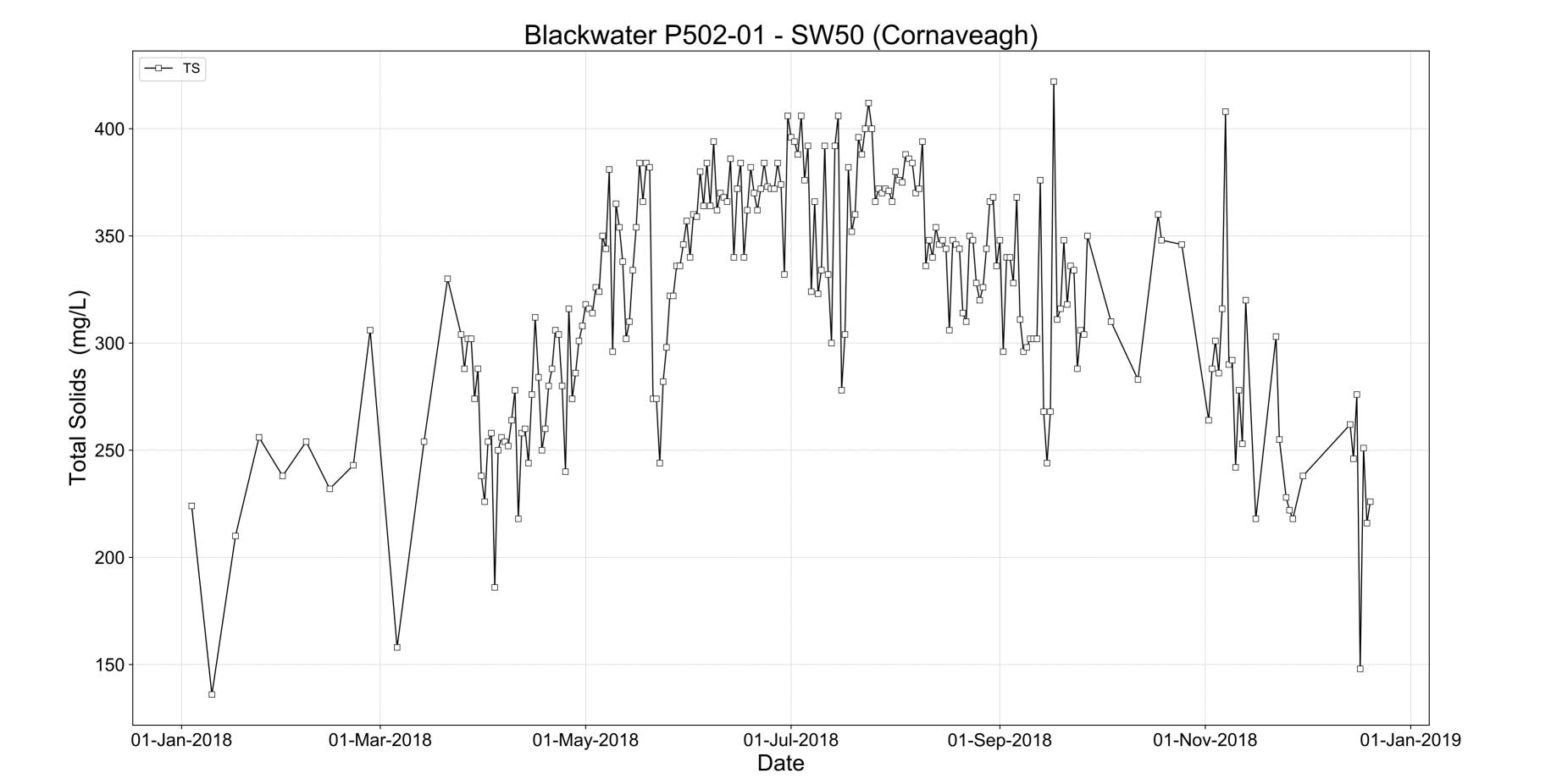


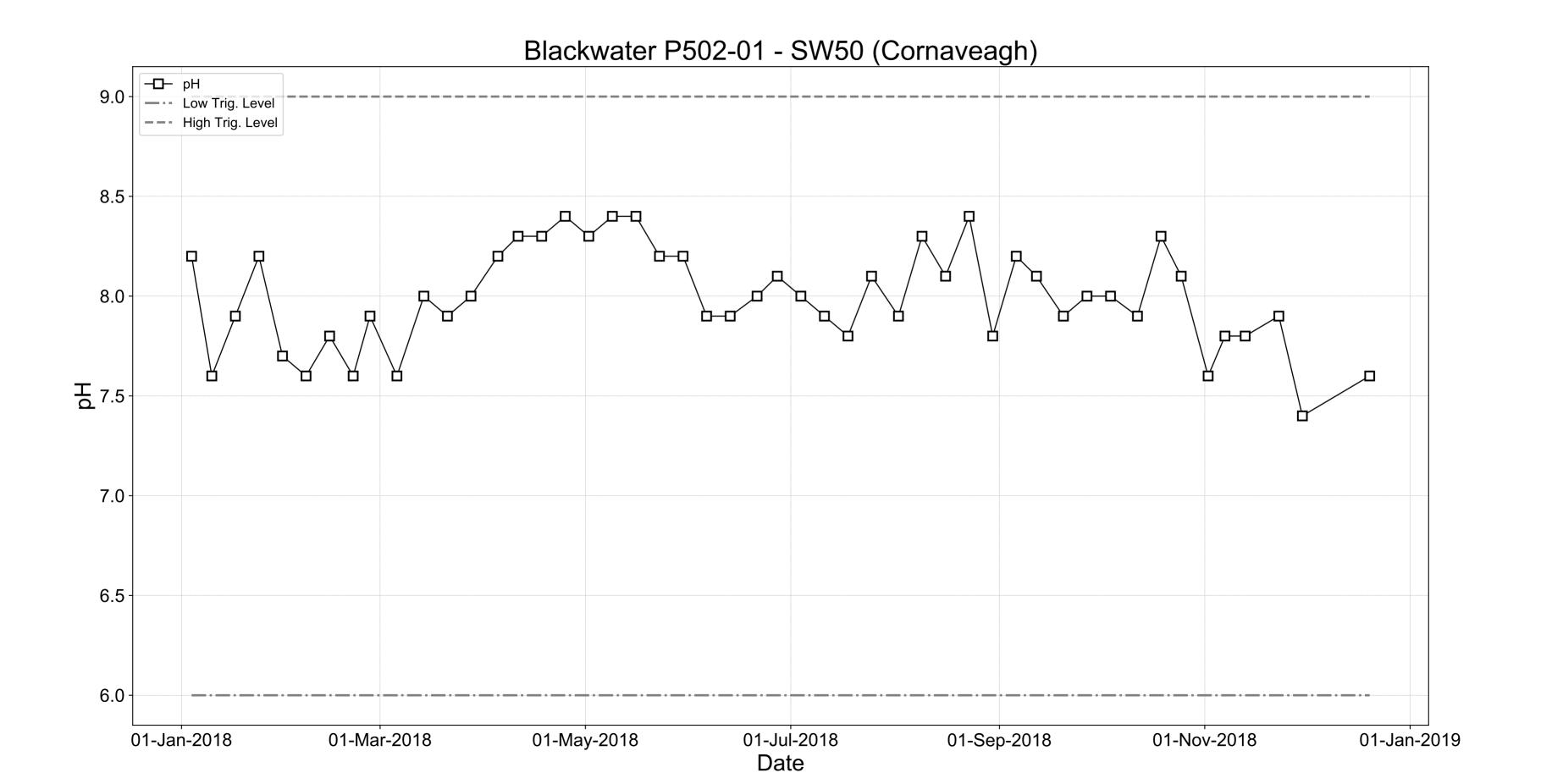












Yard Discharge Results

Licence: P0502-01

Works: Blackwater 2018

Month	SWE 1 COD mg/l	SWE2 COD mg/l	SWE3 COD mg/l	SWE4 COD mg/l	SWE5 COD mg/l	SWE6 COD mg/l	SWE7 COD mg/l	SWE8 COD mg/l	SWE9 COD mg/l	SWE10 COD mg/l	SWE11 COD mg/l
Jan	30	0	0	0	0	0	0	0	0	0	0
Feb	19	0	20	0	0	0	118	37	28	0	0
Mar	69	0	0	36	0	0	96	10	20	0	0
Apr	10	0	81	0	0	0	51	34	10	0	0
May	75	0	0	0	0	0	65	64	58	0	0
June	0	0	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0	0	0
Aug	38	0	0	37	0	0	22	30	0	0	0
Sep	0	0	0	0	0	0	0	0	0	0	0
Oct	0	0	0	0	0	0	0	0	0	0	0
Nov	38	0	10	10	0	0	0	0	0	10	84
Dec	0	0	0	0	0	0	0	0	0	0	0

Note: 0 denotes no flow at emission point on day of sampling

Extractive Waste Management Plan Implementation AER Update.

March 2019.

IPC Licence P0502-01.

1.0 Extractive Wastes.

Waste classified as extractive waste from peat extraction operations arise from three operations associated with this activity.

- Silt Pond excavations and maintenance
- Power Station Screenings
- Bog Timbers

There has been no change to the type and nature of these three waste streams and no new waste streams added to this list. These wastes streams continue to be stored and maintained at between 1 and 3 metres in height.

2.0 Condition 7.5 Extractive Waste Management

- An extractive waste management plan (EWMP) was submitted to the Agency in September 2012 and was approved.
- The EWMP was reviewed in September 2017. There were no substantial changes to the operation of the plan, associated waste facilities or to the waste deposited.

3.0 Minimisation

- The IPC Licence has various conditions that require the installation, inspections and maintenance of silt ponds for operational areas and as such these requirements dictate the need for silt ponds and associated excavation materials and cleanings.
- Peat screenings are a factor of the screening process with West Offaly Power Ltd as these oversized bog timbers, stones and peat cannot be utilised in the power station.
- Bog timbers arise from the active production footprint and are naturally occurring. The active footprint is dictated by the peat production targets and customer supply contract and service level agreements.

4.0 Treatment

- Silt pond excavation and maintenance materials do not require any treatment and are stored as per the EWMP, adjacent to the associated silt pond.
- The factory screenings are permitted to be returned to the bog as they were naturally occurring materials from the bog, and as such do not require any treatment to serve this purpose.
- There is no treatment of bog timbers arising and these are stockpiled at various locations in associated bogs.

5.0 Recovery

- As per the EWMP, there is still no opportunity to recover these silt pond associated materials.
- Given the nature of these screenings as outlined in the EWMP, there is no further use identified, other than the permitted reuse of these natural materials in areas that required improvement for trafficking purposes.
- Bog timbers stored on the bog are natural to the peat bog and while there have been trails to recover this waste material, these have not proved viable.

6.0 Disposal

- Silt pond cleanings continue to be disposed of adjacent to the associated silt pond and will be incorporated back into the rehabilitation plans for these bogs, post production and decommissioning.
- Schedule 3 (ii) of this IPC Licence permits the disposal of peat screenings to the bog at designated locations agreed under Condition 7.4 and this continues to be the case.
- Bog timbers will continue to be stockpiled at suitable locations to be either incorporated back into the bog, as a supply of bog timbers for the crafting industry or will continue to decay naturally.



Annual Environmental Report 2018

Bord na Mona Biomass Ltd (Allen Group of Bogs) IPC Licence P0503-01

Facility Information Summary

AER Reporting Year
Licence Register Number
Name of site
Site Location
NACE Code
Class/Classes of Activity
National Grid Reference (6E, 6 N)

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.

experienced deputy)

2018	
P0503-01	
Bord na	a Mona Allen
Derrygreenagh, Roch	fortbridge, Co Westmeath
	0892
	1.4
2494	50, 238140

Activities on site can be divided into two components, firstly the milling, harrowing, ridiging and harvesting of peat into stockpiles and secondly the transportation of that peat via an internal rail network to the Power Station and lorry outloading facilities. Production achieved was approximately 676,548 tonnes which was down on the 2017 figure. Infrastructurally, there was no bog development. The quarterly grab sampling was 100% compliant, as was the continuous composite sampling. The number of incidents reported rose in 2018. These were mainly trigger level exceedences for ammonia and COD due to the exceptionally dry summer we experienced. There were two environmental complaints received during the reporting period, one related to littering that was that was resolved in conjunction with Offaly Co Co, the other related to dust and were resolved to the satisfaction of the complainant. We engaged with both Offaly and Kildare Co Councils to conduct a number of litter clean-ups on by-roads near our bogs. In relation to silt pond cleaning, 100% of ponds received two cleanings, inspections dictating cleaning schedules. Decommissioning and Rehabilitation works are described in an attachment. During the period of reporting, a draft Rehabilitation plan was submitted along with consent sought and approved for two new trail projects, namely the trial cultivation of herbs and wildcrafting for indigenous herbs and plant water

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

	AIR-summary	template				Lic No:	P0503-01		Year	2018	3	
_	Does your site		ssions? If yes plea	se complete table	e A1 and A2 below for the licenced emissions and do		- A	Additional informat	ion]		
1					not need to complete the	No	F	Eugitive emissions o	only			
	Periodic,	/Non-Continuous N	Monitoring									
2	Are there any res		requirements? If y section of TableA1		brief details in the comment	Yes						
3		oring carried out in acco AG2 and using the basi checklist?		Basic air monitoring checklist	AGN2	Yes						
	Table A1: Lice	ensed Mass Emissio	ons/Ambient d	ata-periodic m	nonitoring (non-continu	uous)						
	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	Method of analysis	Annual mass load (kg)	Comments - reason for change in % mass load from previous year if applicable	
		SELECT			SELECT		SELECT	SELECT	SELECT			
		SELECT			SELECT		SELECT	SELECT	SELECT			
		SELECT SELECT			SELECT SELECT		SELECT SELECT	SELECT SELECT	SELECT SELECT			
	Note 1: Volumetr	ic flow shall be included	d as a reportable pa	arameter	JEEC !		JEEC 1	JEECI	JELLECT	1	1	I
		Continuous N	lonitoring									
4		- Communication										
7		rry out continuous air e		-		No				_		
	If yes please re		nonitoring data and to its relevant Emis		ed fields below in Table A2							
	Did continuous m	•		•	cord downtime in table A2	No						
6	Do you have a	partius convice agrees	int for each size -	f continuous manife	toring aguinment?	No						
7	טט you nave a pro	pactive service agreeme	mi for each piece of	i continuous moni	toring equipment?	No				_		
,	Did your site ex	xperience any abateme	nt system bypasses	? If yes please det	ail them in table A3 below	No						

AIR-summary template	Lic No:	P0503-01	Year	2018	
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Table A2: Summary of average emissions -continuous monitoring

Emission	Parameter/ Substance		Averaging	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:			Period		measurement			Equipment	exceedences	
		ELV in licence or						downtime (hours)	in current	
		any revision							reporting year	
		therof								
DM-2	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	15764	191	0	0	Dust monitioring took place
										on 5 occasions for 28 days
										each time between April
										and September
		350	140 DAYS			38360	451	0	1	Reported to Agency on
										31/08/2018. INCI015083
DM-03	Total Particulates			Daily average < ELV	mg/m2/day					
		350	140 DAYS			33600	357	0	1	Reported to Agency on
										07/06/2018. INCI014530
DM-05	Total Particulates			Daily average < ELV	mg/m2/day					
	SELECT				SELECT					
	SELECT				SELECT					

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

Table A3: Abatement system bypass reporting table Bypass protocol

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

^{*} this should include all dates that an abatement system bypass occurred

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

Oo you have a tot	al Emission Limit Value	of direct and fugitiv	ve emissions on si	te? if yes please fill out table	s A4 and A5			
	Management Plan Sum		Solvent regulations	Please refer to linked solve complete table 5	nt regulations to			
Reporting year	Total solvent input on site (kg)		input	Total Emission Limit Value (ELV) in licence or any revision therof	Compliance			
Table A	5: Solvent Mass Balance	summary			SELECT	l		
	(I) Inputs (kg)			(O)	Outputs (kg)			
Solvent	(I) Inputs (kg)	Organic solvent emission in waste		Collected waste solvent (kg)				Total emission of Solvent to air (kg)
							Total	

AER Monito													
	oring returns	summary template	-WATER/WAS	STEWATER(SE	WER)	Lic No:	P0503-01		Year	2018			
							Additional information		1				
Does vour site	have licensed e	emissions direct to surf	ace water or dire	ect to sewer? If									
		W2 and W3 below for t											
		ou do not have licent											
complete to	able W1 and or \	W2 for storm water and	alysis and visua	l inspections	Yes								
Was it a requ	irement of your	licence to carry out vis	ual inspections of	on any surface	res				1				
water dischar	as it a requirement of your licence to carry out visual inspections on any surface ter discharges or watercourses on or near your site? If yes please complete table MZ below summarising only any evidence of contamination noted during visual												
W2 below s	ummarising <u>onl</u>	y any evidence of conta	amination noted	during visual									
		inspections			Yes		Monthly COD and Yard Run Off						
Table V	V1 Storm wat	er monitoring											
					ELV or trigger								
Location	Location		Licenced	Monitoring	level in	Licence		Unit of	Compliant with				
reference	relative to	PRTR Parameter	Parameter	date	licence or any	Compliance	Measured value	measurement	licence	Comments			
	site activities				revision	criteria							
	SELECT	SELECT	SELECT		thereof*	SELECT		SELECT	SELECT				
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT				
***************	may be sareed b	by the Agency outside of	licence condition					•	•				
		ections-Please only			mination was	absorred							
Table VV	Z Visuai ilispi		enter details	wilere conta	illillation was	observeu.							
Location	Date of												
Reference	inspection					Course of							
	spection	l r	escription of con	tamination		Source of contamination	Corrective acti	on	Comm	ents			
	Поресстоп		Description of con	tamination		contamination	Corrective acti	on	Comm	ents			
	mspection .	С	Description of con	tamination			Corrective acti	on	Comm	ents			
	iii pecaoii	C	Description of con	tamination		contamination SELECT	Corrective acti	on	Comm	ents			
	·		·			contamination SELECT SELECT	Corrective acti	on	Comm	ents			
Licensed En	nissions to w	rater and /or waste	water(sewer)	-periodic mo		contamination SELECT SELECT	Corrective acti	on	Comm	ients			
Licensed En	nissions to w	rater and /or waste	water(sewer)	-periodic mo	nitoring (non-	contamination SELECT SELECT		on	Comm	ients			
Licensed En Was there a	nissions to w ny result in bread details in th	rater and /or waste ch of licence requiremen e comment section of Ta	water(sewer)	-periodic mo		contamination SELECT SELECT	Corrective acti	on	Comm	ients			
Licensed En Was there a	nissions to w ny result in bread details in th oring carried out i	rater and /or waste ch of licence requiremen e comment section of Ta in accordance with EPA	water(sewer)	-periodic mo	nitoring (non-	contamination SELECT SELECT		on	Comm	ients			
Licensed En Was there a Was all monito guidance a	nissions to w ny result in bread details in th oring carried out ind checklists for	rater and /or waste ch of licence requiremen e comment section of Ta in accordance with EPA Quality of Aqueous	water(sewer) nts? If yes please able W3 below	- periodic mo	nitoring (non-	contamination SELECT SELECT		on	Comm	ents			
Licensed En Was there a Was all monitor guidance a Monitoring D	nissions to w ny result in brea details in th oring carried out i nd checklists for Data Reported to	rater and /or waste ch of licence requiremen e comment section of TA in accordance with Equality of Aqueous the EPA? If no please	water(sewer) hts? If yes please pable W3 below	-periodic mo provide brief Assessment of	nitoring (non-	contamination SELECT SELECT		on	Comm	ents			
Licensed En Was there a Was all monitor guidance a Monitoring D	nissions to w ny result in brea details in th oring carried out i nd checklists for Data Reported to	rater and /or waste ch of licence requiremer e comment section of Ta in accordance with EPA Quality of Aqueous the EPA? If no please ovement in additional	water(sewer) nts? If yes please able W3 below	-periodic monoprovide brief Assessment of results	nitoring (non-	contamination SELECT SELECT continuous)							
Licensed En Was there a Was all monitor guidance a Monitoring C detail what ar	nissions to w ny result in bread details in th orind checklists for bata Reported to eas require impr	rater and /or waste ch of licence requiremer e comment section of Ta in accordance with EPA Quality of Aqueous the EPA? If no please ovement in additional	water(sewer) hts? If yes please able W3 below External /Internal Lab	-periodic monoprovide brief Assessment of results	nitoring (non-	contamination SELECT SELECT continuous)	Additional information						
Licensed En Was there a Was all monitor guidance a Monitoring C detail what ar	nissions to w ny result in bread details in th oring carried out in nd checklists for bata Reported to eas require impr information	rater and /or waste ch of licence requiremer e comment section of Ta in accordance with EPA Quality of Aqueous the EPA? If no please ovement in additional	water(sewer) nts? If yes please plable W3 below External /internal Lab Quality checklist	-periodic mon provide brief Assessment of results checklist	nitoring (non-	contamination SELECT SELECT continuous)	Additional information monitoring was carried out on a						
Licensed En Was there a Was all monitor guidance a Monitoring C detail what ar	nissions to w ny result in bread details in th oring carried out in nd checklists for bata Reported to eas require impr information	rater and /or waste ch of licence requiremer e comment section of Ta in accordance with EPA Quality of Aqueous the EPA? If no please ovement in additional box	water(sewer) nts? If yes please plable W3 below External /internal Lab Quality checklist	-periodic mon provide brief Assessment of results checklist	nitoring (non-	contamination SELECT SELECT continuous)	Additional information monitoring was carried out on a						
Licensed En Was there a Was all monitor guidance a Monitoring C detail what ar	nissions to w ny result in bread details in th oring carried out in nd checklists for bata Reported to eas require impr information	rater and /or waste ch of licence requiremer e comment section of Ta in accordance with EPA Quality of Aqueous the EPA? If no please ovement in additional box	water(sewer) nts? If yes please plable W3 below External /internal Lab Quality checklist	-periodic mon provide brief Assessment of results checklist	No Yes Priodic monito	contamination SELECT SELECT continuous) Surface water: oring (non-cont	Additional information monitoring was carried out on a						
Licensed En Was there a Was all monitor guidance a Monitoring C detail what ar	nissions to w ny result in bread details in th oring carried out in nd checklists for bata Reported to eas require impr information	rater and /or waste ch of licence requiremer e comment section of Ta in accordance with EPA Quality of Aqueous the EPA? If no please ovement in additional box	water(sewer) nts? If yes please plable W3 below External /internal Lab Quality checklist	-periodic mon provide brief Assessment of results checklist	nitoring (non- No Yes	contamination SELECT SELECT CONTINUOUS) Surface water oring (non-cont	Additional information monitoring was carried out on a					Procedural	
Licensed En Was there a Was all monitor guidance a Monitoring E detail what ar Table W3: L	nissions to w ny result in bread details in th oring carried out in nd checklists for bata Reported to eas require impr information	rater and /or waste ch of licence requiremer e comment section of Ta in accordance with EPA Quality of Aqueous the EPA? If no please ovement in additional box	water(sewer) nts? If yes please plable W3 below External /internal Lab Quality checklist	-periodic mon provide brief Assessment of results checklist	No Yes Priodic monito	contamination SELECT SELECT continuous) Surface water: oring (non-cont	Additional information monitoring was carried out on a		e results of which a		Procedural	Procedural reference standard	

SELECT

SELECT

SELECT

SELECT

SELECT

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

SELECT

SELECT

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

SELECT

SELECT

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)	Lic No:	P0503-01	Year	2018

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

Additional Information

Yes See note above

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

 $6 \ \frac{\text{Did continuous monitoring equipment experience downtime? If yes please record downtime in table W4 below}{}$

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

Yes	Total of 134 days over 365 days
Yes	Annual calibration schedule and trouble shooting service.
No	

Table W4: Summary of average emissions -continuous monitoring

Emission	Emission		ELV or trigger values in licence or any revision		Compliance	Units of	Annual Emission for current	% change +/- from previous reporting year	Monitoring Equipment downtime	Number of ELV exceedences in	
reference no:	released to	Parameter/ Substance	thereof	Period	Criteria	measurement	reporting year (kg)		(hours)	reporting year	Comments
SW-65A	Water	Suspended Solids	35	24 hour	Not Listed	mg/L			3216	0	Down time primarially due to dry weather, battery failure and sampler repairs. The Agency being informed of same.
SW-65A	Water	Ammonia (as N)	NA	Weekly	NA	mg/L					
SW-65A	Water	Total phosphorus	NA	Weekly	NA	mg/L					
SW-65A	Water	COD	NA	Weekly	NA	mg/L					
SW-65A	Water	Volumetric flow	NA	24 hour	NA	m3/day					
SW-65A	Water	Total Dissolved Solids	NA	Weekly	NA	mg/L					

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

Table W5: Abatement system bypass reporting table

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

^{*}Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline te	sting template				Lic No:	P0503-01		Year	2018	3				
Bund testing		dropdown menu cli	ck to see options				Additional information	_						
new bunds and contai	i nment structures on si	te integrity testing on bunds an	ch failed the integrity test	-all bunding structures wi	nich failed including									
1 2 Please provide integri		ow, <u>please include all bunds or</u>	utside the licenced testing	period (mobile bunds an	a cnemstore included)	Yes Other (2 Yearly)								
		nderground pipelines (includir	ng stormwater and foul), T	anks, sumps and containe	rs? (containers refers to			1						
3 "Chemstore" type uni						Yes								
4 How many bunds are o	on site?					3		1						
							Two bunds tested and passed in							
							2018. One bund tested and							
5 How many of these but 6 How many mobile bur		within the required test sched	ule?			3	passed in 2017.							
7 Are the mobile bunds	included in the bund t					No	Visually inspected							
8 How many of these me 9 How many sumps on s		tested within the required tes	st schedule?			0		1						
		d within the test schedule?				0		1						
Please list any sump in								-						
11 Do all sumps and chan 12 If yes to O11 are these		quid alarms? ded in a maintenance and testi	ng programme?			SELECT SELECT		1						
		your integrity test programme				SELECT		1						
Table B	21: Summary details of	bund /containment structure ir	otegrity test	7										
Tubic 5	21 Sammary actains on		The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s											
														Results of
														retest(if in
Bund/Containment									Integrity reports maintained on		Integrity test failure		Scheduled	current reporting
structure ID	Туре	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	site?	Results of test	explanation <50 words	Corrective action taken	date for retest	year)
EPL Main Bund 503-37-05	reinforced concrete		Gas Oil	132440 litres	44000 litres	Hydraulic test			Yes	Pass 2018		NA	NA	NA
Clonsast Heating	reinforced concrete		Gas OII	13244U litres	44000 litres	Hydraulic test			res	Pass 2018		NA	NA	NA
Bund 503-37-07	reinforced concrete		Gas Oil	9288 litres	5500 litres	Hydraulic test			Yes	Pass 2018		NA	NA	NA
Ballycon Main Bund 503-37-09	reinforced concrete		Gas Oil	346500 litres litres	315000 litres	Hydraulic test			Yes	Pass 2017		NA	NA	NA
* Capacity required should co	omply with 25% or 110% conta	inment rule as detailed in your licence	•			,	Commentary	1			1			
Has integrity testing b 15 tested in line with BS8		rdance with licence requireme	nts and are all structures	bunding and storage guid	elines	Yes								
16 Are channels/transfer	systems to remote cor	ntainment systems tested?				No								
17 Are channels/transfer	r systems compliant in	both integrity and available vol	lume?			No]						
Pipeline/undergrou	und structure testing] se integrity testing* on undergr	round structures o a ninol	inos or sumos ots 3 if vos	places fill out table 2		In a second	٦						
		pipelines on site which failed					No underground pipe lines that require testing							
1 test period as specifie						Yes		1						
2 Please provide integri *please note integrity		eriod ightness testing for process and	d foul pipelines (as require	ed under vour licence)		Other (Every 3 Years)		_						
	-			7										
Table B2:	Summary details of pi	peline/underground structures	integrity test											
				Type of secondary				Integrity test						
				containment				failure						
Structure ID	Tuno custom	Material of construction:	Does this structure have Secondary containment?		Type integrity to time	Integrity reports maintained on site?	Results of test	explanation <50 words	Corrective action taken	Scheduled date for retest	Results of retest(if in			
	Type system SELECT	SELECT	SELECT SELECT	SELECT	Type integrity testing SELECT	SELECT	SELECT SELECT	WOIUS	action taken	ioi retest	current reporting year) SELECT			
				•	•	•	•					-		
ĺ							7							
		Please use commen	ntary for additional details	not answered by tables/	questions above									

Groundwater/Soil monitoring template	Lic No:	P0503-01	Year	2018

Comments

		Comments	
1 Are you required to carry out groundwater monitoring as part of your licence requirements?	no		Please provide an interpretation of groundwater monitoring data
2 Are you required to carry out soil monitoring as part of your licence requirem	eino		in the interpretation box below or if you require additional space
Do you extract groundwater for use on site? If yes please specify use in			please include a groundwater/contaminated land monitoring
5 comment section	no	Domestic Use Only	results interpretaion as an additional section in this AER
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,			
4 please complete the Groundwater Monitoring Guideline			
Template Report (link in cell G8) and submit separately Groundwater			
through ALDER as a licensee return AND answer questions monitoring			
5-12 below. <u>template</u>	NA		
5 Is the contamination related to operations at the facility (either current			
and/or historic)	NA		
6 Have actions been taken to address contamination issues?If yes please			
summarise remediation strategies proposed/undertaken for the site	NA		
7 Please specify the proposed time frame for the remediation strategy	NA		
8 Is there a licence condition to carry out/update ELRA for the site?	NA		
9 Has any type of risk assesment been carried out for the site?	NA		1
10 Has a Conceptual Site Model been developed for the site?	NA		
11 Have potential receptors been identified on and off site?	NA		1
12 Is there evidence that contamination is migrating offsite?	NA		Please enter interpretation of data here

	ater/Soil m			aring requite	Lic No:	P0503-01		Year	2018	3		
Table 1:	Upgradiei	nt Grounaw	vater monito	oring results	1	I		1		Upward trend in	7	
										pollutant		
										concentration		
_	Sample									over last 5 years		
Date of	location	Parameter/		Monitoring	Maximum	Average		OT # +	051507**	of monitoring		
sampling	reference	Substance	Methodology	frequency	Concentration++	Concentration+	unit	GTV's*	SELECT**	data		
							SELECT			SELECT	4	
		L					SELECT			SELECT		
	-	ates arithmetic ation indicates		measured concer	ntration from all mo	nitoring results p	produced during the rep	orting year				
Table 2:	Downgrad	dient Grour	ndwater mo	nitoring resul	ts 	T	_			Upward trend in	7	
			1							yearly average		
										pollutant		
			1							concentration		
	Sample	_ , ,								over last 5 years		
	location	Parameter/		Monitoring	Maximum Concentration	Average		OT //-*	SELECT**	of monitoring		
Date of		0.4-4			Concentration	Concentration	unit	GTV's*	SELECT	data	1	
Date of sampling	reference	Substance	Methodology	frequency	Concontiation							
*please not or an upwar	reference te exceedance ord trend in resu	of generic assesults for a substa	ssment criteria (C	GAC) such as a Grout further interpreta	undwater Threshold Vation of monitoring res	alue (GTV) or an Int ults is required. In	SELECT SELECT erim Guideline Value (IGV) addition to completing the		ndwater monito	SELECT SELECT		
*please not or an upwar above table	te exceedance or trend in reste, please comp	of generic assesults for a substa olete the Ground use of soil and g	ssment criteria (C nce indicates tha water Monitorin as a licensee r roundwater stan	GAC) such as a Grou at further interpreta g Guideline Templat eturn or as otherwis	undwater Threshold Va tion of monitoring res te Report at the link pr se instructed by the EP	ulue (GTV) or an Int ults is required. In ovided and submit A.	SELECT SELECT erim Guideline Value (IGV)	Groun	ndwater monito	SELECT SELECT pring template		
*please not or an upwar above table More informassessment	te exceedance or trend in reste, please comp	of generic assesults for a substa olete the Ground use of soil and g and risk assess	ssment criteria (C nce indicates tha water Monitorin as a licensee r roundwater stan	GAC) such as a Grount further interpreta g Guideline Templat eturn or as otherwis dards/generic	undwater Threshold Va tion of monitoring res te Report at the link pr se instructed by the EP	ulue (GTV) or an Int ults is required. In ovided and submit A.	SELECT SELECT erim Guideline Value (IGV) addition to completing the separately through ALDER	Groun	ndwater monito	SELECT SELECT pring template d Sites (EPA 2013)		
*please not or an upwar above table More inform assessment published g	reference te exceedance erd trend in rest e, please comp mation on the u te criteria (GAC) guidance (see the	of generic assesults for a substa olete the Ground use of soil and g and risk assess ne link in G31)	ssment criteria (C nce indicates the lwater Monitoria as a licensee r roundwater stan- ment tools is ava	SAC) such as a Grou it further interpreta geturn or as otherwis dards/ generic illable in the EPA	undwater Threshold Vation of monitoring res te Report at the link pr se instructed by the EP Guidance on the N	ulue (GTV) or an Intuits is required. In ovided and submit A.	SELECT SELECT erim Guideline Value (IGV) addition to completing the separately through ALDER	Groun	ndwater monitor r at EPA License Groundwater	SELECT SELECT pring template d Sites (EPA 2013) Drinking water	Drinking water	
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Environmental Liabilities tem	plate Lic I	No: PC	0503-01	Year 2018

Click here to access EPA guidance on Environmental Liabilities and Financial provision

			Commentary
1	ELRA initial agreement status	Not a licence requirement	
2	ELRA review status	NA	
	Amount of Financial Provision cover required as determined by the latest		
3	ELRA	NA	
4	Financial Provision for ELRA status	NA	
5	Financial Provision for ELRA - amount of cover	NA	
6	Financial Provision for ELRA - type	NA	
7	Financial provision for ELRA expiry date	NA	
8	Closure plan initial agreement status	NA	Internal budget provision
9	Closure plan review status	NA	Internal budget provision
10	Financial Provision for Closure status	NA	Internal budget provision
11	Financial Provision for Closure - amount of cover	NA	Internal budget provision
12	Financial Provision for Closure - type	NA	Internal budget provision
13	Financial provision for Closure expiry date	NA	

Envir	ronmental Management Programme/Continuous Improvement Progr	ramme template	Lic No:	P0503-01	Year	2018
	Highlighted cells contain dropdown menu click to view		Additional Informat	tion		
, Doy	you maintain an Environmental Mangement System (EMS) for the site. If yes, please					
	detail in additional information	Yes	Int	ernal unaccredited EMS		
Does	the EMS reference the most significant environmental aspects and associated impacts					
2	on-site	Yes				
Doe	es the EMS maintain an Environmental Management Programme (EMP) as required in					
3	accordance with the licence requirements	Yes				
Doy	you maintain an environmental documentation/communication system to inform the					
4	public on environmental performance of the facility, as required by the licence	Yes				

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	Continue to train all		In total 34 Personnel	,	
	employees in		received training in 2018.		
	environmental matters.		There were 12 haydraulic		
	Training will be by		harrows deployed across		
	means of a new four		the licence area.		
	module training		Headland peat was		
	programme delivered by		collected at all locations		
	dedicated Bord na Mona		and returned as part of		
	Training Specialists. This		overall production figures.		
	new training programme		overall production rigures.		
	includes Environmental				
	Compliance _ IPPC,				
					lana an a d Far . i an a an an
	Biodiversity,				Improved Environmen
	Archaeology and Energy			Individual	Management Practices
Naste reduction/Raw material usage	Waste streamlining is a	90	Installed a waste		
efficiency	project we are		management system.		
	particularly interested in		Monthly waste reports are		
	continuing and hope to		returned for records/filing		
	reduce wastes further in		and waste streams are		
	the future and be more		segrated on site to		
	efficient in dealing with		maximise recycling		
	all aspects of waste		potential. In an attempt to		
	management		curtail illegal dumping on		
			Bord na Mona remain in		
			contact with Laois, Offaly		
			and Kildare Co Councils.		Improved Environmen
				Section Head	Management Practices
Vaste reduction/Raw material usage	Continue with the	100	In total 431.01 tonnes		
efficiency	recycling of		were sent off site for		
,	polyethylene. The		recycling. Procurement		
	sourcing of more		also exploring the		
	recycling contractors will		possibility of securing		Improved Environmen
			C - 11 - 1 - 1 - 1 - 1	Individual	Management Practices
Energy Management	As part of an Energy	90	The monthly consumption		Reduce overall energy
	Awareness campaign all		of energy was regurally		output while maintain
	aspects of energy		communicated to the		productivity.
	consumption will be		relevant personnel. This		
	communicated to		included the KPI's for peat		
	personnel with the		production, maintenance		
	intention of reducing		and transportation as well		
	consumption through		as bog pumping and		
	awareness		workshop electrical		
			consumption.		
				Section Head	
leduction of emissions to Water	Continue to train all	90	In total 34 Personnel		
	employees in	30	received training in 2018.		
	environmental matters.		There were 12 hydraulic		
	Training will be by		harrows deployed across		
	means of a new four		the licence area and		
	module training		headland peat was		
	programme delivered by		collected and returned as		
	dedicated Bord na Mona		part of overall production		
	Training Specialists. This		figures.		
	new training programme				
	includes Environmental				
	Compliance _ IPPC,				
	Biodiversity,				
	Archaeology and Energy				
	Management.				Improved Environmer
					Management Practice

	No	ise monitor	ing summar	y report			Lic No:	P0503-01	Year	2018	
	-	ence requireme 1 noise summar	ent for the AER y below	period?				No]		-
	-	_	e EPA Guidance oort" included in				Noise Guidance note NG4	NA			
		e reduction plan						NA .			
			paatea? e noise emissio he last noise su		nt or opera	tional chan	ges) since	Enter date NA			
Table N1: No	oise monitoring	g summary]			_		
Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
								SELECT	SELECT		SELECT
*Please ensure	that a tonal analysi	is has been carried o	out as per guidance i	note NG4. These	records must	be maintained	d onsite for futui	re inspection			
	If noise lim	nits exceeded a	s a result of noi	se attribute	d to site a	ctivities, pl	ease choose	the corrective action	n from the following options?	SELECT	
			** please e	xplain the re	eason for n	ot taking ac	ction/resolu	tion of noise issues?]	
				Any addi	tional com	ments? (le	ss than 200 v	vords)			

Lic No:

2018

Not a Licence

requirement

When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below

SEAI - Large 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 Industry Energy 2 additional information Network (LIEN)

Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

Table R1 Energy usag	e on site			
			Production +/- % compared to	Energy Consumption +/-
			•	% vs overall site
Energy Use	Previous year	Current year	reporting year**	production*
Total Energy Used (MWHrs)	15953.23	12512.02		
Total Energy Generated (MWHrs)				
Total Renewable Energy Generate	d (MWHrs)			
Electricity Consumption (MWHrs)	1909.3	838.69		
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	1382.141	1148.837		
Natural gas (m3)				
Coal/Solid fuel (metric tonnes)				
Peat (metric tonnes)	0			
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	e on site				Water Emissions	Water Consumption	
	Water extracted			Consumption +/-	Volume Discharged	environment e.g.	
Water use	Previous year m3/yr.	Current year m3/yr.	reporting year**	production*	:	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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

Resour	ce Usage/Energy efficiency summary		Lic No:	P0503-01	Year	2018
	Table R3 Waste Stream Summary					

Table R3 Waste Stream					
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	26.53				
Non-Hazardous (Tonnes)	2382.17				

Table R4: Energy Au	Table R4: Energy Audit finding recommendations						
Date of audit		Description of Measures proposed	•	0,	Implementation date	Responsibility	Status and comments
			SELECT				
			SELECT				
			SELECT				

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

	Unit ID	Unit ID	Unit ID	Unit ID	Station Total
Technology					
Primary Fuel					
Thermal Efficiency					
Unit Date of Commission					
Total Starts for year					
Total Running Time					
Total Electricity Generated (GWH)					
House Load (GWH)					
KWH per Litre of Process Water					
KWH per Litre of Total Water used	on Site				

Complaints and Incidents summary template		Lic No:	P0503-01	Year	2018	
Complaints						
		Additional infor	mation			
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		7				
Date	Category	Other type (please specify)	Brief description of complaint (Free txt <20 words)	Corrective action< 20 words	Resolution status	Resolution date	Further information
05/04/2018	Waste		Complaint about litter dumped on Bord na Mona property.	Cameras and signage installed. Litter cleaned up in conjunction with Offaly Co.Council	Complete	08/05/2018	Reported to Agency Ref:LR034727
18/09/2018	Dust		Complaint about dust blowing into the property from Ballykeane Bog	Personnel working in the area informed and made aware of their environmental training.	Complete	03/10/2018	Reported to Agency Ref:LR037003
	SELECT				SELECT		
Total complaints open at start of reporting year Total new	0						

Total complaints open at start of reporting year 0
Total new complaints received during reporting year 2
Total complaints closed during reporting year 2
Balance of complaints end of reporting year 0

Complaints and Incidents summary template	Lic No:	P0503-01	Year	2018	
 Incidents					
	Additional info	ormation			
Have any incidents occurred on site in the current reporting year? Please list all incidents for current					
reporting year in Table 2 below Yes					
	•	-			

con	istitutes an incident	vvnat is an incident	_											
			٦											
Table 2 Incidents	summary	1		1	1	Tau	I	1	I		I		1	ı
			Incident			Other								
Date of			category*please refer		Cause of	cause(please	Activity in progress at			Corrective	Preventative action		Resolution	Likelihood of
occurrence	Incident nature	Location of occurrence	to guidance	Receptor	incident	specify)	time of incident	Communication	Occurrence	action<20 words	<20 words	status	date	reoccurence
12/02/2018	Trigger level reached	Ballydermot SWE-1	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI014019	New	Investigate	Investigate	Complete	07/03/2018	
07/06/2018	Breach of ELV	DM-05 Blackriver Bog	1. Minor	Air	Other (add	Headland peat	Normal activities	EPA INCI014530	New	Personnel working	Ensure weather	Complete	07/06/2018	Medium
					details)	collection. Dust				in the area	conditions and			
						gauge located				informed of non	wind direction are			
						close to				compliance and	suitable for			
						headland.				reminded of their	headland peat			
										environmental	collection.			
										training.				
29/06/2018	Fire	Timahoe North Bog	1. Minor	Air	Unknown	Fire started on	No activity as	EPA INCI014707	New	Bord na Mona	Area monitored	Complete	02/07/2018	Medium
						private	Timahoe North Bog is			personnel	during dry weather			
						property and	cutaway.			deployed and fire	conditions.			
						spread into				extinguished.				
						Bord na Mona								
						bog of Timahoe								
						North.								
30/05/2018	Trigger level reached	SW-3 Daingean Bog	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI014759	New	Outfall checked.	None possible	Complete	02/07/2018	
30/05/2018	Trigger level reached	SW-4 Daingean Bog	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI014760	New	Outfall checked.	None possible	Complete	02/07/2018	
30/05/2018	Trigger level reached	SW-5 Daingean Bog	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI014761	New	Outfall checked.	None possible	Complete	02/07/2018	
31/05/2018	Breach of ELV		1. Minor	Air	Other (add	Headland peat	Normal activities	EPA INCI015083	New	Personnel working	Ensure weather	Complete	18/08/2018	Medium
					details)	collection. Dust				in the area	conditions and			
						gauge located				informed of non	wind direction are			
						close to				compliance and	suitable for			
						headland.				reminded of their	headland peat			
										environmental	collection.			
										training.				
27/09/2018	Trigger level reached	SW-41 Garrymore Bog	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI015374	New	Outfall checked.	None possible	Complete	18/10/2018	
08/10/2018	Trigger level reached	SW-35A Ballykilleen Bog	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI015375	New	Outfall checked.	None possible	Complete	18/10/2018	
12/09/2018	Trigger level reached	SW-26 Esker Bog	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INC015676	New	Outfall checked.	Outfall checked.	Outfall	12/12/2018	12/12/2018
												checked.		
12/09/2018	Trigger level reached	SW-29 Esker Bog	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI015677	12/12/2018	Outfall checked.	Outfall checked.	Outfall	12/12/2018	12/12/2018
												checked.		
12/09/2018	Trigger level reached	SW-29A Esker Bog	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI015678	12/12/2018	Outfall checked.	Outfall checked.	Outfall	12/12/2018	12/12/2018
	 	1			1			1		L		checked.		
12/09/2018	Trigger level reached	SW-39 Garrymore Bog	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI015679	12/12/2018	Outfall checked.	Outfall checked.	Outfall	12/12/2018	12/12/2018
												chackad		

12/09/2018 Trigger level reached

Total number of incidents current year 14

Total number of incidents previous year 10
% reduction/ increase 40.00%

SW-40 Garrymore Bog

1. Minor

Water

Unknown

Unknown

Normal activities

EPA INCI015681 12/12/2018 Outfall checked.

Outfall checked.

Outfall

12/12/2018 12/12/2018

*For information on how to report and what

SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES					PRTR facility logon		dropdown list click to see options					
SECTION B- WASTE ACCEPTED ONTO SITE-TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES												
						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												
1 your boundaries is to be captured through PRTR reporting)												
If yes please enter details in table 1 below												
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												
Was waste accepted onto your site that was generated outside the Republic of Ireland? If yes please state the quantity in tonnes in additional information												
Table 1 Details of waste accepted onto your site that was generated outside the Republic of Ireland? If yes please state the quantity in tonnes in additional information [Table 1 Details of waste accepted onto your site for recovery, disposal or treatment (do not include wastes generated at your site for recovery).							SELECT Our site as these will have been reported in your PRTR workhook)					
Licenced annual	EWC code	Source of waste accepted	Description of waste	Quantity of waste	Quantity of waste accepted in	Reduction/	Reason for	Packaging Content	Disposal/Recovery or	Quantity of	Comments -	
tonnage limit for			accepted	accepted in current	previous reporting year (tonnes)	Increase over	reduction/	(%)- only applies if	treatment operation carried	waste		
your site (total tonnes/annum)			Please enter an accurate and detailed	reporting year (tonnes)		previous year +/ - %	increase from	the waste has a	out at your site and the description of this operation	remaining on site at the end		
tollies/ailliulli/			description - which	(tollies)		+/ - /6	year	packaging component	description of this operation	of reporting		
			applies to relevant							year (tonnes)		
	European Waste Catalogue EWC		EWC code European Waste									
	codes		Catalogue EWC codes									
						1						
SECTION S TO BE	COMPLETED BY ALL WASTE FO	CULTURE (ANDELL CITE						
SECTION C-10 BE	COMPLETED BY ALL WASTE FA	ACILITIES (Waste transfo	er stations, Compos	sters, Material rec	overy facilities etc) EXCEPT	ANDFILL SITE	:5					
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						SELECT						
+ 13 am waste processing immustracture as required by your intenite and approved by the Agentry in place: In no prease its waste processing initiastructure required distre-						SEEECT						
E tell unde deurs infratuelus a cruind hunus licens and assend hubb Access in place life unde deurs infratuelus as cruind hunus licens and assend hubb Access in place life under deurs infratuelus as cruind hunus licens and assend hubb Access in place life under deurs in the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of the contract of						SELECT						
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						SEECI	1			I		
						SELECT						
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						SELECT SELECT						
							1			1		
SECTION D-TO BE COMPLETED BY LANDFILL SITES ONLY												
Table 2 Waste type and tonnage-landfill only												
			Remaining licensed									
Waste types permitted for disposal	Authorised/licenced annual intake for disposal (tpa)	Actual intake for disposal in reporting year (tpa)	capacity at end of reporting year (m3)	Comments								
TOT GISTANGE	unposta (qui)	cporting year (qui)	por ting year (III3)									

Lic No:

P0503-01

Year

2018

WASTE SUMMARY

WASTE SUMMAR	RY				Lic No:	P0503-01		Year	2018	3		Ī
	nformation-Landfill only											1
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	waste	Lined disposal area occupied by waste	s
Cell 8												٢
ceno						l						
	ental monitoring-landfill only	Landfill Manual-Monitoring S	tandards	I					ī			
Was meterological monitoring in compliance with Landfill Directive (LD) standard in reporting year +	Was leachate monitored in compliance with LD standard in reporting year	Was Landfill Gas monitored in compliance with LD standard in reporting year		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 Land	 Ifill Manual linked above for relevant L	andfill Directive monitoring st	andards						l			
Table 5 Capping-I							_					
Area uncapped* SELECT UNIT	Area with temporary cap SELECT UNIT	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						
*please note this inclu	udes daily cover area						1					
	-Landfill only site treated in a Waste Water Treatme o surface water? If yes please complet		ion below			SELECT SELECT]					
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					
	1	1	1	l .				ı				
Plea Table 7 Landfill G	se ensure that all information reporte	d in the landfill gas section is o	consistent with the Land	fill Gas Survey submitte	ed in conjunction with PRTR returns							
Gas Captured&Treated by LFG System m3		Used on-site or to national grid	Was surface emissions monitoring performed during the reporting year?	Comments								
		I	DELECT]							

Comments on liner type

SELECT UNIT

European Waste Code (EWC)	Description of Waste (in line with applicable EWC code)	Hazardous – YES/NO	Quantity (Tonnes)	Name & Permit No. of Agent/Carrier	Treatment Type – Recovered / Disposed / Recycled	Name, Address & Licence/Permit No. of FINAL Destination	Country
02 01 04	waste plastics (except packaging)	No	431	Enva Ireland Limited (Portlaoise) - W0184	R03 - Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland
11 01 13*	degreasing wastes containing hazardous substances	Yes	1.47	Safety Kleen Ireland Ltd - W0099	R11 - Use of waste obtained from any of the operations numbered R 1 to R 10	Solvent Recovery Management, PP33345F, Wheeland Rd., Knottingly, West Yorks	UK
13 02 05*	mineral-based non- chlorinated engine, gear and lubricating oils	Yes	11.84	Enva Ireland Limited (Portlaoise) - W0184	R01 - Use principally as a fuel or other means to generate energy	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland
15 02 02*	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	Yes	1.7	Enva Ireland Limited (Portlaoise) - W0184	R01 - Use principally as a fuel or other means to generate energy	Lindenschmidt, Kreutzal - Reg No: E97095037	Germany
16 01 07*	oil filters	Yes	4.78	Enva Ireland Limited (Portlaoise) - W0184	R04 - Recycling/reclamation of metals and metal compounds	R.D. Recycling, Houthalen, Reg No: 51727/1KD	Belgium
13 05 07*	oily water from oil/water separators	Yes	5.84	Enva Ireland Limited (Portlaoise) - W0184	R01 - Use principally as a fuel or other means to generate energy	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland
17 04 07	mixed metals	No	565.48	Enva Ireland Limited (Portlaoise) - W0184	R04 - Recycling/reclamation of metals and metal compounds	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland
20 03 01 A	Municipal mixed residual household	No	4.43	AES Ltd WP-OY-08-601-	D05 - Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
20 03 01 C	Municipal mixed dry recyclables	No	0.87	AES Ltd WP-OY-08-601- 01	R03 - Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
20 03 01 B	Municipal mixed residual non- household	No	61.5	AES Ltd WP-OY-08-601- 01	D05 - Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
15 01 10*	packaging containing residues of or contaminated by hazardous substances	Yes	0.9	Enva Ireland Limited (Portlaoise) - W0184	R02 - Solvent reclamation/regeneration	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland

Allen Decommissioning and Rehabilitation Bog Rehabilitation Progress Report 2018.

Within the Allen licensed area (P0503-01), Cloncreen became available for rehabilitation in 2018. Rehabilitation is expected to start at this bog in 2019. Bord na Móna have obtained consent for the construction of a windfarm on this bog in 2017, although construction is not likely to take place for several years. It is expected that part of the rehabilitation of the site will take place in association with the construction of the windfarm. Ongoing monitoring of cutaway sites within the Allen Bog Group was undertaken with Lisclogher East re-surveyed in 2018. The surveys comprised of baseline walkover surveys to identify and map pioneer and established habitats on the cutaway and to assess the condition of raised bog remnants along bog margins.

A small re-wetting trial was set up at Lodge Bog (34 ha), in association with the Irish Peatland Conservation Council (IPCC). The IPCC own an area of remnant raised bog called Lodge Bog. BnM decided to re-wet an area of cutaway adjacent to this high bog remnant to support the conservation objectives of the IPCC for the high bog area. These include raised bog restoration (of the high bog area) and conservation of breeding Curlew, which use this area. This re-wetting has been very successful in creating new pioneer cutaway wetland habitat and in helping natural colonisation in this area. There is ongoing consultation with the IPCC regarding this trial. Kildare Birdwatch Ireland are also monitoring this site. Some water level maintenance was carried out in 2018.

Lodge Bog was also used for a *Sphagnum* inoculation trial using a product called BeadaMoss. BeadaMoss is a product that acts as a small Sphagnum moss 'seed' and is used in peatland rehabilitation in the UK. A small area (0.5 ha) of re-wetted cutaway was spread with BeadaMoss to investigate if this product had potential to help establish *Sphagnum* moss on the cutaway. This trial is in the early stages and no definitive results are expected for several years. There was ongoing monitoring of this trial in 2018.

Active rehabilitation work in Cavemount bog is ongoing. Drain-blocking started on the western side in 2018. An overflow pipe was constructed in 2017 to manage the maximum winter water levels on the eastern side. Some ground works were also carried out with a bulldozer to help stabilise a small section of the headland and to block field drains. This is a phased rehabilitation programme and will be completed over several years. Cavemount is developing as a cutaway wetland and is attracting nationally important wintering and breeding bird species. This cutaway wetland will continue to be managed to enhance its biodiversity value. Cavemount has been selected as a demonstration site for the CAREPEAT INTERREG project. Some rehabilitation was carried out in Clonsast North, Clonsast and Derrylea in 2018. Targeted drain blocking was carried out in Clonsast North and Clonsast to help re-wet cutaway. Bog restoration was carried out on remnant drained high bog along the southern margin of Derrylea.

Bog restoration was carried out on a bog remnant (16 ha) on Glashabaun North in Dec 2018. This area is adjacent to Long Derries SAC.

A Greenhouse Gas (GHG) flux tower has been constructed in Lullymore in association with several academic institutions (UCC, WIT, TCD, UCD), and in now operational. This flux tower is used to measure and model gas fluxes (Carbon Dioxide and Methane) from the surrounding cutaway peatland habitats (wetland and Birch Woodland). Flux Towers are a key tool in Climate Change research and are used to measure and model GHG emission factors from different habitats. This research will establish if cutaway at Lullymore (Birch woodland mosaic) has potential to develop as a Carbon sink or source, and will help inform peatland rehabilitation management to re-create GHG sinks in the cutaway. This is a long-term academic research project.

Draft rehabilitation plans for the Allen bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015 and 2017.

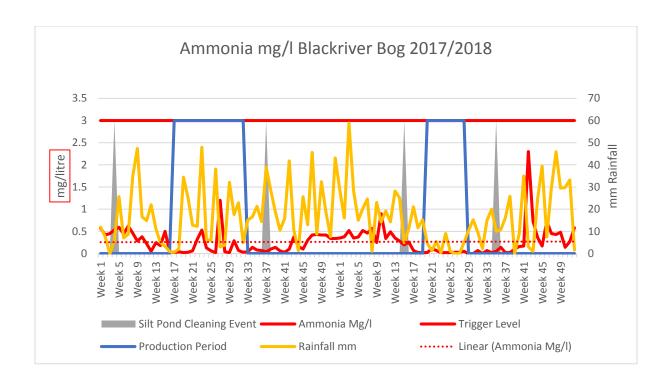
The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in May 2018. This included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.

A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

As required by condition 10.2 Cutaway Bog Rehabilitation Plans, draft peatland rehabilitation plans for all the individual bog units were submitted to the agency in 2013, reviewed and amended in 2015 and re-submitted to the agency in 2015. All draft rehabilitation plans have been reviewed in 2017. These reviewed and amended plans will be re-submitted to the agency in due course.

Organic certification was sought for the majority of the Bord na Móna property with the aim of using some areas for the cultivation of plants for use in herbal medicine, this project is ongoing.

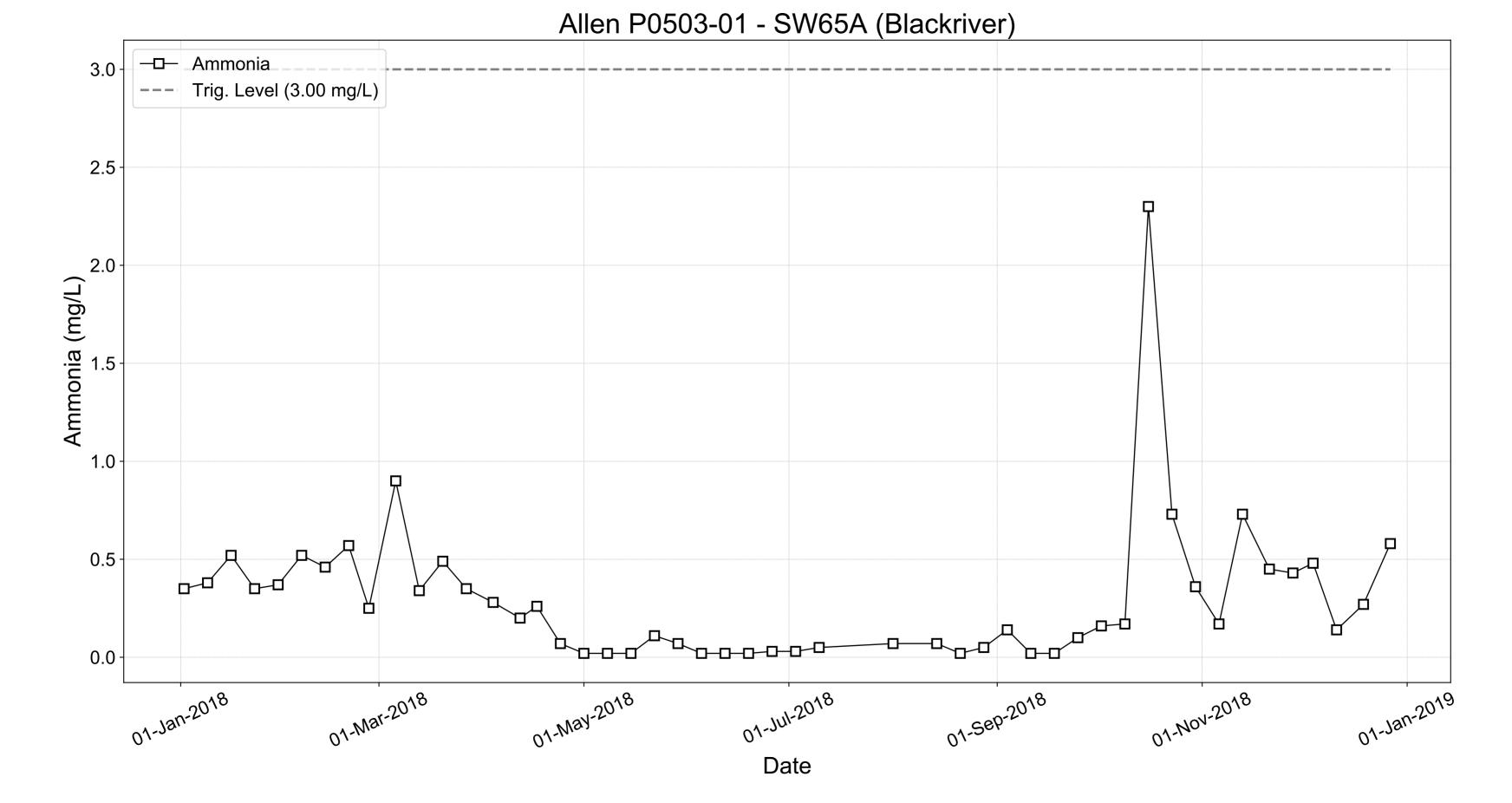
Bord na Mona Allen PO503-01												
Quarterely G	Frab 2018											
Х	Υ	Bog	SW	Monitoring	Sample Date	рН	SS	TS	Ammonia	TP	COD	Colour
248527.2	224119.1	Mountlucas	SW-11A	Q1 18	21/03/2018	7.9	5	370	1.1	0.05	35	70
247623.23	225441.21	Clonad	SW-12	Q1 18	21/03/2018	7.4	5	230	0.54	0.08	69	163
245572.38	225495.02	Clonad	SW-12A	Q1 18	21/03/2018	7.8	5	330	0.85	0.05	37	66
245814.66	223083.89	Clonad	SW-13	Q1 18	21/03/2018	7.3	5	174	1	0.05	40	88
250869.07	219763.05	Ballykeane	SW-14	Q1 18	22/02/2018	7.7	5	416	0.46	0.05	78	140
250117.79	219970.86	Ballykeane	SW-15	Q1 18	22/02/2018	7.5	5	278	1.8	0.05	63	121
249524.55	220230.29	Ballykeane	SW-16	Q1 18	22/02/2018	7.6	5	432	0.33	0.05	57	72
251030.51	221700	Ballykeane	SW-17	Q1 18	21/03/2018	7.9	5	122	0.39	0.05	68	183
250247.9	219855.73	Ballykeane	SW-18	Q1 18	22/02/2018	7.5	5	248	2.4	0.05	70	151
253272.1	225558.7	Mountlucas	SW-19	Q1 18	21/03/2018	7.8	5	304	0.68	0.05	61	122
259705.78	214693.84	Derrylea	SW-43	Q1 18	22/02/2018	7.6	5	246	1.3	0.05	89	260
255326.91	214636.24	Derrylea	SW-43A	Q1 18	22/02/2018	7.3	5	456	0.82	0.05	100	176
240694.98	230298.04	Daingean Derries	SW-1	Q2 18	30/05/2018	7.8	13	328	0.02	0.13	82	103
239594.68	230408.21	Daingean Derries	SW-2	Q2 18	30/05/2018	7.5	5	378	1.7	0.05	52	322
238801.4	230901.25	Daingean Derries	SW-3	Q2 18	30/05/2018	5.9	14	156	0.02	0.33	116	482
238933.48	231178.52	Daingean Derries	SW-4	Q2 18	30/05/2018	6.4	5	138	0.28	0.12	101	362
239107.6	231601.27	Daingean Derries	SW-5	Q2 18	30/05/2018	7.1	5	172	0.1	0.08	110	295
239491.98	231872.83	Daingean Derries	SW-6	Q2 18	30/05/2018	7.2	9	456	0.15	0.05	27	39
240411.24	231853.09	Daingean Derries	SW-7	Q2 18	30/05/2018	7.4	5	348	0.75	0.05	89	257
240239.99	231828.83	Daingean Derries	SW-7A	Q2 18	30/05/2018	7.4	6	502	0.86	0.05	42	103
243969.34	228585.84	Rathdrum	SW-8	Q2 18	30/05/2018	7.6	7	538	0.15	0.1	34	52
241227.37	229904.04	Rathdrum	SW-9	Q2 18	30/05/2018	7.9	5	454	0.17	0.05	55	92
241835.4	230389.25	Rathdrum	SW-9A	Q2 18	30/05/2018	7.7	5	493	0.02	0.05	15	49
243801.34	228449.41	Rathdrum	SW-10	Q2 18	30/05/2018	7.8	8	324	0.02	0.05	68	166
243109.6	227634.77	Rathdrum	SW-10A	Q3 18	12/09/2018	7.1	6	264	0.02	0.06	85	174
254333.53	229715.7	Esker	SW-24	Q3 18	12/09/2018	7.6	52	276	0.02	0.05	49	86
254066.03	229231.46	Esker	SW-25	Q3 18	12/09/2018	7.1	5	222	0.83	0.11	87	164
255848.09	228220.5	Esker	SW-26	Q3 18	12/09/2018	7.3	5	166	4.6	0.06	86	351
255811.14	228181.42	Esker	SW-27	Q3 18	12/09/2018	7.5	6	296	0.53	0.06	37	76
256098.51	227480.46	Esker	SW-28	Q3 18	12/09/2018	7.6	5	316	0.1	0.05	39	100
253610.03	227876.29	Esker	SW-29	Q3 18	12/09/2018	6.2	5	231	5.6	0.05	159	446
254079.86	227734.11	Esker	SW29-A	Q3 18	12/09/2018	7.6	5	242	5	0.1	116	355
245107	211862.12	Garrymore	SW-39	Q3 18	12/09/2018	7.7	5	266	3.9	0.08	92	217
243424.84	211640.12	Garrymore	SW-39A	Q3 18	12/09/2018	7.8	5	304	0.02	0.05	76	128
244906.14	212161.63	Garrymore	SW-40	Q3 18	12/09/2018	7.5	5	210	2	0.05	140	388
244754.45	212504.25	Garrymore	SW-41	Q3 18	27/09/2018	7.1	39	272	2.4	0.1	135	194
255866.18	225413.14	Ballycon	SW-30	Q4 18	08/10/2018	7.8	5	374	0.31	0.05	54	40
258120.18	224725.27	Cloncreen	SW-32	Q4 18	08/10/2018	7.8	5	234	0.06	0.05	72	80
257161.38	225368.56	Cloncreen	SW-33	Q4 18	08/10/2018	7.7	5	422	0.05	0.05	33	124
256186.23	227016.03	Cloncreen	SW-34	Q4 18	08/10/2018	7.7	5	394	0.13	0.05	35	107
260552.28	227277.74	Cloncreen	SW-35	Q4 18	08/10/2018	7.6	5	438	0.4	0.05	61	60
260597	226777.19	Cloncreen	SW-37	Q4 18	08/10/2018	7.9	5	440	0.06	0.05	31	81
260756.49	225793.84	Cloncreen	SW-37A	Q4 18	08/10/2018	7.7	5	380	0.25	0.05	21	26
To be confirmed	To be confirmed	Ballykilleen	SW-35A	Q4 18	08/10/2018	7.6	5	178	1	0.05	146	260
To be confirmed	To be confirmed	Codd Sth	SW-45A	Q4 18	09/10/2018	7.7	5	248	0.28	0.05	56	145
251754.7	229410.12	Cavemount	SW-20	Q4 18	09/10/2018	7.8	5	298	0.02	0.05	85	325
251340.44	229884.3	Cavemount	SW-22	Q4 18	09/10/2018	7.4	5	252	0.08	0.05	73	270
251274.17	230209.75	Cavemount	SW-22A	Q4 18	09/10/2018	7.6	5	272	0.16	0.05	75	89

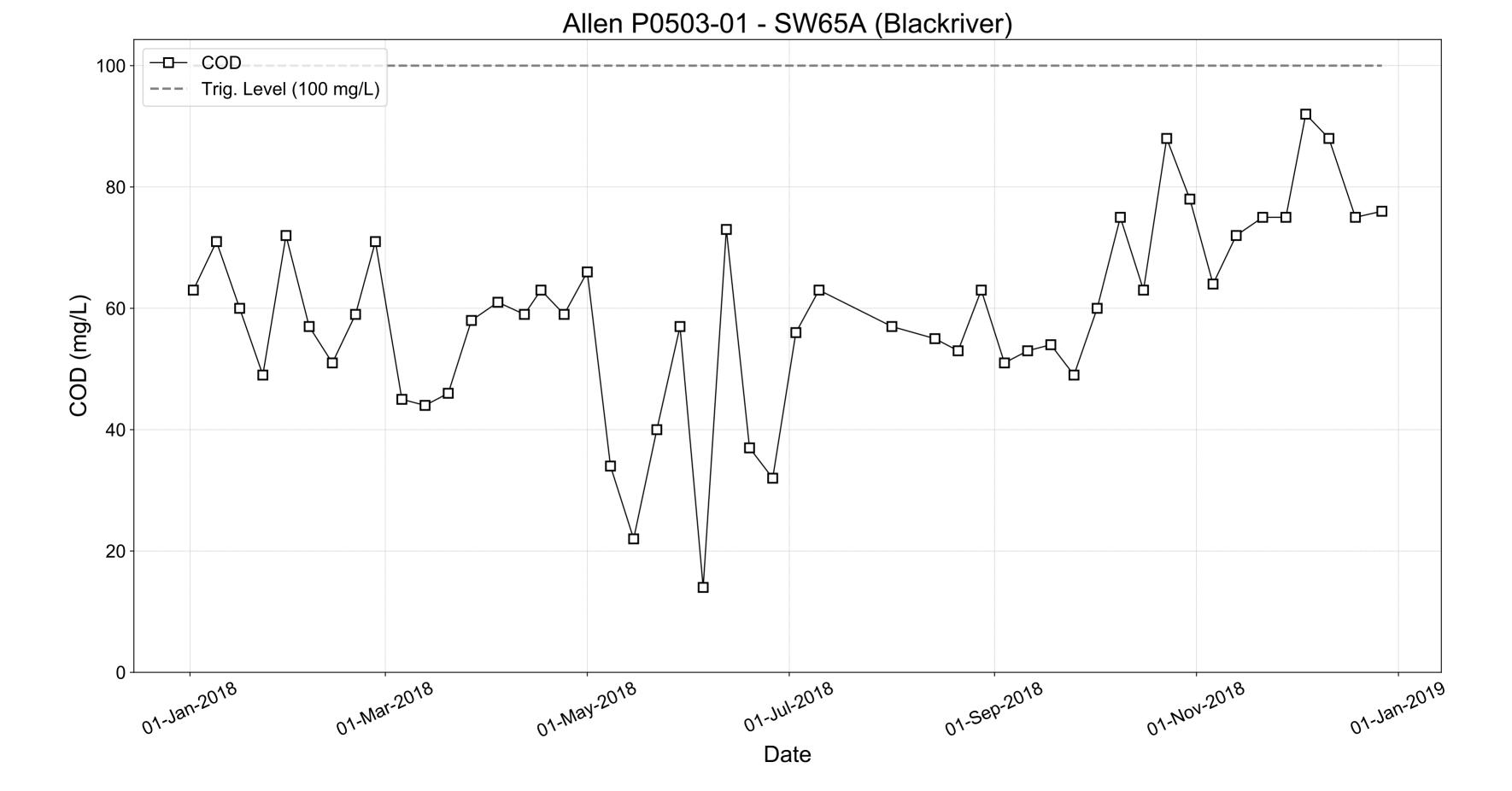


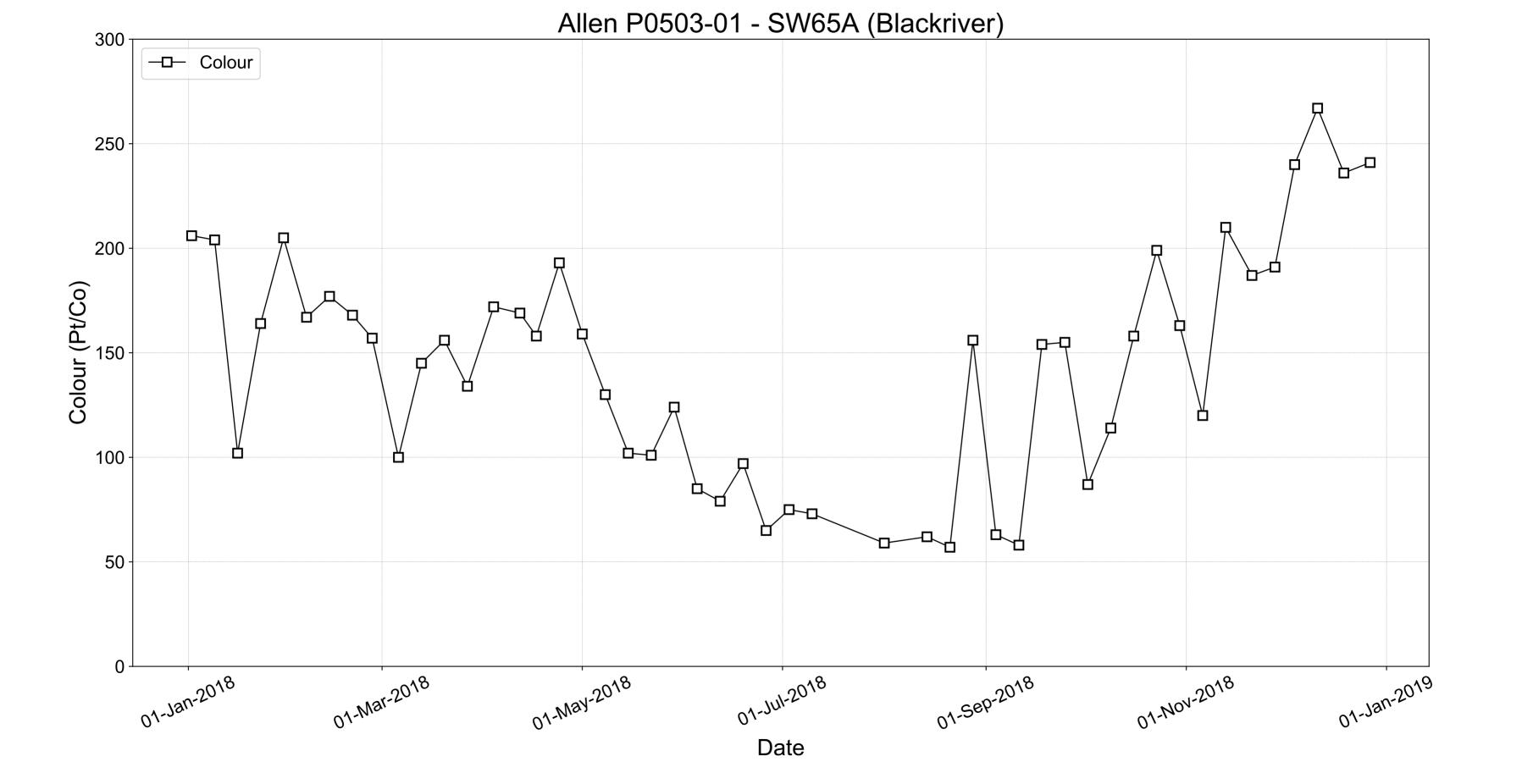
Blackriver bog is an active fuel peat production bog with the composite sampler located here during 2017 and 2018. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had 5.0% downtime during the period and returned 49 weekly ammonia results during the period of this 2018 AER. The ammonia trigger level of 3.0mg/l, as agreed with the Agency, was not exceeded during the period. The results above, over the two years show concentrations trending flat as peat extraction continues and this is in-line with the flat or downwards trends submitted to the EPA in 2013 as required by condition 6.14. The sampler is 2 years at this location covering two seasonal production seasons so the trending from 2019 will better inform this current trend from 2018.

There is no obvious link between the summer production, winter maintenance, or silt pond maintenance events on the concentration of Ammonia discharging from this peatland. The only link expected would be that related to rainfall events, seasonal weather patterns and the subsequent surface water runoff and associated ammonia concentrations.

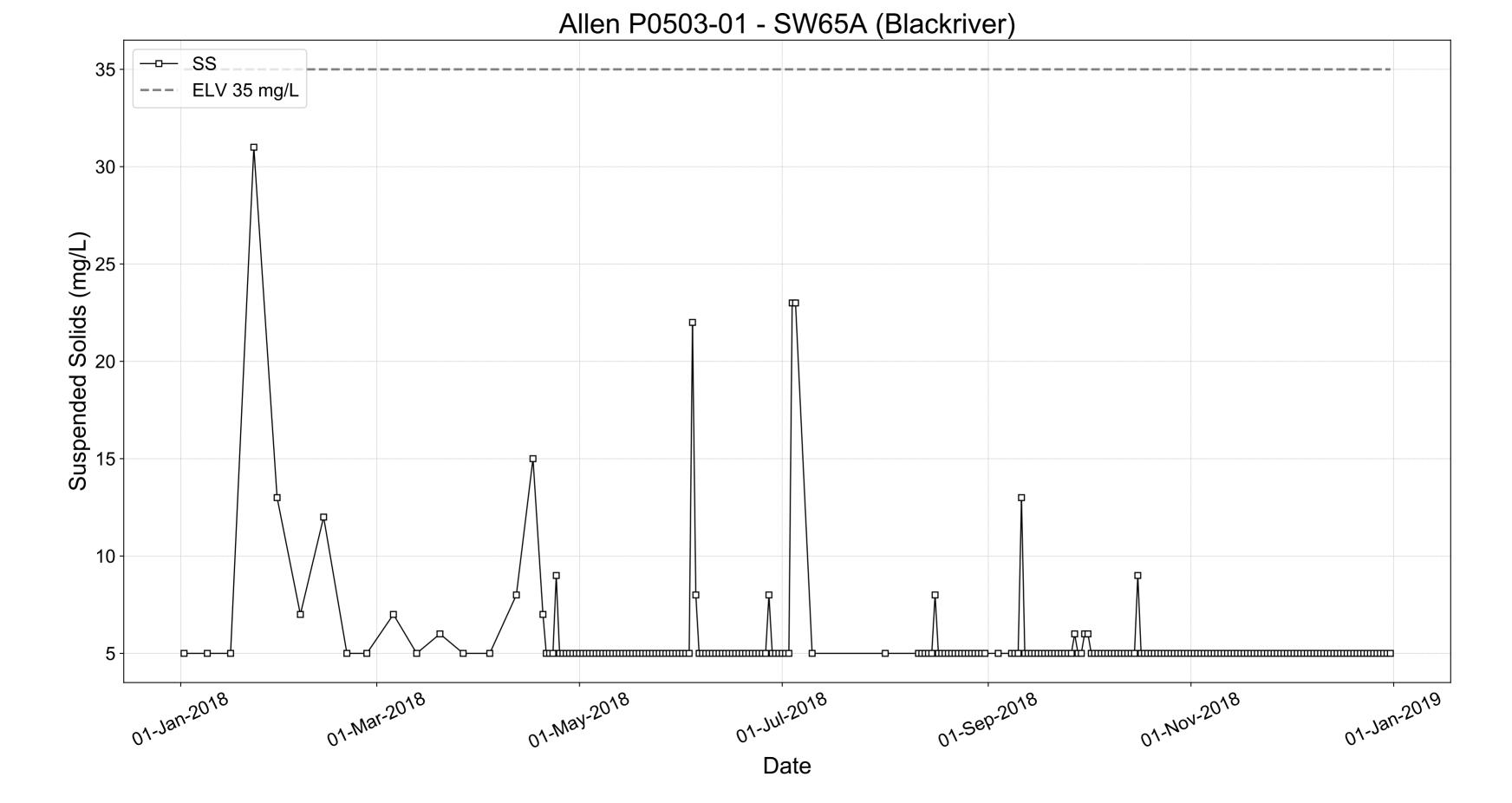
The sampler at this location may be relocated to fill any information gaps on other peatland catchments and to reflect the need to support the information gathering required for the Water Framework Directive's River Basin Management Plan. There is also an EPA lead research project commencing in 2019, called the SWAMP project, whose aims are to appraise and understand the nutrient impact from peatlands, to evaluate treatment technologies and to propose predictive tools for watershed management.

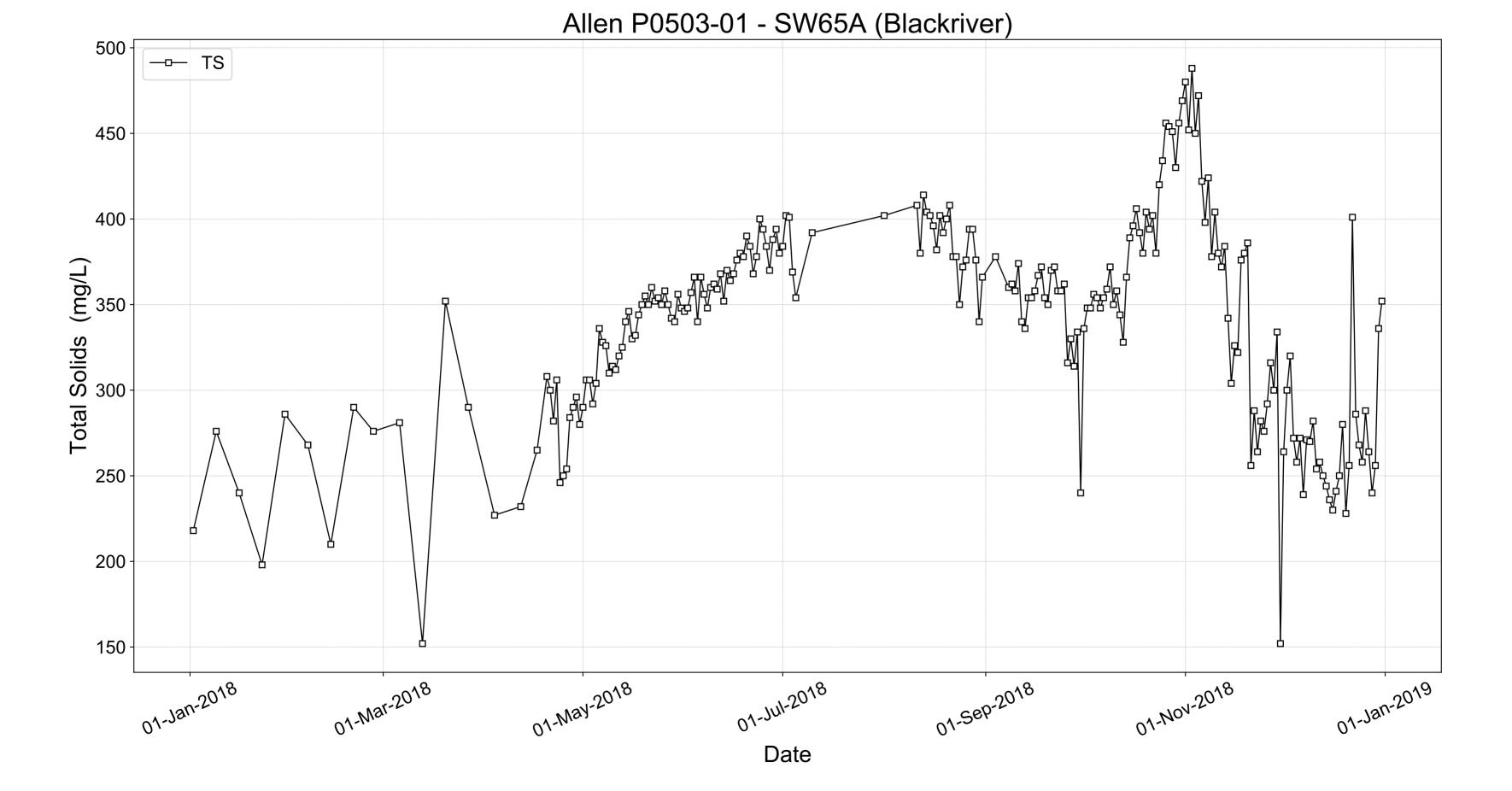


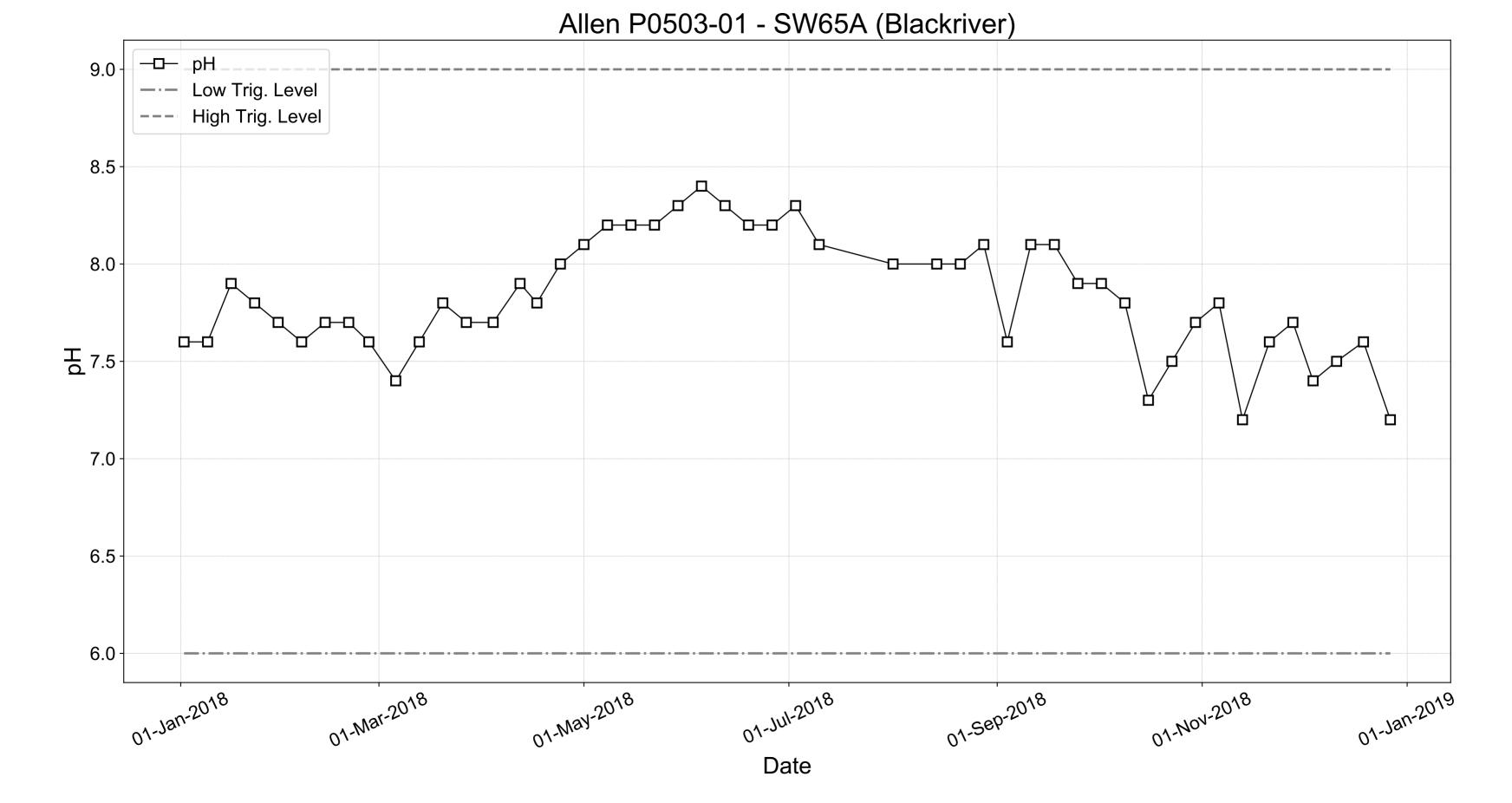




Allen P0503-01 - SW65A (Blackriver) ── Phosphorus 0.0700 -0.0675 0.0650 Hosphorus (mg/L) 0.0625 0.0550 0.0525 0.0500 -<u>-----</u> 01-Mar-2018 01-Jul-2018 Date







Yard Discharge Results 2018

Licence: P0503-01

Works: Allen

WOIRS. AIICH						
Month	B/Dermot SWE 1 COD	B/Dermot SWE 2 COD	Clonsast SWE 1 COD	Ballycon SWE1 COD	Power Station SWE1 COD	Trigger Level
Jan	81	74	37	14	83	100
Feb	108	68	98	21	69	100
Mar	73	65	35	19	51	100
Apr	72	62	53	18	60	100
May	40	36	15	10	14	100
June	0	0	0	0	0	100
July	0	0	0	0	0	100
Aug	0	0	0	0	0	100
Sep	0	81	27	36	48	100
Oct	77	72	37	21	91	100
Nov	68	62	53	46	71	100
Dec	44	29	34	30	71	100

^{0:} No Flow On Day Of Sampling

Extractive Waste Management Plan Implementation AER Update.

March 2019.

IPC Licence P0503-01.

1.0 Extractive Wastes.

Waste classified as extractive waste from peat extraction operations arise from three operations associated with this activity.

- Silt Pond excavations and maintenance
- Power Station Screenings
- Bog Timbers

There has been no change to the type and nature of these three waste streams and no new waste streams added to this list. These wastes streams continue to be stored and maintained at between 1 and 3 metres in height.

2.0 Condition 7.5 Extractive Waste Management

- An extractive waste management plan (EWMP) was submitted to the Agency in September 2012 and was approved.
- The EWMP was reviewed in September 2017. There were no substantial changes to the operation of the plan, associated waste facilities or to the waste deposited.

3.0 Minimisation

- The IPC Licence has various conditions that require the installation, inspections and maintenance of silt ponds for operational areas and as such these requirements dictate the need for silt ponds and associated excavation materials and cleanings.
- Peat screenings are a factor of the screening process with Edenderry Power Ltd as these oversized bog timbers, stones and peat cannot be utilised in the power station.
- Bog timbers arise from the active production footprint and are naturally occurring. The active footprint is dictated by the peat production targets and customer supply contract and service level agreements.

4.0 Treatment

- Silt pond excavation and maintenance materials do not require any treatment and are stored as per the EWMP, adjacent to the associated silt pond.
- The factory screenings are permitted to be returned to the bog as they were naturally occurring materials from the bog, and as such do not require any treatment to serve this purpose.
- There is no treatment of bog timbers arising and these are stockpiled at various locations in associated bogs.

5.0 Recovery

• As per the EWMP, there is still no opportunity to recover these silt pond associated materials.

- Given the nature of these screenings as outlined in the EWMP, there is no further use identified, other than the permitted reuse of these natural materials in areas that required improvement for trafficking purposes.
- Bog timbers stored on the bog are natural to the peat bog and while there have been trails to recover this waste material, these have not proved viable.

6.0 Disposal

- Silt pond cleanings continue to be disposed of adjacent to the associated silt pond and will be incorporated back into the rehabilitation plans for these bogs, post production and decommissioning.
- Schedule 3 (ii) of this IPC Licence permits the disposal of peat screenings to the bog at designated locations agreed under Condition 7.4 and this continues to be the case.
- Bog timbers will continue to be stockpiled at suitable locations to be either incorporated back into the bog, as a supply of bog timbers for the crafting industry or will continue to decay naturally.



Annual Environmental Report 2018

Bord na Mona Energy Ltd (Mountdillon Group of Bogs) IPC Licence P0504-01

Facility Information Summary

AER Reporting Year Licence Register Number Name of site Site Location NACE Code Class/Classes of Activity

National Grid Reference (6E, 6 N)

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.

	2018
P05	04-01
0	Bord na Mona Mountdillon
	Mountdillon, Lanesboro, Co Longford
	0892
	1.4
	F204720 N268880

Activities on site can be divided into two components, firstly the milling, harrowing, ridging and harvesting of peat into stockpiles and secondly the transportation of that peat via an internal rail network to the Power Station and lorry outloading facilities. Production achieved was approximately 853187 tonnes which was 118% of target, headland peat amounted to 3246 tonnes collected. Infrastructurally, there was bog development works at Coolcraff bog in Cuil na Gun. Works included ditching and levelling on an area of approximately 180 hectares and the construction of appropriately sized silt settlement ponds. There was 10 environmental complaints received during the reporting period, this was reported to the Agency through ALDER. In relation to silt pond cleaning, 100% of ponds received two cleanings with some ponds receiving three. The site had four trigger level exceedences for COD in relation to quarterly grab results, there was one trigger level exceedence for Ammonia in relation to quarterly grab results. Decommissioning and Rehabilitation works are described in an attachment.

Declaration:

All the data and information presented in this report has been checked and certified as being

Signature

Group/Facility manager

(or nominated, suitably qualified and experienced deputy) Date

	AIR-summary	template				Lic No:	PO-504-01		Year	2018			
	Does your site		ssions? If yes pleas	se complete table	e A1 and A2 below for the licenced emissions and do		Ad	dditional informatio	on				
1					need to complete the	No	Fu	igitive emissions or	nly				
	Periodic/Non-Continuous Monitoring												
2	Are there an	•	cence requirements ment section of Tab		ovide brief details in the	No							
3		oring carried out in accor AG2 and using the basi checklist?		Basic air monitoring checklist	AGN2	Yes							
	Table A1: Lice	ensed Mass Emission	ons/Ambient d	ata-periodic n	nonitoring (non-continu	uous)							
	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	Method of analysis	Annual mass load	Comments - reason for change in % mass load from previous year if applicable		
		SELECT			SELECT		SELECT	SELECT	SELECT				
		SELECT			SELECT		SELECT	SELECT	SELECT				
		SELECT			SELECT		SELECT	SELECT	SELECT				
		SELECT	d		SELECT		SELECT	SELECT	SELECT				
	Note 1: volumetr	ric flow shall be included	a as a reportable pa	rameter									
		Continuous N	/lonitoring							1			
4	Does your site ca	ırry out continuous air e	missions monitorin	g?		No							
5	, ,	and compare it	to its relevant Emis	sion Limit Value (ed fields below in Table A2 ELV) ecord downtime in table A2	No]			
6	Do you have a pro	pactive service agreeme	ent for each piece of	f continuous moni	toring equipment?	No							

Did your site experience any abatement system bypasses? If yes please detail them in table A3 below No

Table A2: Summary of average emissions -continuous monitoring

Emission	Parameter/ Substance		Averaging	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
	raidification Substance					Allindar Ellinssion		Ŭ.		Comments
reference no:			Period		measurement			Equipment	exceedences in	
		ELV in licence or						downtime (hours)	current reporting	
		any revision							year	
		therof								
DM-01	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	4396	117	0	0	
DM-02	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	5992	122	0	0	
DM-05	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	7280	166	0	0	
DM-06	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	5180	133	0	0	
	SELECT				SELECT					

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

Table A3: Abatement system bypass reporting table

Bypass protocol

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

^{*} this should include all dates that an abatement system bypass occurred

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

Solvent use and management on site											
B Do you have a total Emission Limit Value of direct and fugitive emissions on site? if yes please fill out tables A4 and A5 No											
	lvent Management nission limit value	Plan Summary	Solvent regulations	Please refer to linked solver complete table 5	-						
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 therof	Compliance						
					SELECT						
					SELECT						
Table A5:	Solvent Mass Balan	ce summary									
	(I) Inputs (kg)			(0)	Outputs (kg)						
Solvent	(I) Inputs (kg)	_		Collected waste solvent (kg)				Total emission of			
	(7 1 1 1 1	emission in waste	water (kg)		Solvent (kg)	other ways e.g. by-	uestroyed onsite	Solvent to air (kg)			
Total											

	returns sumr	nary template-WA	TER/WASTEW	ATER(SEWER	K)	Lic No:	PO-504-01		Year	201	3			
						ı	Additional information		-					
Does your site hav	ve licensed emiss	sions direct to surface	water or direct to	sewer? If ves										
		N3 below for the curre												
		ve licenced emissions												
		rm water analysis and												
WI a	na or wz for stor	rm water analysis and	visual inspection	ns	Yes									
		e to carry out visual in												
		near your site? If yes pl				Monthly COD a	analysis of yard runoff is attache	d in a separate						
summarising	only any evidence	e of contamination note	ed during visual i	nspections	Yes	· ·	document.							
Table W	L Storm water	monitoring				•			-					
Tubic 11.	J Storm Water	Intering			ELV or trigger						1			
	Location		Licenced	Monitoring	level in	Licence		Unit of	Compliant with					
Location reference		PRTR Parameter	Parameter	date	licence or any	Compliance	Measured value	measurement	licence	Comments				
	site activities				revision	criteria								
					thereof*									
	SELECT	SELECT	SELECT		1	SELECT		SELECT	SELECT		1			
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT		_			
*trigger values mav	be agreed by the	Agency outside of licence	e conditions											
Table W2	Visual inspect	tions-Please only e	nter details w	here contam	ination was o	hserved.								
100.0 112	Tisuai iiispee	liono i icase omy e	The details in	c coca		1					1			
	Date of													
Location Reference	inspection					Source of								
Location Reference	۱ د	I	Description of con	tamination		contamination	Corrective act	ion	Comm	ents				
Location Reference	۱ د	ı	Description of con	tamination		contamination SELECT	Corrective act	ion	Comm	ents	_			
Location Reference	۱ د	I	Description of con	tamination		contamination	Corrective act	ion	Comm	ents				
	inspection		•			contamination SELECT SELECT	Corrective act	ion	Comm	ents				
	inspection	and /or wastewate	•			contamination SELECT SELECT	Corrective act	ion	Comm	ents				
Licensed Emissi	ons to water		er(sewer)-peri	odic monitor		contamination SELECT SELECT	Corrective act	ion	Comm	ents				
Licensed Emissi	ons to water	and /or wastewate	er(sewer)-peri	odic monitor		contamination SELECT SELECT	Corrective act	ion	Comm	ents				
Licensed Emissi	ons to water	and /or wastewate	er(sewer)-peri	odic monitor	ring (non-conti	SELECT SELECT inuous)]			
Licensed Emissi Was there any resu	ons to water alt in breach of lice the comm	and /or wastewate ence requirements? If yu eent section of Table W3	er(sewer)-peri	odic monitor	ring (non-conti	contamination SELECT SELECT inuous)	Additional information	arterly basis. The re						
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Licensed Emissi Was there any resu Was all monitori guidance and check	ons to water alt in breach of lice the comm	and /or wastewate ence requirements? If ye ent section of Table W3 eccordance with EPA of Aqueous Monitoring	er(sewer)-peri es please provide below	odic monitor brief details in Assessment of	ring (non-conti	contamination SELECT SELECT inuous)	Additional information	arterly basis. The re						
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Licensed Emissi Was there any resu Was all monitori guidance and checl Data Reported to require improv Table W3: Licen	ons to water alt in breach of lice the comm ng carried out in a klists for Quality o the EPA? If no ple ement in addition ssed Emissions	and /or wastewate ence requirements? If ye ent section of Table W3 eccordance with EPA of Aqueous Monitoring ase detail what areas hal information box is to water and /or v	er(sewer)-peri es please provide below External /internal Lab. Quality checklist	odic monitor brief details in Assessment of results checklist ewer)-period	NO Ves dic monitoring	contamination SELECT SELECT inuous) Surface water mor Monthly COD yard (non-continuous) ELV or trigger values in licence or any revision	Additional information nitoring was carried out on a qurunoff results are also attached	arterly basis. The re	esults of which are a	ttached.	Method of analysis	Procedural reference source	reference standard	Annual mass Ic
Licensed Emissi Was there any rest Was all monitori guidance and check Data Reported to require improv Table W3: Licen	ons to water ult in breach of lice the comm ng carried out in a dists for Quality o the EPA? If no ple ement in addition ssed Emissions	and /or wastewate ence requirements? If ye ent section of Table W3 eccordance with EPA of Aqueous Monitoring ase detail what areas hal information box is to water and /or vi Parameter/	er(sewer)-peri es please provide below External /Internal Lab Quality checklist	odic monitor brief details in Assessment of results checklist ewer)-period	NO Yes dic monitoring	contamination SELECT SELECT inuous) Surface water mor Monthly COD yard (non-continuous) ELV or trigger values in licence or any revision	Additional information nitoring was carried out on a qu runoff results are also attached	arterly basis. The re	esults of which are a	ttached.	Method of analysis		reference standard	
Licensed Emissi Was there any rest Was all monitori guidance and check Data Reported to require improv Table W3: Licen	ons to water ult in breach of lice the comm ng carried out in a dists for Quality o the EPA? If no ple ement in addition ssed Emissions	and /or wastewate ence requirements? If ye ent section of Table W3 eccordance with EPA of Aqueous Monitoring ase detail what areas hal information box is to water and /or vi Parameter/	er(sewer)-peri es please provide below External /Internal Lab Quality checklist	odic monitor brief details in Assessment of results checklist ewer)-period	NO Yes dic monitoring	contamination SELECT SELECT inuous) Surface water mor Monthly COD yard (non-continuous) ELV or trigger values in licence or any revision	Additional information nitoring was carried out on a qu runoff results are also attached	arterly basis. The re	esults of which are a	ttached.	Method of analysis		reference standard	Annual mass lo: (kg)
Licensed Emissi Was there any rest Was all monitori guidance and check Data Reported to require improv Table W3: Licen	ons to water ult in breach of lice the comm ng carried out in a dists for Quality o the EPA? If no ple ement in addition ssed Emissions	and /or wastewate ence requirements? If ye ent section of Table W3 eccordance with EPA of Aqueous Monitoring ase detail what areas hal information box is to water and /or vi Parameter/	er(sewer)-peri es please provide below External /Internal Lab Quality checklist	odic monitor brief details in Assessment of results checklist ewer)-period	NO Yes dic monitoring	contamination SELECT SELECT inuous) Surface water mor Monthly COD yard (non-continuous) ELV or trigger values in licence or any revision	Additional information nitoring was carried out on a qu runoff results are also attached	arterly basis. The re	esults of which are a	ttached.	Method of analysis		reference standard	
Licensed Emissi Was there any rest Was all monitori guidance and check Data Reported to require improv Table W3: Licen	ons to water ult in breach of lice the comm ng carried out in a dists for Quality o the EPA? If no ple ement in addition ssed Emissions	and /or wastewate ence requirements? If ye ent section of Table W3 eccordance with EPA of Aqueous Monitoring ase detail what areas hal information box is to water and /or vi Parameter/	er(sewer)-peri es please provide below External /Internal Lab Quality checklist	odic monitor brief details in Assessment of results checklist ewer)-period	NO Yes dic monitoring	contamination SELECT SELECT inuous) Surface water mor Monthly COD yard (non-continuous) ELV or trigger values in licence or any revision	Additional information nitoring was carried out on a qu runoff results are also attached	arterly basis. The re	esults of which are a	ttached.	Method of analysis		reference standard	

	AER Monitoring returns summary template-WATER/WAS	TEWATER(SEWER)	Lic No:	PO-504-01	Year	2018
Continuous mon Does your site carry of	itoring ut continuous emissions to water/sewer monitoring?	Yes	Additional Information			
If yes please summar to its relevant Emission	rise your continuous monitoring data below in Table W4 and compare it on Limit Value (ELV)					
in table W4 below	oring equipment experience downtime? If yes please record downtime ve service contract for each piece of continuous monitoring equipment	Yes	250 days in 365. See note bel	low		
on site? Did abatement syster	m bypass occur during the reporting year? If yes please complete table W5		Annual calibration schedule and trouble shooting servi	ice		

Table W4: Summary of average emissions -continuous monitoring

Emission reference			1 '	Averaging			Annual Emission for current	% change +/- from previous reporting year	downtime	Number of ELV exceedences in	
no:	released to	Parameter/ Substance	thereof	Period	Compliance Criteria	Units of measurement	reporting year (kg)		(hours)	reporting year	Comments
SW77A	Water	Suspended Solids	35	24 hour	Not lifted	mg/L			6000		Down time is usually due to no flow and battery failure issues. However
SW77A	Water	Ammonia (as N)	NA	Weekly		mg/L					
SW77A	Water	Total phosphorus	NA	Weekly	NA	mg/L					
SW77A	Water	COD	NA	Weekly	NA	mg/L					
SW77A	Water	volumetric flow	NA	24 hour	NA	m3/day					
SW77A	Water	Total Dissolved Solids	NA	Weekly	NA	mg/L					

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

Table W5: Abatement system bypass reporting table

Table WJ. Abate	ment system	bypass reporting t	abic				
Date	Duration	Location	Resultant	Reason for	Corrective action*	Was a report submitted to the	When was this report
	(hours)		emissions	bypass		EPA?	submitted?
						SELECT	

*Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline t	testing template				Lic No:	PO-504-01		Year	2018	3				
Bund testing		dropdown menu cli	ick to see options				Additional information	_						
new bunds and cont	tainment structures on si	ke integrity testing on bunds ar ite, in addition to all bunds whi l ow, <u>please include all bunds o</u>	ich failed the integrity test-	all bunding structures wh	ich failed including	Yes								
Does the site maint Chemstore" type u dow many bunds an dow many of these dow many mobile b are the mobile bund dow many of these	inits and mobile bunds) ie on site? bunds have been tested bunds are on site? ds included in the bund t mobile bunds have beer	underground pipelines (including within the required test schedutes test schedule? In tested within the required test	lule?	nks, sumps and container	rs? (containers refers to	Other (2 Yearly) Yes	5 5 All Bunds were tested in 2017 7							
How many of these Please list any sump Do all sumps and cha If yes to Q11 are the	sumps are integrity teste o integrity failures in tabl ambers have high level l ese failsafe systems inclu					N/A N/A N/A	0							
		bund /containment structure in				3//								
Bund/Containment									Integrity reports maintained on		Integrity test failure		Scheduled	Results retest(i current reportin
structure ID	Type SELECT	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test SELECT	Other test type	Test date	site? SELECT	Results of test SELECT	explanation <50 words	Corrective action taken SELECT	date for retest	year)
	SELECT					SELECT			SELECT	SELECT		SELECT		
Has integrity testing tested in line with B Are channels/transf Are channels/transf	g been carried out in acco BS8007/EPA Guidance? Fer systems to remote co	ainment rule as detailed in your licence ordance with licence requireme intainment systems tested? both integrity and available vo		bunding and storage guide	tlines	SELECT SELECT SELECT	Commentary							
Are you required by below listing all und test period as specif Please provide integ	your licence to undertal derground structures and fied grity testing frequency p	Le integrity testing* on underg I pipelines on site which failed	the integrity test and all wi	nich have not been tested		Yes Other (2 Yearly)	Petrol tank Tested 04 April 2018 and Passed							
Table B	32: Summary details of pi	ipeline/underground structures	s integrity test							1		7		
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	Results of retest(if in current reporting year)			
	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT				SELECT			
												-		
							7		•			_		
		Please use commer	ntary for additional details i	not answered by tables/ o	uestions above		_							

round	water/Soil	monitoring	g template		Lic No:	PO-504-01		Year	2018	8	
							Comments				
	Are you requi	red to carry o	ut aroundwate	r monitoring as pa	art of your licence		Comments				
	requirements		at groundwate	i inomtomig as pe	ire or your incernce	no		Please pro	vide an interni	retation of groundw	ater monitoring data
- 1	Are you requi	rad to carry a	ut soil monitor	ing as part of your	licence requireme	-					uire additional space
	Do you extrac	t groundwate	r for use on sit	e? If yes please sp	ecify use in					dwater/contaminate	
3	comment sec	tion		, , ,	,	no				n as an additional se	-
	Do monitorin	g results show	v that groundw	ater generic							
	assessment c	riteria such as	GTVs or IGVs a	re exceeded or							
	is there an up	oward trend in	n results for a s	ubstance? If yes,							
4	please compl	ete the Groun	ndwater Monito	oring Guideline							
	Template Rep	ort (link in ce	II G8) and subn	nit separately	Groundwater						
	through ALDE	R as a license	e return AND a	nswer questions	monitoring						
	5-12 below.				<u>template</u>	SELECT					
	Is the contam	ination relate	d to operation	s at the facility (ei	ther current						
	and/or histori					N/A					
6	Have actions	been taken to	address conta	mination issues?If	f yes please						
	summarise re	mediation str	ategies propos	ed/undertaken fo	or the site	N/A					
7	Please specif	y the propose	d time frame f	or the remediation	n strategy	N/A					
				odate ELRA for the		N/A					
				ed out for the site	?	N/A					
				ped for the site?		N/A					
				on and off site?		N/A					
12	Is there evide	nce that cont	amination is m	igrating offsite?		N/A			Please ente	r interpretation of d	ata here
able 1:	Upgradien	t Groundw	ater monit	oring results							
										Upward trend in	
										pollutant	
										concentration	
	Sample		l							over last 5 years	
Date of	location	Parameter/	l	Monitoring	Maximum	Average	1	07.0	05150711	of monitoring	
ampling	reference	Substance	Methodology	frequency	Concentration++	Concentration+	unit SELECT	GTV's*	SELECT**	data SELECT	
							SELECT			SELECT	
			l				SELECT			SELECT	
	verage indica			manurad ca	stration from all	nitoring rocults -	roduced during the re	norting vc			
						mitoring results p	nounced during the re	porting year			
able 2:	Downgrad	ient Groun	idwater mo	nitoring result	ts					I	
										Upward trend in	
										yearly average	
				1		1				pollutant	
			l							concentration	
	Sample		l							over last 5 years	
Date of ampling	location reference	Parameter/ Substance	Methodology	Monitoring	Maximum Concentration	Average Concentration		GTV's*	SELECT**	of monitoring	
ampling	reierence	Substance	ivietriodology	frequency	Concentration	Concentration	unit	GIVS	SELECT	data	
			l			1	SELECT			SELECT	

SELECT

*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 Guiddler 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

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

Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (EPA 2013)

**Depending on location of the site and proximity to other sensitive receptors alternative Receptor based Water Quality standards should be used in addition to the GTV eg. if the site is close to surface water compare to Surface Water Environmental Quality Standards (SWEDS), if the site is close to surface water compare to Surface Water Environmental Quality Standards (SWEDS), if the surface regulations is the site is close to a drinking water recults to the Drinking Water Standards (SWEDS), if the surface regulations is required to the surface water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compared to Surface Water Compare

Groundwater Drinking water Drinking water

Interim Guideline

SELECT

Table 3: Soil results

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

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

Environmental Liabilities template	Lic No:	PO-504-01	Year	2018

Click here to access EPA guidance on Environmental Liabilities and Financial provision

			Commentary
1	ELRA initial agreement status		
		Not a Licence Requirement	
2	ELRA review status	NA	
	Amount of Financial Provision cover required as determined by the latest		
3	ELRA	NA	
4	Financial Provision for ELRA status	NA	
5	Financial Provision for ELRA - amount of cover	NA	
6	Financial Provision for ELRA - type	NA	
7	Financial provision for ELRA expiry date	NA	
8	Closure plan initial agreement status	NA	Internal Budget Provision
9	Closure plan review status	NA	Internal Budget Provision
10	Financial Provision for Closure status	NA	Internal Budget Provision
11	Financial Provision for Closure - amount of cover	NA	Internal Budget Provision
12	Financial Provision for Closure - type	NA	Internal Budget Provision
13	Financial provision for Closure expiry date	NA	

	Environmental Management Programme/Continuous Improvement Progr	ramme template	Lic No:	PO-504-01	Year	2018
	Highlighted cells contain dropdown menu click to view		Additional Information	tion		
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional information	Yes	Int	ternal unaccredited EMS		
	Does the EMS reference the most significant environmental aspects and associated impacts			erral anacercance Erra		
2	on-site	Yes				
	Does the EMS maintain an Environmental Management Programme (EMP) as required in					
3	accordance with the licence requirements	Yes				
	Do you maintain an environmental documentation/communication system to inform the					
4	public on environmental performance of the facility, as required by the licence	Yes				

Environmental Management Program Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	Training.Continue to train	Status (% completeu)	In total 70 Personnel	пезропзини	intermediate outcomes
icadcion of chilosophis to viii	all employees in		received training in 2018.		
	environmental matters.		There was a total of 3246		
	Training will be by means		tonnes of headland peat		
			collected in the 2018		
	of the screening of an		season. 7 hydraulic		
	environmental DVD,		harrows were deployed		
	followed by a power		during the 2018		
	point		production season.		
	presentation.Hydraulic				
	Harrows.				
	There are currently 7				
	Hydraulic Harrows in				
	operation in Mountdillon.				
	Headland Peat				
	Collection.				
	Continue with the				
	collection of headland				
	peat, particularly at dust				
	sensitive locations.				
					Improved Environmenta
		90		Individual	Management Practices
Waste reduction/Raw material usage	Waste Streamlining.It is		Installed a waste		
efficiency	planned to continue with		management system.		
	and where possible		Quarterly waste reports		
	improve the current		are returned for		
	waste management		records/filing and waste		
	service provided by AES		streams are segrated on		
			site to maximise recycling		
	Ltd		potential.		Improved Environmenta
		100		Section Head	Management Practices
Reduction of emissions to Water	Training. Continue to		In total 70 Personnel		
	train all employees in		received training in 2018.		
	environmental matters.		There was a total of 3246		
	Training will be by means		tonnes of headland peat		
	of the screening of an		collected in the 2018		
	environmental DVD,		season.		
	followed by a power				
	point presentation.				Improved Environmenta
Materials Handling/Storage/Bunding	Increased bund capacity	90	There were no additional	Individual	Management Practices
viaterials nationing/storage/bulluting			bund requirements. Bund		
	will be provided where		integrity testing will be		
	required. Bund integrity		carried out in 2017		
	testing will be carried out		carried out in 2017		Improved Environmenta
	where required.	80		Individual	Management Practices
Waste reduction/Raw material usage	Continue with the	-	In total 176 tonnes of		
efficiency	recycling of polyethylene.		polythene were sent off		
	The sourcing of more		site for recycling.		
	recycling contractors will		Procurement also		
	be ongoing.		exploring the possibility		
	be offgoing.	400	of securing further	Individual	Improved Environment
F F461-1 // Maille	0 6 24 4	100	The site successfully	individual	Management Practices
Energy Efficiency/Utility conservation	Continue with the				
	implementation process		managed the energy		
	of the Energy Standard		standard 50001. Energy		
	50001.		management is ongoing at		
			the site with further		
			external audits due in		Improved Environment
		100	2016.	Section Head	Management Practices
Groundwater protection	It is proposed to		Septic tanks are		
			continually being		
	upgrade existing septic				
	upgrade existing septic tank systems where		assessed and upgrade		
	tank systems where				
		90	assessed and upgrade works scheduled where required.	Section Head	Improved Environment: Management Practices

	No	ise monitor	ing summar	y report			Lic No:	PO-504-01		Year	2018
	_	ence requireme noise summar	ent for the AER y below	period?				No]		
			e EPA Guidance ort" included ir				Noise Guidance note NG4	NA			
		reduction plan						NA			
Have there		ion plan last u		na la a nlan	+ 0. 0.00	tional shan	zas) sinsa	Enter date			
Have there	been changes		e noise emissio ne last noise su		it or opera	tional chan	ges) since	NA			
Table N1: No	ise monitoring	g summary									
Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA_{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
								SELECT	SELECT		SELECT
*Dlooso opsure t	hat a tonal analysi	has been carried a	out as per guidance r	ata NGA Thaca	rocords must	ho maintained	onsite for futur	n increation			
ricuse ensure u									n from the following options?	SELECT	
						,,			.		•
										_	
			** please e	xplain the re	ason for n	ot taking ac	tion/resolu	tion of noise issues?	-]	
				Any addit	ional com	ments? (les	s than 200 v	vords)			

2018

-	Additional	information
hil 12		

below

	Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state
3	percentage in additional information

When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3

Is the site a member of any accredited programmes to conservation such as the SEAI programme linked to the additional informatic	ne right? If yes please list them in	SEAI - Large Industry Energy Network (LIEN)	Yes	The site secured accrediation to the energy standard 50001	
Where Fuel Oil is used in boilers on site is the sulphur c	***		No	Not a Licence requirement	
Table R1 Energy usage on site			_		

Table R1 Energy usag	e on site			
			Production +/- % compared to previous	Energy Consumption +/- % vs overall site
Energy Use	Previous year	Current year	reporting year**	production*
Total Energy Used (MWHrs)	1176	2 15225		
Total Energy Generated (MWHrs)				
Total Renewable Energy Generate	d (MWHrs)			
Electricity Consumption (MWHrs)	171	1639.399		
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	115	7 1,337.08		
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	e on site				Water Emissions	Water Consumption	
	Water extracted				Volume Discharged	environment e.g.	
Water use	Previous year m3/yr.	Current year m3/yr.	reporting year**	production*	:	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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

Table R3 Waste Stream	n Summary				
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	16.3				
Non-Hazardous (Tonnes)	4607.92				

Table R4: Energy A	udit finding recommend	lations				
Date of audit		Description of Measures proposed		Predicted energy savings %	Responsibility	Status and comments
			SELECT			
			SELECT			
			SELECT			

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

	Unit ID	Unit ID	Unit ID	Unit ID	Station Total
Technology					
Primary Fuel					
Thermal Efficiency					
Unit Date of Commission					
Total Starts for year					
Total Running Time					
Total Electricity Generated (GWH)					
House Load (GWH)					
KWH per Litre of Process Water					
KWH per Litre of Total Water used	on Site				

Complaints and Incidents summary template	Lic No:	PO-504-01	Year	2018
Complaints				
<u> </u>	Additional information			
Have you received any environmental complaints in the current reporting year? If yes please complete				

Table 1	Complaints summary						
	,		Brief description of				
			complaint (Free txt	Corrective action< 20			
Date	Category	Other type (please specify)	<20 words)	words	Resolution status	Resolution date	Further information
			Dust affecting house		Complete	23/05/2018	Reported on Alder
				Both parties have			on 22/05/2018 Ref.
17/05/2018	Air			agreed a resoulution			No. LR034978
							Reported on Alder
				Both parties have			on 06/07/2018 Ref.
24/06/2018	Air		Dust affecting house	agreed a resoulution	Complete	???	No. R.I 009450
							Reported on Alder
				Both parties have			on 11/07/2018 Ref.
14/06/2018	Air		Dust affecting house	agreed a resoulution	Complete	???	No. LR035720
							Reported on Alder
24 (05 (2040				Both parties have		22/05/2010	on 30/05/2018 Ref.
21/05/2018	Air		Dust affecting house	agreed a resoulution	Complete	22/05/2018	No. LR035040
				Dath and a barr			Reported on Alder
14/06/2018	Air		Dust affecting house	Both parties have agreed a resoulution	Complete		on 1/07/2018 Ref. No. LR035721
14/00/2018	All		Dust affecting flouse	agreed a resolution	Complete		Reported on Alder
				Both parties have			on 26/07/2018 Ref.
07/07/2018	Air		Dust affecting house	agreed a resoulution	Complete		No. 1R036048
07/07/2018	All		Dust affecting flouse	agreed a resoundtion	Complete		Reported on Alder
				Both parties have			on 26/07/2018 Ref.
07/07/2018	Air		Dust affecting house	agreed a resoulution	Complete		No. LR036047
07/07/2020	7		bust uncering nouse	agreed a resouration	Complete		Reported on Alder
				Both parties have			on 26/07/2018 Ref.
07/07/2040	A.		D		Complete		No. LR036044
07/07/2018	AIF		Dust affecting house	agreed a resoulution	Complete		Reported on Alder
1				Both parties have			on 26/07/2018 Ref.
12/07/2018	Air		Dust affecting house	agreed a resoulution	Complete		No. LR036053
12/07/2018	All		Dust affecting house	agreed a resolution	Complete		INU. LNU30U53

summary details of complaints received on site in table 1 below

Total complaints open at start of reporting year
Total new complaints received during reporting year
Total complaints closed during reporting year
Balance of complaints end of reporting year

Complaints and	d Incidents summary tem	plate			Lic No:	PO-504-01		Year	2018	3				
		Incide	ents									_		
					Additional information	_								
Have any incide	nts occurred on site in the currer	nt reporting year? Please list all i	incidents for current			Ī								
	reporting yea	r in Table 2 below	_	Yes		1								
*For information	n on how to report and what													
	titutes an incident	What is an incident												
COLIS	artate 3 dil merdene		1											
Table 2 Incidents su	ımmarv		1											
	•		Incident			Other								
Date of			category*please refer			cause(please	Activity in progress			Corrective action<20	Preventative action <20	Resolution	Resolution	Likelihood of
	Incident nature	Location of occurrence	to guidance	Receptor	Cause of incident	specify)	at time of incident	Communication	Occurrence	words	words	status	date	reoccurence
09/03/2018	Trigger level reached	SW2 Derrymoylin	1. Minor	Water	Not related to site activities		No activity	EPA Ref. No. INC1014120	New	There was no activity	NA			
		, ,					,		-	upstream of this point				
										that would lead to				
										exceedance in trigger				
										level, therefore no				
										corrective actions are				
										possible		Complete	09/03/2018	Medium
02/05/2018	Trigger level reached	SW16 Derrycashel	1. Minor	Water	Not related to site activities		No activity	EPA Ref No. INCI014397	New	There was no activity	NA			
										upstream of this point				
										that would lead to				
										exceedance in trigger				
										level, therefore no				
										corrective actions are				
										possible		Complete	07/05/2018	Medium
02/05/2018	Trigger level reached	SW 17 Mountdillon	1. Minor	Water	Not related to site activities		No activity	EPA RefNo. Incl014398	New	There was no activity	NA			
										upstream of this point				
										that would lead to				
										exceedance in trigger				
										level, therefore no				
										corrective actions are				
										possible		Complete	07/05/2018	Medium
02/05/2018	Trigger level reached	SW 17A Mountdillon	1. Minor	Water	Not related to site activities		No activity	EPA Ref No. INCI014399	New	There was no activity				
										upstream of this point				
										that would lead to				
										exceedance in trigger				
										level, therefore no				
										corrective actions are				
										possible	NA	Complete	07/05/2018	Medium
27/08/2018	Trigger level reached	SW 53 Begnagh	1. Minor	Water	Not related to site activities		No activity	EPA Ref No. INCI015141	New	There was no activity	NA			
										upstream of this point				
										that would lead to				
										exceedance in trigger			03/09/2018	Low
Total number of										lloval thorafora no	1		03/03/2010	
incidents current														

year
Total number of incidents previous year % reduction/increase 45%

						_					
SECTION B- WAST	TE ACCEPTED ONTO SITE-TO BE	COMPLETED BY ALL IP	PC AND WASTE FA	CILITIES			Additional Informat	tion			
1 your boundaries is to b	pted onto your site for recovery or dispose captured through PRTR reporting)	oosal or treatment prior to rec	covery or disposal within	the boundaries of you	r facility ?; (waste generated within	N/A					
If yes please enter det	tails in table 1 below							1			
2 Did your site have any	rejected consignments of waste in the	current reporting year? If ye	s please give a brief exp	anation in the addition	nal information	SELECT					
3 Was waste ac	ccepted onto your site that was genera	ted outside the Republic of Ir	eland? If yes please stat	e the quantity in tonne	s in additional information	SELECT					
	of waste accepted onto you				<u>.</u>						
Licenced annual tonnage limit for your site (total tonnes/annum)	EWC code	Source of waste accepted	Description of waste accepted Please enter an accurate and detailed description - which applies to relevant EWC code	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								
SECTION C-TO BE	COMPLETED BY ALL WASTE FA	ACILITIES (waste transfe	er stations, Compos	sters, Material rec	overy facilities etc) EXCEPT	LANDFILL SITE	S			٦	
4 Is all waste processing	infrastructure as required by your lice	nce and approved by the Age	ncy in place? If no please	e list waste processing	infrastructure required onsite	SELECT					
5 Is all waste storage inf	frastructure as required by your licence	and approved by the Agency	in place? If no please lis	t waste storage infrast	ructure required on site	SELECT					
	e relevant nuisance controls in place?					SELECT]	
7 Do you have an odour 8 Do you maintain a sluc	management system in place for your dge register on site?	racility? If no why?				SELECT SELECT				†	
			_								

Lic No:

SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES PRTR facility logon.

PO-504-01

Year

2018

dropdown list click to see options

WASTE SUMMARY

WASTE SUMMAR	RY				Lic No:	PO-504-01		Year	2018	3		
SECTION D-TO BE	COMPLETED BY LANDFILL SIT	ES ONLY										•
Table 2 Waste ty	pe 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 i	nformation-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 as bestos	Is there a separate cell for asbestos?	Accepted as bestos in reporting year	Total disposal area occupied by was te	Lined disposal area occupied by waste	Unlined area
										SELECT UNIT	SELECT UNIT	SELECT UNIT
Cell 8												
ceiro												
Table 4 Environm	ental monitoring-landfill only	Landfill Manual-Monitoring	<u>Standards</u>									
Was meterological monitoring in compliance with Landfill Directive (LD) standard in reporting	Was leachate monitored in compliance	Was Landfill Gas monitored in compliance with LD standard in	Was SW monitored in compliance with LD standard in reporting	Haw CW trigger levels	Were emission limit values agreed with	Was topography of the site surveyed in	Has the statement under S53(A)(5) of WMA been submitted in					
year +	with LD standard in reporting year	reporting year	year	been established	the Agency (ELVs)	reporting year	reporting year	Comments				
	mai 125 yantan a m reporting yeur	reporting year	year	occii estamisticu	the Agency (E278)	reporting year	reporting year	Comments	†			
	Ifill Manual linked above for relevant I			Area with waste that should be permanently capped to date under licence	What materials are used in the cap	Comments	reprint jui	Comments				
.+ please refer to Lanc Table 5 Capping-I Area uncapped* SELECT UNIT	fill Manual linked above for relevant I Landfill only Area with temporary cap SELECT UNIT	andfill Directive monitoring s	standards	Area with waste that should be permanently capped to date under			reporting Jen	Committee				
.+ please refer to Land Table 5 Capping-I Area uncapped* SELECT UNIT *please note this inclu Table 6 Leachate 9 is leachate from your	If III Manual linked above for relevant I Landfill only Area with temporary cap SELECT UNIT Judes daily cover area	andfill Directive monitoring s Area with final cap to LD Standard m2 ha, a	Area capped other	Area with waste that should be permanently capped to date under				Communic				
.+ please refer to Land Table 5 Capping-I Area uncapped* SELECT UNIT *please note this inclu Table 6 Leachate 9 is leachate from your	Area with temporary cap SELECT UNIT Judes daily cover area -Landfill only site treated in a Waste Water Treatment	andfill Directive monitoring s Area with final cap to LD Standard m2 ha, a	Area capped other	Area with waste that should be permanently capped to date under		Comments	Comments	Communic				
.+ please refer to Land Table 5 Capping-I Area uncapped* SELECT UNIT *please note this inclu Table 6 Leachate 9 Is leachate from your: 10 Is leachate released t Volume of leachate in	Area with temporary cap SELECT UNIT Landfill only SELECT UNIT Lades daily cover area -Landfill only site treated in a Waste Water Treatme o surface water? If yes please complet	Area with final cap to LD Standard m2 ha, a nt Plant? e leachate mass load informa	Area capped other Ition below Leachate (NH4) mass	Area with waste that should be permanently capped to date under licence	What materials are used in the cap	Comments SELECT SELECT Specify type of leachate		Communic				
.+ please refer to Land Table 5 Capping-I Area uncapped* SELECT UNIT *please note this inclu Table 6 Leachate 9 Is leachate from your: 10 Is leachate released t Volume of leachate in reporting year(m3)	Area with temporary cap SELECT UNIT Landfill only SELECT UNIT Lades daily cover area -Landfill only site treated in a Waste Water Treatme o surface water? If yes please complet Leachate (BOD) mass load (kg/annum)	Area with final cap to LD Standard m2 ha, a nt Plant? e leachate mass load informa Leachate (COD) mass load (kg/annum)	Area capped other ttion below Leachate (NH4) mass load (kg/annum)	Area with waste that should be permanently capped to date under licence Leachate (Chloride) mass load kg/annum	What materials are used in the cap Leachate treatment on-site	Comments SELECT SELECT Specify type of leachate		Communic				
.+ please refer to Land Table 5 Capping-I Area uncapped* SELECT UNIT *please note this inclu Table 6 Leachate 9 Is leachate from your: 10 Is leachate released t Volume of leachate in reporting year(m3)	Area with temporary cap SELECT UNIT Landfill only SELECT UNIT Lades daily cover area -Landfill only site treated in a Waste Water Treatme o surface water? If yes please complet Leachate (BOD) mass load (kg/annum)	Area with final cap to LD Standard m2 ha, a nt Plant? e leachate mass load informa Leachate (COD) mass load (kg/annum)	Area capped other ttion below Leachate (NH4) mass load (kg/annum)	Area with waste that should be permanently capped to date under licence Leachate (Chloride) mass load kg/annum	What materials are used in the cap Leachate treatment on-site	Comments SELECT SELECT Specify type of leachate		Communic				
.+ please refer to Land Table 5 Capping-I Area uncapped* SELECT UNIT *please note this inclu Table 6 Leachate 9 Is leachate from your: 10 Is leachate released t Volume of leachate in reporting year(m3)	Area with temporary cap SELECT UNIT Landfill only SELECT UNIT Lades daily cover area -Landfill only site treated in a Waste Water Treatme o surface water? If yes please complet Leachate (BOD) mass load (kg/annum)	Area with final cap to LD Standard m2 ha, a nt Plant? e leachate mass load informa Leachate (COD) mass load (kg/annum)	Area capped other stion below Leachate (NH4) mass load (kg/annum) consistent with the Lance Was surface emissions monitoring performed during the reporting	Area with waste that should be permanently capped to date under licence Leachate (Chloride) mass load kg/annum	What materials are used in the cap Leachate treatment on-site	Comments SELECT SELECT Specify type of leachate		Communication				

European Waste Code (EWC)	Description of Waste (in line with applicable EWC code)	C code) YES/NO (Tonnes) Agent/Carrier / Recycled			Name, Address & Licence/Permit No. of FINAL Destination	Country	
02 01 04	waste plastics (except packaging)	No	176.02	ADN Materials Ltd.WFP- MN-12-0001-04	R03 - Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)	ADN Materials Ltd., Lossetts, Carrickmacross, Co. Monaghan - WFP-MN-12-0001- 04	Ireland
13 02 05*	mineral-based non- chlorinated engine, gear and lubricating oils	Yes	4.7	Enva Ireland Limited (Portlaoise) - W0184	R01 - Use principally as a fuel or other means to generate energy	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland
15 01 01	paper and cardboard packaging	No	5.52	Mulleady's Limited (Drumlish) - W0169	R03 - Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)	Mulleady's Limited, Cloonagh Drumlish, Co. Longford - W0169	Ireland
15 01 03	wooden packaging	No	5.52	AES Ltd WP-OY-08- 601-01	R01 - Use principally as a fuel or other means to generate energy	AES LTD, Cappincur, Tullamore, Co. Offaly - WP- OY-08-601-01	Ireland
15 02 02*	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	Yes	0.15	Enva Ireland Limited - L1745	R01 - Use principally as a fuel or other means to generate energy	Lindenschmidt, Kreutzal - Reg No: E97095037	Germany
16 01 07*	oil filters	Yes	1.32	Enva Ireland Limited (Portlaoise) - W0184	R04 - Recycling/reclamation of metals and metal compounds	R.D. Recycling, Houthalen, Reg No: 51727/1KD	Belgium
16 06 01*	lead batteries	Yes	1.79	Enva Ireland Limited (Portlaoise) - W0184	R04 - Recycling/reclamation of metals and metal compounds	Campine Recycling, Beerse - MLAV/05173/GVDA	Belgium
11 01 13*	degreasing wastes containing hazardous substances	Yes	0.09	Safety Kleen Ireland Ltd - W0099	R02 - Solvent reclamation/regeneration	Solvent Recovery Management, PP33345F, Wheeland Rd., Knottingly, West Yorks	UK
13 05 03*	interceptor sludges	Yes	8.24	Enva Ireland Limited (Portlaoise) - W0184	R01 - Use principally as a fuel or other means to generate energy	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland
17 04 07	mixed metals	No	75.94	AES Ltd WP-OY-08- 601-01	R04 - Recycling/reclamation of metals and metal compounds	AES LTD, Cappincur, Tullamore, Co. Offaly - WP- OY-08-601-01	Ireland
20 03 01 A	Municipal mixed residual household	No	0.86	AES Ltd WP-OY-08- 601-01	D05 - Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP- OY-08-601-01	Ireland
20 03 01 B	Municipal mixed residual non-household	No	18.42	AES Ltd WP-OY-08- 601-01	D05 - Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP- OY-08-601-01	Ireland
20 01 21*	Household waste fluorescent lamps and other mercury containing waste	Yes	0.06	KMK Metals Recycling Ltd L2952	R04 - Recycling/reclamation of metals and metal compounds	KMK Metals Recycling Ltd, Cappincur Industrial Estate, Daingean Rd, Cappincur, Tullamore, Co. Offaly - L2952	Ireland

Mount Dillon

Decommissioning and Rehabilitation Bog Rehabilitation Progress Report 2018.

Within the Mount Dillion licensed area (P0504-01) there were two entire bog units available for rehabilitation in 2018 – Corlea and Clonwhealan. Ongoing monitoring of cutaway areas was carried out within the Mount Dillon area with Granaghan and Derraghan having been resurveyed in 2018. In addition, baseline ecology surveys were also undertaken at Mostrim and Clynan bogs to inform the Bord na Móna raised bog restoration work programme. Both of these sites constitute large sections of remnant high bog and were re-surveyed in 2018.

Draft rehabilitation plans for the Mount Dillon bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015 and 2017.

Active rehabilitation work was carried out within Corlea (135ha) and Clonwhealan Bog (65ha) as part of the long-term rehabilitation of these sites. Intensive drainblocking and re-wetting was carried out in bog remnants and deep peat bog areas. An amenity walkway has also been constructed at Corlea Bog in an area of rehabilitated cutaway now leased to the local community. This was a joint project between Bord na Móna and Longford County Council.

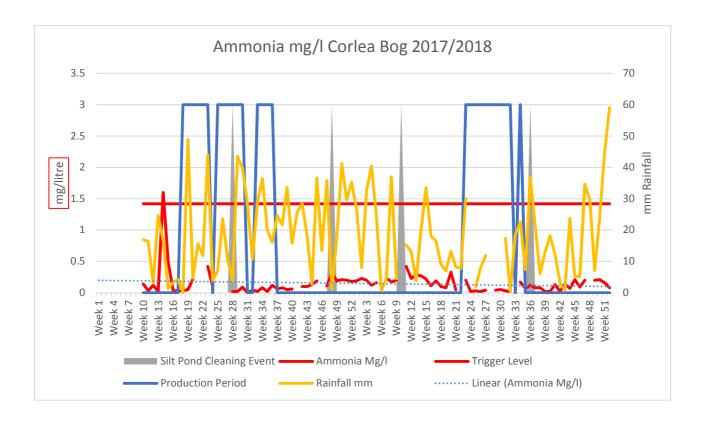
The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in May 2018, this included an update on progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.

A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

As required by condition 10.2 Cutaway Bog Rehabilitation Plans, draft peatland rehabilitation plans for all the individual bog units were submitted to the agency in 2013, reviewed and amended in 2015 and re-submitted to the agency in 2015. All draft rehabilitation plans have been reviewed in 2017. These reviewed and amended plans will be re-submitted to the agency in due course.

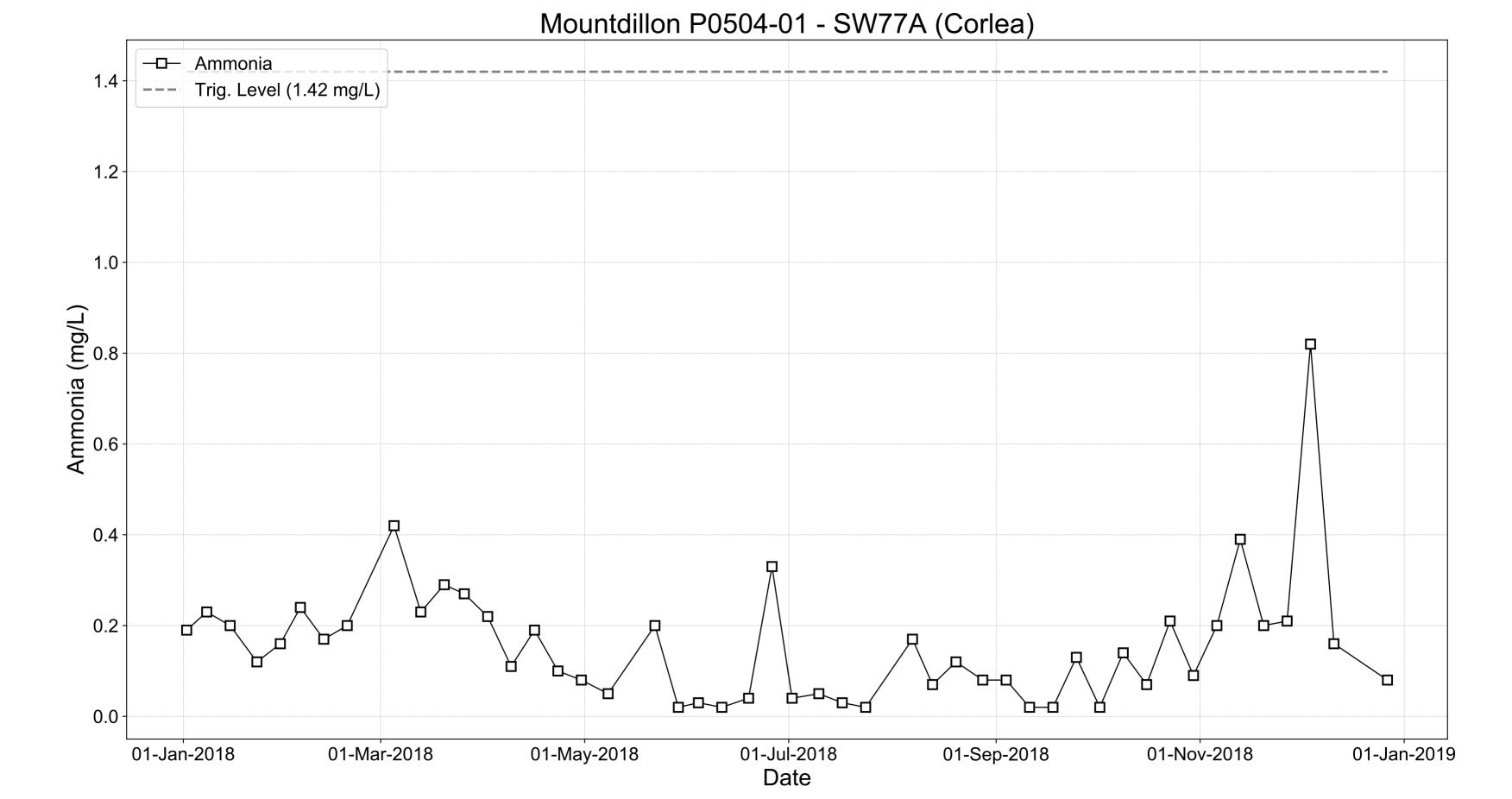
Organic certification was sought for the majority of the Bord na Móna property with the aim of using some areas for the cultivation of plants for use in herbal medicine, this project is ongoing.

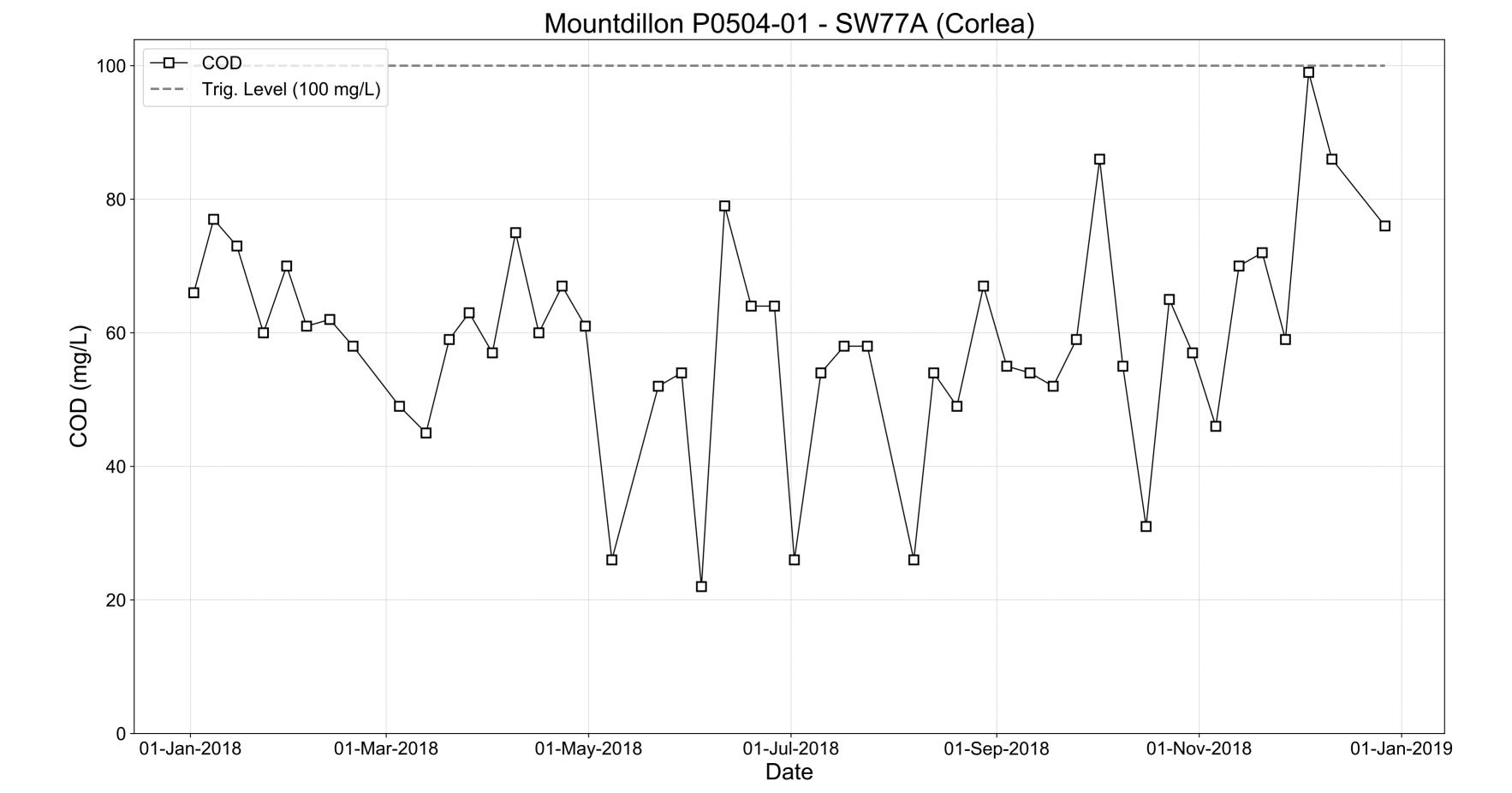
IPPC Licence P0504-01 Quarterley Grab Sampling												
Χ	Υ	Bog	SW	Monitoring	Sampled	pH	SS	TS	Ammonia	TP	COD	Colour
203231.82	282838.72	Derrymoylin	SW-1	Q1 18	09/03/2018	7.5	5	374	0.28	0.05	44	91
203249.23	283476.42	Derrymoylin	SW-2	Q1 18	09/03/2018	7.6	5	163	2.1	0.05	17	63
202651.77	284748.83	Derrymoylin	SW-3	Q1 18	09/03/2018	7.8	5	232	0.5	0.05	46	121
203369.33	285381.69	Derrymoylin	SW-4	Q1 18	09/03/2018	7.6	5	150	0.28	0.05	51	196
203500.28	285433.11	Derrymoylin	SW-5	Q1 18	09/03/2018	7.9	5	310	0.28	0.05	40	119
201425.36	279968.71	Cloonshannagh	SW-6	Q1 18	09/03/2018	7.9	5	286	0.23	0.09	38	124
202255.50	279742.53	Cloonshannagh	SW-7	Q1 18	20/03/2018	6.2	36	100	0.61	0.05	99	124
202994.69	279668.44	Cloonshannagh	SW-8	Q1 18	20/03/2018	7.8	5	420	0.05	0.05	52	112
204893.25	280860.61	Cloonshannagh	SW-10	Q1 18	20/03/2018	7.7	5	330	0.36	0.05	40	82
202604.45	281233.03	Cloonshannagh	SW-11	Q1 18	20/03/2018	7.9	5	478	0.3	0.05	40	100
202802.57	282212.51	Cloonshannagh	SW-11A	Q1 18	20/03/2018	7.9	5	464	0.25	0.05	65	133
201386.06	280466.96	Cloonshannagh	SW-12	Q1 18	20/03/2018	7.9	5	401	0.25	0.07	63	164
204457.50	279959.37	Cloonshannagh	SW-9	Q2 18	30/04/2018	7.7	5	332	0.35	0.05	28	286
204693.18	280062.24	Cloonshannagh	SW-9A	Q2 18	30/04/2018	8	5	296	0.17	0.05	49	334
203087.79	277486.67	Derrycashel	SW-13	Q2 18	30/04/2018	8	5	380	0.11	0.05	53	198
202836.32	277415.17	Derrycashel	SW-14	Q2 18	30/04/2018	7.6	5	206	0.06	0.05	58	423
202442.72	277238.02	Derrycashel	SW-15	Q2 18	02/05/2018	8.2	5	392	0.08	0.05	53	99
201764.79	277022.51	Derrycashel	SW-16	Q2 18	02/05/2018	7.7	5	258	0.63	0.05	107	283
201541.73	272805.72	Mountdillon	SW-17	Q2 18	02/05/2018	7.4	5	264	0.24	0.74	118	310
201616.81	273699.66	Mountdillon	SW-17A	Q2 18	02/05/2018	7.7	5	262	0.19	0.07	117	314
199917.99	273798.51	Mountdillon	SW-18B	Q2 18	02/05/2018	7.8	5	294	0.55	0.05	43	129
198682.39	271189.62	Cloontuskert	SW-27	Q2 18	02/05/2018	8.1	5	314	0.27	0.06	52	126
197846.35	270246.30	Moher	SW-31	Q2 18	02/05/2018	7.7	5	220	0.21	0.05	61	231
197403.85	270894.69	Moher	SW-32	Q2 18	No Flow	NF	NF	NF	NF	NF	NF	NF
TBC	TBC	Mostrim	SW-120	Q2 18	05/04/2018	Lab error	5	92	0.57	0.05	56	301
TBC	TBC	Mostrim	SW-121	Q2 18	05/04/2018	Lab error	5	73	0.52	0.05	59	171
TBC	TBC	Mostrim	SW-115	Q2-18	05/04/2018	Lab error	5	72	0.69	0.05	61	181
TBC	TBC	Mostrim	SW-116	Q2-18	05/04/2018	Lab error	5	130	2.2	0.05	79	301
TBC	TBC	Mostrim	SW-117	Q2-18	05/04/2018	Lab error	5	72	0.95	0.05	65	222
TBC	TBC	Mostrim	SW118	Q2-18	05/04/2018	Lab error	5	142	0.62	0.06	73	306
TBC	TBC	Mostrim	SW-119	Q2-18	05/04/2018	Lab error	5	166	1.1	0.06	47	176
206115.80	274878.92	Knappoge	SW-49	Q3 18	09/08/2018	7.4	5	236	0.12	0.14	32	67
205061.08	275562.80	Killashee	SW-49A	Q3 18	09/08/2018	7.7	5	246	0.06	0.05	45	137
204667.95	274040.57	Knappoge	SW-50	Q3 18	09/08/2018	7.7	5	376	0.19	0.05	35	78
206887.04	274473.24	Begnagh	SW-51	Q3 18	09/08/2018	8.2	10	380	0.06	0.07	64	132
206975.29	274705.14	Begnagh	SW-52	Q3 18	09/08/2018	7.8	5	244	0.72	0.13	68	263
207813.09	274377.81	Begnagh	SW-53	Q3 18	27/08/2018	6.5	5	132	0.969	0.05	110	350
208041.06	273513.98	Begnagh	SW-54	Q3 18	27/08/2018	7.3	5	180	0.88	0.05	95	437
207856.06	273044.13	Begnagh	SW-55	Q3 18	27/08/2018	6.5	5	214	1	0.06	83	313
209203.68	273164.02	Clooneeny	SW-56	Q3 18	27/08/2018	7.5	5	330	0.43	0.06	63	346
209144.76	273279.48	Clooneeny	SW-57	Q3 18	27/08/2018	7.4	5	250	0.32	0.06	69	217
209068.65	274509.95	Clooneeny	SW-58	Q3 18	No Flow	NF	NF	NF	NF	NF	NF	NF
210209.83	274038.53	Clooneeny	SW-59	Q3 18	11/09/2018	7.5	5	332	0.12	0.08	27	72
204286.21	272640.87	Derryaroge	SW-35	Q4 18	12/11/2018	7.4	5	398	0.35	0.05	58	281
203400.35	272510.11	Derryaroge	SW-36	Q4 18	12/11/2018	7.1	5	210	0.39	0.05	77	260
202650.72	273122.31	Derryaroge	SW-37	Q4 18	12/11/2018	7.2	5	338	0.57	0.05	63	164
202502.01	272689.16	Derryaroge	SW-38	Q4 18	21/11/2018	7.6	5	490	1.1	0.05	62	96
202410.69	271393.37	Derryarogue	SW-39	Q4 18	21/11/2018	7.4	5	242	1	0.05	78	241
203095.63	273341.49	Derryaroge	SW-40	Q4 18	21/11/2018	5.7	5	286	0.77	0.05	54	173
203260.27	271785.26	Derryaroge	SW-41	Q4 18	21/11/2018	7	5	364	0.69	0.05	51	107
203148.87	271351.76	Derryaroge	SDW-41A	Q4 18	21/11/2018	0.05	12	410	1.5	0.05	77	157
202357.87	272474.81	Derryaroge	SW-42	Q4 18	04/12/2018	7.2	5	240	0.11	0.05	91	281
203187.11	271923.18	Derryaroge	SW-43	Q4 18	04/12/2018	7.6	5	425	0.1	0.05	79	157
202284.33	271432.46	Cloonbony	SW-44	Q4 18	04/12/2018	7.4	5	390	1	0.05	47	114
202116.64	271257.33	Cloonbony	SW-45	Q4 18	No Flow	NF	NF	NF	NF	NF	NF	NF
202183.21	271461.75	Cloonbony	SW-46	Q4 18	No Flow	NF	NF	NF	NF	NF	NF	NF
202000.58	272467.09	Derryaroge	SW-47	Q4 18	No Flow	NF	NF	NF	NF	NF	NF	NF

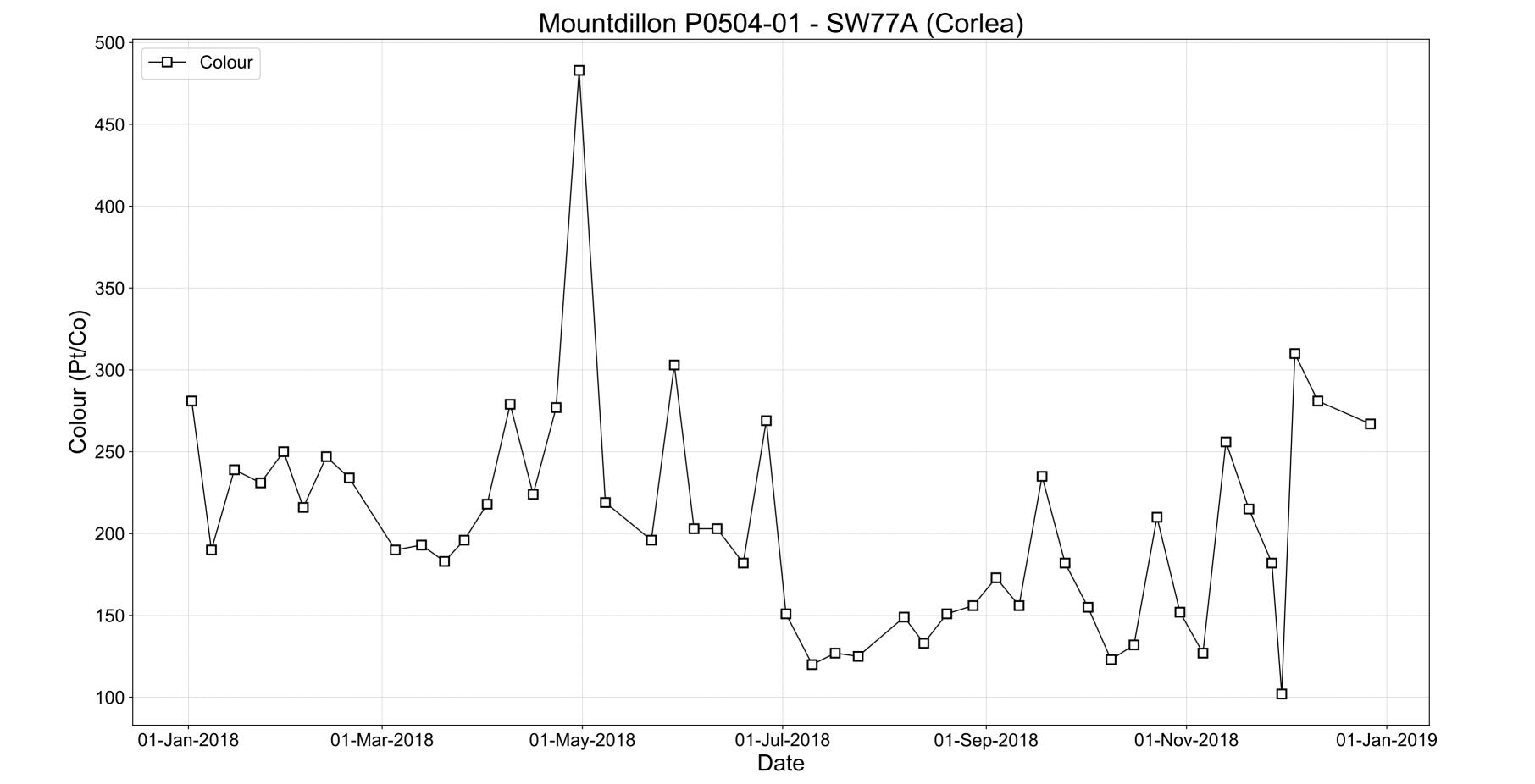


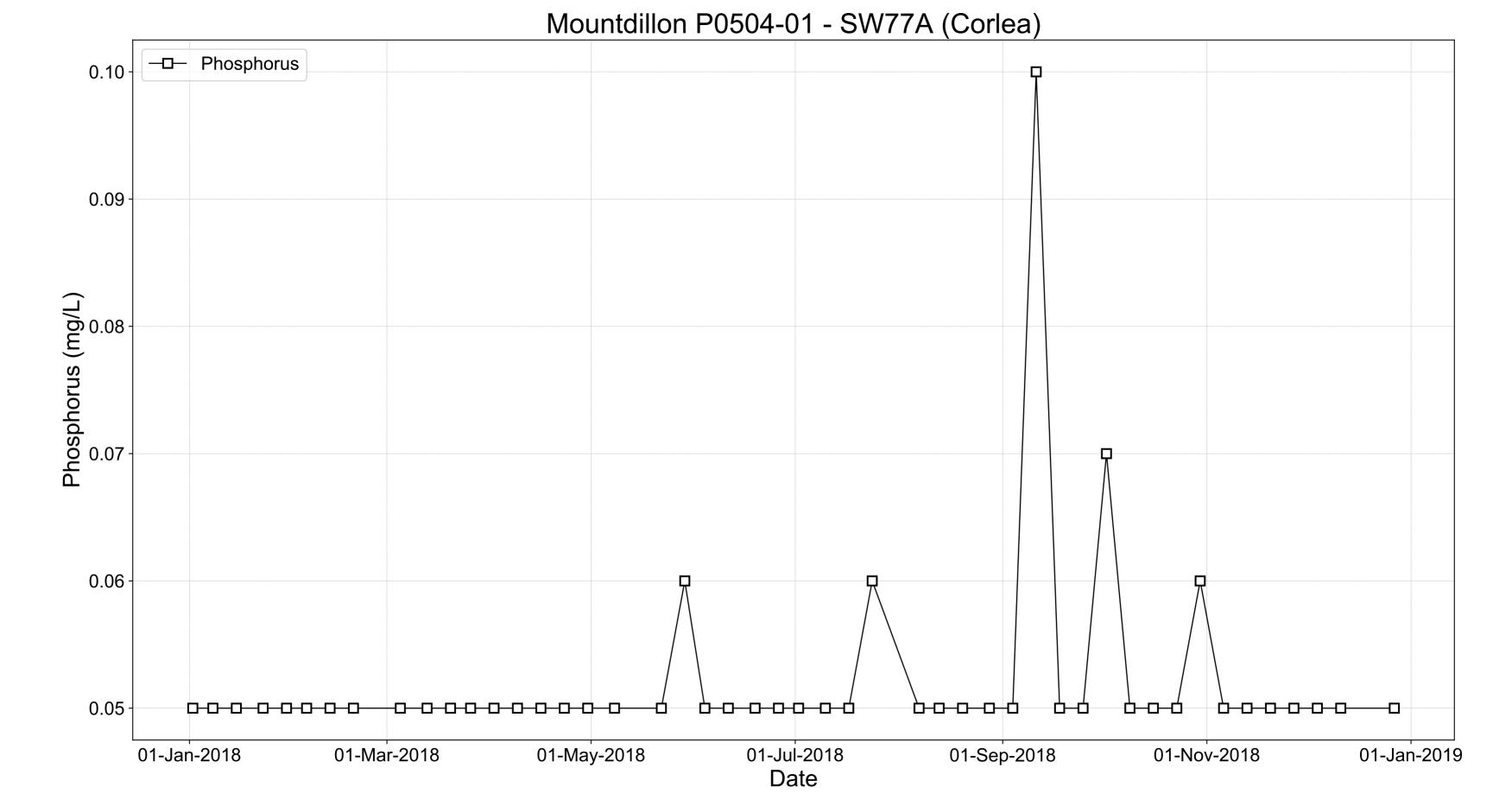
Corlea bog is an active production bog with the composite sampler relocated to this bog in March 2017 and it remains at this location for the reporting period. The composite sampler takes a flow proportional composite sample over a 24-hour period. This location returned 46 weekly ammonia results during the 2018 period, which is a return of 88%. The balance of weeks where no sample was returned was during periods when there was no summer discharge, water was backed up in the Winter/Spring seasons or for technical issues. The ammonia trigger level of 1.42mg/l, as agreed with the Agency, was not exceeded during the reporting period. Overall the results are maintaining a downward trend as peat extraction continues, and this is in-line with the downwards trends submitted to the EPA in 2013 as required by condition 6.14. It has been established that the most relevant influencing variable on Ammonia is rainfall and the trend analysis above indicates linkage between rainfall and ammonia concentrations.

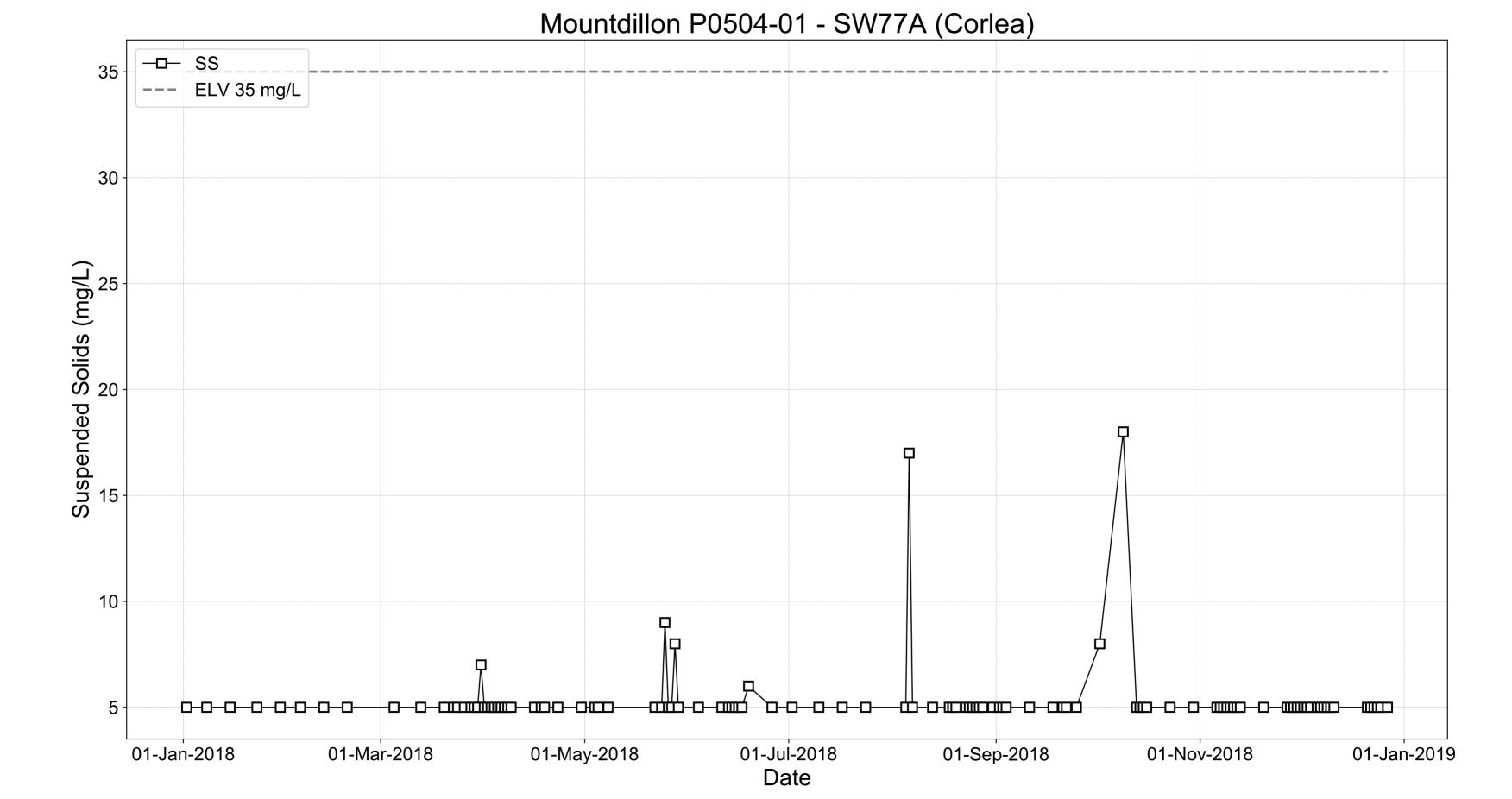
The sampler at this location may be relocated to fill any information gaps on other peatland catchments and to reflect the need to support the information gathering required for the Water Framework Directive's River Basin Management Plan. There is also an EPA lead research project commencing in 2019, called the SWAMP project, whose aims are to appraise and understand the nutrient impact from peatlands, to evaluate treatment technologies and to propose predictive tools for watershed management.

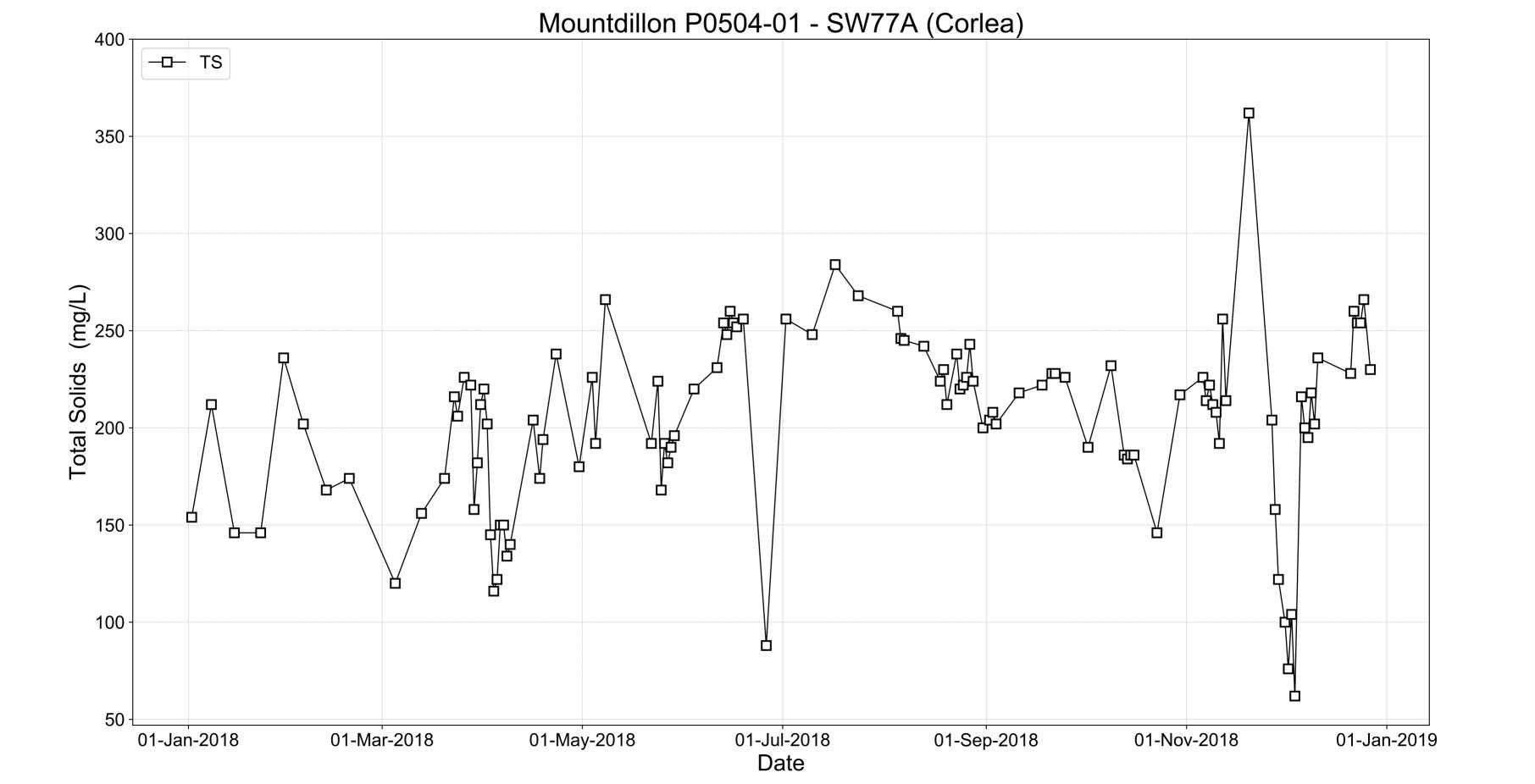


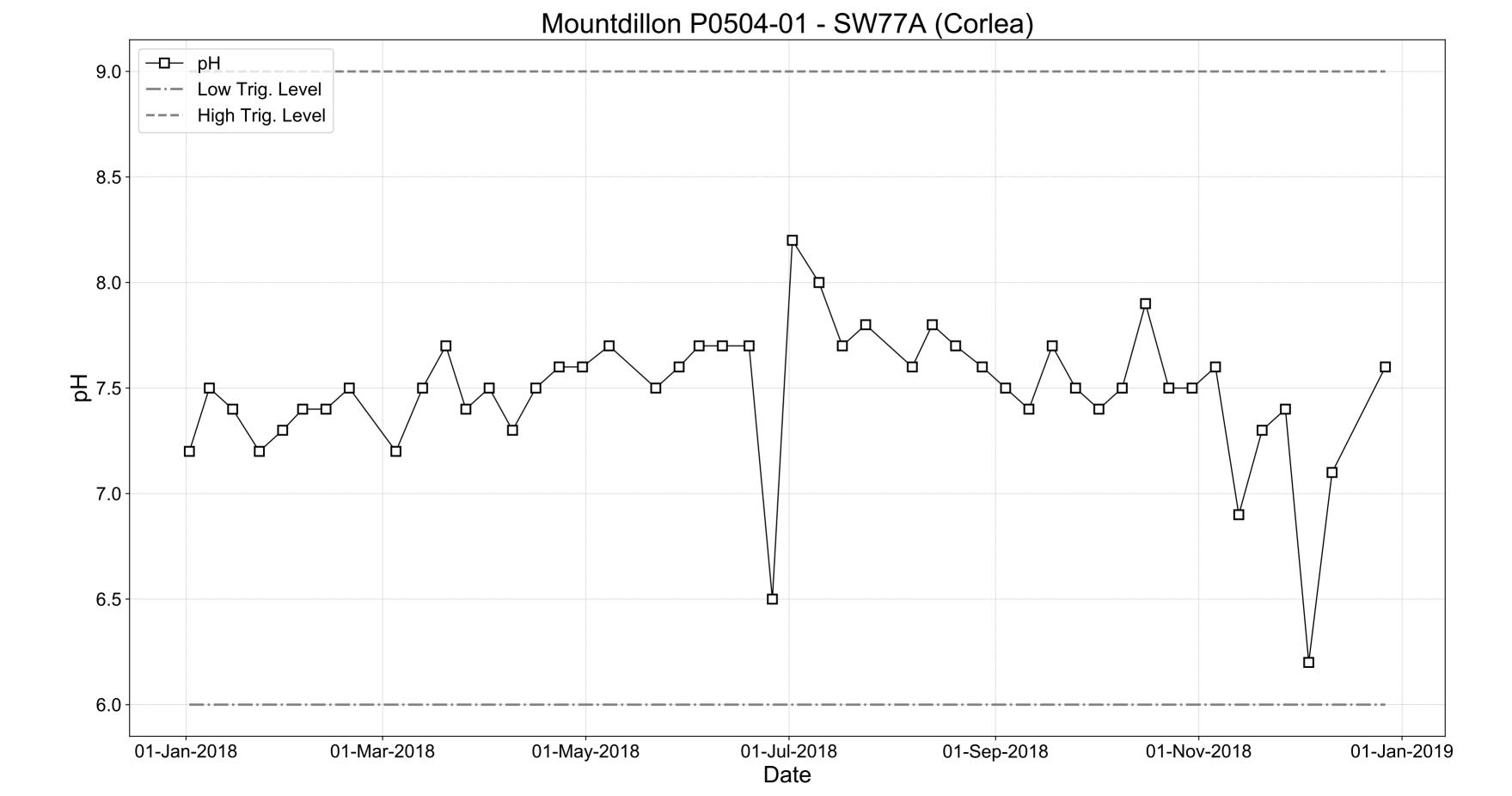












Yard Discharge Results 2018

Licence: P0504-01

Works: Mt Dillon

WOIKS. WIL DITION						
Month	W/Shop SWE 1 COD	W/Shop SWE 2 COD	Yard SWE 1 COD	Yard SWE 2 COD	C na Gun SWE1 COD	P Station SWE 1 COD
Jan	64	43	12	28	NF	NF
Feb	66	42	NF	10	NF	NF
Mar	49	29	NF	14	NF	NF
Apr	70	54	NF	NF	61	NF
May	NF	NF	NF	NF	NF	NF
June	68	46	11	10	NF	NF
July	NF	NF	NF	NF	NF	NF
Aug	44	70	NF	NF	NF	NF
Sep	49	40	NF	NF	17	NF
Oct	NF	NF	NF	NF	NF	NF
Nov	75	65	NF	NF	NF	NF
Dec	NF	NF	NF	NF	NF	NF
Total						

Note: NF denotes no flow at emission point on day of sampling

Extractive Waste Management Plan Implementation AER Update.

March 2019.

IPC Licence P0504-01.

1.0 Extractive Wastes.

Waste classified as extractive waste from peat extraction operations arise from three operations associated with this activity.

- Silt Pond excavations and maintenance
- Power Station Screenings
- Bog Timbers

There has been no change to the type and nature of these three waste streams and no new waste streams added to this list. These wastes streams continue to be stored and maintained at between 1 and 3 metres in height.

2.0 Condition 7.5 Extractive Waste Management

- An extractive waste management plan (EWMP) was submitted to the Agency in September 2012 and was approved.
- The EWMP was reviewed in September 2017. There were no substantial changes to the operation of the plan, associated waste facilities or to the waste deposited.

3.0 Minimisation

- The IPC Licence has various conditions that require the installation, inspections and maintenance of silt ponds for operational areas and as such these requirements dictate the need for silt ponds and associated excavation materials and cleanings.
- Peat screenings are a factor of the screening process with Lough Ree Power Ltd as these oversized bog timbers, stones and peat cannot be utilised in the power station.
- Bog timbers arise from the active production footprint and are naturally occurring. The active footprint is dictated by the peat production targets and customer supply contract and service level agreements.

4.0 Treatment

- Silt pond excavation and maintenance materials do not require any treatment and are stored as per the EWMP, adjacent to the associated silt pond.
- The factory screenings are permitted to be returned to the bog as they were naturally occurring materials from the bog, and as such do not require any treatment to serve this purpose.
- There is no treatment of bog timbers arising and these are stockpiled at various locations in associated bogs.

5.0 Recovery

- As per the EWMP, there is still no opportunity to recover these silt pond associated materials.
- Given the nature of these screenings as outlined in the EWMP, there is no further use identified, other than the permitted reuse of these natural materials in areas that required improvement for trafficking purposes.
- Bog timbers stored on the bog are natural to the peat bog and while there have been trails to recover this waste material, these have not proved viable.

6.0 Disposal

- Silt pond cleanings continue to be disposed of adjacent to the associated silt pond and will be incorporated back into the rehabilitation plans for these bogs, post production and decommissioning.
- Schedule 3 (ii) of this IPC Licence permits the disposal of peat screenings to the bog at designated locations agreed under Condition 7.4 and this continues to be the case.
- Bog timbers will continue to be stockpiled at suitable locations to be either incorporated back into the bog, as a supply of bog timbers for the crafting industry or will continue to decay naturally.



Annual Environmental Report 2018

Bord na Mona Energy Ltd (Kilberry Group of Bogs) IPC Licence P0506-01

Facility Information Summary

AER Reporting Year

Licence Register Number

Name of site

Site Location

NACE Code

Class/Classes of Activity

National Grid Reference (6E, 6 N)

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.

2018	
P0506-01	
Во	rd na Mona Kilberry
Bord na Mona	, Leabeg, Tullamore, Co Offaly
	0892
	1.4
	180050, 319540

Activities on site can be divided into two components, firstly the milling, harrowing, ridiging and harvesting of peat into stockpiles and secondly the transportation of that peat via an internal rail network to the lorry outloading facilities for transportation to a Power Station, Moss Peat Factory or direct to the Docks. Production achieved was approximately 211,839 tonnes. Infrastructurally, there was no bog development during the period. From an environmental perspective silt pond upgrade work was ongoing during the period. Dust monitoring was fully compliant during the reporting period. Trigger levels were reached 9 times for COD during quarterly grab sampling with these exceedances included. The composite sampling regime was 100% compliant in relation to Suspended Solids ELV's. There were 15 Ammonia trigger levels reached during the reporting period, and 8 related to COD. These were all investigated and closed out, with the main causation concluded to be related to naturally occurring peat formation. There were no environmental complaints received during the reporting period. In relation to silt pond cleaning, 100 % of ponds received two cleanings, some individual ponds received more, inspections dictating cleaning schedules. Decommissioning and Rehabilitation works are described in an attachment. The composite sampler experienced some technical difficulties during the reporting period which have since been rectified. During the period there were various returns made to the EPA including the Draft Kilberry Rehabilitation Plan, consent for wildcrafting trials, Management and waste management changes.

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.

Reech

Signature

Group/Facility manager

(or nominated, suitably qualified and experienced deputy)

OWALL DOG

Date

	AIR-summary					Lic No:	P0506-01		Year	2018	В
-	Answer all questi	ons and complete all tal	bles where relevan	t				dditional informat	ion		
					e A1 and A2 below for the licenced emissions and do						
1					not need to complete the						
			tables			No	.	ugitive emissions o	inly		
						NO	'	ugitive emissions o	illy		
	Periodic	/Non-Continuous N	Monitoring								
2	Are there any res	ults in breach of licence	requirements? If v	es nlease provide	brief details in the comment						
_	Are there any les		section of TableA1		bilet details in the comment	No	All re	sults within license	elimits		
	Was all monito	oring carried out in acco	rdance with EPA	Basic air							
3		AG2 and using the basi		monitoring							
		checklist?		checklist	AGN2	Yes	1				
	Table A1: Lice	ensed Mass Emissio	ons/Ambient d	ata-periodic m	onitoring (non-continu	ious)					
											Comments -reason
	Emission			ELV in licence or			Unit of	Compliant with	Mathadaf	Annual mass	for change in % mass
	Emission reference no:	Parameter/ Substance	Frequency of Monitoring	any revision therof	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence limit	Method of analysis	Annual mass load (kg)	load from previous year if applicable
	reference no.	Talameter, Cabetanee		therei	Ziconoc Compilance ontona	medeured rande	measarement	neence mine	unarysis	iouu (Kg)	усы п аррпсавте
		SELECT			SELECT		SELECT	yes	SELECT		
		JEE 01					522201	,	522201		
		SELECT			SELECT		SELECT	SELECT	SELECT		
		JELECT			JELECI		JELLOT	JELECT	JELECI		
		SELECT			SELECT		SELECT	SELECT	SELECT		
		SELECT			SELECT		SELECT	SELECT	SELECT		
		ic flow shall be included	d as a reportable pa	rameter		ı		1		1	
		Continue	itorina								
		Continuous N	nonitoring								
4	Does your site ca	rry out continuous air e	missions monitorin	g?		No					
	If yes please re		-		ed fields below in Table A2						
	Did continuous ==		to its relevant Emis		•		 				
5	below	ionitoring equipment ex	xperience downtim	er it yes please re	cord downtime in table A2	No					
6											
	Do you have a pro	pactive service agreeme	nt for each piece of	f continuous moni	toring equipment?	No					
7					ail them in table A3 below	No					

AIR-summary template	Lic No:	P0506-01	Year	2018
Table A2: Summary of average emissions -continuous monitoring				

Emission	Parameter/ Substance		Averaging	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:			Period (days)		measurement			Equipment	exceedences	
		ELV in licence or						downtime (days)	in current	
		any revision							reporting year	
		therof								
DM-01	Total Particulates	350	280	Daily average < ELV	mg/m2/day	38276	233	56	0	Dust gauge damaged
										twice during the
										annual monitoring
										period

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

	Tuture Agency Insp	ections please refe	r to bypass proto	COLLINK					
Solvent	use and manageme	ent on site							
			1	te?if yes please fill out table		1	No		
	vent Management hission limit value	Plan Summary	Solvent regulations	Please refer to linked solve complete table 5					
Reporting year	Total solvent input on site (kg)	from entire site	Total VOC emissions as %of solvent input	Total Emission Limit Value (ELV) in licence or any revision therof	Compliance				
					SELECT				
					SELECT				
Table A5: 9	Solvent Mass Balan	ice summary				_			
	(I) Inputs (kg)				Outputs (kg)				
Solvent	(I) Inputs (kg)	Organic solvent emission in waste gases(kg)		Collected waste solvent (kg)	Solvent (kg)	in other ways e.g. by-passes		Total emission of Solvent to air (kg)	
•	·			1			Total		

AER Monite	oring returns	summary template	-WATER/WAS	TEWATER(SE	WER)	Lic No:	P0506-01		Year	2018
							Additional information		1	
yes please answer furth	complete table er questions. If y	emissions direct to surf W2 and W3 below for to you do not have licend W2 for storm water and	the current report ced emissions you	ting year and u <u>only</u> need to		inhibited the colle calculations. It v	ampler experienced technical o ction of flow data and subsequ was therefore decided to prese	ent annual loading nt the sampling		
water discha	ges or watercou	licence to carry out vis rses on or near your sit y any evidence of conta inspections	te? If yes please o	complete table	Yes		ults in graph form as an attachm			
Table V	V1 Storm wat	er monitoring								
Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	
	SELECT SELECT	SELECT SELECT	SELECT SELECT			SELECT SELECT		SELECT SELECT	SELECT SELECT	
	SELECT may be agreed b	SELECT y the Agency outside of ections-Please only	SELECT licence conditions	where conta	emination was	SELECT	Corrective acti	SELECT		nents
Table W	may be agreed b	SELECT y the Agency outside of ections-Please only	SELECT licence conditions y enter details	where conta		SELECT observed. Source of contamination SELECT	Corrective acti	SELECT	SELECT	nents
Table W	may be agreed b	SELECT y the Agency outside of ections-Please only	SELECT licence conditions y enter details	where conta		SELECT observed. Source of contamination	Corrective acti	SELECT	SELECT	nents

AER Monitorin	ng returns su	mmary template-W	/ATER/WASTE	WATER(SEWI	Lic No:	P0506-01		Year	2018	3					
Table W3: L	icensed Emis	sions to water and	/or wastewat	er (sewer)-pe	eriodic monit	oring (non-con	tinuous)								
Emission reference no:	Emission released to	Parameter/ SubstanceNote 1		Frequency of monitoring		ELV or trigger values in licence or any revision therof ^{Note 2}	Licence Compliance criteria	Measured value		Compliant with licence	Method of analysis	Procedural	Procedural reference standard number	Annual mass load (kg)	Comments
	SELECT	SELECT	SELECT		SELECT		SELECT		SELECT	SELECT	SELECT	SELECT			
		e included as a reportab <mark>'alues (ELV) do not appl</mark> y		ease compare re	sults against EQS	for Surface water o	or relevant receptor quality stan	dards							

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

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

Continuous monitoring

downtime in table W4 below
 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

Yes 137 Days in 365 Yes Annual calibration schedule and trouble shooting service.

Table W4: Summary of average emissions -continuous monitoring

Emission reference no:	Emission			Averaging				reporting year	Equipment downtime	Number of ELV exceedences in reporting year	Comments
reference no.	released to	Parameter/ Substance	thereof	renou	Criteria	measurement	reporting year (kg)		(nours)	reporting year	comments

Additional Information

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

Table W5: Abatement system bypass reporting table

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

^{*}Measures taken or proposed to reduce or limit bypass frequency

new bunds and containn mobile bunds must be li Please provide integrity Does the site maintain a Chemstore" type units. How many bunds are on How many of these bund	ment structures on si listed in the table bel				Lic No:	P0506-01		Year	2018				
new bunds and containen nobile bunds must be li Please provide integrity Does the site maintain a Chemstore" type units . How many bunds are on How many of these bund	ment structures on si listed in the table bel	dropdown menu cli	ck to see options				Additional information						
ew bunds and containn tobile bunds must be li lease provide integrity toes the site maintain a Chemstore" type units . ow many bunds are on ow many of these bund	ment structures on si listed in the table bel	e integrity testing on bunds an	d containment structures	if yes please fill out tabl	e B1 below listing all								
obile bunds must be li ease provide integrity oes the site maintain a chemstore" type units ow many bunds are on ow many of these bund	listed in the table bel	te, in addition to all bunds whi				Yes							
ease provide integrity oes the site maintain a hemstore" type units ow many bunds are on ow many of these bund		ow, please include all bunds or					3 of the Bunds have been replaced	1					
pes the site maintain a hemstore" type units ow many bunds are on ow many of these bund			_	·	•		with double skinned tanks.	4					
hemstore" type units w many bunds are on w many of these bund						Other (2 Yearly)		4					
w many bunds are on w many of these bund		nderground pipelines (includir	ig stormwater and foul), Ta	nks, sumps and containe	rs? (containers refers to								
w many of these bund						Yes		4					
•								1					
	ids nave been tested	within the required test sched	ule?			(The bunds are now obsolete	1					
w many mobile bunds	le are en cite?						This includes barrel trays located within workshops						
the mobile bunds in		ast schadula?				No	within workshops	1					
		tested within the required tes	t schedule?			100		†					
		integrity test schedule?	c scricdare.					†					
		d within the test schedule?						†					
ease list any sump inte						-		1					
all sumps and chamb						SELECT		1					
es to Q11 are these fr	ailsafe systems inclu	ded in a maintenance and testi	ng programme?			SELECT							
he Fire Water Retent	tion Pond included in	your integrity test programme	?			SELECT							
				•									
Table B1:	: Summary details of	bund /containment structure in	tegrity test					I					
									Integrity reports				
nd/Containment									maintained on		Integrity test failure		Scheduled dat
ructure ID Ty	ype	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	site?	Results of test		Corrective action taken	for retest
Sf	ELECT					SELECT			SELECT	SELECT		SELECT	
SF	ELECT					SELECT			SELECT	SELECT		SELECT	
		inment rule as detailed in your licence					Commentary	-					
as integrity testing bee sted in line with BS800		rdance with licence requireme	nts and are all structures	bunding and storage guide		SELECT							
		ntainment systems tested?		purioring and storage guid	siiries.	SELECT		1					
		both integrity and available vol	uma?			SELECT		1					
re criaimers/ transfer s	ystems compilant in	both integrity and available voi	une:			SEEECI		1					
		_											
Pipeline/underground]		. 216			T	7					
		e integrity testing* on undergr pipelines on site which failed											
		pipelines on site which falled	the integrity test and all w	iich nave not been teste	a withing the integrity	SELECT							
		ariod				SELECT		†					
st period as specified		ightness testing for process and	d foul pipelines (as require	d under your licence)		JEECT		J					
ease provide integrity		.g		,									
ease provide integrity lease note integrity te		peline/underground structures	integrity test									_	
ease provide integrity lease note integrity te	ummary details of pi												
ease provide integrity lease note integrity te	iummary details of pi												
ease provide integrity lease note integrity te	iummary details of pi												
ease provide integrity lease note integrity te	iummary details of pi			Type of secondary				Integrity test					
ease provide integrity elease note integrity te	iummary details of pi			Type of secondary containment				Integrity test					
ease provide integrity lease note integrity te	iummary details of pi		Does this structure have			Integrity reports		failure	Corrective action	Scheduled date	Results of retest/if in		
ase provide integrity ease note integrity te Table B2: St		Material of construction	Does this structure have Secondary containment?		Type integrity testing	Integrity reports maintained on site?		failure explanation <50			Results of retest(if in current reporting year)		
ase provide integrity ease note integrity te Table B2: St Structure ID Ty	'ype system	Material of construction: SELECT	Secondary containment?	containment	Type integrity testing SELECT	maintained on site?	Results of test	failure	Corrective action taken	Scheduled date for retest	current reporting year)		
ase provide integrity ease note integrity te Table B2: St Structure ID Ty		Material of construction: SELECT			Type integrity testing SELECT			failure explanation <50				_	
ase provide integrity ease note integrity te Table B2: St Structure ID Ty	'ype system		Secondary containment?	containment		maintained on site?	Results of test	failure explanation <50			current reporting year)		
ease provide integrity lease note integrity te Table B2: St	'ype system		Secondary containment?	containment		maintained on site?	Results of test	failure explanation <50			current reporting year)		
ease provide integrity te state B2: St Table B2: St Structure ID Ty	'ype system		Secondary containment?	containment		maintained on site?	Results of test	failure explanation <50			current reporting year)		
ase provide integrity ease note integrity te Table B2: St Structure ID Ty	'ype system		Secondary containment?	containment		maintained on site?	Results of test	failure explanation <50			current reporting year)		

Ground	water/Soil	monitorin	g template		Lic No:	P0506-01		Year	2018	3		
												_
							Comments	 				7
1	Are you requi requirements		ut groundwate	r monitoring as pa	art of your licence	no		Bloaco pro	wido an intorn	rotation of ground	water monitoring dat	2
7			ut soil monitori	ing as part of your	licence requireme						quire additional space	
				e? If yes please sp		110					ited land monitoring	
3	comment sec			,,	,	no				n as an additional s		
			v that groundwa									
				re exceeded or is								
			esults for a sub									
4			ndwater Monito ell G8) and subm		Groundwater							
				nswer questions	monitoring							
	5-12 below.			4	template	NA						
_	Is the contam	ination relate	d to operation	s at the facility (e	ther current							
5	and/or histori	c)	,			NA						1
6			address contai	mination issues?I	f yes please							1
				ed/undertaken fo		NA		1				1
				or the remediatio		NA		4				1
				odate ELRA for the		NA NA		4				1
				ed out for the site ped for the site?	r.	NA NA	 	1				1
				on and off site?		NA NA		1				1
				igrating offsite?		NA NA		1	Please ente	r interpretation of	data here	
ubic 1	. ордишист	Coroanav	later monite	oring results						Upward trend in]	
										pollutant		
										concentration		
Date of	Sample	Parameter/		Monitoring	Maximum	Average				over last 5 years of monitoring		
	reference	Substance	Methodology	frequency	Concentration++	Concentration+	unit		SELECT**	data		
sampiind								GTV's*	SELECT			
sampling	TOIOTOTIOO			irequericy	Concontiduon	Concontiation	SELECT	GIV's*	SELECT	SELECT		
				inequency	Concomination	Concontiation		GIV's*	SELECT			
+ where	average indica	es arithmetic	mean				SELECT SELECT		SELECT	SELECT	<u></u>	
+ where :	average indica	es arithmetic	mean the maximum	measured concer	ntration from all mo		SELECT		SELECT	SELECT		
+ where :	average indica	es arithmetic	mean the maximum		ntration from all mo		SELECT SELECT		SELECT	SELECT SELECT	1	
+ where a	average indica	es arithmetic	mean the maximum	measured concer	ntration from all mo		SELECT SELECT		SELECT	SELECT SELECT Upward trend in]	
+ where a	average indica	es arithmetic	mean the maximum	measured concer	ntration from all mo		SELECT SELECT		SELECT	SELECT SELECT Upward trend in yearly average]	
+ where a	average indica	es arithmetic	mean the maximum	measured concer	ntration from all mo		SELECT SELECT		SELECT	SELECT SELECT Upward trend in yearly average pollutant]	
+ where a	average indica num concentra : Downgrad	es arithmetic	mean the maximum	measured concer	ntration from all mo		SELECT SELECT		SELECT	SELECT SELECT Upward trend in yearly average]	
+ where : ++ maxin Table 2 Date of	average indication concentrate Downgrad Sample location	tes arithmetic tion indicates ient Grour	mean the maximum ndwater mod	measured concernitoring resul	ntration from all mo	nitoring results p	SELECT SELECT produced during the repr	orting year		SELECT SELECT Upward trend in yearly average pollutant concentration over last 5 years of monitoring]	
+ where : ++ maxim	average indica num concentra : Downgrad	es arithmetition indicates	mean the maximum	measured concer	ntration from all mo	nitoring results p	SELECT SELECT roduced during the repu		SELECT**	SELECT SELECT Upward trend in yearly average pollutant concentration over last 5 years of monitoring data		
+ where : ++ maxin Table 2 Date of	average indication concentrate Downgrad Sample location	tes arithmetic tion indicates ient Grour	mean the maximum ndwater mod	measured concernitoring resul	ntration from all mo	nitoring results p	SELECT SELECT roduced during the repo	orting year		SELECT SELECT Upward trend in yearly average pollutant concentration over last 5 years of monitoring data SELECT		
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+ where a +++ maxim Fable 2 Date of sampling	sample location reference	es arithmetition indicates ient Groun Parameter/ Substance	mean the maximum ndwater mod Methodology	measured concernitoring resul	Maximum Concentration	Average Concentration	SELECT SELECT roduced during the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the r	orting year		SELECT SELECT Upward trend in yearly average pollutant concentration over last 5 years of monitoring data SELECT		
Date of sampling	sample location reference	es arithmetiticon indicates ient Grour Parameter/ Substance f generic asses ts for a substa	mean the maximum ndwater moi Methodology	measured concernitoring result Monitoring frequency SAC) such as a Groot at further interpreta	Maximum Concentration	Average Concentration	SELECT SELECT roduced during the repr unit SELECT SELECT select addition to completing the	orting year		SELECT SELECT Upward trend in yearly average pollutant concentration over last 5 years of monitoring data SELECT SELECT		
+ where : ++ maxim Fable 2 Date of sampling *please nor an upwar	sample location reference	es arithmetiticon indicates ient Grour Parameter/ Substance f generic asses ts for a substa	mean sthe maximum dwater moi	measured concernitoring resul Monitoring frequency AC) such as a Groat turther interpreta	Maximum Concentration	Average Concentration	SELECT SELECT roduced during the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the reprint of the r	orting year	SELECT**	SELECT SELECT Upward trend in yearly average pollutant concentration over last 5 years of monitoring data SELECT SELECT		
+ where in the whole when the whole when the whole when the whole	average indicaturum concentra: Downgrad Sample location reference out exceedance of drift rend in resule, please comp	Parameter/ Substance	mean sthe maximum dwater moi	measured concernitoring resul Monitoring frequency SAC) such as a Groot turther interpreta gouldeline Templa eturn or as otherwice	Maximum Concentration undwater Threshold Vaton of monitoring res Report at the link pr	Average Concentration	SELECT SELECT roduced during the repr unit SELECT SELECT select addition to completing the	orting year	SELECT**	SELECT SELECT Upward trend in yearly average pollutant concentration over last 5 years of monitoring data SELECT SELECT		
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Where additional detail is required please enter it here in 200 words or less

Environmental Liabilities template	Lic No: P0506-01	Year 2018	
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Click here to access EPA guidance on Environmental Liabilities and Financial provision

			Commentary
1	ELRA initial agreement status	Not a Licence Requirement	
2	ELRA review status	NA	
	Amount of Financial Provision cover required as determined by the latest		
3	ELRA	NA	
4	Financial Provision for ELRA status	NA	
5	Financial Provision for ELRA - amount of cover	NA	
6	Financial Provision for ELRA - type	NA	
Ū			
7	Financial provision for ELRA expiry date	NA	
8	Closure plan initial agreement status	NA	Internal Budget Provision
9	Closure plan review status	NA	Internal Budget Provision
10	Financial Provision for Closure status	NA	Internal Budget Provision
11	Financial Provision for Closure - amount of cover	NA	Internal Budget Provision
12	Financial Provision for Closure - type	NA	Internal Budget Provision
13	Financial provision for Closure expiry date	NA	

	Environmental Management Programme/Continuous Improvement Programme	template	Lic No:	P0506-01	Year	2018
	Highlighted cells contain dropdown menu click to view		Additional Information	on		
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional information	Yes	Inte	rnal unaccredited EMS		
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 Program	nme (EMP) report				
Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
	T ' ' '	Status (% completed) 100	How target was progressed in total 9 personnel received training in 2018. Hydraulic harrows were depolyed at dust sensitive areas. Headland pe at was collected during the production season.	Responsibility Section Head	Intermediate outcomes Reduced emissions
Waste reduction/Raw material usage efficiency	Waste Streamlining.It is planned to continue with and where possible improve the current waste management service provided by AES Ltd	100	Quarterly waste reports are returned for records/filing and waste streams are segrated on site to maximise recycling potential.	Individual	Improved Environmental Management Practices
Reduction of emissions to Water	Training. Continue to train all employees in environmental matters. Training will be by means of the screening of an environmental DVD, followed by a power point presentation.	100	In total 9 personnel received training in 2018. Training covered SOP's in relation to silt control and general IPC license awareness.	Section Head	Reduced emissions
Materials Handling/Storage/Bunding	Increased bund capacity will be provided where required.	0	No additional bund capacity was required during 2018	Section Head	Improved Environmental Management Practices
Waste reduction/Raw material usage efficiency	Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing.	100	Zero tonnes were sent off site for recycling in 2018.	Individual	Reduced emissions
Sphagnum Project	A small scale trial is commenced in 2012. Its purpose is to trial grow sphagnum moss on a small area of cutaway in Kilberry bog.	100	The Kiberry Sphagnum farming project is progressing with plots still in early stages of development. Establishment of Sphagnum has been slow due to flucating water levels. Some plots are developing well.	individual	Improved Environmental Management Practices

	No	ise monitor	ing summary	report			Lic No:	P0506-01	Year	2018	
	•	•		period?				No]		
	U	U					Noise Guidance note NG4	NA			
3 Does your si	te have a noise	reduction plan	1					NA			
								Enter date			
5 Have there b	been changes r				or operatio	onal change	es) since the	NA			
Table N1: No	oise 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	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
	Noise Sensitive location -NSL location (on (if						SELECT	SELECT		SELECT	
*Please ensure	that a tonal analysi	s has been carried o	ut as per guidance n	ote NG4. These	records must	be maintaine	d onsite for futur	e inspection			
	If noise lim	its exceeded as	s a result of nois	se attribute	d to site ac	ctivities, pl	ease 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)

1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below

SEAI - Large Industry Energy Network (LIEN)

Lic No:

Is the site a member of any accredited programmes for reducing energy usage/water conservation such as the SEAI programme linked to the right? If yes please list them in additional information

Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in

3 additional information

	Sep-18	Report on file
ge ergy EN)	Yes	ISO50001 accreditation attained from Certification Europe
	NA	

Additional information

Table R1 Energy usage on site				
Faces Hea	Description		compared to previous	Energy Consumption +/- % vs overall site production*
Energy Use Total Energy Used (MWHrs)	Previous year 2785.44	Current year 2575.86	reporting year**	production
Total Energy Generated (MWHrs)	2765.44	23/3.00		
Total Renewable Energy Generated (MWHrs)				
Electricity Consumption (MWHrs)	141.9	158.445		
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	260.166	237.911		
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 extracted				Energy Consumption +/- % vs overall site	Volume Discharged	environment e.g.	
Wateruse	Previous year m3/yr.	Current year m3/yr.	reporting year**	production*	:	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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

ce Usage/Energy efficiency summary				Lic No:	P0506-01		Year	
Table R3 Waste Stream Sur	mmary							
	Total	Landfill	Incineration	Recycled	Other			
Hazardous (Tonnes)	3.61	L						
Non-Hazardous (Tonnes)	26.48	3						
			_					
Table R4: Energy Audit fi	inding recommendations							
		Description of	Origin of	Predicted energy	Implementation			Stat
Date of audit	Recommendations	Measures proposed		savings %	date	Responsibility	Completion date	con
			SELECT					
			SELECT					
			SELECT					

Total Starts for year Total Running Time

House Load (GWH)

Total Electricity Generated (GWH)

KWH per Litre of Process Water
KWH per Litre of Total Water used on Site

Complaints and	d Incidents summary to				Lic No:	P0506-01		Year	2018	
		Complaints								
					Additional information	7				
					There was no					
					environmental					
Have you receive	ed any environmental compla	aints in the current reporting year? If yes ple	ase complete summary		complaints during					
•		aints received on site in table 1 below		No	reporting period					
			¬							
Table 1	Complaints summary		Brief description of		1			7		
			complaint (Free txt <20	C + : + : + 20			Further			
		61								
Date	Category	Other type (please specify)	words)	words	Resolution status	Resolution date	information	_		
Total complaints										
open at start of										
eporting year										
Total new										
complaints										
eceived during										
eporting year		0								
Total complaints										
losed during										
eporting year										
Balance of										
complaints end of										
eporting year		0								
						_				
		Incidents			Additional information					
					Auditional Information	1				
Have any incident	s occurred on site in the curr	ent reporting year? Please list all incidents for	or current reporting year							
		in Table 2 below	_	Yes						
*For informatio	on on how to report and what	: [
			I .							
cons	titutes an incident	What is an incident								

Complaints an	d Incidents summary tem	plate			Lic No:	P0506-01		Year	2018	1				
Table 2 Incidents s	ummary													
			Incident											1
Date of			category*please refer			Other cause(please	Activity in progress			Corrective	Preventative action	Resolution	Resolution	Likelihood of
occurrence	Incident nature	Location of occurrence	to guidance	Receptor	Cause of incident	specify)	at time of incident	Communication	Occurrence	action<20 words	<20 words	status	date	reoccurence
										Outfall upstream of	Continue to monitor			[
					Not related to site									
06/11/2018	Triangular stand	U	1. Minor	Water	activities	n/a	N 1	INICIOAT 400		sampler to be	results for elevated COD levels	C	20/11/2019	
06/11/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. IVIINOF	water	activities	n/a	Normal activities	INCI015480	Recurring	inspected	COD levels	Complete	20/11/2019	LOW
										Outfall upstream of				
					Not related to site					sampler to be	results for elevated			
06/11/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI015479	Recurring	inspected	Ammonia levels	Complete	20/11/2019	Low
										Outfall upstream of	Continue to monitor			
					Not related to site	l .				sampler to be	results for elevated			
30/10/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI015478	Recurring	inspected	readings	Complete	20/11/2018	Low
										Outfall upstream of				
//					Not related to site	l ,				sampler to be	results for elevated			
23/10/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI015430	Recurring	inspected	readings Continue to monitor	Complete	30/10/2018	LOW
					Not related to site					Outfall upstream of sampler to be	results for elevated		30/10/2018	
45/40/2040	Triangular stand	Ummeras Composite sampler - SW4	1. Minor	Water	not related to site activities	- 1-	Normal activities	INICIOAE 403				C	30/10/2018	
16/10/2018	Trigger level reached	Ummeras Composite sampier - SW4	1. IVIINOF	water	activities	n/a	Normal activities	INCI015403	Recurring	inspected	readings	Complete		LOW
					Not related to site					sampler to be	Continue to monitor results for elevated			
02/10/2018	Trigger level reached	Ummaras Composito complex 5044	1. Minor	Water	activities	n/a	Normal activities	INCI015280	Recurring			Complete	00/10/2010	Low
02/10/2018	mgger lever reached	Ummeras Composite sampler - SW4	1. IVIINOF	vvater	activities	11/4	ivormai activities	INCIU15280	necurring	inspected Outfall upstream of	readings Continue to monitor	Complete	09/10/2018	LUW
1					Not related to site					sampler to be	results for elevated			
02/10/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities		Normal activities	INCI015279	Recurring	inspected	readings	Complete	09/10/2018	Low
02/10/2018	PRELIEACIIEN	ommeras composite sampler - 5W4	a. Willion		GENTALITIES.	1			necuring	Outfall upstream of		Complete	03/10/2018	L.W
					Not related to site					sampler to be	results for elevated			
25/09/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI015234	Recurring	inspected	readings	Complete	28/09/2018	low
23/03/2010	mager level reactied	Oninieras composite sampler - 5444	I. WILLOI	water	activities	II/a	ivoillai activities	114C1013234	Recuiring	Outfall upstream of	Continue to monitor	Complete	20/03/2018	LOW
					Not related to site					sampler to be	results for elevated			
10/09/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI015165	Recurring	inspected	readings	Complete	20/09/2018	low
10/03/2010	mgger reverredence	onnicias composite sampler 5444	2. 1411101	Water	detivities	11/4	reonnal activities	11401010100	пссин	Outfall upstream of	Continue to monitor	compiete	20/03/2010	2011
					Not related to site					sampler to be	results for elevated			
05/09/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI015131	Recurring	inspected	readings	Complete	12/09/2018	low
30, 30, 2020						.,,=				Outfall upstream of				
					Not related to site					sampler to be	results for elevated			
05/09/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI015130	Recurring	inspected	readings	Complete	12/09/2018	low
						1.7.5				Outfall upstream of	Continue to monitor			
					Not related to site					sampler to be	results for elevated			
05/09/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI015129	Recurring	inspected	readings	Complete	12/09/2018	low
,,		, , , , , , , , , , , , , , , , , , , ,				,					Continue to monitor		, , , , , ,	
					Not related to site					sampler to be	results for elevated			
05/09/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI015127	Recurring	inspected	readings	Complete	12/09/2018	Low
,,	30.								U U	Outfall upstream of	Continue to monitor		, ,	
					Not related to site					sampler to be	results for elevated			
28/08/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI015090	Recurring	inspected	readings	Complete	05/09/2018	Low
										Outfall upstream of	Continue to monitor			
					Not related to site					sampler to be	results for elevated			
21/08/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI015057	Recurring	inspected	readings	Complete	27/08/2018	Low
										Outfall upstream of	Continue to monitor			
					Not related to site					sampler to be	results for elevated			
13/08/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI015030	Recurring	inspected	readings	Complete	21/08/2018	Low
1										Outfall upstream of	Continue to monitor			
1 .					Not related to site					sampler to be	results for elevated			
13/08/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI015029	Recurring	inspected	readings	Complete	21/08/2018	Low
1											Continue to monitor			
1					Not related to site					sampler to be	results for elevated			
30/07/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI014946	Recurring	inspected	readings	Complete	03/08/2018	Low
1										Outfall upstream of	Continue to monitor			
					Not related to site	l .				sampler to be	results for elevated			
11/06/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI014830	Recurring	inspected	readings	Complete	18/07/2018	Low
1					Non-colonia de la						Continue to monitor			
					Not related to site	l ,				sampler to be	results for elevated			l.
07/06/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI014788	Recurring	inspected	readings Continue to monitor	Complete	16/07/2018	LOW
					Not related to site					Outfall upstream of sampler to be				
07/06/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	Not related to site activities	n/a	Normal activities	INCI014787	Recurring	inspected	results for elevated readings	Complete	16/07/2018	Low
07/06/2018	Trigger level reached	ommeras composite sampier - SW4	1. WILLOT	*vater	activities	ii/d	ivollilai activities	114C1014/8/	necurring		Continue to monitor	complete	10/0//2018	LUW
1					Not related to site					sampler to be	results for elevated			
07/06/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI014786	Recurring	inspected	readings	Complete	16/07/2018	Low
07/00/2018	mager lever reactieu	ommeras composite sampler - SW4	I. IVIIIIUI	*vacc1	activities	11/4	inortifial activities	114C1014700	necuming	Outfall upstream of		Complete	10/0//2018	LOW
					Not related to site					sampler to be	results for elevated			
07/06/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI014785	Recurring	inspected	readings	Complete	16/07/2018	Low
07/00/2018	bbc. level leached	ommeras composite sampler - 5W4	2. 1411101	rucci	GCV141E1C3	1170	accivides		nccurring	Outfall upstream of	Continue to monitor	complete	10/0//2018	
					Not related to site					sampler to be	results for elevated			
07/06/2018	Trigger level reached	Ummeras Composite sampler - SW4	1. Minor	Water	activities	n/a	Normal activities	INCI014784	Recurring	inspected	readings	Complete	16/07/2018	low
Total number of	Land Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the C	The sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of the sample of th											, 5,, 2010	
incidents current	1	1												
vear	25													

year
Total number of
incidents previou
year
% reduction/

increase

WASTE SUMMAR	Y				Lic No:	P0506-01		Year	2018	3	
SECTION A-PRTR	ON SITE WASTE TREATMENT	AND WASTE TRANSFERS	TAB- TO BE COMP	LETED BY ALL IPPO	C AND WASTE FACILITIES	PRTR facility log	<u>on</u>	dropdown lis	st click to see options		
	Please inse	rt details of waste transf	erred off site in the	adjoining Waste N	Management Record tab.						
SECTION B- WAST	TE ACCEPTED ONTO SITE-TO B	E COMPLETED BY ALL IP	PC AND WASTE FA	CILITIES							
						_	Additional Informa	tion			
Were any wastes acce	pted onto your site for recovery or dis	posal or treatment prior to rec	overy or disposal within	the boundaries of you	r facility ?; (waste generated within						
Lyour boundaries is to l	oe captured through PRTR reporting)					SELECT					
If yes please enter det	ails in table 1 below							7			
Did your site have any	rejected consignments of waste in th	a current reporting year? If yes	nlassa giya a briaf ayn	anation in the addition	and information	SELECT					
. Did your site have any	rejected consignments of waste in th	e current reporting years in yes	s piease give a bilei exp	anation in the addition	iai iiii Oi iii ati Oii	SELECT		-			
Was waste a	ccepted onto your site that was genera	ated outside the Republic of In	eland? If ves nlease stat	e the quantity in tonne	es in additional information	SELECT					
	of waste accepted onto you						ese will have	」 been reported in	vour PRTR workbook	1	
Licenced annual	EWC code		Description of waste	Quantity of waste	Quantity of waste accepted in	Reduction/	Reason for	Packaging Content	Disposal/Recovery or	Quantity of	Comments -
tonnage limit for your			accepted	accepted in current	previous reporting year (tonnes)	Increase over	reduction/	(%)- only applies if	treatment operation carried	waste	
site (total tonnes/annum)			Please enter an accurate and detailed	reporting year (tonnes)		previous year +/	increase from	the waste has a packaging component	out at your site and the description of this operation	remaining on site at the end	
tornies, armani,			description - which	(tollics)		/0	year	packaging component	description or this operation	of reporting	
			applies to relevant							year (tonnes)	
	European Waste Catalogue EWC		EWC code European Waste								
	codes		Catalogue EWC codes								
					1						
CECTION C TO BE	COMPLETED BY ALL WASTE F.	A CILITIES (filiti FVCEDT	LANDELL CITE					
SECTION C-TO BE	COMPLETED BY ALL WASTE F	ACILITIES (Waste transfe	er stations, compos	sters, iviateriai red	covery facilities etc) EXCEPT	LANDFILL SITE	:5				
										_	
	:-ftt		:		:_f	SELECT					
is all waste processing	infrastructure as required by your lice	ence and approved by the Agei	ncy in placer if no please	e list waste processing	inirastructure required onsite	SELECT				-	
										1	
Is all waste storage inf	rastructure as required by your licence	e and approved by the Agency	in place? If no please lis	t waste storage infrast	ructure required on site	SELECT]	
Does your facility have	relevant nuisance controls in place?					SELECT]	
	management system in place for your	facility? If no why?				SELECT]	
B Do you maintain a sluc	ige register on site?					SELECT				J	

Waste types permitted for disposal	Authorised/licenced annual intake for disposal (tpa)	Actual intake for disposal in reporting year (tpa)	capacity at end of reporting year (m3)	Comments							
					1						
Table 3 General i	nformation-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 as bestos	Is there a separate cell for asbestos?	Accepted as bestos in reporting year	Total disposal area occupied by waste	Lined disposal area occupied by waste
										SELECT UNIT	SELECT UNIT
Cell 8											
Table 4 Environm	ental monitoring-landfill only	Laurel Harrison Administration C	danda								
	ental monitoring-landini only	Landini Mandal-Monitoring S	tanuarus]		
Was meterological monitoring in compliance with Landfill Directive (LD) standard in reporting year +	Was leachate monitored in compliance with LD standard in reporting year	Was Landfill Gas monitored in compliance with LD standard in reporting year	Was SW monitored in compliance with LD standard in reporting year	Have GW trigger levels been established	Were emission limit values agreed with the Agency (ELVs)	of the site surveyed in	Has the statement under S53(A)(5) of WMA been submitted in reporting year	Comments			
	1 0,	1 00	3	been communed	and regionary (2278)	reporting year	in reporting year	Comments	İ		
.+ please refer to Land Table 5 Capping-I	fill Manual linked above for relevant L	andfill Directive monitoring st	andards								
Table 5 Capping-1	and in only										
Area uncapped*	Area with temporary cap			Area with waste that should be permanently							
SELECT UNIT	SELECT UNIT	Area with final cap to LD Standard m2 ha, a	Area capped other	capped to date under licence	What materials are used in the cap	Comments					
*please note this inclu Table 6 Leachate -											
Is leachate from your	site treated in a Waste Water Treatme					SELECT					
Is leachate released to	o surface water? If yes please complet	e leachate mass load informat	ion below			SELECT					
Volume of leachate in		Leachate (COD) mass load	Leachate (NH4) mass load	Leachate (Chloride)		Specify type of leachate					
reporting year(m3)	Leachate (BOD) mass load (kg/annum)	(kg/annum)	(kg/annum)	mass load kg/annum	Leachate treatment on-site	treatment	Comments				
								ı			
Table 7 Landfill G	se ensure that all information reporte as-Landfill only	d in the landfill gas section is o	consistent with the Land	fill Gas Survey submitt	ed in conjunction with PRTR returns						
Tuble 7 Euriain G	us Lunum omy]						
			Was surface emissions								
Gas Captured&Treated			monitoring performed during the reporting								
by LFG System m3	Power generated (MW / KWh)	Used on-site or to national grid	year?	Comments	-						
		1	SELECT	1	_						

Lic No:

P0506-01

Year

2018

Unlined area

SELECT UNIT

Comments or liner type

WASTE SUMMARY

SECTION D-TO BE COMPLETED BY LANDFILL SITES ONLY Table 2 Waste type and tonnage-landfill only

European Waste Code (EWC)	Description of Waste (in line with applicable EWC code)	Hazardous – YES/NO	Quantity (Tonnes)	Name & Permit No. of Agent/Carrier	Treatment Type – Recovered / Disposed / Recycled	Name, Address & Licence/Permit No. of FINAL Destination	Country
13 02 05*	mineral-based non- chlorinated engine, gear and lubricating oils	Yes	1.59	Enva Ireland Limited - L1745	R01 - Use principally as a fuel or other means to generate energy	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland
16 01 07*	oil filters	Yes	0.42	Enva Ireland Limited (Portlaoise) - W0184	R04 - Recycling/reclamation of metals and metal compounds	R.D. Recycling, Houthalen, Reg No: 51727/1KD	Belgium
11 01 13*	degreasing wastes containing hazardous substances	Yes	1.6	Safety Kleen Ireland Ltd - W0099	R11 - Use of waste obtained from any of the operations numbered R 1 to R 10	Solvent Recovery Management, PP33345F, Wheeland Rd., Knottingly, West Yorks	UK
20 03 01 A	Municipal mixed residual household	No	0.74	AES Ltd WP-OY-08-601-01	D05 - Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP- OY-08-601-01	Ireland
20 03 01 B	Municipal mixed residual non-household	No	5.18	AES Ltd WP-OY-08-601-01	D05 - Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP- OY-08-601-01	Ireland
17 04 07	mixed metals	No	20.56	AES Ltd WP-OY-08-601-01	R04 - Recycling/reclamation of metals and metal compounds	AES LTD, Cappincur, Tullamore, Co. Offaly - WP- OY-08-601-01	Ireland

Bord na Mona Kilberry
Grab Sampling 2018

Grab Sam	piling 2016											
Х	Υ	Bog	SW	Monitoring	Sampled	pН	SS	TS	Ammonia	TP	COD	Colour
266654.80	199892.88	Kilberry	SW-1	Q2 18	07/06/2018	7.4	5	230	3.3	0.07	149	319
267239.42	201958.36	Kilberry	SW-2	Q2 18	07/06/2018	7.8	9	220	1.4	0.19	148	266
267200.77	201949.29	Kilberry	SW-3	Q2 18	07/06/2018	7.6	5	229	2.4	0.06	11	244
268870.08	199128.68	Kilberry	SW-3A	Q2 18	07/06/2018	7.8	5	294	0.18	0.07	138	288
270082.33	199354.32	Kilberry	SW-3B	Q2 18	07/06/2018	8	5	336	0.17	0.05	135	227
270684.25	201649.88	Kilberry	SW3-C	Q2 18	07/06/2018	7.2	5	168	0.99	0.15	147	478
266654.80	199892.88	Kilberry	SW-1	Q3 18	06/09/2018	7.3	5	296	2.1	0.16	111	254
267239.42	201958.36	Kilberry	SW-2	Q3 18	06/09/2018	8.2	5	202	0.3	0.05	74	176
267200.77	201949.29	Kilberry	SW-3	Q3 18	06/09/2018	7.9	5	232	2.8	0.07	88	258
268870.08	199128.68	Kilberry	SW-3A	Q3 18	06/09/2018	7.3	5	148	3.9	0.06	110	364
270082.33	199354.32	Kilberry	SW-3B	Q3 18	06/09/2018	7.3	5	158	4	0.05	122	444
270684.25	201649.88	Kilberry	SW3-C	Q3 18	06/09/2018	7.3	5	152	4	0.05	107	351
282032.94	221405.51	Allen	SW-13	Q4 18	04/12/2018	5.3	5	124	0.2	0.05	77	382
279374.51	221128.33	Allen	SW-14	Q4 18	04/12/2018	5.4	5	102	0.32	0.05	88	384
279522.44	220979.75	Allen	SW-14A	Q4 18	04/12/2018	5.4	5	130	0.19	0.05	80	383
263559.73	214906.67	Ummeras	SW-5	Q1 18	22/03/2018	7.7	5	265	1.4	0.05	64	207
262581.53	214669.12	Ummeras	SW-6	Q1 18	22/03/2018	7.5	5	198	0.7	0.05	69	296
262280.17	215578.65	Ummeras	SW-6A	Q1 18	22/03/2018	7.8	5	264	1.4	0.05	48	138
262597.34	216781.70	Ummeras	SW-4	Q1 18	22/03/2018	7.6	5	270	1.5	0.05	71	270

^{*} Note samples taken in Q3 were a repeat of samples taken in Q2.

Kilberry

Decommissioning and Rehabilitation Bog Rehabilitation Progress Report 2018.

Within the Kilberry licensed area (P0506-01) there were no new entire bog areas available for rehabilitation in 2018. Monitoring of cutaway within the Kilberry bogs is ongoing with baseline ecological survey updated in Ummeras. Industrial peat production has now ceased in Ummeras and rehabilitation is expected to take place in 2019 after peat stock removal and decommissioning.

Ongoing rehabilitation trials (cutaway re-wetting and *Sphagnum* inoculation) are being monitoring at Kilberry Bog. Rehabilitation (field-drain blocking) was carried out in part of the cutaway in Kilberry during 2018/2019.

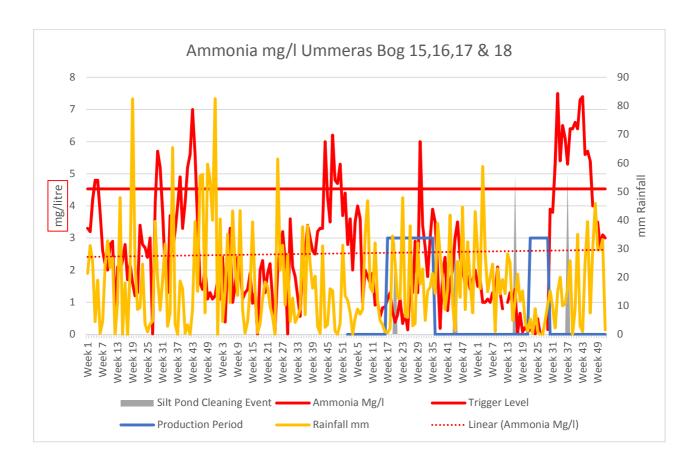
Draft rehabilitation plans for the Kilberry bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015 and 2017.

The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in May 2018, this included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.

A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

As required by condition 10.2 Cutaway Bog Rehabilitation Plans, draft peatland rehabilitation plans for all the individual bog units were submitted to the agency in 2013, reviewed and amended in 2015 and re-submitted to the agency in 2015. All draft rehabilitation plans have been reviewed in 2017. These reviewed and amended plans will be re-submitted to the agency in due course.

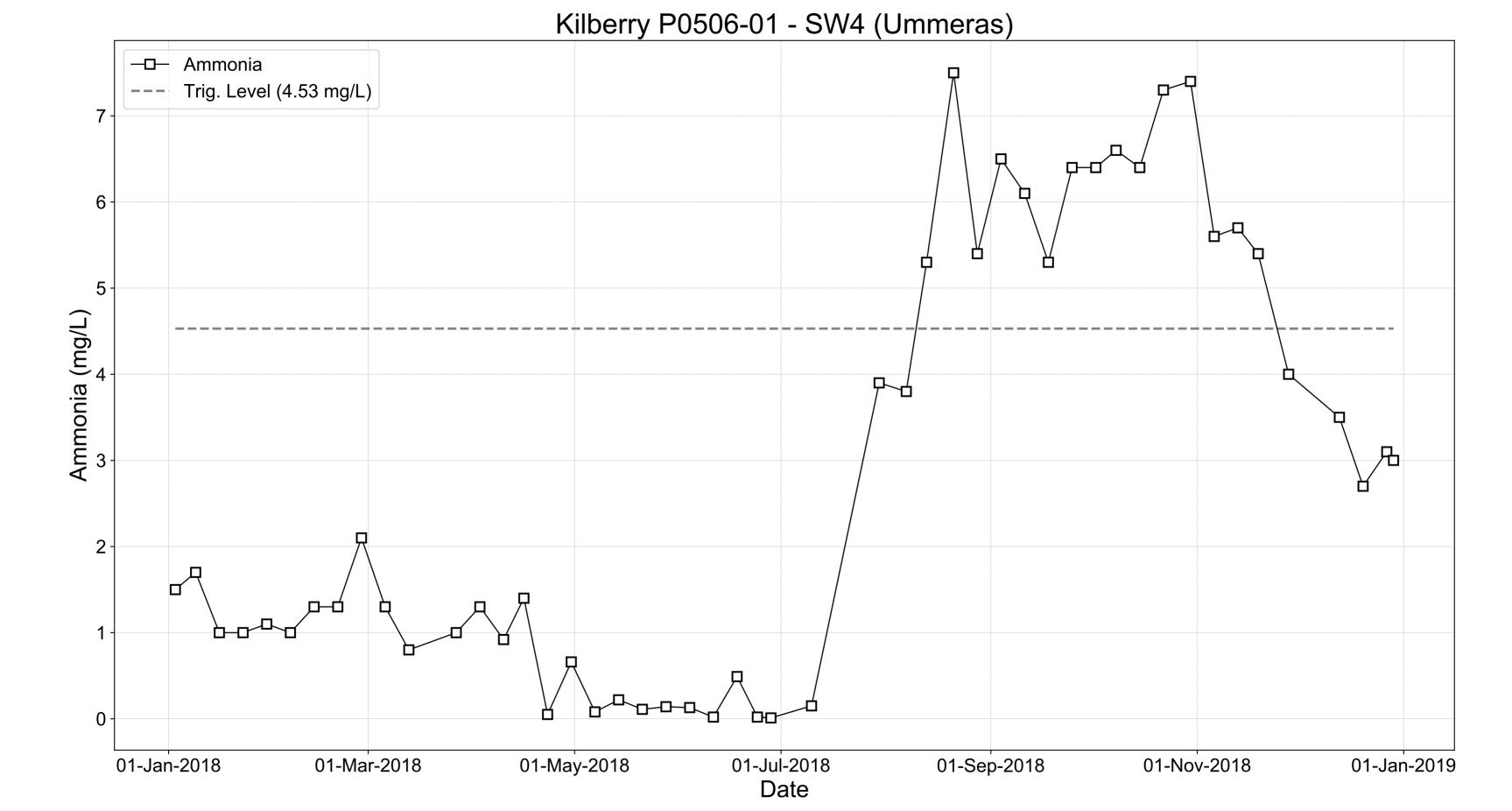
Organic certification was sought for the majority of the Bord na Móna property with the aim of using some areas for the cultivation of plants for use in herbal medicine, this project is ongoing.

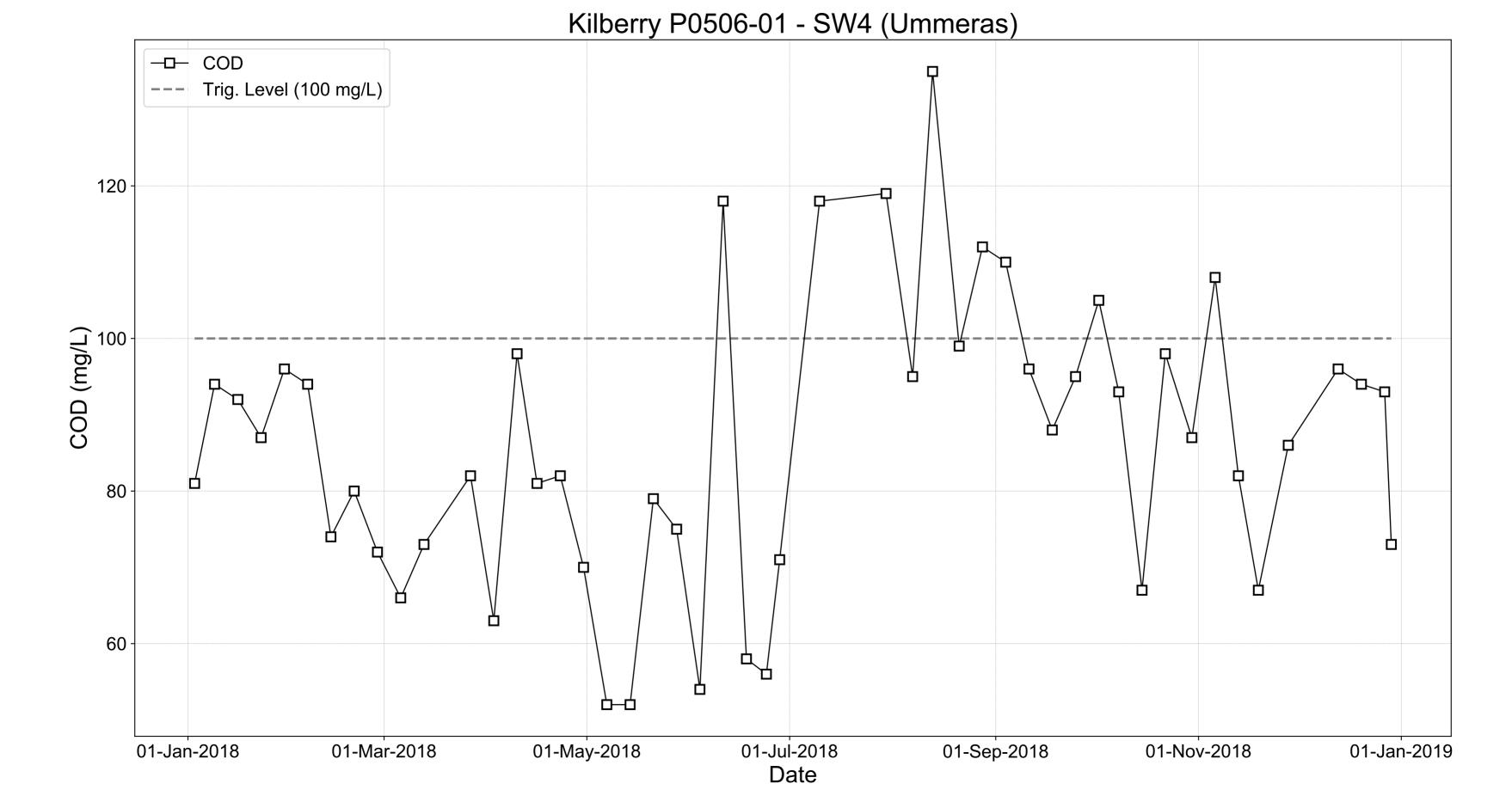


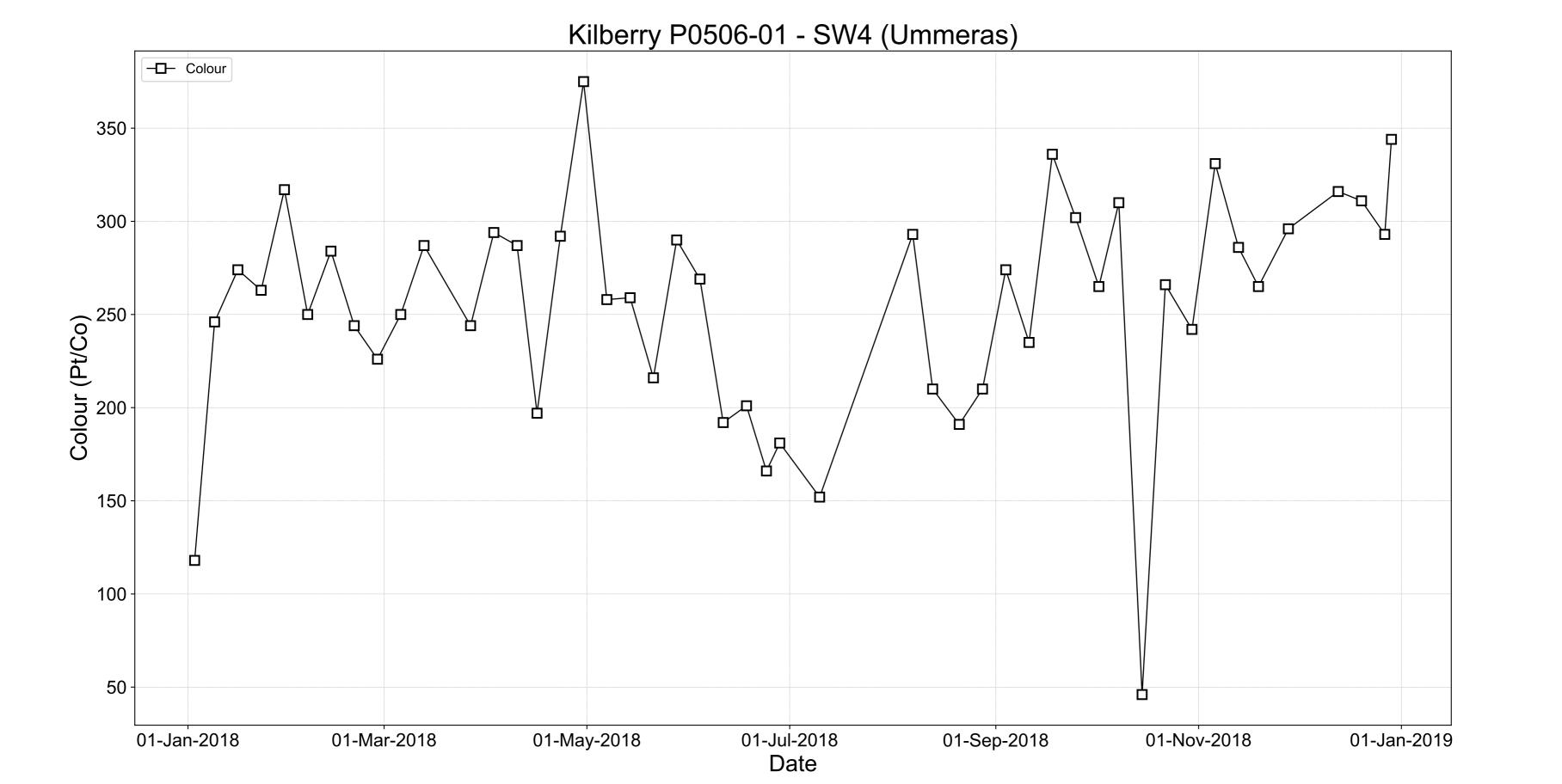
Ummeras bog is an active production bog with the composite sampler located here from 2015 to 2018. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had 50% downtime during the period and but returned 52 weekly ammonia results during the period of this 2018 AER, which were composite and grab samples. The ammonia trigger level of 4.53mg/l, as agreed with the Agency, was exceeded 15 times during the reporting period, all of which were reported to the EPA.

Overall the results in the previous 3 yrs. showed a downward trend which has switched to a neutral trend over the past 4 years and this is broadly in-line with typical trends submitted to the EPA in 2013 as required by condition 6.14. It has been established that the most relevant influencing variable on Ammonia is rainfall and the trend analysis above indicates linkage between high rainfall events and ammonia concentrations.

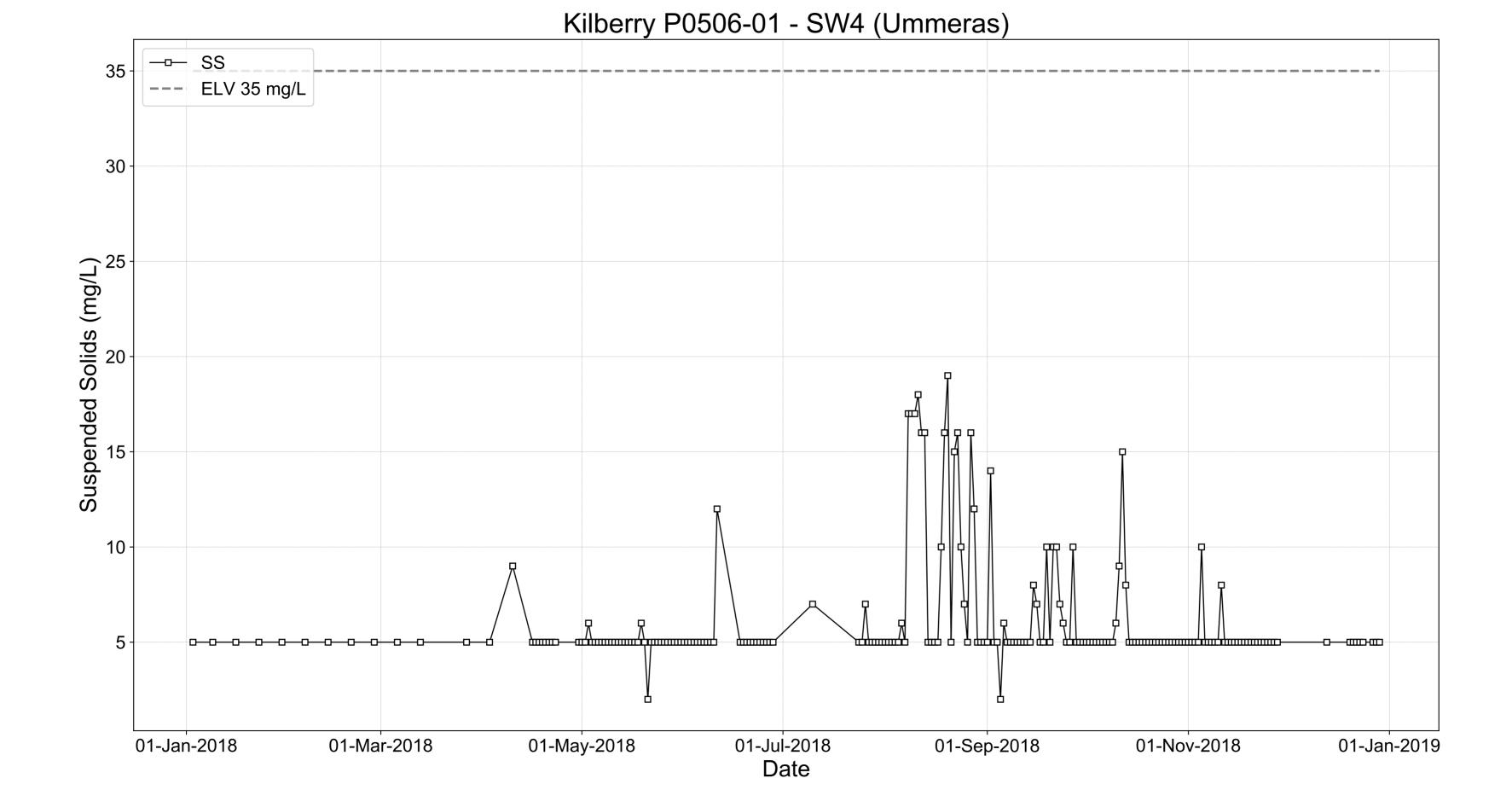
The sampler at this location may be relocated to fill any information gaps on other peatland catchments and to reflect the need to support the information gathering required for the Water Framework Directive's River Basin Management Plan. There is also an EPA lead research project commencing in 2019, called the SWAMP project, whose aims are to appraise and understand the nutrient impact from peatlands, to evaluate treatment technologies and to propose predictive tools for watershed management.

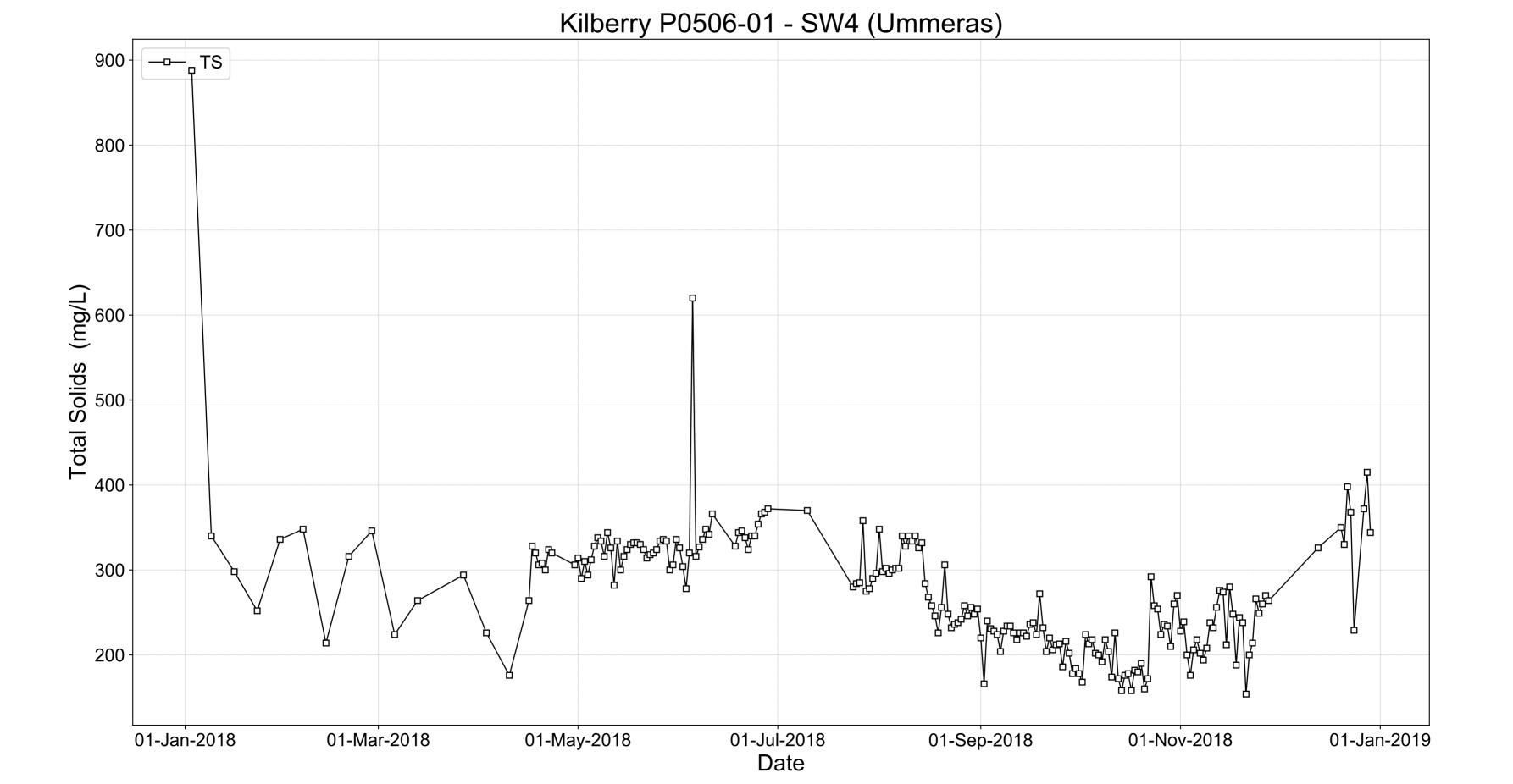


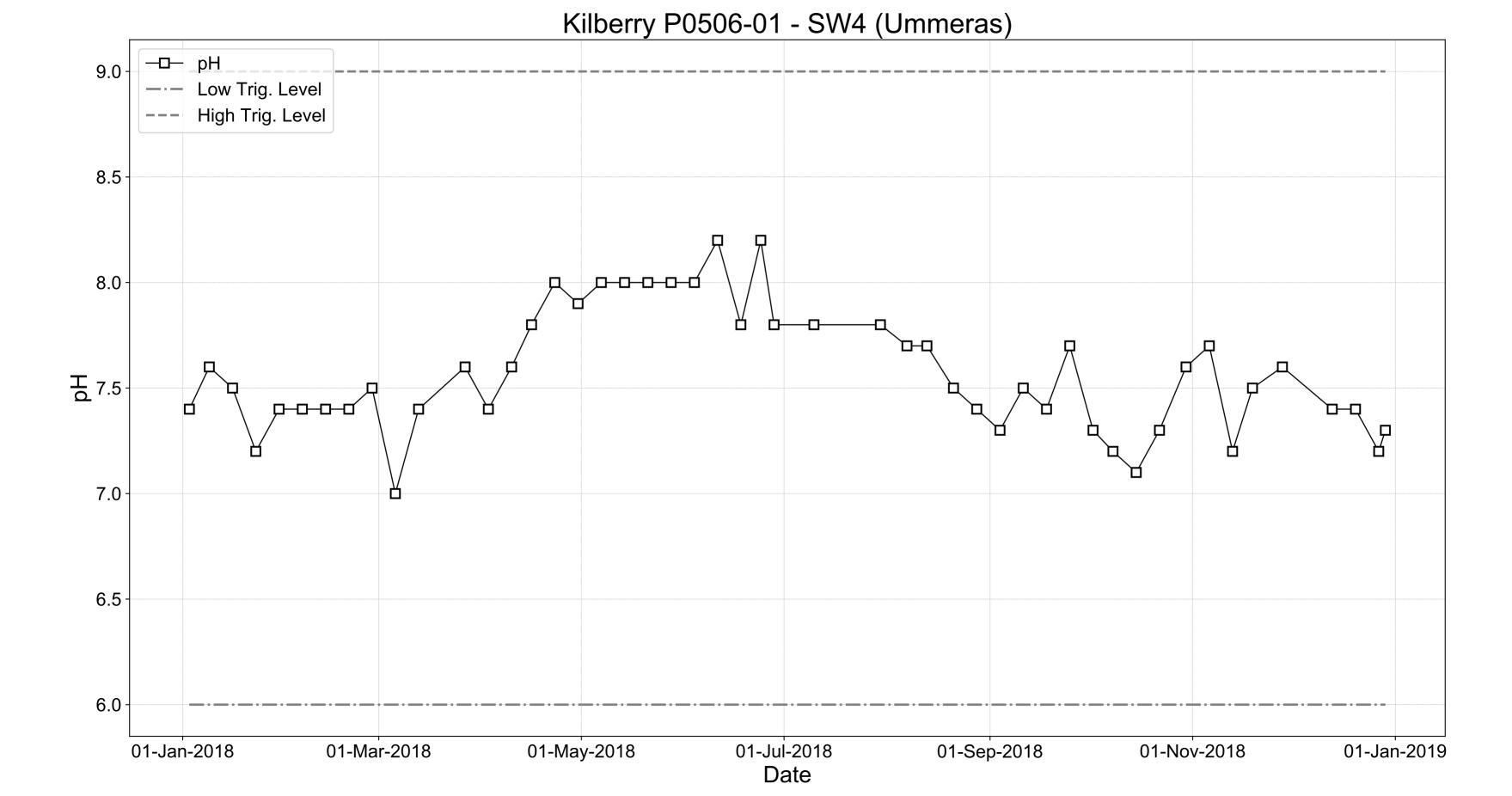




Kilberry P0506-01 - SW4 (Ummeras) ── Phosphorus 0.225 0.200 Phosphorus (mg/L) 0.175 -0.150 -0.125 -0.100 0.075 0.050 -0-0-0 01-Mar-2018 01-May-2018 01-Nov-2018 01-Jan-2019 01-Jan-2018 01-Jul-2018 01-Sep-2018 Date







Yard Discharge Results 2018
Licence: P0506-01
Works: Kilberry

Works. Rinderry					
Month	Ummerus SWE 1 COD	Allen SWE 1 COD	Gilltown SWE 1 COD	Prosperous SWE 1 COD	Trigger Levels
Jan	0	0	0	0	100
Feb	77	78	50	41	100
Mar	0	0	0	0	100
Apr	0	0	0	0	100
May	0	0	0	0	100
June	0	0	0	0	100
July	0	0	0	0	100
Aug	0	0	0	0	100
Sep	0	0	0	0	100
Oct	56	65	52	58	100
Nov	0	0	0	0	100
Dec	0	0	0	0	100

Note: 0 denotes no flow at emission point on day of sampling

Extractive Waste Management Plan Implementation AER Update.

March 2019.

IPC Licence P0506-01.

1.0 Extractive Wastes.

Waste classified as extractive waste from peat extraction operations arise from two operations associated with this activity.

- Silt Pond excavations and maintenance
- Bog Timbers

There has been no change to the type and nature of these two waste streams and no new waste streams added to this list. These wastes streams continue to be stored and maintained at between 1 and 3 metres in height.

2.0 Condition 7.5 Extractive Waste Management

- An extractive waste management plan (EWMP) was submitted to the Agency in September 2012 and was approved.
- The EWMP was reviewed in September 2017. There were no substantial changes to the operation of the plan, associated waste facilities or to the waste deposited.

3.0 Minimisation

- The IPC Licence has various conditions that require the installation, inspections and maintenance of silt ponds for operational areas and as such these requirements dictate the need for silt ponds and associated excavation materials and cleanings.
- Bog timbers arise from the active production footprint and are naturally occurring. The active footprint is dictated by the peat production targets and customer supply contract and service level agreements.

4.0 Treatment

- Silt pond excavation and maintenance materials do not require any treatment and are stored as per the EWMP, adjacent to the associated silt pond.
- There is no treatment of bog timbers arising and these are stockpiled at various locations in associated bogs.

5.0 Recovery

- As per the EWMP, there is still no opportunity to recover these silt pond associated materials
- Bog timbers stored on the bog are natural to the peat bog and while there have been trails to recover this waste material, these have not proved viable.

6.0 Disposal

- Silt pond cleanings continue to be disposed of adjacent to the associated silt pond and will be incorporated back into the rehabilitation plans for these bogs, post production and decommissioning.
- Bog timbers will continue to be stockpiled at suitable locations to be either incorporated back into the bog, as a supply of bog timbers for the crafting industry or will continue to decay naturally.



Annual Environmental Report 2018

Bord na Mona Energy Ltd (Cuil na Mona Group of Bogs) IPC Licence P0507-01 **Facility Information Summary**

AER Reporting Year
Licence Register Number
Name of site
Site Location
NACE Code
Class/Classes of Activity

National Grid Reference (6E, 6 N)

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.

2018
P0507-01
Bord na Mona Cuil na Mona
Boora, Leabeg, Tullamore, Co Offaly
0892

1.4 180050, 319540

Activities on site can be divided into two components, firstly the milling, harrowing, ridiging and harvesting of peat into stockpiles and secondly the transportation of that peat via an internal rail network to the lorry outloading facilities for transportation to a Moss Peat Factory or direct to the Docks. There was no Production achieved in 2018. Infrastructurally, there was no bog development during the period. From an environmental perspective silt pond upgrade work was ongoing during the period. The quarterly grab sampling was 100% compliant with the Suspended Solids ELV, with 4 trigger level exceedances relating to COD reached. The composite sampling regime was 100% compliant in relation to Suspended Solids ELV's and Ammonia with 4 COD trigger levels exceedances, all reported to the EPA. There were no environmental complaints received during the reporting period. In relation to silt pond cleaning, 100% of ponds received two cleanings, inspections dictating cleaning schedules. Decommissioning and Rehabilitation works are described in an attachment. The composite sampler experienced some technical difficulties during the reporting period. During the period there were various returns made to the EPA including the Draft Cuil na Mona Rehabilitation Plan, consent for wildcrafting trials, Management and waste management changes.

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)

Date

	AIR-summary	, tomplata				Lie Neu	DOE07 04		D0507.01	2011	
		/ template ions and complete all ta	hles where relevan	+		Lic No:	P0507-01		P0507-01	2018	5
	Allswei all quest	ions and complete an ta	ibles where relevan				4	Additional informat	ion		
	Does your site	have licensed air emi	ssions? If was plan	se complete table	e A1 and A2 below for the						
				•	licenced emissions and do		There are no	o dust sensetive lo	cations or dust		
1					not need to complete the			locations within th			
			tables			No					
										1	
	Doriodio	/Non-Continuous N	Monitoring								
	Periodic	/Non-Continuous r	vionitoring								
2	Are there any res	sults in breach of licence	e requirements? If y	es please provide	brief details in the comment						
			section of TableA1	below		NA					
	Was all monit	oring carried out in acco	ordance with EPA	Basic air							
3	guidance not	e AG2 and using the basi	ic air monitoring	monitoring							
		checklist?		checklist	AGN2	NA					
	Table A1: Lice	ensed Mass Emissi	ons/Ambient d	ata-periodic m	nonitoring (non-continu	ious)					
						•					
											Comments -reason
	Emission		_ ,	ELV in licence or any revision			Unit of	Compliant with	Method of	Annual mass	for change in % mass load from previous
	reference no:	Parameter/ Substance	Frequency of Monitoring	therof	Licence Compliance criteria	Measured value	measurement	licence limit	analysis	load (kg)	year if applicable
		SELECT			SELECT		SELECT	SELECT	SELECT	(0)	7
		SELECT			SELECT		SELECT	SELECT	SELECT		
		SELECT			SELECT		SELECT	SELECT	SELECT		
	Note 1. Value 1	SELECT	d as a ways - state to		SELECT		SELECT	SELECT	SELECT		
	Note 1: Volumet	ric flow shall be include	a as a reportable pa	rameter							
		Continuous N	/lonitoring								
4											
4	,	arry out continuous air e		•	ad fields below to Table 40	SELECT					
	it yes please re	•	nonitoring data and to its relevant Emis		ed fields below in Table A2						
_	Did continuous n	•		•	cord downtime in table A2]	
5	below	÷ , , , , ,				SELECT					
6	5					CEL FOT					
	טס you have a pr	pactive service agreeme	toring equipment?	SELECT				-			
7	Did your site e	xperience any abateme	nt system bypasses	? If yes please det	ail them in table A3 below	SELECT					
	•	•	• • • • • • • • • • • • • • • • • • • •	• •			•			•	

AIR-summary	y template				Lic No:	P0507-01		P0507-01	2018	
Table A2: Sur	mmary of average e	missions -conti	inuous monito	oring		·	·	·		
	, ,									
Emission	Parameter/ Substance		Averaging	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
Emission reference no:	Parameter/ Substance		Averaging Period		Units of measurement	Annual Emission		0	Number of ELV exceedences	Comments

SELECT SELECT reporting year

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

SELECT

Table A3: Abatement system bypass reporting table Bypass protocol

any revision therof

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

SELECT

^{**} 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 manageme	ent on site					
Do you have a tot	tal Emission Limit Value	of direct and fugitiv	e emissions on si	te? if yes please fill out table:	s A4 and A5	SELECT	
	vent Management nission limit value	Plan Summary	Solvent regulations	Please refer to linked solve complete table 5			
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 therof	Compliance		
					SELECT		
					SELECT		
Table A5: S	Solvent Mass Balan	ce summary					
	(I) Inputs (kg)			(0)			
Solvent	(I) Inputs (kg)	Organic solvent emission in waste gases(kg)		Collected waste solvent (kg)	Fugitive Organic Solvent (kg)	Solvents destroyed onsite through physical reaction e.g. incineration(kg)	Total emission of Solvent to air (kg)
						Total	

^{*} this should include all dates that an abatement system bypass occurred

	AER Monito	ring returns :	summary template	e-WATER/WAS	TEWATER(SE	WER)	Lic No:	P0507-01		Year	2018
								Additional information		7	
1	yes please c answer furthe complete ta	obes your site have licensed emissions direct to surface water or direct to sev yes please complete table W2 and W3 below for the current reporting year answer further questions. If you do not have licenced emissions you only ne complete table W1 and or W2 for storm water analysis and visual inspections on any su					inhibited the colle calculations. It v	ampler experienced technical o ction of flow data and subsequ was therefore decided to prese ults in graph form as an attachm	ent annual loading nt the sampling		
2	water discharg W2 below s	ges or watercou ummarising <u>onl</u>	rses on or near your si y any evidence of cont inspections	te? If yes please o	omplete table	Yes	Quarterly Grab san	npling results are attached.			
	Table W	/1 Storm wat	er monitoring								
	Location relative to site activities PRTR Parameter Licenced Parameter date					ELV or trigger level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments
		SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	
		SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	

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
				SELECT		
ſ				SELECT		

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

3	Was there any result in breach of licence requireme	nts? If yes please	provide brief		
,	details in the comment section of T	able W3 below		SELECT	Additional information
	Was all monitoring carried out in accordance with EPA				Surface water monitoring was carried out on a quarterly basis. The results of which are attached.
	guidance and checklists for Quality of Aqueous				
	Monitoring Data Reported to the EPA? If no please	External	Assessment of		
	detail what areas require improvement in additional	/Internal Lab	results		
4	information box	Quality checklist	checklist	Yes	

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

	Emission eference no:	Emission released to	Parameter/ SubstanceNote 1		Frequency of monitoring		ELV or trigger values in licence or any revision therof ^{Note 2}	Licence Compliance criteria	Measured value		Compliant with licence	Method of analysis	Procedural	Annual mass load (kg)	Comments
		SELECT	SELECT	SELECT		SELECT		SELECT		SELECT	SELECT	SELECT	SELECT		
Γ															
Į															

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

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

AER Monitoring returns summary template-WATER/WASTEWATER(S	EWER)	Lic No:	P0507-01	Year	2018
Continuous monitoring			Additional Information		
$_{\rm 5}$ Does your site carry out continuous emissions to water/sewer monitoring?	Yes				
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	Yes		days over 365 days. Majority of "down flow as we experienced an unusally p summer.		
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	Yes	Annual calib	ation schedule and trouble shooting s	service	
Table W4: Summary of average emissions -continuous monitoring					

Emission reference no:	Emission released to			Averaging	•			reporting year	Equipment downtime	Number of ELV exceedences in reporting year	Comments
reference no.	rereased to	raidinetely substance	thereo:	Terrod	Circuit	meddarement	reporting year (ng)		(iiouis)	reporting year	Comments

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

Table W5: Abatement system bypass reporting table

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

^{*}Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline to	esting template				Lic No:	P0507-01		Year	2018	3			
Bund testing		dropdown menu cli	ick to see options				Additional information	_					
new bunds and conta	inment structures on si	ke integrity testing on bunds ar ite, in addition to all bunds whi low, please include all bunds o	ich failed the integrity test	-all bunding structures wi	hich failed including		No fixed Bunds on site.						
Please provide integ	rity testing frequency p	eriod				Yes Other (2 Yearly)		-					
		ınderground pipelines (includi	ng stormwater and foul), Ta	anks, sumps and containe	rs? (containers refers to		There are no fixed bunds in the Cuil na Mona licence and therefore integrity testing is not an issue						
'Chemstore" type un low many bunds are	its and mobile bunds)					Yes	0	+					
		within the required test sched	lule?				0 N/A						
Uarraman arabita ba							This includes barrel trays located 5 within workshops						
How many mobile bu Are the mobile bund	inds are on site? s included in the bund t	est schedule?				No	э withiii workshops						
How many of these n	nobile bunds have beer	tested within the required tes	st schedule?				0						
		integrity test schedule? ed within the test schedule?					0	-					
	integrity failures in tabl						-1	_					
	mbers have high level I					SELECT							
		ded in a maintenance and testi nyour integrity test programme				SELECT SELECT		-					
				_				_					
Table	B1: Summary details of	bund /containment structure is	ntegrity test										
Bund/Containment structure ID	Type SELECT	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test SELECT	Other test type	Test date	Integrity reports maintained on site?	Results of test	Integrity test failure explanation <50 words	Corrective action taken SELECT	Scheduled date for retest
	SELECT					SELECT			SELECT	SELECT		SELECT	
		ainment rule as detailed in your licence ordance with licence requireme					Commentary	٦					
tested in line with BS	8007/EPA Guidance?			bunding and storage guid	<u>elines</u>	SELECT							
		ntainment systems tested?	J.,			SELECT SELECT		-					
Are channels/transfe	er systems compilant in	both integrity and available vo	oiume?			SELECT							
		7											
Are you required by	ound structure testing your licence to undertal	_ ke integrity testing* on underg	round structures e.g. pipel	ines or sumps etc?if yes	please fill out table 2			7					
		pipelines on site which failed	the integrity test and all w	hich have not been teste	d withing the integrity								
test period as specifi Please provide integ	ed rity testing frequency p	eriod				SELECT SELECT		-					
		tightness testing for process an	d foul pipelines (as require	ed under your licence)		SEECT		_					
Table B3	Summan, details of ni	peline/underground structures	s integrity test	1									
Table bz	Summary details or pr	perme/underground structures	s integrity test									1	
				Type of secondary containment				Integrity test failure					
61115			Does this structure have			Integrity reports	B No. of to at	explanation <50			Results of retest(if in		
Structure ID	Type system SELECT	Material of construction: SELECT	Secondary containment? SELECT	SELECT	Type integrity testing SELECT	maintained on site? SELECT	Results of test SELECT	words	taken	for retest	current reporting year) SELECT		
		Please use commer	ntary for additional details	not answered by tables/	questions above								

Groundwater/Soil monitoring template	Lic No:	P0507-01	Year	2018	

ᡥ			

1 Are you required to carry out groundwater monitoring as part of your licence requirements?	No	Please provide an interpretation of groundwater monitoring data
2 Are you required to carry out soil monitoring as part of your licence requirement	No	in the interpretation box below or if you require additional space
Do you extract groundwater for use on site? If yes please specify use in		please include a groundwater/contaminated land monitoring
omment section	No	results interpretaion as an additional section in this AER
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,		
4 please complete the Groundwater Monitoring Guideline		
Template Report (link in cell G8) and submit separately Groundwater		
through ALDER as a licensee return AND answer questions monitoring		
5-12 below. template	SELECT	
5 Is the contamination related to operations at the facility (either current		
	SELECT	
6 Have actions been taken to address contamination issues?If yes please		
summarise remediation strategies proposed/undertaken for the site	SELECT	
7 Please specify the proposed time frame for the remediation strategy	SELECT	
8 Is there a licence condition to carry out/update ELRA for the site?	SELECT	
9 Has any type of risk assesment been carried out for the site?	SELECT	
10 Has a Conceptual Site Model been developed for the site?	SELECT	
11 Have potential receptors been identified on and off site?	SELECT	
12 Is there evidence that contamination is migrating offsite?	SELECT	Please enter interpretation of data here

Table 1: Upgradient Groundwater monitoring results

										Upward trend in
										pollutant
										concentration
	Sample									over last 5 years
Date of	location	Parameter/		Monitoring	Maximum	Average				of monitoring
sampling	reference	Substance	Methodology	frequency	Concentration++	Concentration+	unit	GTV's*	SELECT**	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	able 2: Downgradient Groundwater monitoring results											
										Upward trend in		
										yearly average		
										pollutant		
										concentration		
	Sample									over last 5 years		
Date of	location	Parameter/		Monitoring	Maximum	Average				of monitoring		
sampling	reference	Substance	Methodology	frequency	Concentration	Concentration	unit	GTV's*	SELECT**	data		
							SELECT			SELECT		
							SELECT			SELECT		

please note exceedance of generic assessment criteria (GAC) such as a Groundwater Threshold Value (GTV) or an Interim Guideline Value (IGV) 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

fore information on the use of soil and groundwater standards/ generic

sessment criteria (GAC) and risk assessment tools is available in the EPA Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (EFA 2013) bitished 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 sed 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 Drinking water Surface regulations (private supply) (public supply) water EQS GTV's standards standards

Interim Guideline

Values (IGV)

Table 3: Soil results

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

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

Environmental Liabilities template Lic No: P0507-01 Year 2018

Click here to access EPA guidance on Environmental Liabilities and Financial provision

			Commentary
1	ELRA initial agreement status	Not a licence requirement	
2		No	
2	ELRA review status	NA	
	Amount of Financial Provision cover required as determined by the latest		
3	ELRA	NA	
4	Financial Provision for ELRA status	NA	
5	Financial Provision for ELRA - amount of cover	NA	
6	Financial Provision for ELRA - type	NA	
7	Financial provision for ELRA expiry date	NA	
8	Closure plan initial agreement status	NA	Internal budget provision
9	Closure plan review status	NA	Internal budget provision
10	Financial Provision for Closure status	NA	Internal budget provision
11	Financial Provision for Closure - amount of cover	NA	Internal budget provision
12	Financial Provision for Closure - type	NA	Internal budget provision
13_	Financial provision for Closure expiry date	NA	

	Environmental Management Programme/Continuous Improvement Programme	amme template	Lic No:	P0507-01	Year	2018
	Highlighted cells contain dropdown menu click to view		Additional Inform	mation	_	
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please					
	detail in additional information	Yes	In	ternal unaccredited EMS		
	Does the EMS reference the most significant environmental aspects and associated impacts					
2	on-site	Yes				
	Does the EMS maintain an Environmental Management Programme (EMP) as required in					
3	accordance with the licence requirements	Yes				
	Do you maintain an environmental documentation/communication system to inform the					
4	public on environmental performance of the facility, as required by the licence	Yes				

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	Training. Continue to		1 person received training		Improved
Reduction of emissions to Air		70	in 2018 as there was no	Section nead	Environmental
	train all employees in		production, with limited		Management Practices
	environmental matters.		activities in general.		ivianagement Practices
	Training will be by		activities in general.		
	means of the screening				
	of an environmental				
	DVD, followed by a				
	power point				
	presentation.				
Waste reduction/Raw material usage	Waste Streamlining.It is	100	Quarterly waste reports	Section Head	Improved
efficiency	planned to continue		are returned for		Environmental
	with and where		records/filing and waste		Management Practices
	possible improve the		streams are segrated on		
	current waste		site to maximise recycling		
	management service		potential. As activities		
	provided by AES Ltd		limited there was no		
	, , , , , , , , , , , , , , , , , , , ,		waste produced in 2018.		
Reduction of emissions to Water	Training. Continue to	100	1 person received training	Section Head	Improved
	train all employees in		in 2018 as there was no		Environmental
	environmental matters.		production, with limited		Management Practices
	Training will be by		activities in general.		
	means of the screening				
	of an environmental				
	DVD, followed by a				
	power point				
	presentation.				
Matarials Handling/Storage/Dunding	Increased bund	0	No additional bund	Individual	Improved
Materials Handling/Storage/Bunding		U	capacity was required	individual	Environmental
	capacity will be		during 2018		
	provided where		during 2016		Management Practices
	required.				
Waste reduction/Raw material usage	Continue with the	100	No polyethyelene was	Individual	Improved
efficiency	recycling of		sent off site in 2018.		Environmental
	polyethylene. The				Management Practices
	sourcing of more				
	recycling contractors				
	will be ongoing.				

Noise monitoring summary report	Lic No:	P0507-01	Year	2018
Was noise monitoring a licence requirement for the AER period? If yes please fill in table N1 noise summary below		No]	_
,	Noise			
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?	Guidance note NG4	NA		
3 Does your site have a noise reduction plan		NA		
4 When was the noise reduction plan last updated?		Enter date		
Have there been changes relevant to site noise emissions (e.g. plant or operational changes) last noise survey?	es) since the	NA		
Table N1: Noise monitoring summary				

Table N1: Noise monitoring summary											
Date of monitoring		Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA_{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive	If tonal /impulsive noise was identified was 5dB penalty	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
								SELECT	SELECT		SELECT

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

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

SELECT

** please explain the reason for not taking action/resolution of noise issues?	
Any additional comments? (less than 200 words)	

2

3

SEAI - Large

Industry Energy

	When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3
1	helow

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

additional information Network (LIEN)

Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

Sep-18	
	The site attained accrediation to the energy standard
Yes	50001

Additional information

Table R1 Energy usag	e on site			
Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	88.81	414		
Total Energy Generated (MWHrs)				
Total Renewable Energy Generate	d (MWHrs)			
Electricity Consumption (MWHrs)	7.044	7.11		
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	8.048	40		
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 usag	e on site				Water Emissions	Water Consumption	
	Water extracted		•	Consumption +/-	Volume Discharged	environment e.g.	
Wateruse	Previous year m3/yr.	Current year m3/yr.	reporting year**	production*	:	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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

rce Usage/Energy effici	ency summary			Lic No:	P0507-01		Year	
Table R3 Waste	Stream Summary							
	Total	Landfill	Incineration	Recycled	Other			
Hazardous (Tonnes)		0)	0) (D		
Non-Hazardous (Tonnes)		0)	0 0)			
Table R4: Energy Audit finding recommend		nations						
Table R4: Ene	rgy Audit finding recommen	dations						
Table R4: Ene	rgy Audit imaing recommen		Origin of	Predicted energy	Implementation			Status ar
Date of audit			•	•	Implementation date	Responsibility	Completion date	Status ar
		Description of Measures proposed	•	•		Responsibility	Completion date	
		Description of Measures proposed	measures	•		Responsibility	Completion date	

Table R5: Power Generation: Where	nower is generated onsite (e.g.	nower generation facilities/fo	and drink industry) please com	inlete the following information
rable No. 1 ower deficiation. Where	power is generated onsite (e.g.	. power generation radinales/ to	od dila dillik ilidasti y/picase coli	ipiete the following illioillation

	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:	P0507-01	Year	2018	
Complaints					
	Additional information				
	There were no				

complaints of an

environmental nature

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

reporting year
Total new
complaints
received during
reporting year
Total complaints
closed during
reporting year
Balance of
complaints end of
reporting year

Table 1	Complaints summary		1				
		Brief description of					
		Other type (please	complaint (Free txt <20	Corrective action< 20			
Date	Category	specify)	words)	words	Resolution status	Resolution date	Further information
	SELECT				SELECT		
	SELECT				SELECT		
Total complaints							
open at start of							

Complaints and	d Incidents summary tem	plate			Lic No:	P0507-01		Year	2018				
		Incide	ents			1							
		made			Additional information	-							
Have any incident	s occurred on site in the current reporting year i	reporting year? Please list in Table 2 below	all incidents for current	Yes	All reportable incidents related to trigger levels for COD								
	on on how to report and what titutes an incident	What is an incident											
Table 2 Incidents si	ımmary		Incident			Other							
Date of occurrence	Incident nature	Location of occurrence	category*please refer to guidance	Receptor	Cause of incident	cause(please specify)	Activity in progress at time of incident	Communication	Occurrence	Corrective action<20 words	Preventative action <20 words	Resolution status	Likelihood of reoccurence
11/06/2018	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI014831	New	Inspected Outfall	Ensure silt ponds are cleaned as per licence condition	Complete	Medium
	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI014783	New	Inspected Outfall	Ensure silt ponds are cleaned as per licence condition	Complete	Medium
	Trigger level reached	SW3 Cuil na Mona	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI014782	New	Inspected Outfall	Ensure silt ponds are cleaned as per licence condition	Complete	Medium
	Trigger level reached	SW2 Cuil na Mona	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI014781	New	Inspected Outfall	Ensure silt ponds are cleaned as per licence condition	Complete	Medium
07/06/2018	Trigger level reached	SW1 Cuil na Mona	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI014780	New	Inspected Outfall	Ensure silt ponds are cleaned as per licence condition	Complete	Medium
09/01/2018	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI013810	New	Inspected Outfall	Ensure silt ponds are cleaned as per licence condition	Complete	Medium
Total number of incidents current year Total number of incidents previous	(5											

year % reduction/

increase

70% reduction

SECTION R. WAS	TE ACCEPTED ONTO SITE-TO BE	COMPLETED BY ALL ID	DC AND WASTE FA	CILITIES		7					
SECTION D WAS	TEACCE TED ON TO SHE TO BE	COMIT LETED DI ALL'II	T CARD WASTETA	CILITIES			Additional Informat	tion			
	Were any wastes <u>accepted onto</u> your site for recovery or disposal or treatment prior to recovery or disposal within the boundaries of your facility?; (waste generated within 1 your boundaries is to be captured through PRTR reporting) SEE										
If yes please enter de	tails in table 1 below							Ī			
2 Did your site have any	rejected consignments of waste in the	current reporting year? If ye	s please give a brief exp	lanation in the additior	nal information	SELECT					
3 Was waste a	ccepted onto your site that was genera	ted outside the Republic of Ir	eland? If yes please stat	e the quantity in tonne	s in additional information	SELECT					
	of waste accepted onto you					ur site, as th	ese will have l	een reported in	your PRTR workbook)	
Licenced annual tonnage limit for your site (total tonnes/annum)	EWC code	Source of waste accepted	Description of waste accepted Please enter an accurate and detailed description - which applies to relevant EWC code	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								
SECTION C-TO BE	COMPLETED BY ALL WASTE FA	ACILITIES (waste transfe	er stations, Compos	sters, Material red	covery facilities etc) EXCEPT	LANDFILL SITE	S			1	
4 Is all waste processing	infrastructure as required by your lice	nce and approved by the Age	ncy in place? If no please	e list waste processing i	infrastructure required onsite	SELECT					
5 Is all waste storage in	frastructure as required by your licence	and approved by the Agency	in place? If no please lis	st waste storage infrast	ructure required on site	SELECT					
	e relevant nuisance controls in place? management system in place for your dge register on site?	facility? If no why?				SELECT SELECT SELECT					

Lic No:

SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES PRTR facility logon.

P0507-01

Year

dropdown list click to see options

2018

WASTE SUMMARY

SECTION D-TO BE	COMPLETED BY LANDFILL SIT	'ES ONLY											
Table 2 Waste typ	pe and tonnage-landfill only		<u>=</u>										
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 is	nformation-Landfill only												
Table 5 General II	Landin Ciny												
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 as bestos in reporting year	Total disposal area occupied by was te	Lined disposal area occupied by waste	Unlined area	Comme
										SELECT UNIT	SELECT UNIT	SELECT UNIT	1
Cell 8													1
Leii o											-	1	
Table 4 Environm	ental monitoring-landfill only	Landfill Manual-Monitoring S	Standards										
Was meterological monitoring in compliance with Landfill Directive (LD) standard in reporting year +	Was leachate monitored in compliance with LD standard in reporting year	Was Landfill Gas monitored in compliance with LD standard in reporting year	Was SW monitored in compliance with LD standard in reporting	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	l Comments					
in reporting year +	with LD standard in reporting year	reporting year	year	been established	the Agency (ELVs)	reporting year	in reporting year	Comments	1				
.+ please refer to Land	I Ifill Manual linked above for relevant I	Landfill Directive monitoring s	tandards					1	1				
Table 5 Capping-L	andfill only	•											
Area uncapped*	Area with temporary cap			Area with waste that should be permanently									
SELECT UNIT	SELECT UNIT	Area with final cap to LD Standard m2 ha, a	Area capped other	capped to date under licence	What materials are used in the cap	Comments							
			1		•]						
*please note this inclu													
Table 6 Leachate-							=						
	site treated in a Waste Water Treatme		Name hadani			SELECT SELECT	1						
is leachate released to	o surface water? If yes please complet	e leachate mass load informa	tion below			SELECT	1						
Volume of leachate in reporting year(m3)	Leachate (BOD) mass load (kg/annum)	Leachate (COD) mass load (kg/annum)	Leachate (NH4) mass load (kg/annum)	Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	Specify type of leachate treatment	Comments						
	se ensure that all information reporte	d in the landfill gas section is	consistent with the Land	Ifill Gas Survey submitt	ed in conjunction with PRTR returns								
Table 7 Landfill G	as-Landfill only				1								
			Was surface emissions										
Gas Captured&Treated			monitoring performed during the reporting										
by LFG System m3	Power generated (MW / KWh)	Used on-site or to national grid	year?	Comments									
			SELECT		1								

P0507-01

Year

2018

Lic No:

WASTE SUMMARY

European						Name, Address &	Country
Waste Code	Description of Waste (in line	Hazardous –	Quantity	Name & Permit No. of	Treatment Type – Recovered / Disposed	Licence/Permit No. of FINAL	
(EWC)	with applicable EWC code)	YES/NO	(Tonnes)	Agent/Carrier	/ Recycled	Destination	

^{*}Note: No waste taken off site in 2018

Cuil na Mona

Decommissioning and Rehabilitation Bog Rehabilitation Progress Report 2018.

Within the Cuil na Mona licensed area (P0507-01) there were no entire bog units available for rehabilitation in 2018. Monitoring of cutaway within the Cuil na Mona bogs is ongoing. Biomass trials have been established in Cuil na Mona in 2016. Rehabilitation work was carried out on a small area of cutaway in Cashel bog (38 ha) in 2017. This area of naturally colonising cutaway was re-wetted by drain-blocking.

There is ongoing monitoring of this area and BnM facilitated a field-trip to the site last year from the Laois Heritage Forum, who were interested in the re-wetting project.

Abbeyliex Bog has now been removed from the Cuil na Mona IPC licenced area. An EPA inspection audit was carried out in 2017 and the EPA inspector was satisfied that Abbeyleix bog has been decommissioned and successfully rehabilitated. This bog, still in the ownership of BnM, is now leased to the local community for amenity, conservation and education.

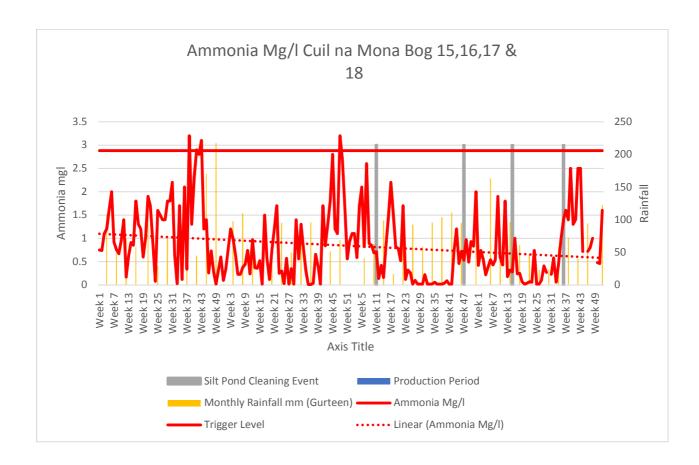
The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in February 2017, this included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.

A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

As required by condition 10.2 Cutaway Bog Rehabilitation Plans, draft peatland rehabilitation plans for all the individual bog units were submitted to the agency in 2013, reviewed and amended in 2015 and re-submitted to the agency in 2015. All draft rehabilitation plans have been reviewed in 2017. These reviewed and amended plans will be re-submitted to the agency in due course.

Bord na Mona Cuil na Mona - IPC Licence PO507-01 Quarterely Grab Sampling 2018

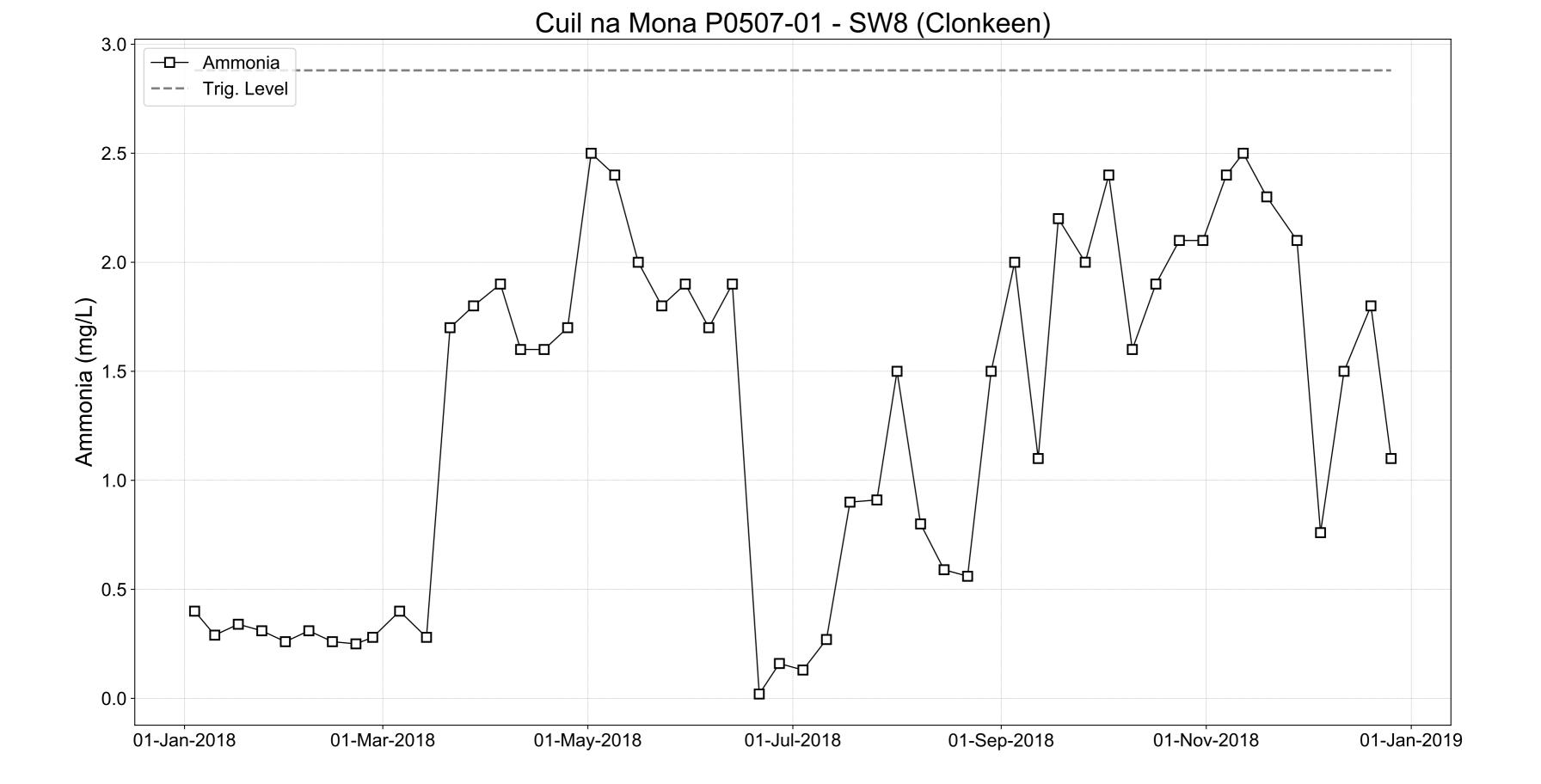
Quarterely Grab Sampling 2018					<u></u>							
Х	Υ	Bog	SW	Monitorin	Sampled	рН	SS	TS	Ammonia	TP	COD	Colour
				g								
241044.03	196363.06	Coolnamona	SW-6	Q1 18	22/03/2018	7.4	5	172	1.4	0.05	49	210
243248.85	196667.60	Coolnamona	SW-9	Q1 18	22/03/2018	7	5	152	0.44	0.05	82	410
244939.80	195193.19	Coolnacarton	SW-13	Q1 18	22/03/2018	7.6	5	294	1.2	0.05	62	207
243650.14	192140.24	Coolnacarton	SW-14	Q1 18	22/03/2018	7.3	5	114	2.3	0.05	41	160
243409.81	192198.71	Coolnacarton	SW-14A	Q1 18	22/03/2018	7.4	5	176	1.8	0.07	50	177
241454.18	198643.31	Coolnamona	SW-1	Q2 18	07/06/2018	7.6	5	248	1	0.07	137	356
240535.90	197955.63	Coolnamona	SW-2	Q2 18	07/06/2018	7.6	5	262	1.4	0.05	119	287
242328.78	198179.85	Coolnamona	SW-3	Q2 18	07/06/2018	7.3	5	228	1.6	0.06	126	333
241983.51	195773.17	Coolnamona	SW-8	Q2 18	07/06/2018	7	5	152	0.99	0.08	149	474
241454.18	198643.31	Coolnamona	SW-1	Q3 18	06/09/2018	7.5	5	300	2	0.05	69	169
240535.90	197955.63	Coolnamona	SW-2	Q3 18	06/09/2018	7.3	10	264	0.32	0.05	78	95
242328.78	198179.85	Coolnamona	SW-3	Q3 18	06/09/2018	7.6	6	260	0.09	0.06	64	135
241983.51	195773.17	Coolnamona	SW-8	Q3 18	06/09/2018	7.4	78	318	1.7	0.08	78	179
241044.03	196363.06	Coolnamona	SW-6	Q4 18	04/12/2018	6.6	196	0.05	2.2	0.05	96	436
243248.85	196667.60	Coolnamona	SW-9	Q4 18	04/12/2018	5.2	5	216	0.22	0.06	96	386
244939.80	195193.19	Coolnacarton	SW-13	Q4 18	04/12/2018	5.8	178	0.05	0.18	0.05	98	336
243650.14	192140.24	Coolnacarton	SW-14	Q4 18	04/12/2018	5.8	5	130	0.14	0.05	95	644
243409.81	192198.71	Coolnacarton	SW-14A	Q4 18	04/12/2018	5.7	5	134	0.14	0.05	94	642

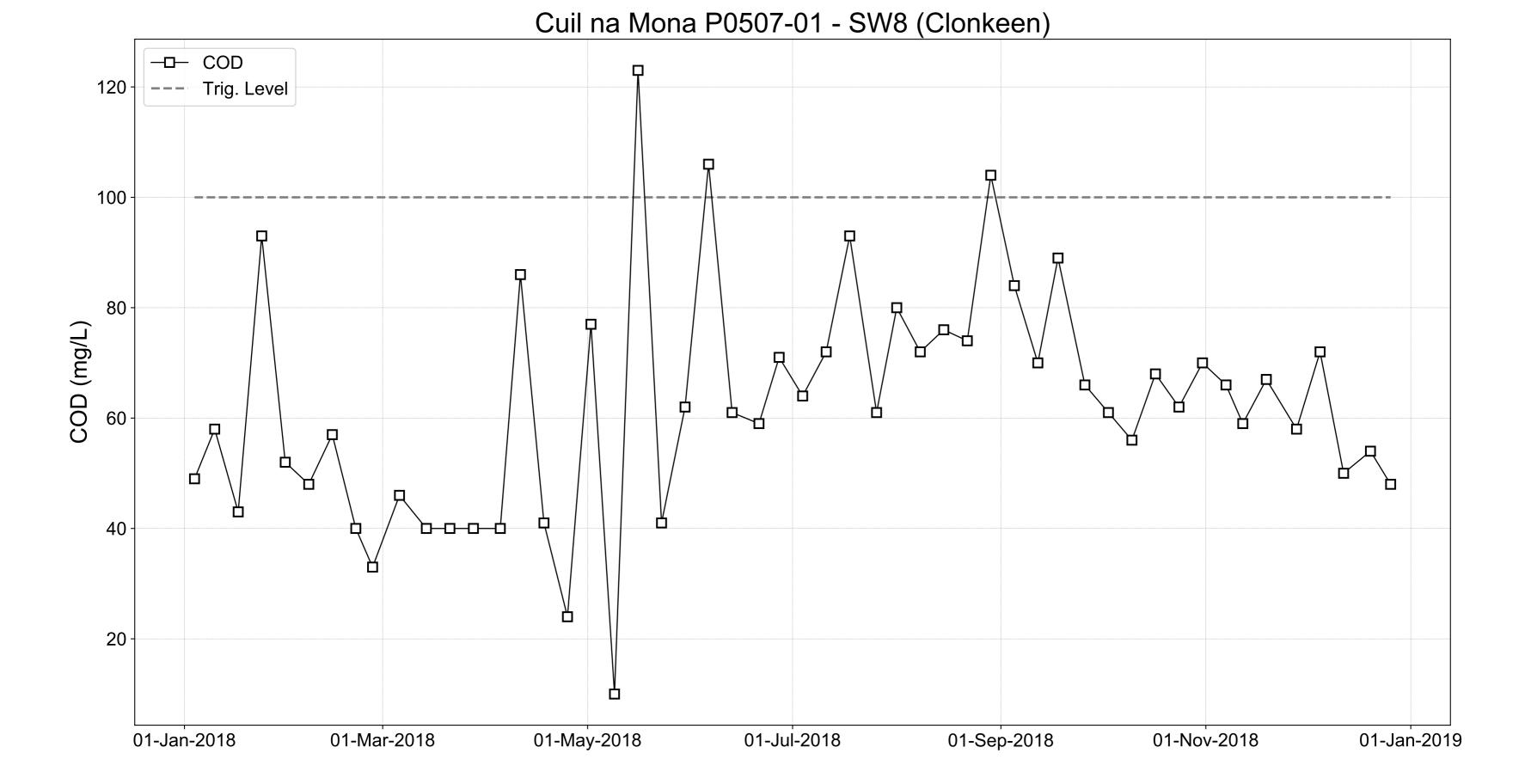


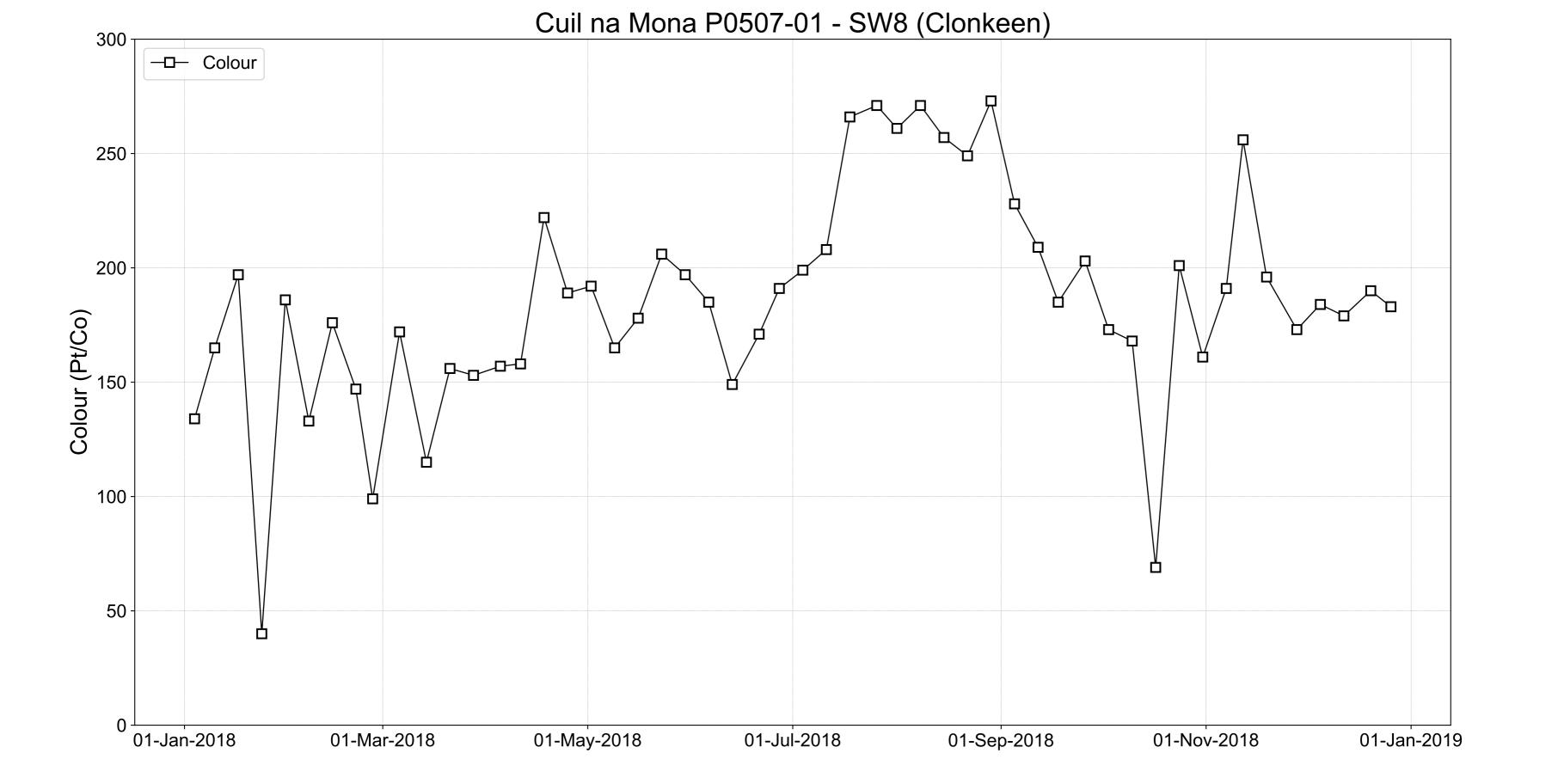
Cuil na Mona bog was not in active production during 2018 with the composite sampler located here from 2015. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had 35% downtime during the period but returned 52 weekly ammonia results during the period of this 2018 AER. The ammonia trigger level of 2.88mg/l, as agreed with the Agency, was not exceeded during the period. Combining the 2015, 16, 17 & 18 results above, shows concentrations continuing to trend downwards and this is in-line with the downwards/level trends submitted to the EPA in 2013 as required by condition 6.14.

As has been establish previously, there is no obvious link between activities and ammonia concentrations. Comparing monthly rainfall from the nearest met station at Gurteen shows an expected link between rainfall and a lagging peak in ammonia concentrations, however all results were below the trigger level.

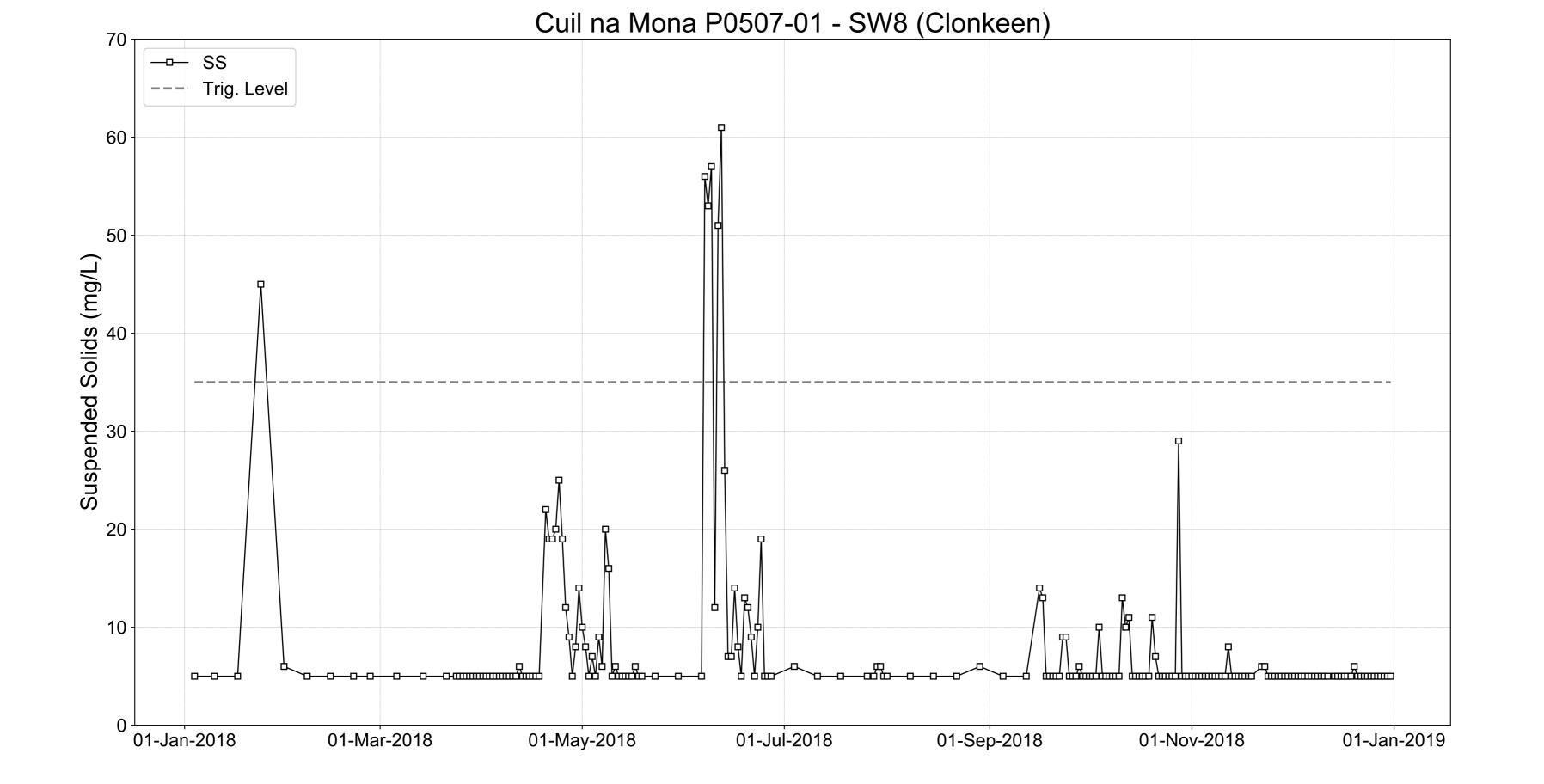
The sampler at this location may be relocated to fill any information gaps on other peatland catchments and to reflect the need to support the information gathering required for the Water Framework Directive's River Basin Management Plan. There is also an EPA lead research project commencing in 2019, called the SWAMP project, whose aims are to appraise and understand the nutrient impact from peatlands, to evaluate treatment technologies and to propose predictive tools for watershed management.

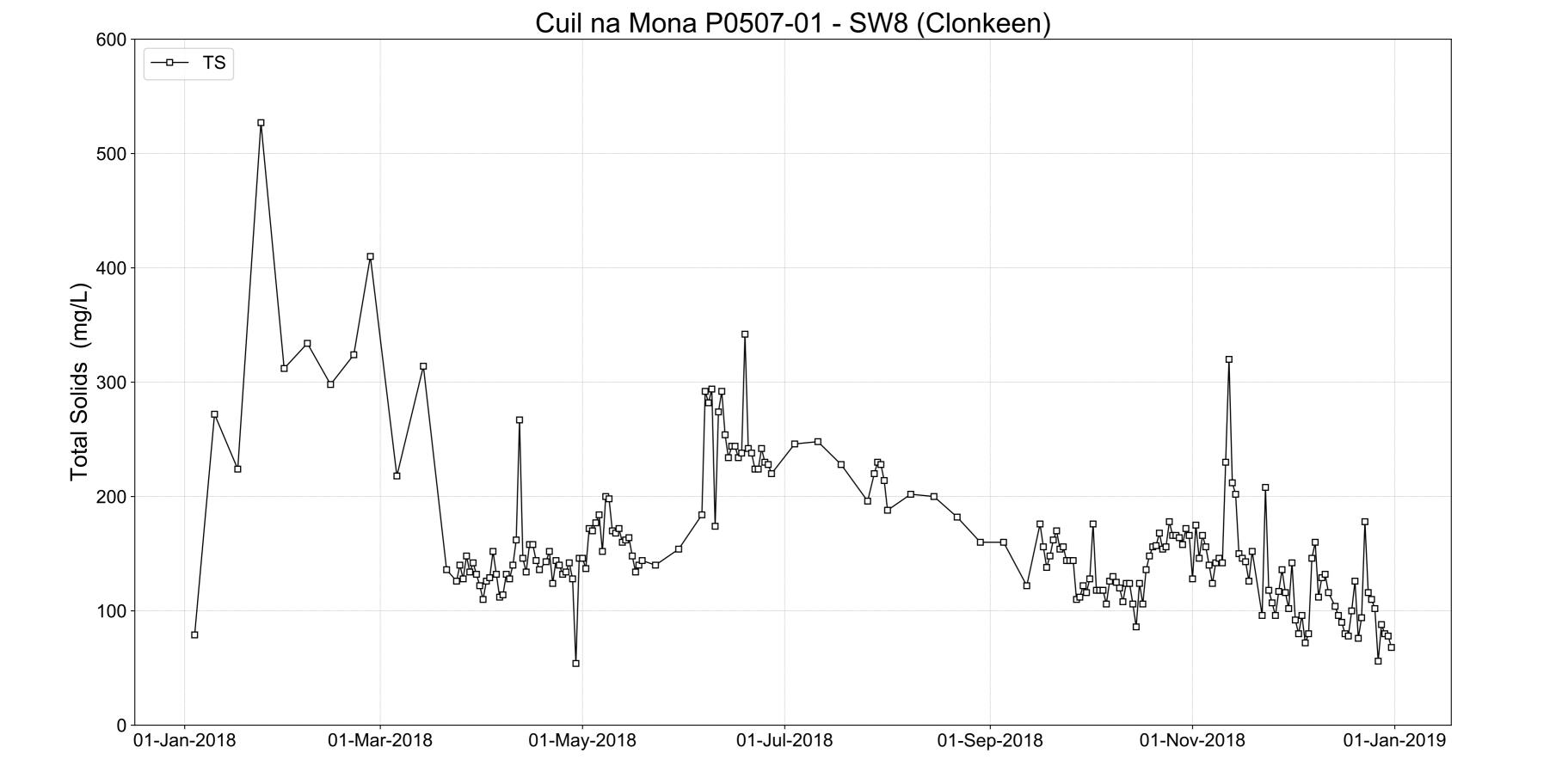


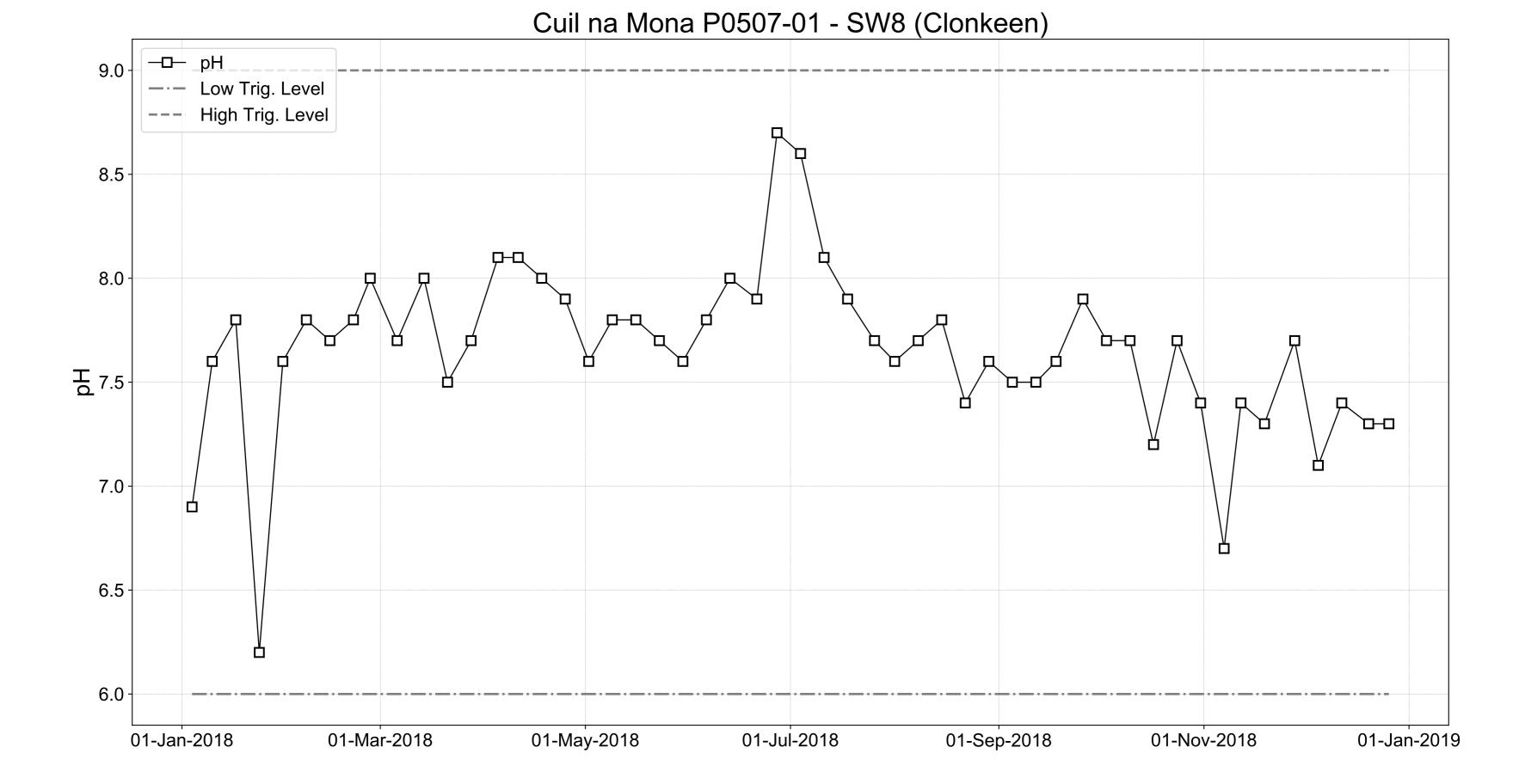




Cuil na Mona P0507-01 - SW8 (Clonkeen) ── Phosphorus 0.225 0.200 Phosphorus (mg/L) 0.175 -0.150 -0.125 -0.100 0.075 0.050 01-Nov-2018 01-Mar-2018 01-May-2018 01-Jul-2018 01-Sep-2018 01-Jan-2019 01-Jan-2018







Extractive Waste Management Plan Implementation AER Update.

March 2019.

IPC Licence P0507-01.

1.0 Extractive Wastes.

Waste classified as extractive waste from peat extraction operations arise from two operations associated with this activity.

- Silt Pond excavations and maintenance
- Bog Timbers

There has been no change to the type and nature of these two waste streams and no new waste streams added to this list. These wastes streams continue to be stored and maintained at between 1 and 3 metres in height.

2.0 Condition 7.5 Extractive Waste Management

- An extractive waste management plan (EWMP) was submitted to the Agency in September 2012 and was approved.
- The EWMP was reviewed in September 2017. There were no substantial changes to the operation of the plan, associated waste facilities or to the waste deposited.

3.0 Minimisation

- The IPC Licence has various conditions that require the installation, inspections and maintenance of silt ponds for operational areas and as such these requirements dictate the need for silt ponds and associated excavation materials and cleanings.
- Bog timbers arise from the active production footprint and are naturally occurring. The active footprint is dictated by the peat production targets and customer supply contract and service level agreements.

4.0 Treatment

- Silt pond excavation and maintenance materials do not require any treatment and are stored as per the EWMP, adjacent to the associated silt pond.
- There is no treatment of bog timbers arising and these are stockpiled at various locations in associated bogs.

5.0 Recovery

- As per the EWMP, there is still no opportunity to recover these silt pond associated materials
- Bog timbers stored on the bog are natural to the peat bog and while there have been trails to recover this waste material, these have not proved viable.

6.0 Disposal

- Silt pond cleanings continue to be disposed of adjacent to the associated silt pond and will be incorporated back into the rehabilitation plans for these bogs, post production and decommissioning.
- Bog timbers will continue to be stockpiled at suitable locations to be either incorporated back into the bog, as a supply of bog timbers for the crafting industry or will continue to decay naturally.



Annual Environmental Report 2019
Bord na Mona Energy Ltd
(Boora Group of Bogs)
IPC Licence P0500-01

Facility Information Summary

AER Reporting Year Licence Register Number Name of site Site Location NACE Code Class/Classes of Activity National Grid Reference (6E, 6 N) 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.

					i	
2019	P0500-01	Bord na Mona Boora	Leabeg, Boora, Tullamore, Co Offaly	0892	1.4	180050, 319540
	<u> </u>	L				

Activities on site can be divided into two components, firstly the milling, harrowing, ridging and harvesting of peat into stockpiles and secondly the transportation of that peat via an internal rail network to the Power Station, Briquette factory and lorry outloading facilities. Production achieved was 3093.19 tonnes which was a 58% reduction on 2018. Dust monitoring was fully compliant for the reporting period. There was one environmental complaint received during 2019 which was a dust nuisance complaint and was resolved and reported to the Agency. There was one exceedance in the ELV for suspended solids from a quarterly grab sample at a silt pond outlet, however on investigation this was found to be due to the pond having been cleaned immediately prior to the sampling event. In relation to silt pond cleaning, 100% of the silt ponds received two cleanings with inspections dictating if a pond required further cleaning. During the reporting period, there were a number of notifications to the Agency including notification of an interim cessation of peat extraction at Boora Bogs, pending regularisation. Decommissioning and Rehabilitation works are described in an attachment.

Declaration:

All the data and information presented in this report has been checked and certified as

Signature
Signature
Group/Facility manager
(or nominated, suitably qualified and experienced deputy)

	AIR-summary template	Lic No:	P0500-01	Year	2019
	Answer all questions and complete all tables where relevant			_	
				Additional information	
	Does your site have licensed air emissions? If yes please complete table A1 and A2 below for the current				
1	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				
	• • • • • • • • • • • • • • • • • • • •	No		Fugitive emissions only	
			I.		1
	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			
3	Basic air				
,	Was all monitoring carried out in accordance with EPA guidance monitoring	.,			
	note AG2 and using the basic air monitoring checklist? <u>checklist</u> <u>AGN2</u>	Yes			l

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

										Comments -
										reason for
										change in %
										mass load
										from
			ELV in licence or							previous
Emission		Frequency of	any revision			Unit of	Compliant with		Annual mass	year if
reference no:	Parameter/ Substance	Monitoring	therof	Licence Compliance criteria	Measured value	measurement	licence limit	Method of analysis	load (kg)	applicable
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		

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

AIR-summary template	Lic No:	P0500-01	Year	2019
Continuous Monitoring				
4 Does your site carry out continuous air emissions monitoring?	No			
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)				
Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	No			
6 Do you have a proactive service agreement for each piece of continuous monitoring equipment?	No			
7 Did your site experience any abatement system bypasses? If yes please detail them in table A3 below	No			
AIR-summary template	Lic No:	P0500-01	Year	2019

Table A2: Summary of average emissions -continuous monitoring

Emission	Parameter/ Substance		Averaging Period	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:					measurement			Equipment	exceedences in	
		ELV in licence or						downtime (hours)	current	
		any revision therof							reporting year	
DM-01	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	9968	153	0	0	
DM-02	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	11900	209	0	0	
DM-03	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	10220	231	0	0	
	SELECT				SELECT					

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

Table A3: Abatement system bypass reporting table

Bypass protocol

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

^{*} this should include all dates that an abatement system bypass occurred

^{**} an accurate record of time bypass beginning and end should be logged on site and maintained for future

Agency inspections please refer to bypass protocol link

AIR-summa	ry template				Lic No:	P0500-01		Year	2019	
Solv	ent use and manageme	nt on site								
Do you have a	total Emission Limit Value of	direct and fugitive en	nissions on site? if	es please fill out tables A4 and	A5					
Table A4: S	olvent Management Pl	an Summary	1	No						
	Emission limit value	,								
Reporting ye	ar Total solvent input on	Total VOC	Total VOC		Compliance					
	site (kg)	emissions to Air from entire site	emissions as %of solvent input							
		(direct and fugitive)	·	Total Emission Limit Value (ELV) in licence or any revision						
				therof						
					SELECT					
					SELECT					
Table A	A5: Solvent Mass Balan	ce summary							1	
	(I) Inputs (kg)			(0)	Outputs (kg)					
(i) inputs (kg)										
Solvent	() ()			Collected waste solvent (kg)	Fugitive Organic		Solvents	Total emission of		
	(I) Inputs (kg)	emission in waste gases(kg)	water (kg)		Solvent (kg)		destroyed onsite through physical	Solvent to air (kg)		
	l	I .			<u> </u>	1	Total			

	AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)		Lic No:	P0500-01	Year
				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 licenced emissions you only need to complete table W1 and or W2 for storm water analysis and visual inspections				
		Yes			
2	Was it a requirement of your licence to carry out visual inspections on any surface water discharges or watercourses on or near your site? If yes please complete table W2 below summarising only any evidence of contamination noted during visual inspections	Yes	Monthly COD ana	alysis of yard runoff is attached in a separate document.	

Table W1 Storm water monitoring

Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	ELV or trigger level in licence or any revision thereof*	Compliance	Measured value	Unit of measurement	Compliant with licence	Comments
	SELECT	SELECT	SELECT		SELECT		SELECT	SELECT	
	SELECT	SELECT	SELECT		SELECT		SELECT	SELECT	

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

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

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
			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	Yes	Additional information	
			Surface water monitoring was carried out on a quarterly basis. The results of	of which are attached. Monthly COD
	Was all monitoring carried out in accordance with EPA guidance		yard runoff results are also attached. The lack of samples was due to	
	and checklists for Quality of Aqueous Monitoring Data Reported External /Internal			
1	to the EPA? If no please detail what areas require improvement in Lab Quality Assessment of			
4	additional information box checklist results checklist	Yes		

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

Emission released to	Parameter/ SubstanceNote 1	Type of sample	Frequency of monitoring	ELV or trigger values in licence or any revision therof ^{Note 2}	Licence Compliance criteria	Measured value	Compliant with licence	Procedural reference source		Annual mass load (kg)	Comments
								APHA / AWWA "Standard Methods"	4500-NH3	NA	One off Grab sample
								APHA / AWWA "Standard	4500-NH3	NA	One off Grab sample

2019

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

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

|--|

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)		Lic No: P0500-01	Year
Continuous monitoring 5 Does your site carry out continuous emissions to water/sewer monitoring? If yes please summarise your continuous monitoring data below in Table W4 and compare it to its relevant Emission Limit Value (ELV)	Yes	Additional Inform See note abo	
6 W4 below	Yes	Total of 233 days ove	r 365 days.
7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site?	Yes	Annual calibration schedule and trouble sh	ooting service
8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 below	No		

Table W4: Summary of average emissions -continuous monitoring

Emission reference	Emission released to		ELV or trigger values in licence or any revision thereof	Averaging Period	Compliance Criteria		Annual Emission for current reporting year (kg)	% change +/- from previous reporting year		Number of ELV exceedences in reporting year	Comments
SW-34	Water	Suspended Solids	35	24 hour	Not Listed	mg/L			223	1	Down time primarially due to battery failure.Its not possible to report average continuous emissions as this sampler is located on one of many silt ponds and samplers are moved around periodically to allow for analysis of other silt pond performance.
SW-34	Water	Ammonia (as N)	3.7	Weekly	NA	mg/L					
SW-34	Water	Total phosphorus	NA	Weekly	NA	mg/L					
SW-34	Water	COD	100	Weekly	NA	mg/L					
SW-34	Water	Volumetric flow	NA	24 hour	NA	m3/day					
SW-34	Water	Total Dissolved Solids	NA	Weekly	NA	mg/L					<u> </u>

2019

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

Table W5: Abatement system bypass reporting table

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

*Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline to	esting template				Lic No:	P0500-01		Year	2019					
Bund testing		dropdown menu cl	lick to see options				Additional information							_
containment structur	res on site, in addition to a	ntegrity testing on bunds and con Il bunds which failed the integrity le the licenced testing period (mo	test-all bunding structures	which failed including mobi										
Does the site maintai 3 "Chemstore" type un	its and mobile bunds)	d erground pipelines (including stor	rmwater and foul), Tanks, sur	mps and containers? (contai	ners refers to	Other (2 Yearly)								
4 How many bunds are 5 How many of these b		hin the required test schedule?					9 2 remaining bunds scheduled to be tested in 2020	0						
6 How many mobile bu							This includes barrel trays located within workshops							
	included in the bund test					No								
	nobile bunds have been te: site are included in the int	sted within the required test sche	edule?			NA NA		+						
	umps are integrity tested v					NA								
	integrity failures in table E							7						
	mbers have high level liqui e failsafe systems included	d alarms? in a maintenance and testing pro	ogramme?			N/A N/A								
		ur integrity test programme?	8			N/A								
	bl- D4 C	f bund /containment structure in		7										
ia	ble B1: Summary details o	bund /containment structure in	tegrity test											
														D In .
									Integrity reports					Results retest(i
Bund/Containment									maintained on		Integrity test failure		Scheduled date	
structure ID	Туре	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	site?	Results of test	explanation <50 words	Corrective action taken	for retest	reportir
	reinforced concrete SELECT					SELECT SELECT			Yes	SELECT		SELECT SELECT		
* Capacity required should co	omply with 25% or 110% containmen	it rule as detailed in your licence				SELECT	Commentary	1	SELECT	BELECI		SELECT		
		ince with licence requirements ar	nd are all structures tested in				,							
15 line with BS8007/EPA	. Guidance? r systems to remote conta	Chataat amataus taamai		bunding and storage guide	<u>lines</u>	SELECT SELECT								
		h integrity and available volume?	,			SELECT								
		- '					*	-						
Disables for descri		1												
Pipeline/undergi	round structure testing							7						
Are you required by y	our licence to undertake i	ntegrity testing* on underground	structures e.g. pipelines or s	sumps etc ? if yes please fill	out table 2 below listing									
		which failed the integrity test ar	nd all which have not been to	ested withing the integrity t	est period as specified	Yes								
	ity testing frequency perio	d tness testing for process and foul	ninelines (as required under	your licence)		Other (2 Yearly)								
picase note integrity	resting incurs water upir	incontenting for process and four	pipelines (as required under	your accreey										
			lank a malk a k a ak	T								•		
Tabl	e B2: Summary details of	pipeline/underground structures i	integrity test											
Tabl	e B2: Summary details of p	pipeline/underground structures i	integrity test											
Tabl	e B2: Summary details of p	ipeline/underground structures i	integrity test											
Tabl	le B2: Summary details of p	ipeline/underground structures i	integrity test	Type of secondary										
Tabl	le B2: Summary details of j	ipeline/underground structures i		Type of secondary containment				Integrity test	Samuel de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la constitución de la		Davids of asked/file			
			Does this structure have		Type integrity testing	Integrity reports	Results of test	failure explanation	Corrective action					
Tabl Structure ID	e B2: Summary details of s	Material of construction: SELECT			Type integrity testing SELECT	Integrity reports maintained on site? SELECT	Results of test SELECT		Corrective action taken	Scheduled date for retest	Results of retest(if in current reporting year) SELECT			
	Type system	Material of construction:	Does this structure have Secondary containment?	containment		maintained on site?		failure explanation			reporting year)			
	Type system	Material of construction:	Does this structure have Secondary containment?	containment		maintained on site?		failure explanation			reporting year)			
	Type system	Material of construction:	Does this structure have Secondary containment?	containment		maintained on site?		failure explanation			reporting year)			
	Type system	Material of construction:	Does this structure have Secondary containment?	containment		maintained on site?		failure explanation			reporting year)			
	Type system	Material of construction: SELECT	Does this structure have Secondary containment? SELECT	Containment	SELECT	maintained on site?		failure explanation			reporting year)			
	Type system	Material of construction: SELECT	Does this structure have Secondary containment?	Containment	SELECT	maintained on site?		failure explanation			reporting year)			

Groundwater/Soil monitoring template Lic No: P0500-01 Year 2019

Comments

no		Please provide an interpretation of groundwater monitoring data in
no		the interpretation box below or if you require additional space please
no	Domestic Use Only	include a groundwater/contaminated land monitoring results interpretaion as an additional section in this AER
SELECT		
N/A		
N/A		Please enter interpretation of data here
	no no SELECT N/A N/A N/A N/A N/A N/A N/A N/A N/A	no Domestic Use Only SELECT N/A N/A N/A N/A N/A N/A N/A N/

Table 1: Upgradient Groundwater monitoring results

Tubic 1.	Oppradicit	Giodilawa	ter moment	ig i courto						
										Upward trend in
										pollutant
	Sample									concentration
Date of	location	Parameter/		Monitoring	Maximum	Average				over last 5 years
sampling	reference	Substance	Methodology	frequency	Concentration++	Concentration+	unit	GTV's*	SELECT**	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

	water/Soil n	nonitoring t	template		Lic No:	P0500-01		Year	2019			
Table 2: Downgradient Groundwater monitoring results												
Sample Date of sampling reference Substance Methodology frequency Concentration Methodology frequency Concentration SELECT Upward trend in yearly average pollutant concentration over last 5 years of monitoring data frequency SELECT** SELECT** SELECT**												
SELECT SELECT												
SELECT SELECT												
*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. More information on the use of soil and groundwater standards/ generic												
upward ti please com	rend in results fo aplete the Groun	r a substance in dwater Monitori	dicates that furthe ing Guideline Tem as	r interpretation of r plate Report at the otherwise instructe	nonitoring results is requink provided and submited	uired. In addition to	completing the above table,		ndwater monito	ring template		
upward to please com More inforn assessment	rend in results fo aplete the Groun nation on the use	or a substance induster Monitoring e of soil and ground risk assessmen	dicates that furthe ing Guideline Tem as	r interpretation of r plate Report at the otherwise instructe ls/generic	nonitoring results is requink provided and submited by the EPA.	uired. In addition to d t separately through	completing the above table,	,				

Table 3: Soil results

Table 3.	Jon results						
	Sample						
Date of	location	Parameter/		Monitoring	Maximum	Average	
sampling	reference	Substance	Methodology	frequency	Concentration	Concentration	unit
							SELECT
							SELECT

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

2019

Environmental Liabilities template

P0500-01

Lic No:

Year

Click here to access EPA guidance on Environmental Liabilities and Financial provision

9	complete		Commentary
1	ELRA initial agreement status		
		Not a Licence Requirement	
2	ELRA review status	NA	
3	Amount of Financial Provision cover required as determined by the latest ELRA	NA	
4	Financial Provision for ELRA status	NA	
5	Financial Provision for ELRA - amount of cover	NA	
6	Financial Provision for ELRA - type	NA	
7	Financial provision for ELRA expiry date	NA	
8	Closure plan initial agreement status	NA NA	
9	Closure plan review status	NA	
10	Financial Provision for Closure status	NA	
11	Financial Provision for Closure - amount of cover	NA	
12	Financial Provision for Closure - type	NA	
13	Financial provision for Closure expiry date	NA	

	Environmental Management Programme/Continuous Improvement Programm	ne template	Lic No:	P0500-01	Year
	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	Interr	al unaccredited EMS	
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 Programm	e (EMP) report				
Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	Training. Continue to train		In total 10 Personnel received		
	all employees in		training in 2019. Training now also		
	environmental matters.		includes an energy awareness		
	Training will be by means		component. Ten hydraulic harrows		
	of the screening of an		were deployed at five production		
	environmental DVD,		areas including all dust sensitive		
	followed by a power point		areas. Headland peat was collected		
	presentation. Deploy		at appicable production areas and		
	Hydraulic Harrows at dust		returned as part of overall		
	sensitive areas headland		production.		
	Peat collection.				
					Improved Environmental
		100		Individual	Management Practices
Waste reduction/Raw material usage	Waste Streamlining.It is		Quarterly waste reports are returned		
efficiency	planned to continue with		for records/filing and waste streams		
	and where possible		are segrated on site to maximise		
	improve the current waste		recycling potential.		
	management service				
	provided by AES Ltd				
					Improved Environmental
		100		Section Head	Management Practices

Environmental Management Pro	ogramme/Continuous Impro	vement Programn	ne template	Lic No:	P0500-01	Year	
Reduction of emissions to Water	Training. Continue to train		All silt ponds were cleaned at least				
	all employees in		twice as per licence condition .				
	environmental matters.						
	Training will be by means						
	of the screening of an						
	environmental DVD,						
	followed by a power point						
	presentation.						
					Improved Environmental		
		100		Individual	Management Practices		
Waste reduction/Raw material usage	Continue with the		In total 0 tonnes were sent off site				
efficiency	recycling of polyethylene.		for recycling. However all plastic				
	The sourcing of more		collected is due for collection in 2020.				
	recycling contractors will						
	be ongoing.						
					Improved Environmental		
		100		Individual	Management Practices		
Energy Efficiency/Utility conservation	As part of an energy	100	The site achieved the Energy	mulviduai	ividilagement Fractices		
Energy Efficiency/Othity conservation	management process, an		standard ISO50001 during the				
	ongoing review of energy		reporting period.				
	usage is in place.		reporting period.				
	usage is iii piace.						
					Improved Environmental		
		100		Section Head	Management Practices		

	N	oise monitor	ing summary	/ report			Lic No:	P0500-01	Year	2019	
		ce requirement to		od?				No]		
	s noise monitoring carried out using the EPA Guidance note, including completion of the ecklist for noise measurement report" included in the guidance note as table 6?						Noise Guidance note NG4	NA			
B Does your sit	es your site have a noise reduction plan						note NG4	NA	1		
When was th	e noise reductio	n plan last upda	ted?					Enter date			
Have there	been changes re	elevant to site no	oise emissions (e noise survey	• .	perational c	hanges) sin	ce the last	NA			
Table N1: No	ise monitoring	summary									
Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA_{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
								SELECT	SELECT		SELECT
*Please ensure tha	at a tonal analysis has	been carried out as pe	er guidance note NG4.	These records mu	st be maintained	onsite for futur	e inspection				
	If nois	e limits exceede	d as a result of n	oise attribut	ed to site ac	tivities, plea	ase choose tl	ne corrective action fro	om the following options?	SELECT	
			** please	e explain the r	eason for n	ot taking ac	tion/resoluti	on of noise issues?			

Any additional comments? (less than 200 words)

Resource Usage/Energy efficiency summary	Lic No:	P0500-01	Year	2019

1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below

Additional information

Sep-19 Report on file

ISO50001
accreditation
attained from
Certification Europe
Yes

Is the site a member of any accredited programmes for reducing energy usage/water conservation

2 such as the SEAI programme linked to the right? If yes please list them in additional information

Network (LIEN)

Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

Table R1 Energy usag	e on site			
Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	14335.26	9583.06		
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (MWHrs)			
Electricity Consumption (MWHrs)	657.287	498.09		
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	1346.125	905.478		
Natural gas (m3)				
Coal/Solid fuel (metric tonnes)	0	0		
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	Table R2 Water usage on site					r Emissions Water Consumption		
						Volume used i.e not		
			Production +/- %	Energy		discharged to		
			compared to	Consumption +/- %	Volume Discharged	environment e.g.		
	Water extracted	Water extracted	previous	vs overall site	back to	released as steam		
Water use	Previous year m3/yr.	Current year m3/yr.	reporting year**	production*	environment(m ³ yr):	m3/yr	Unaccounted for Water:	
Groundwater								
Surface water								
Public supply								
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.

Resource Usage/Energy efficiency summary Lic No: P0500-01 Year 2019

Table R3 Waste Stream	Summary				
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	9.44	0	8.96	0.48	0
Non-Hazardous (Tonnes)	957.17	34.97	0	87.92	0

Table R4: Energy Au	dit finding recommenda	tions						
		Description of		Predicted energy				Status and
Date of audit	Recommendations	Measures proposed	Origin of measures	savings %	Implementation date	Responsibility	Completion date	comments
			SELECT					
			SELECT					
			SELECT					

Table R5: Power Generation: Where	power is generated onsit	te (e.g. power generati	ion facilities/food ar	nd drink industry)plea	ase complete the follow	ing information
					a =	1

	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 or	Site				

	Incidents summary templa				Lic No:	P0500-01		Year	2019	'			
		Complaints										•	
					Additional inform	nation							
Harra riari magalira	d any anyleanmental assurbints in	the aureant reporting upon 16	fues places complete			T							
Have you receive	d any environmental complaints in												
	summary details of complaints r	eceived on site in table 1 belo	ow	Yes		1							
Table 1	Complaints summary												
			Brief description of										
			complaint (Free txt <20	Corrective action< 20									
Date	Category	Other type (please specify)	words)	words	Resolution status	Resolution date	Further information						
27/08/2019	Dust		Dust complaint received	installed prior to start of	Complete	06/09/2019							
	SELECT		,	,	SELECT	,,							
	SEEEC!				DELECT			- □					
1													
Total complaints													
open at start of													
reporting year	0												
Total new	·												
complaints													
received during													
reporting year	1												
Total complaints		1											
closed during													
reporting year	1												
Balance of													
complaints end of													
reporting year	0												
	0												
	0	Incidente				7							
	0	Incidents			Additional inform								
reporting year	0				Additional inform	nation							
reporting year	onts occurred on site in the current i	reporting year? Please list all i			Additional inform	aation							
reporting year	0 nts occurred on site in the current reporting year i	reporting year? Please list all i		Yes	Additional inform	nation							
reporting year		reporting year? Please list all i		Yes	Additional inform	lation							
reporting year Have any incide	reporting year i	reporting year? Please list all i		Yes	Additional inform	lation							
reporting year Have any incides *For informatio	reporting year i	reporting year? Please list all i n Table 2 below		Yes	Additional inform	nation							
reporting year Have any incides *For information	reporting year i on on how to report and what stitutes an incident	reporting year? Please list all i n Table 2 below What is an incident		Yes								1	
Have any incided *For information cons Complaints and	reporting year in on on how to report and what stitutes an incident Incidents summary templa	reporting year? Please list all i n Table 2 below What is an incident		Yes	Additional inform	nation		Year	2019			1	
reporting year Have any incides *For information	reporting year in on on how to report and what stitutes an incident Incidents summary templa	reporting year? Please list all i n Table 2 below What is an incident		Yes		P0500-01		Year	2019]	
Have any incided *For information cons Complaints and	reporting year in on on how to report and what stitutes an incident Incidents summary templa	reporting year? Please list all in Table 2 below What is an incident	Incident	Yes		P0500-01		Year	2019			1	
Have any incides *For informatio cons Complaints and Table 2 Incidents sur	reporting year is on on how to report and what stitutes an incident Incidents summary templa mary	reporting year? Please list all in Table 2 below What is an incident	Incident category*please refer to		Lic No:	P0500-01 Other cause(please	Activity in progress at			Corrective action<20			
Have any incided *For information cons Complaints and	reporting year is on on how to report and what stitutes an incident Incidents summary templa mary	reporting year? Please list all in Table 2 below What is an incident	Incident category*please refer to	Yes		P0500-01 Other cause(please	Activity in progress at time of incident	Year	2019 Occurrence			Resolution status	
Have any incides *For informatio cons Complaints and Table 2 Incidents sur	reporting year is on on how to report and what stitutes an incident Incidents summary templa mary	reporting year? Please list all in Table 2 below What is an incident	Incident category*please refer to		Lic No:	P0500-01 Other cause(please				Corrective action<20			Resolution date
Have any incides *For informatio cons Complaints and Table 2 Incidents sur	reporting year is on on how to report and what stitutes an incident Incidents summary templa mary	reporting year? Please list all in Table 2 below What is an incident	Incident category*please refer to		Lic No:	P0500-01 Other cause(please				Corrective action<20			
Have any incides *For informatio cons Complaints and Table 2 Incidents sur	reporting year is on on how to report and what stitutes an incident Incidents summary templa mary	reporting year? Please list all in Table 2 below What is an incident	Incident category*please refer to		Lic No:	P0500-01 Other cause(please				Corrective action<20			
Have any incides *For informatio cons Complaints and Table 2 Incidents sur	reporting year is on on how to report and what stitutes an incident Incidents summary templa mary	reporting year? Please list all in Table 2 below What is an incident ate Location of occurrence	Incident category*please refer to		Lic No:	P0500-01 Other cause(please				Corrective action<20			
*For informatio cons Complaints and Table 2 incidents sur	reporting year in on how to report and what stitutes an incident Incidents summary templammary Incident nature	reporting year? Please list all in Table 2 below What is an incident te Location of occurrence	Incident category*please refer to guidance	Receptor	Lic No: Cause of incident Other (add	P0500-01 Other cause(please specify)	time of incident	Communication	Occurrence	Corrective action<20 words	action <20 words	Resolution status	date
*For informatio cons Complaints and Table 2 Incidents sur Date of occurrence	reporting year is on on how to report and what stitutes an incident Incidents summary templa mary	reporting year? Please list all in Table 2 below What is an incident te Location of occurrence	Incident category*please refer to guidance		Lic No:	P0500-01 Other cause(please	time of incident			Corrective action<20			date
Have any incider *For informatio cons Complaints and Table 2 Incidents sur Date of occurrence 30/05/2019 Total number of	reporting year in on how to report and what stitutes an incident Incidents summary templammary Incident nature	reporting year? Please list all in Table 2 below What is an incident te Location of occurrence	Incident category*please refer to guidance	Receptor	Lic No: Cause of incident Other (add	P0500-01 Other cause(please specify)	time of incident	Communication	Occurrence	Corrective action<20 words	action <20 words	Resolution status	date
*For informatio cons Complaints and Table 2 incidents sur Date of occurrence 30/05/2019 Total number of incidents current	reporting year in on how to report and what stitutes an incident Incidents summary templammary Incident nature	reporting year? Please list all in Table 2 below What is an incident te Location of occurrence	Incident category*please refer to guidance	Receptor	Lic No: Cause of incident Other (add	P0500-01 Other cause(please specify)	time of incident	Communication	Occurrence	Corrective action<20 words	action <20 words	Resolution status	date
Have any incider *For informatio cons Complaints and Table 2 Incidents sur Date of occurrence 30/05/2019 Total number of incidents current year	reporting year in on how to report and what stitutes an incident Incidents summary templammary Incident nature	reporting year? Please list all in Table 2 below What is an incident te Location of occurrence	Incident category*please refer to guidance	Receptor	Lic No: Cause of incident Other (add	P0500-01 Other cause(please specify)	time of incident	Communication	Occurrence	Corrective action<20 words	action <20 words	Resolution status	date
Have any incider *For informatio cons Complaints and Table 2 Incidents sur Date of occurrence 30/05/2019 Total number of incidents current year Total number of	reporting year in on how to report and what stitutes an incident Incidents summary templammary Incident nature	reporting year? Please list all in Table 2 below What is an incident te Location of occurrence	Incident category*please refer to guidance	Receptor	Lic No: Cause of incident Other (add	P0500-01 Other cause(please specify)	time of incident	Communication	Occurrence	Corrective action<20 words	action <20 words	Resolution status	date
*For informatio cons Complaints and Table 2 incidents sur Date of occurrence 30/05/2019 Total number of incidents current year Total number of incidents previous	reporting year in on how to report and what stitutes an incident Incidents summary templammary Incident nature	reporting year? Please list all in Table 2 below What is an incident te Location of occurrence	Incident category*please refer to guidance	Receptor	Lic No: Cause of incident Other (add	P0500-01 Other cause(please specify)	time of incident	Communication	Occurrence	Corrective action<20 words	action <20 words	Resolution status	date
Have any incider *For informatio cons Complaints and Table 2 Incidents sur Date of occurrence 30/05/2019 Total number of incidents current year Total number of incidents previous year	reporting year in on how to report and what stitutes an incident Incidents summary templammary Incident nature	reporting year? Please list all in Table 2 below What is an incident te Location of occurrence	Incident category*please refer to guidance	Receptor	Lic No: Cause of incident Other (add	P0500-01 Other cause(please specify)	time of incident	Communication	Occurrence	Corrective action<20 words	action <20 words	Resolution status	date
*For informatio cons Complaints and Table 2 incidents sur Date of occurrence 30/05/2019 Total number of incidents current year Total number of incidents previous	reporting year in on how to report and what stitutes an incident Incidents summary templammary Incident nature	reporting year? Please list all in Table 2 below What is an incident ate Location of occurrence Licenced discharge point (type in reference here)	Incident category*please refer to guidance	Receptor	Lic No: Cause of incident Other (add	P0500-01 Other cause(please specify)	time of incident	Communication	Occurrence	Corrective action<20 words	action <20 words	Resolution status	

European Waste Code (EWC)	Description of Waste (in line with applicable EWC code)	Hazardous – YES/NO	Quantity (Tonnes)	Name & Permit No. of Agent/Carrier	Treatment Type – Recovered / Disposed / Recycled	Name, Address & Licence/Permit No. of FINAL Destination	Country
13 02 05*	mineral-based non- chlorinated engine, gear and lubricating oils	Yes	8.96	Enva Ireland Limited - L1745	R01 - Use principally as a fuel or other means to generate energy	R.D. Recycling, Houthalen, Reg No: 51727/1KD	Belgium
17 04 07	mixed metals	No	87.44	AES Ltd WP-OY-08-601- 02	R04 - Recycling/reclamation of metals and metal compounds	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
20 03 01 B	Municipal mixed residual non- household	No	26.18	AES Ltd WP-OY-08-601- 02	D05 - Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
20 03 01 A	Municipal mixed residual household	No	8.79	AES Ltd WP-OY-08-601- 02	D05 - Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
11 01 13*	degreasing wastes containing hazardous substances	Yes	0.48	Safety Kleen Ireland Ltd - W0099	R11 - Use of waste obtained from any of the operations numbered R 1 to R 10	Solvent Recovery Management, PP33345F, Wheeland Rd., Knottingly, West Yorks	UK

Boora IPC Licence

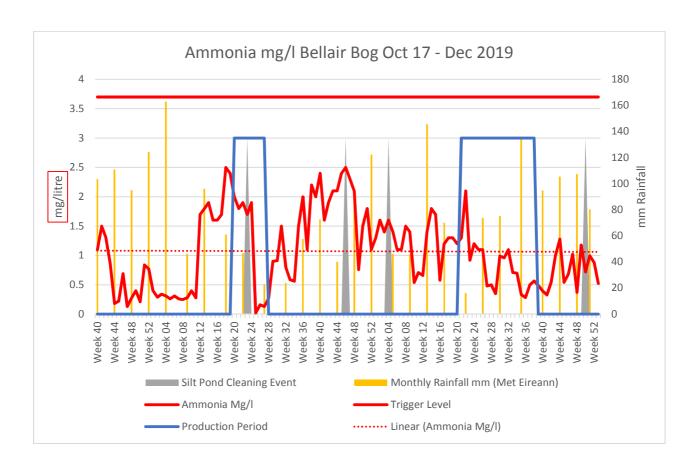
Decommissioning and Rehabilitation

Bog Rehabilitation Progress Report 2019.

- Some rehabilitation maintenance work was carried at Derries Bog in 2019. This was to re-block an outfall from a wetland and raise water-levels.
- There was ongoing monitoring of peatland rehabilitation carried out in previous years at Derrybrat, Derries, Clonganwy and Drinagh Bogs. Drain-blocking has rewetted the targeted areas and the sites are developing typical pioneer cutaway habitats.
- The site rehabilitation plans for Clongawny and Drinagh Bogs were updated to take account of a renewable energy development being proposed by Bord na Mona on these cutaway sites (Derryinlough Windfarm).
- The majority of the Bord na Móna property in this bog group has been
 organically certified with the aim of using some areas for the cultivation of plants
 for use in herbal medicine into the future. This project in ongoing. Bord na
 Mona have committed not to use herbicides in organically certified areas to
 maintain industrial railways and other infrastructure.
- Draft rehabilitation plans for the Boora bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015 and 2017, and again submitted to the EPA May 2018.
- The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in May 2018. This included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.
- A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

Bord na Mona Boora	Siltpond Monitoring Frequency
IPPC Licence P0500-01	

			IFFC LICENCE FU	000 01								
X	Υ	Bog	SW	Monitoring	Sampled	pН	SS	TS	Ammonia	TP	COD	Colour
220650.17	210315.60	Derrinboy	SW-38	Q1 19	25/04/2019	8	<5	295	0.72	<0.05	41	87
220483.33	210276.48	Derrinboy	SW-39	Q1 19	25/04/2019	7.7	8	262	1.8	0.06	39	106
219663.49	210038.82	Derrinboy	SW-40	Q1 19	25/04/2019	7.4	<5	162	1.6	<0.05	27	129
215361.95		Bellair South	SW-33	Q1 19	25/04/2019	7.4	<5	70	1.7	0.05	62	240
214495.84	232937.68	Bellair South	SW-34	Q1 19	25/04/2019	7.7	<5	116	1.2	<0.05	38	184
		Bellair South	SW-34A	Q1 19	25/04/2019	7.6	<5	250	0.02	0.02	107	250
		Bellair South	SW-35	Q1 19	25/04/2019	7.6	32	374	<0.02	0.53	216	374
215477.01		Bellair North	SW-37B	Q1 19	25/04/2019	7.7	<5	296	0.28	<0.05	52	243
204681.49	214416.93	Clongawney	SW-1	Q2 19	19/06/2019	7.3	<5	250	0.2	<0.05	130	330
205641.50	213067.71	Clongawney	SW-3	Q2 19	27/06/2019	7.6	<5	336	1.6	0.06	40	75
206319.95		Clongawney	SW-4	Q2 19	19/06/2019	7.8	8	256	0.3	<0.05	89	113
207679.57	215615.99	Clongawney	SW-5	Q2 19	19/06/2019	7.8	<5	276	0.33	<0.05	78	115
208818.04	215648.99	Drinagh	SW-7	Q2 19	19/06/2019	7.9	<5	272	0.46	<0.05	80	91
212017.45	214103.39	Drinagh	SW-8	Q2 19	19/06/2019	7.8	<5	264	3.9	<0.05	72	107
	224780.07	Kilaranny	SW-24	Q2 19	19/06/2019	7.9	5	284	0.06	<0.05	77	140
224248.46	223524.04	Kilaranny	SW-24A	Q2 19	19/06/2019	7.7	<5	272	1.3	<0.05	80	146
217008.23	222986.75	Turraun	SW-15	Q3 19	10/09/2019	7.7	6	437	0.19	<0.05	48	103
219378.47	224050.10	Turraun	SW-16	Q3 19	02/09/2019	7.5	<2	467	0.069	<0.05	45	127
219721.73	224554.04	Pollagh	SW-17	Q3 19	02/09/2019	7.6	4	484	0.646	<0.05	26	95.8
221729.61	226112.15	Pollagh	SW-17A	Q3 19	02/09/2019	8.2	10	476	0.117	<0.05	15	84
220331.44	222549.88	Oughter	SW-18	Q3 19	10/09/2019	7.1	<2	424	0.188	<0.05	36	110
216627.57	234827.38	Bellair North	SW-36	Q3 19	02/09/2019	7.4	<2	218	0.521	<0.05	75	335
219056.10	234057.41	Bellair North	SW-37	Q3 19	02/09/2019	7.4	4	195	0.585	<0.05	76	404
216202.99	234373.11	Bellair North	SW-37A	Q3 19	02/09/2019	6.5	18	138	0.131	<0.05	99	357
217216.92	227527.32	Lemonaghan	SW-19	Q4 19	07/10/2019	7.4	14	260	0.571	<0.05	72	306
217481.75	227345.36	Lemonaghan	SW-19A	Q4 19	07/10/2019	6.5	3	129	1.26	<0.05	67	339
214970.51	226491.33	Lemonaghan	SW-19B	Q4 19	07/10/2019	5.1	10	154	0.094	<0.05	112	483
218645.63		Lemonaghan	SW-22	Q4 19	07/10/2019	7.3	5	271	0.373	<0.05	55	243
216900.19	229545.11	Lemonaghan	SW-22A	Q4 19	07/10/2019	6.9	8	283	0.489	<0.05	75	384
216151.75	230069.09	Lemonaghan	SW-22B	Q4 19	07/10/2019	7	4	112	1.52	<0.05	56	273
		Lemonaghan	SW-22C	Q4 19	07/10/2019	4.8	7	89	0.388	<0.05	57	254
215079.20	231196.83	Lemonaghan	SW-22D	Q4 19	07/10/2019	7.2	3	334	0.048	<0.05	47	186



Bellair Bog

Bellair bog is an active production bog with the composite sampler located here from the last week in September 2017 to December 2019. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had x% downtime during the period being reported, but suitable weekly grab samples were taken during these downtimes, primarily due to battery fault, flood events, the sampler was being serviced/overhauled or due to technical faults. The ammonia trigger level of 3.7mg/l, as agreed with the Agency, was not exceeded during the period being reported. The above graph show concentrations trending flat, as opposed to the upwards trend as reported in the 2018 AER-month period.

It is not possible to identify any obvious link between the summer production, winter maintenance or silt pond maintenance events on the concentration of ammonia disharging from the peatlands. The only link expected would be that related to rainfall events and seasonal weather patterns and the subsequent surfacewater runoff and associated ammonia concentrations.

The sampler at this location may be relocated to fill any information gaps on other peatland catchments and to reflect the need to support the information gathering required for the Water Framework Directive's River Basin Management Plan. There is also an EPA lead research project commencing in 2019, called the SWAMP project, whose aims are to appraise and understand the nutrient impact from peatlands, to evaluate treatment technologies and to propose predictive tools for watershed management.

Extractive Waste Management Plan Implementation AER Update 2019

March 2020.

IPC Licence P0500-01.

1.0 Extractive Wastes.

Waste classified as extractive waste from peat extraction operations arise from two operations associated with this activity.

- Silt Pond excavations and maintenance
- Bog Timbers

There has been no change to the type and nature of these three waste streams and no new waste streams added to this list. These wastes streams continue to be stored and maintained at between 1 and 3 metres in height.

2.0 Condition 7.5 Extractive Waste Management

- An extractive waste management plan (EWMP) was submitted to the Agency in September 2012 and was approved.
- The EWMP was reviewed in September 2017. There were no substantial changes to the operation of the plan, associated waste facilities or to the waste deposited. The EWMP will be reviewed again in September 2022. At this stage, it is envisaged that many of the bogs will be in a decommissioning and rehabilitation phase, which will see the generation of bog timbers from production cease. In addition, and depending on the progress with bog stabilisation and rehabilitation, silt generation will be significantly reducing, which will lead to reduced volumes to be removed from the silt ponds.

3.0 Minimisation

- The IPC Licence has various conditions that require the installation, inspections and maintenance of silt ponds for operational areas and as such these requirements dictate the need for silt ponds and associated excavation materials and cleanings.
- Bog timbers arise from the active production footprint and are naturally occurring. The active footprint is dictated by the peat production targets and customer supply contract and service level agreements.

4.0 Treatment

- Silt pond excavation and maintenance materials do not require any treatment and are stored as per the EWMP, adjacent to the associated silt pond.
- There is no treatment of bog timbers arising and these are stockpiled at various locations in associated bogs.

5.0 Recovery

- As per the EWMP, there is still no opportunity to recover these silt pond associated materials
- Bog timbers stored on the bog are natural to the peat bog and while there have been trails to recover this waste material, these have not proved viable.

6.0 Disposal

- Silt pond cleanings continue to be disposed of adjacent to the associated silt pond and will be incorporated back into the rehabilitation plans for these bogs, post production and decommissioning.
- Bog timbers will continue to be stockpiled at suitable locations to be either incorporated back into the bog, as a supply of bog timbers for the crafting industry or will continue to decay naturally.



Annual Environmental Report 2019
Bord na Mona Energy Ltd
(Derrygreenagh Group of Bogs)
IPC Licence P0501-01

Facility Information Summary

AER Reporting Year Licence Register Number

Name of site

Site Location

NACE Code

Class/Classes of Activity

National Grid Reference (6E, 6 N)

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.

2019	
P0501-01	
Bord na Mona Derrygreenagh	
Derrygreenagh, Rochfortbridge, Co Westmeath	
0892	
1.4	Г
249450, 238140	

inspections dictating the cleaning schedules. During the reporting period, there were a number of notifications to peat into stockpiles and secondly the transportation of that peat via an internal rail network to the Power Station and lorry outloading facilities. Production achieved was approximately 140,237 tonnes which is a 52% reduction and reported to the Agency was 11 which was a 50% reduction on 2018, with the majority being exceedances in composite sampling returning no non-compliances for suspended solids, with 29% downtime due to battery and COD or Ammonia Trigger levels, with one spillage incident where a stolen tractor was driven into a drain with a reporting period, this was dust related and was resolved to the satisfaction of the complainant and reported to the Agency. In relation to silt pond cleaning, 100% of all 58 silt ponds received the required two cleanings, with maintenence issues but 52 weekly samples were achieved. The number of exceedances in trigger levels noted resultant fuel spillage that required remediation. There was one environmental complaint received during the Activities on site can be divided into two components, firstly the milling, harrowing, ridiging and harvesting of on the 2018 figure. Quarterly grab sampling was 100% compliant with regard to the ELV, with the continuous the Agency including notification of an interim cessation of peat extraction at Derrygreenagh, pending regularisation. Decommissioning and Rehabilitation works are described in an attachment.

Declaration:

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

auality of the information is assured to meet licence requirements.

lather Genna

Signature Group/Facility manager (or nominated, suitably qualified and experienced deputy)

Date

			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		Fugitive emissions only	
	Periodic/Non-Continuous Monitoring			
2	Periodic/Non-Continuous Monitoring Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of TableA1 below	No		

Lic No:

P0501-01

Year

2019

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

Emission reference no:		Frequency of	ELV in licence or any revision therof	Licence Compliance criteria	Unit of measurement	Compliant with licence limit	Method of analysis	Annual mass	Comments -reason for change in % mass load from previous year if applicable
	SELECT			SELECT	SELECT	SELECT	SELECT		
	SELECT			SELECT	SELECT	SELECT	SELECT		
	SELECT SELECT			SELECT SELECT			SELECT SELECT		

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

AIR-summary template

Answer all questions and complete all tables where relevant

AIR-summary template	Lic No:	P0501-01	Year	2019
Continuous Monitoring				
4 Does your site carry out continuous air emissions monitoring?	No			
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)				
Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	No			
6 Do you have a proactive service agreement for each piece of continuous monitoring equipment?	No			
7 Did your site experience any abatement system bypasses? If yes please detail them in table A3 below	No			

Table A2: Summary of average emissions -continuous monitoring

Emission reference no:	Parameter/ Substance		Averaging Period	Compliance Criteria	Units of measurement	Annual Emission			Number of ELV exceedences in	Comments
		ELV in licence or							current	
		any revision therof							reporting year	
DM-01	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	4536	83	0	0	Dust monitioring
										took place on 4
										occasions for 28 days
										each time between
										April and August
DM-02	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	8512	178	0	0	
DM-03	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	10808	166	0	0	
DM-04	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	12740	261	0	0	
	SELECT				SELECT					

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

Table A3: Abatement system bypass reporting table

Bypass protocol

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

	AIR-summary t	template				Lic No:	P0501-01		Year	2019	
	•	use and manageme	ent on site			2.0.710.	. 5551 01			2013	
	Joivent	ase and manageme	int on site								
3	Do you have a tota	l Emission Limit Value of	direct and fugitive en	nissions on site? if	yes please fill out tables A4 and	A5	_	SELECT			
		ent Management Pl ssion limit value	an Summary	<u>Solvent</u> <u>regulations</u>	Please refer to linked solver complete table 5						
	Reporting year	Total solvent input on site (kg)	emissions to Air	Total VOC emissions as %of solvent input	Total Emission Limit Value (ELV) in licence or any revision therof	Compliance					
ı						SELECT					
ł						SELECT					
	Table A5: 9	Solvent Mass Baland	ce summary	•	•	•	•				
		(I) Inputs (kg)			(0)	Outputs (kg)					
	Solvent	(I) Inputs (kg)		Solvents lost in water (kg)	Collected waste solvent (kg)	Fugitive Organic Solvent (kg)		Solvents destroyed onsite	Total emission of Solvent to air (kg)		
ł											
ł											
ļ								Total			

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)		Lic No:	P0501-01		Year	2019
			Additional informat	on		
Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions. If you do not have licenced emissions you only need to complete table W1 and or W2 for storm water analysis and visual inspections	Yes					
Was it a requirement of your licence to carry out visual inspections on any surface water discharges or watercourses on or near your site? If yes please complete table W2 below summarising only any evidence of contamination noted during visual inspections	Yes	Monthly COD of	f yard run-off is attached.			
Table W1 Storm water monitoring						

Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	Monitoring date	level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	

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

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

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
			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 y comment section of Table W3		ief details in the	No	
					Surface water monitoring was carried out on a quarterly basis. The results of which are attached.
	Was all monitoring carried out in accordance with EPA				
	guidance and checklists for Quality of Aqueous Monitoring	External /Internal			
	Data Reported to the EPA? If no please detail what areas	Lab Quality	Assessment of		
4	require improvement in additional information box	checklist	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 therof ^{Note 2}	Licence Compliance criteria	Measured value	Compliant with licence	Procedural	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

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)		Lic No:	P0501-01	Year
Continuous monitoring 5 Does your site carry out continuous emissions to water/sewer monitoring?	Yes		Additional Information Flow proportionate composite sampling	
If yes please summarise your continuous monitoring data below in Table W4 and compare it to its relevant Emission Limit Value (ELV)				
	Yes		Total of 108 days over 365 days	
${\bf 7}$ Do you have a proactive service contract for each piece of continuous monitoring equipment on site?	Yes			
8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 below	No			

Table W4: Summary of average emissions -continuous monitoring

Emission reference no:	Emission released to	Parameter/ Substance		Averaging Period	Compliance Criteria		Annual Emission for current reporting year (kg)	% change +/- from previous reporting year	Equipment	Number of ELV exceedences in reporting year	Comments
SW43	Water	Suspended Solids	35	24 hour	All results < 1.5 times ELV, plus 8 from ten results must be < ELV	mg/I			2592	0	Down time due to battery failure, and sampler repairs. Agency informed of repairs. Its not possible to report average continuous emissions as this sampler is located on one of 58 silt ponds and samplers are moved around periodically to allow for analysis of other silt pond performance.
SW43	Water	Ammonia (as N)	2.78	Weekly	NA	mg/L					
SW43	Water	Total phosphorus	NA	Weekly	NA	mg/L					
SW43	Water	COD	100	Weekly	NA	mg/L					
SW43	Water	volumetric flow	NA	24 hour	NA	m3/day					
SW43	Water	Total Dissolved Solids	NA	Weekly	NA	mg/L					

2019

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

Table W5: Abatement system bypass reporting table

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

*Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline te	sting template				Lic No:	P0501-01		Year	2019					
Bund testing		dropdown menu cl	ick to see options				Additional information							
		integrity testing on bunds and cor												
		n to all bunds which failed the inte ads outside the licenced testing pe			mobile bunds must be									
1			(mobile bullus and che	mstore included)		Yes Other (2 Yearly)								
	ty testing frequency perion n a register of bunds, und	ou lerground pipelines (including sto	rmwater and foul). Tanks. su	mps and containers? (contain	iners refers to	Other (2 Yearly)		-						
3 "Chemstore" type uni	ts and mobile bunds)		,			Yes								
4 How many bunds are	on site?					2		_						
5. How many of these hi	unds have been tested with	thin the required test schedule?				2								
6 How many mobile bur		tim the required test senedate.				0								
	included in the bund test					No								
	ioblie bunds have been te: site are included in the int	sted within the required test scho tegrity test schedule?	edule?			0								
10 How many of these su	umps are integrity tested v	within the test schedule?				0								
Please list any sump in 11 Do all sumps and char	ntegrity failures in table B					N/A		7						
		id alarms? d in a maintenance and testing pr	rogramme?			N/A N/A		┪						
		our integrity test programme?				N/A]						
Tab	ble B1: Summary details of	f bund /containment structure in	tegrity test	٦										
														Results of
D									Integrity reports		laka asika kasak fa ilasa		Coloradoria di data	retest(if in
Bund/Containment structure ID	Туре	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	maintained on site?	Results of test	Integrity test failure explanation <50 words	Corrective action taken	Scheduled date for retest	current reporting y
Derrygreenagh Bund														
NO:501-37-01	reinforced concrete		Gas Oil	110,59	2 4500	Hydraulic test Hydraulic test		22/07/2019	Yes	Pass	N/A	N/A	N/A	N/A
	aply with 25% or 110% containment r					rryardane test	Commentary							
Has integrity testing b 15 in line with BS8007/ER		ance with licence requirements a	nd are all structures tested	bunding and storage guide	inge	SELECT								
16 Are channels/transfer		inment systems tested?		buriding and storage guide	<u>iiies</u>	SELECT								
17 Are channels/transfer	r systems compliant in bot	th integrity and available volume	?			SELECT								
Pipeline/undergro	ound structure testing							_						
Are you required by w	our licence to undertake in	integrity testing* on underground	Istructures e g ninelines or	sumns etc 7 if yes nlesse fil	out table 2 below listing		No underground tanks or pipelines on site	•						
		e which failed the integrity test a				Yes	on site	1						
2 Please provide integri	ty testing frequency perio	bd				SELECT]						
please note integrity	r testing means water tigh	tness testing for process and fou	i pipeiines (as required unde	r your (icence)										
Table	e B2: Summary details of p	pipeline/underground structures	integrity test									-		
				Type of second										
				Type of secondary containment										
						Integrity reports		Integrity test	Corrective action	Scheduled date	Results of retest(if in current			
			Does this structure have											
Structure ID	Type system	Material of construction:	Does this structure have Secondary containment?		Type integrity testing	maintained on site?	Results of test	<50 words	taken	for retest	reporting year)			
Structure ID	Type system SELECT	Material of construction:		SELECT	Type integrity testing SELECT		Results of test SELECT	<50 words	taken	for retest	SELECT SELECT			
Structure ID			Secondary containment?	SELECT		maintained on site?		<50 words	taken	for retest		-		
Structure ID			Secondary containment?	SELECT		maintained on site?		<50 words	taken	for retest				
Structure ID			Secondary containment?	SELECT		maintained on site?		<50 words	taken	for retest				
Structure ID			Secondary containment?	SELECT		maintained on site?		<50 words	taken	for retest				
Structure ID		SELECT	Secondary containment?		SELECT	maintained on site?		<50 words	taken	for retest				
Structure ID		SELECT	Secondary containment? SELECT		SELECT	maintained on site?		<50 words	taken	for retest				

Groundwater/Soil monitoring template Lic No: P0501-01 Year 2019

Comments

		Comments	
1 Are you required to carry out groundwater monitoring as part of your licence requirements?	no		Please provide an interpretation of groundwater monitoring data in
2 Are you required to carry out soil monitoring as part of your licence requirements?	no		the interpretation box below or if you require additional space please
Do you extract groundwater for use on site? If yes please specify use in comment $^{\rm 3}$ section	yes	Drinking water well	include a groundwater/contaminated land monitoring results interpretaion as an additional section in this AER
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 Groundwater monitoring template	no		
5 Is the contamination related to operations at the facility (either current and/or historic)	no		
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?	N/A		
9 Has any type of risk assesment been carried out for the site?	N/A		
10 Has a Conceptual Site Model been developed for the site?	N/A		
11 Have potential receptors been identified on and off site?	N/A		
12 Is there evidence that contamination is migrating offsite?	N/A		Please enter interpretation of data here

Table 1: Upgradient Groundwater monitoring results

	Sample									
Date of	location	Parameter/		Monitoring	Maximum	Average				
sampling	reference	Substance	Methodology	frequency	Concentration++	Concentration+	unit	GTV's*	SELECT**	
							SELECT			SELECT
							SELECT			SELECT

^{.+} where average indicates arithmetic mean

Table 2: Downgradient Groundwater monitoring results

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

*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 issessment criteria (GAC) and risk assessment tools is available in the EPA published guidance (see the link in G31)

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

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

Groundwater Drinking water
Surface regulations (private supply)
water EQS GTV's standards

Drinking water (public supply) standards Values (IGV)

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

Groundwater/Soil monitoring template	Lic No:	P0501-01	Year	2019	
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Table 3: Soil results

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

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

Environmental Liabilities template Lic No: P0501-01 Year 2017 2019

Click here to access EPA guidance on Environmental Liabilities and Financial provision

			Commentary
1	ELRA initial agreement status	Not a licence requirement	
		Not a licence requirement	
2	ELRA review status	NA	
3	Amount of Financial Provision cover required as determined by the latest ELRA	NA	
4	Financial Provision for ELRA status	NA	
5	Financial Provision for ELRA - amount of cover	NA	
6	Financial Provision for ELRA - type	NA	
7	Financial provision for ELRA expiry date	NA	
8	Closure plan initial agreement status	NA	
9	Closure plan review status	NA	
10	Financial Provision for Closure status	NA	
11	Financial Provision for Closure - amount of cover	NA	
12	Financial Provision for Closure - type	NA	
13	Financial provision for Closure expiry date	NA	

	Environmental Management Programme/Continuous Improvement Programm	e template	Lic No:	P0501-01	Year	2019
	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	Inter	nal unaccredited EMS.		
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 Programn Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	Continue to train all		0 In total 0 Personnel received	Individual	Reduced emissions
	employees in		training in 2019. Training		
	environmental matters.		takes place every two years,		
	Training will be by means		so no training due in the		
	of a new four module		period. Hydraulic harrows		
	training programme		were depolyed at 4		
	delivered by dedicated		locations. Headland peat		
	Bord na Mona training		was collected at all locations		
	specialists. This new		and returned with		
	training programme		production figures.		
	includes environmental				
	compliance-IPPC,				
	Biodiversity, Archaeology				
	and Energy management.				
	Hydraulic harrows will be				
	deployed at dust sensitive				
	locations. Continue with				
	the collection of headland				
	peat.				

Environmental Management Pro	ogramme/Continuous Impr	rovement Programm	e template	Lic No:	P0501-01	Year	20:
Waste reduction/Raw material usage efficiency	Waste streamlining is a project we are particularly interested in continuing and hope to reduce wastes further in the future and be more efficient in dealing with all aspects of waste management	80	Installed a waste management system. Monthly waste reports are returned for records/filing and waste streams are segrated on site to maximise recycling potential.	Section Head	Improved Environmental Management Practices		
Waste reduction/Raw material usage efficiency	Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing.		In total 89.85 tonnes of polyethlene were sent off site for recycling. Procurement also exploring the possibility of securing further recyclers.	Individual	Improved Environmental Management Practices		
Energy Management	As part of an Energy Awareness campaign all aspects of energy consumption will be communicated to personnel with the intention of reducing consumption through awareness		The monthly consumption of energy is regurally communicated to the relevant personnel. This included the KPI's for peat production, maintenance and transportation as well as bog pumping and workshop electrical consumption.	Section Head	Reduce overall energy output while maintaining productivity.		
Reduction of emissions to Water	Continue to train all employees in environmental matters. Training will be by means of a new four module training programme delivered by dedicated Bord na Mona training specialists. This new training programme includes environmental compliance-IPPC, Biodiversity, Archaeology and Energy management. Continue with the collection of headland peat.		Personnel are trained every two years in Environmental matters. Headland peat was collected at all locations and included as part of overall peat returns.	Individual	Improved Environmental Management Practices		

"Checklist for noise measurement report" included in the guidance note as table 6? Does your site have a noise reduction plan last updated? Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey? Table N1: Noise monitoring summary Noise osensitive Date of Moise location Noise location Incortanges Incort		N	oise monitor	ing summary	/ report			Lic No:	P0501-01	Year	2019	
2 Was noise monitoring carried out using the EPA Guidance note, including completion of the "Checklist for noise measurement report" included in the guidance note as table 6? 3 Does your site have a noise reduction plan last updated? 5 Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey? Table N1: Noise monitoring summary Table N1: Noise monitoring summary Noise sensitive Date of Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site) Noise location on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on site on si		•	•	•	od?				No]		
Boos your site have a noise reduction plan When was the noise reduction plan last updated? Have there been changes relevant to site noise emissions (e.g., plant or operational changes) since the last noise survey? Table N1: Noise monitoring summary Noise sensitive Date of monitoring Time period (on site) (if applicable) LA _{eq} LA ₉₀ LA ₁₀ LA _{max} Tonal or Impulsive noise was identified was 5dB penalty applied? SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SEL		Vas noise monitoring carried out using the EPA Guidance note, including completion of the Guidance										
Table N1: Noise monitoring summary Noise sensitive Date of monitoring Time period (on site) (if applicable) LA _{eq} LA ₉₀ LA ₁₀ LA _{max} Tonal or Impulsive noise (y/N) applied? SELECT SELECT SELECT SELECT SELECT	B Does your sit	Does your site have a noise reduction plan										
Date of Moise location (on site) Noise LA _{eq} LA ₉₀ LA ₁₀ LA _{max} Tonal or Impulsive noise was identified was 5dB penalty applied? SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SE	Have there	been changes r	elevant to site no	•	• .	perational c	NA					
Date of monitoring Time period (on site) (if applicable) LA _{eq} LA ₉₀ LA ₁₀ LA _{max} Tonal or Impulsive identified was 5dB penalty applied? ex. road traffic) SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELE	Table N1: No	ise monitoring	summary						,			
	Date of Noise location location -NSL Tonal									identified was 5dB penalty	noise sources on site, & extraneous noise	Is <u>site</u> compliant with noise limits (day/evening/night)?
*Please ensure that a tonal analysis has been carried out as per guidance note NG4. These records must be maintained onsite for future inspection									SELECT	SELECT		SELECT
*Please ensure that a tonal analysis has been carried out as per guidance note NG4. These records must be maintained onsite for future inspection												
*Please ensure that a tonal analysis has been carried out as per guidance note NG4. These records must be maintained onsite for future inspection												
*Please ensure that a tonal analysis has been carried out as per guidance note NG4. These records must be maintained onsite for future inspection												
*Please ensure that a tonal analysis has been carried out as per guidance note NG4. These records must be maintained onsite for future inspection												
	*Please ensure tha	at a tonal analysis has	been carried out as pe	r guidance note NG4.	These records mu	st be maintained	l onsite for futu	re inspection	•	•		
If noise limits exceeded as a result of noise attributed to site activities, please choose the corrective action from the following options?		If nois	se limits exceede	d as a result of n	oise attribut	ed to site a	ctivities, ple	ase choose th	ne corrective action fro	om 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: P0501-01 Year 2019

1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below

Is the site a member of any accredited programmes for reducing energy usage/water conservation

2 such as the SEAI programme linked to the right? If yes please list them in additional information

Network (LIEN)

Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage

Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

		Additional information
	Aug-19	Report on file
Yes		
		Not a Licence
NA		requirement

Table R1 Energy usag	e on site			
Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	5858	4191.88	-52	-28
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (MWHrs)			
Electricity Consumption (MWHrs)	226	191.88	-52.00%	-15
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	1692	400	-52.00%	-76.00%
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	•	percentage increase	o. decrease compa		Water Emissions	Water Consumption	
Water extracted		Production +/- % Energy compared to Consumption +/- Water extracted previous vs overall site		Energy Consumption +/- %	Volume Discharged	Volume used i.e not discharged to environment e.g. released as steam	
Water use	Previous year m3/yr.	Current year m3/yr.	reporting year**	production*	environment(m ³ yr):	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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

Resource Usage/Energy efficiency summary	Lic No:	P0501-01	Year	2019

Table R3 Waste Stream	Summary				
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	13.38			13.38	
Non-Hazardous (Tonnes)	331.59	45.88	0	122.35	163.36

Resource Usage/Energy efficiency summary 2019 Lic No: P0501-01 Year Table R4: Energy Audit finding recommendations Predicted energy Description of Status and Measures proposed Origin of measures savings % Date of audit Recommendations Implementation date Responsibility Completion date comments 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

SELECT

	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 or	Site				

Complaints				
and Incidents				
summary				
template	Lic No:	P0501-01	Year	2019

Complaints

Additional information

Yes

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

Table 1	. Complaints summary		7				
			Brief description of complaint (Free txt <20	Corrective action< 20			Further
Date	Category		words)	words	Resolution status	Resolution date	information
22/06/2019	Dust		Complaint about dust		Complete	22/06/2019	Reported to
			blowing onto house and property				Agency Ref:LR042924
			property	Complainants property			Ref. LR042924
				visited and damage			
				assessed. Production			
				suspended and			
				amended. Employees			
				reminded of their			
				environmental training.			
Tabel consulators							
Total complaints open at start of							
reporting year)					
Total new							
complaints							
received during							
reporting year							
Total complaints							
closed during							
reporting year	:	L					
Balance of							
complaints end of							
reporting year	(<u> </u>					

		Inci	idents			T								
					Additional information	_								
Have any incide	nts occurred on site in the current r	eporting year? Please list all	l incidents for current	Yes										
	reporting year in	n Table 2 below			All reported to the Agency									
						_								
*For informatio	n on how to report and what													
	*For information on how to report and what constitutes an incident What is an incident													
COIIS	stitutes all incluent	What is all includin												
Table 2 Incidents														
summary														
,			Incident				Activity in							
			category*please refer to			Other cause(please	progress at time			Corrective action<20	Preventative		Resolution	Likelihood of
Date of occurrence	Incident nature	Location of occurrence	guidance	Receptor	Cause of incident	specify)		Communication	Occurrence	words	action <20 words	Resolution status	date	reoccurence
30/04/2019	Trigger level reached	Rossan Bog SW-43	1. Minor	Water		Unknown				No corrective action				
										available, naturally				
					Not related to site activities		Normal activities	EPA INCI016437	New	ocurring	None available	Complete	08/05/2019	Medium
	Trigger level reached	Rossan Bog SW-43	1. Minor	Water	Hot related to site detivities	Unknown	Normal activities	Elittiitelo10101		No corrective action	Horic available	complete	00/03/2013	Mediam
	mgger reverredened	Nossan Bog SW 45	2. 1411101	Water		O THAT OWN				available, naturally				
25/06/2019					Not related to site activities		Normal activities	EPA INCI016838	New	ocurring	None available	Complete	18/07/2019	Medium
	Trigger level reached	Rossan Bog SW-43	1. Minor	Water		Unknown				M				
		_								No corrective action available, naturally				
22/07/2010					Not related to site activities		Normal activities	EDA INICIO16996	Decurring		Nana available	Complete	26/07/2010	Madium
23/07/2019					Not related to site activities		Normal activities	EPA INCI016886	Recurring	ocurring	None available	Complete	26/07/2019	Medium

Complaints
and Incidents
summary
template
Lic No: P0501-01 Year 2019

	Trigger level reached	Rossan Bog SW-43	1. Minor	Water		Unknown				No corrective action				
										available, naturally				
02/07/2019					Not related to site activities		Normal activities	EPA INCI016958	Recurring	ocurring	None available	Complete	08/08/2019	Medium
	Other(please specify)	Ballybeg Bog	1. Minor	Water		Unknown				No corrective action				
										available, naturally				
11/08/2019					Not related to site activities		Normal activities	EPA INCI017000	New	ocurring	None available	Complete	12/08/2019	Medium
	Trigger level reached		1. Minor	Water		Unknown				No corrective action				
										available, naturally				
10/09/2019		Carranstown Bog SW-31			Not related to site activities		Normal activities	EPA INCI017219	New	ocurring	None available	Complete	16/09/2019	Medium
	Trigger level reached		1. Minor	Water		Unknown				No corrective action				
00/00/0040										available, naturally			07/00/0040	
23/09/2019		Rossan Bog SW-43			Not related to site activities		Normal activities	EPA INCI017379	Recurring	ocurring	None available	Complete	27/09/2019	Medium
	Trigger level reached		1. Minor	Water		Unknown				No corrective action				
										available, naturally				
06/08/2019		Rossan Bog SW-43			Not related to site activities		Normal activities	EPA INCI017394	Recurring	ocurring	None available	Complete	11/10/2019	Medium
	Trigger level reached		1. Minor	Water		Unknown				No corrective action				
										available, naturally				
13/08/2019		Rossan Bog SW-43			Not related to site activities		Normal activities	EPA INCI017396	Recurring	ocurring	None available	Complete	11/10/2019	Medium
	Trigger level reached		1. Minor	Water		Unknown				No corrective action				
										available, naturally				
30/07/2019		Rossan Bog SW-43			Not related to site activities		Normal activities	EPA INCI017435	Recurring	ocurring	None available	Complete	16/10/2019	Medium
	Trigger level reached	Rossan Bog SW-43	1. Minor	Water		Unknown				No corrective action				
										available, naturally				
11/11/2019					Not related to site activities		Normal activities	EPA INCI017600	Recurring	ocurring	None available	Complete	14/11/2019	Medium
Total number of														
incidents current														
year	11													
Total number of		1												
incidents previous														
year	22													
		1												
% reduction/														
increase	50%													
	**	- I								1			-	

European Waste Code (EWC)	Description of Waste (in line with applicable EWC code)	Hazardous - Yes/No	Quantity (Tonnes)	Name & Permit No. of Agent/Carrier	Treatment Type – Recovered / Disposed / Recycled	Name, Address & Licence/Permit No. of FINAL Destination	Location of Treatment - Country
02 01 04	waste plastics (except packaging)	No	89.85	ADN Materials Ltd.WFP-MN-12- 0001-04	R05 - Recycling/reclamation of other inorganic materials	ADN Materials Ltd., Lossetts, Carrickmacross, Co. Monaghan - WFP-MN-12-0001-04	Ireland
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances	Yes	0	Enva Ireland Limited (Portlaoise) - W0184	R02 - Solvent reclamation/regeneration	Recyfuel Ltd., Enghis - BE0459.735.458	Belgium
11 01 13*	degreasing wastes containing hazardous substances	Yes	0.06	Safety Kleen Ireland Ltd - W0099	R11 - Use of waste obtained from any of the operations numbered R 1 to R 10	Solvent Recovery Management, PP33345F, Wheeland Rd., Knottingly, West Yorks	UK
13 02 05*	mineral-based non- chlorinated engine, gear and lubricating oils	Yes	5.77	Enva Ireland Limited (Portlaoise) - W0184	R01 - Use principally as a fuel or other means to generate energy	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland
13 05 03*	interceptor sludges	Yes	3.58	Enva Ireland Limited (Portlaoise) - W0184	R01 - Use principally as a fuel or other means to generate energy	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland
15 01 03	wooden packaging	No	1.16	AES Ltd WP-OY-08-601-01	R01 - Use principally as a fuel or other means to generate energy	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
15 02 02*	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	Yes	0.21	Enva Ireland Limited (Portlaoise) - W0184	R01 - Use principally as a fuel or other means to generate energy	Lindenschmidt, Kreutzal - Reg No: E97095037	Germany
16 01 07*	oil filters	Yes	0.6	Enva Ireland Limited (Portlaoise) - W0184	R04 - Recycling/reclamation of metals and metal compounds	R.D. Recycling, Houthalen, Reg No: 51727/1KD	Belgium
16 06 01*	lead batteries	Yes	2.83	Enva Ireland Limited (Portlaoise) - W0184	R04 - Recycling/reclamation of metals and metal compounds	Campine Recycling, Beerse - MLAV/05173/GVDA	Belgium
17 04 07	mixed metals	No	31.34	AES Ltd WP-OY-08-601-01	R04 - Recycling/reclamation of metals and metal compounds	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
20 03 01 A	Municipal mixed residual household	No	3.88	AES Ltd WP-OY-08-601-01	D05 - Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
20 03 01 B	Municipal mixed residual non- household	No	42	AES Ltd WP-OY-08-601-01	D05 - Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
17 05 03*	soil and stones containing hazardous substances	Yes	0	Enva Ireland Limited (Portlaoise) - W0184	D10 - Incineration on land	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland

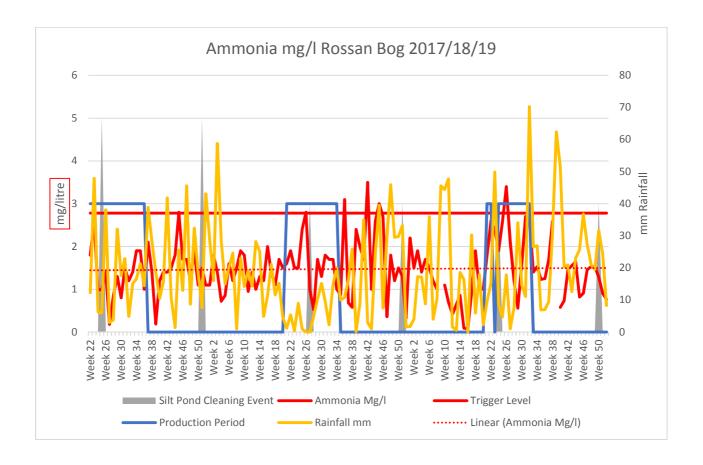
Derrygreenagh IPC Licence

Decommissioning and Rehabilitation

Bog Rehabilitation Progress Report 2019.

- No active peatland rehabilitation in Derrygreenagh licence area in 2019.
- There was ongoing monitoring of peatland rehabilitation carried out in previous years at Derryarkin, Drumman and Daingean-Rathdrum bogs.
- Fertiliser spread in Derryarkin in 2018 as part of the rehabilitation has had a positive impact and has increased vegetation cover
- Bog restoration in Daingean-Rathdrum carried out in 2019 has been successful in re-wetting this portion of bog.
- The majority of the Bord na Móna property in this bog group has been
 organically certified with the aim of using some areas for the cultivation of plants
 for use in herbal medicine into the future. This project in ongoing. Bord na
 Mona have committed not to use herbicides in organically certified areas to
 maintain industrial railways and other infrastructure.
- Draft rehabilitation plans for the Derrygreenagh bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015 and 2017, and again submitted to the EPA May 2018.
- The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in May 2018. This included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.
- A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

		Bord na N	lona Derry	/greenagh		S	iltpond M	onitoring	Frequency	& Results		
			IPPC Licer	nce P0501-01								
Х	Υ	Bog	SW	Monitoring	Sampled	рН	SS	TS	Ammonia	TP	COD	Colour
255381.2	243606.1	Derryhinch	SW-1	Q1 19	19/02/2019	7.4	5	222	1.3	0.05	73	139
254528.8	242354.3	Derryhinch	SW-2	Q1 19	19/02/2019	7.4	5	200	1.8	0.05	63	186
253369.2	242417.9	Derryhinch	SW-3	Q1 19	22/02/2019	7.4	5	276	1.9	0.05	50	125
252602.8	242540.2	Derryhinch	SW-4	Q1 19	22/02/2019	7.6	5	272	1	0.05	10	167
252623.6	241470.2	Carrick	SW-4A	Q1 19	19/02/2019	7.7	5	298	1.8	0.05	61	178
252468.7	240919.3	Carrick	SW-5	Q1 19	19/02/2019	7.7	5	258	0.2	0.05	41	55
252409.7	241163.3	Carrick	SW-6	Q1 19	19/02/2019	7.7	5	224	0.16	0.05	30	50
252473.2	241162	Carrick	SW-7	Q1 19	19/02/2019	7.8	5	254	0.13	0.05	36	47
252275.6	239871.6	Drumman	SW-8	Q1 19	22/02/2019	7.7	5	240	1.2	0.05	10	127
252950.4	238421.7	Drumman	SW-9	Q1 19	19/02/2019	7.7	5	228	0.15	0.05	54	118
251559.9	235341.7	Ballybeg	SW-11	Q 2 19	27/05/2019	7.4	5	554	0.11	0.05	52	112
252206.1	235207	Ballybeg	SW-12	Q 2 19	27/05/2019	7.8	5	574	0.6	0.05	69	133
251880.6	234593.1	Ballybeg	SW-13	Q 2 19	27/05/2019	7.9	5	584	1.5	0.05	19	49
252250.5	235061.5	Ballybeg	SW-13A	Q 2 19	27/05/2019	7.8	5	556	1.1	0.05	40	51
240485.2	235706.3	Torr	SW-14	Q 2 19	27/05/2019	7.8	7	552	2.8	0.05	34	50
244391.8	235128.9	Torr	SW-15	Q 2 19	27/05/2019	8	5	482	0.45	0.05	28	51
244435.6	235093.4	Torr	SW-16	Q 2 19	27/05/2019	7.6	5	530	0.39	0.05	29	49
240425.7	234997.3	Torr	SW-17	Q 2 19	27/05/2019	7.9	5	508	0.06	0.05	33	44
259415.3	256855.8	Bracklin	SW-29	Q 2 19	27/05/2019	7.4	5	305	1.4	0.05	60	166
259519.5	257618.4	Bracklin	SW-30	Q 2 19	27/05/2019	7.5	6	328	1.6	0.05	60	177
262437	258824.8	Lisclogher	SW-19	Q3 19	10/09/2019	7.8	2	369	0.176	0.07	66	380
262935.7	258722.5	Lisclogher	SW-20	Q3 19	10/09/2019	7.6	15	366	0.223	0.09	88	493
262969.1	258691.3	Lisclogher	SW-21	Q3 19	10/09/2019	8	7	385	0.174	0.05	65	325
263432.9	258465.2	Lisclogher	SW-22	Q3 19	10/09/2019	8.1	16	379	0.158	0.06	66	301
263467.2	258446.6	Lisclogher	SW-23	Q3 19	10/09/2019	8	15	352	0.166	0.06	68	337
263740.8	258368	Lisclogher	SW-24	Q3 19	10/09/2019	8.1	10	367	0.172	0.05	63	
266022.6	259613.6	Lisclogher	SW-25	Q3 19	10/09/2019	7.5	5	357	3.49	0.09	74	489
260584	256514.3	Bracklin	SW-26	Q3 19	10/09/2019	6.6	2	211	1.38	0.05	82	307
260609.4	256526.3	Bracklin	SW-27	Q3 19	10/09/2019	7.4	2	306	1.9	0.05	76	247
263649.6	255035.4	Carranstown	SW-31	Q3 19	10/09/2019	6.8	3	213	0.149	0.05	106	620
265554	255989.1	Carranstown	SW-32	Q4 19	05/12/2019	8	2	371	0.249	0.05	49	163
265632.8	254865	Carranstown	SW-33	Q4 19	05/12/2019	8	2	438	0.129	0.05	52	169
265887	254984.2	Carranstown	SW-34	Q4 19	05/12/2019	7.7	2	195	0.086	0.05	47	140
265140.1	254114.5	Ballivor	SW-35	Q4 19	05/12/2019	8.1	2	337	0.301	0.05	42	107
265879	253506.6	Ballivor	SW-38	Q4 19	05/12/2019	8	2	434	0.046	0.06	33	103
265889	253456.6	Ballivor	SW-39	Q4 19	05/12/2019	7.6	2	378	2.12	0.05	27	82.5
266366.9	251598.6	Ballivor	SW-40	Q4 19				Site bac	ked up			
266386.5	251579.2	Ballivor	SW-41	Q4 19				Site bac	ked up			



Rossan bog is an active horticultural production bog with the composite sampler located here from May 2017 to date. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had 29% downtime during this reporting period but returned 50 weekly ammonia results during the period. The ammonia trigger level of 2.78mg/l, as agreed with the Agency, was exceeded once during the reporting period, as reported to the Agency. Over the sampling period of 82 weeks up to 2018 the trending showed a slightly increasing trend in ammonia, however including the period of 2019, the ammonia seems to have levelled off. The rainfall levels were higher in 2019, but the average ammonia was slight reduced over 2018, so the ammonia concentration in this bog, may be heading in-line with the downwards trends in some bogs as production progresses, as submitted to the EPA in 2013 under condition 6.14.

There is no obvious link between the summer production, winter maintenance, or silt pond maintenance events on the concentration of Ammonia discharging from this peatland. The only link expected would be that related to rainfall events and seasonal weather patterns and the subsequent surfacewater runoff and associated ammonia concentrations.

The sampler at this location may be relocated to fill any information gaps on other peatland catchments and to reflect the need to support the information gathering required for the Water Framework Directive's River Basin Management Plan. There is also an EPA lead research project commencing in 2019, called the SWAMP project, whose aims are to appraise and understand the nutrient impact from peatlands, to evaluate treatment technologies and to propose predictive tools for watershed management.

Extractive Waste Management Plan Implementation AER Update 2019.

March 2020.

IPC Licence P0501-01.

1.0 Extractive Wastes.

Waste classified as extractive waste from peat extraction operations arise from two operations associated with this activity.

- Silt Pond excavations and maintenance
- Bog Timbers

There has been no change to the type and nature of these two waste streams and no new waste streams added to this list. These wastes streams continue to be stored and maintained at between 1 and 3 metres in height.

2.0 Condition 7.5 Extractive Waste Management

- An extractive waste management plan (EWMP) was submitted to the Agency in September 2012 and was approved.
- The EWMP was reviewed in September 2017. There were no substantial changes to the operation of the plan, associated waste facilities or to the waste deposited. The EWMP will be reviewed again in September 2022. At this stage, it is envisaged that many bogs will be entering a decommissioning and rehabilitation phase, which will see a significant reduction in the generation of bog timbers. In addition, and depending on the progress with bog stabilisation and rehabilitation, silt generation will significantly reduce which will lead to reduced volumes to be removed from the silt ponds.

3.0 Minimisation

- The IPC Licence has various conditions that require the installation, inspections and maintenance of silt ponds for operational areas and as such these requirements dictate the need for silt ponds and associated excavation materials and cleanings.
- Bog timbers arise from the active production footprint and are naturally occurring. The active footprint is dictated by the peat production targets and customer supply contract and service level agreements.

4.0 Treatment

- Silt pond excavation and maintenance materials do not require any treatment and are stored as per the EWMP, adjacent to the associated silt pond.
- There is no treatment of bog timbers arising and these are stockpiled at various locations in associated bogs.

5.0 Recovery

- As per the EWMP, there is still no opportunity to recover these silt pond associated materials
- Bog timbers stored on the bog are natural to the peat bog and while there have been trails to recover this waste material, these have not proved viable.

6.0 Disposal

- Silt pond cleanings continue to be disposed of adjacent to the associated silt pond and will be incorporated back into the rehabilitation plans for these bogs, post production and decommissioning.
- Bog timbers will continue to be stockpiled at suitable locations to be either incorporated back into the bog, as a supply of bog timbers for the crafting industry or will continue to decay naturally.



Annual Environmental Report 2019
Bord na Mona Energy Ltd
(Blackwater Group of Bogs)
IPC Licence P0502-01

Facility Information Summary

Licence Register Number **AER Reporting Year** Name of site

National Grid Reference (6E, 6 N) Class/Classes of Activity Site Location NACE Code

A description of the activities/processes at applicable) and what they relate to e.g. air, performance which was measured during the site for the reporting year. This should compliance with your licence listing all include information such as production the reporting year and an overview of infrastructural changes, environmental exceedances of licence limits (where increases or decreases on site, any water, noise.

2019	P0502-01	Bord na Mona Blackwater	Blackwater, Shannonbridge, Athlone, Co	Westmeath	0892	1,4	200125, 225050

which included some of these outlets, where all compliant with the suspended solids ELV for that essation of peat extraction at the Blackwater Bogs, pending regularisation and an updated draft Rehabilitation plan. Decommissioning and Rehabilitation works are described in an attachment. cases the subsequent days sampling results determined that these locations were compliant. In eceiving the subsequent cleaning with inspections dictating if a pond received further cleaning. iowever these bogs were not in production in 2019, and the quarterly grab sampling schedule, Activities at the site can be divided into two components, firstly the milling, harrowing, ridging and harvesting of peat into stockpiles and secondly the transportation of that peat via internal relation to silt ponds 100% of ponds received the initial first cleaning with 85% of these ponds period, there were a number of notifications to the Agency including notification of an interim water, with 2 exceedances in suspended solids ELV and one in the COD trigger level, and in all period and are now scheduled for decommissioning and rehabilitation. During the reporting environmental complaints received during the period. There were 3 incidents, all related to 15% of the silt ponds, all located in the Derryfadda Bogs, did not receive a second cleaning, rail network to the electricity generating station and lorry outloading facilities. Production achieved was 499453 tonnes which was a reduction of 53% over 2018. There were no

Declaration:

All the data and information presented in this report has been checked and certified as

260-40-10

Date

Signature

Group/Facility manager

(or nominated, suitably qualified and

experienced deputy)

	AIR-summary	template				Lic No:	P0502-01		Year	2019		
	Answer all questio	ns and complete all table	s where relevant									
							·	Additional information	on	1		
	•			•	nd A2 below for the current							
1		·	•		issions and do not complete							
	a solve	nt management plan (t	able A4 and A5) you	a <u>do not</u> need to d	complete the tables							
						No		Fugitive emissions or	ily			
	Periodic/Non-Continuous Monitoring											
2	Are there any resu	ılts in breach of licence re			details in the comment section							
			of TableA1 belov	W		No						
				Basic air								
3	Was all monitoring	g carried out in accordanc	e with EPA guidance	monitoring								
	note AG2 and	dusing the basic air monit	oring checklist?	checklist	AGN2	Yes						
	Table A1. Lice	seed Mass Emission	c/Ambiant data	noriodic moni	toring (non-continuous)							
	Table A1: Licer	isea iviass Emission	s/Ambient data	-periodic moni	toring (non-continuous)							
											Comments -	
											reason for	
											change in %	
											mass load	
				FIV: Linear							from	
	Emission			ELV in licence or any revision			Unit of	Compliant with		Annual mass	previous year if	
	reference no:	Parameter/ Substance	. 1	therof	Licence Compliance criteria	Measured value	measurement		Method of analysis		*	ask M.Mulhall
		SELECT			SELECT				SELECT	. (0)		

SELECT

SELECT

SELECT

SELECT

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SELECT

SELECT

SELECT

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

SELECT SELECT

SELECT

AIR-summary template	Lic No:	P0502-01	Year	2019
Continuous Monitoring				
4 Does your site carry out continuous air emissions monitoring?	No			
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)				_
Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	No			
6 Do you have a proactive service agreement for each piece of continuous monitoring equipment?	No			
7 Did your site experience any abatement system bypasses? If yes please detail them in table A3 below Table A2: Summary of average emissions -continuous monitoring	No			

Table A2: Summary of average emissions -continuous monitoring

Emission	Parameter/ Substance		Averaging Period	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:					measurement			Equipment	exceedences in	
		ELV in licence or						downtime (hours)	current	
		any revision therof							reporting year	
DM-01	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	7644	134	0	0	
DM-02	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	14532	254	0	0	
DM-03	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	6608	91	0	0	
DM-04	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	4732	74	0	0	
	SELECT				SELECT					

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

Table A3: Abatement system bypass reporting table Bypass protocol 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

AIR-summary	template				Lic No:	P0502-01		Year	2019	
	use and manageme	ent on site								
				es please fill out tables A4 and A		-	No			
	vent Management Pl ission limit value		Solvent regulations	Please refer to linked solver complete table 5						
Reporting year	Total solvent input on site (kg)	Total VOC emissions to Air from entire site (direct and fugitive)		Total Emission Limit Value (ELV) in licence or any revision therof	Compliance					
					SELECT					
					SELECT					
Table A5:	Solvent Mass Balan	ce summary				_				
	(I) Inputs (kg)			(0)	Outputs (kg)					
Solvent	(I) Inputs (kg)	-	Solvents lost in water (kg)	Collected waste solvent (kg)	Fugitive Organic Solvent (kg)	in other ways e.g.	Solvents destroyed onsite through physical reaction e.g.	Total emission of Solvent to air (kg)		
	•	•	•	•	•	•	Total		1	

AER Monitoring re	eturns summar	y template-WATER	/WASTEWATER	(SEWER)		Lic No:	P0502-01		Year	2019	9				
							Additional information		_						
complete table W2 a	and W3 below for enced emissions	s direct to surface wate the current reporting y you <u>only</u> need to compl alysis and visual inspe	ear and answer fu lete table W1 and	rther questions.	Yes										
2 discharges or wat summarising	tercourses on or r only any evidence	te to carry out visual instead your site? If yes ple of contamination note	ease complete tabl	le W2 below	Yes	Monthly COD analy	rsis of yard runoff is attached in a s	eparate document.							
Table W1	Storm water	monitoring					ı			1	_				
Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments					
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT						
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT						
Table W	Date of inspection	ctions-Please only o	enter details wh		Source of contamination Corrective action			on	Comr	nents					
						SELECT									
						SELECT	<u>ECT</u>								
Was all monitoring ca and checklists for Quali the EPA? If no please	Licensed Emissions to water and /or wastewater(sewer)-periodic monitoring (non-continuous) Was there any result in breach of licence requirements? If yes please provide brief details in the comment section of Table W3 below Was all monitoring carried out in accordance with EPA guidance and checklists for Quality of Aqueous Monitoring Data Reported to External /Internal. the EPA? If no please detail what areas require improvement in additional information box Assessment of Additional information box Checklist results checklist results checklist ves														
Table W3: License	d Emissions to	water and /or was	tewater (sewer)-periodic moi	nitoring (non-c	ontinuous)									
Emission reference no:	Emission	Parameter/ SubstanceNote 1	Type of sample	Frequency of monitoring	Averaging period	ELV or trigger values in licence or any revision	Licence Compliance criteria	Measured value	Unit of	Compliant with	Method of analysis	Procedural	Procedural reference standard number	Annual mass load	Comments
Emission reference no:	released to	Substancervote 1	Type of sample	monitoring	Averaging period	ulerot	Licence Compliance chieffa	weasureu value	measurement	псепсе	ivietifod of analysis	reference source	standard number	(kg)	Comments
Note 1: Volumetris flav	shall be included	as a ronortable naramete	-												
Note 1: Volumetric flow		as a reportable paramete do not apply to your lice		results against EC	S for Surface water	or relevant receptor	quality standards								

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER) Lic No: P0502-01 Year 2019

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

Yes	Total of 169 days over 365 days.
Yes	Annula calibration service and troubleshooting service

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				Annual Emission for current reporting year (kg)	-	Equipment	Number of ELV exceedences in reporting year	Comments
SW-50	Water	Suspended Solids	35	24 hour	Not Listed	mg/L			185	2	Down time primarially due to battery failure.Its not possible to report average continuous emissions as this sampler is located on one of many silt ponds and samplers are moved around periodically to allow for analysis of other silt pond performance.
SW-50	Water	Ammonia (as N)	4.26	Weekly	NA	mg/L					
SW-50	Water	Total phosphorus	NA	Weekly	NA	mg/L					
SW-50	Water	COD	100	Weekly	NA	mg/L					
SW-50	Water	Volumetric flow	NA	24 hour	NA	m3/day					
SW-50	Water	Total Dissolved Solids	NA	Weekly	NA	mg/L					

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

Table W5: Abatement system bypass reporting table

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

^{*}Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline tes	sting template				Lic No:	P0502-01		Year	2019	9				I
Bund testing	7	dropdown menu cl	lick to see ontions				Additional information					•		 -
	ur licence to undertake i	ntegrity testing on bunds and co		olease fill out table B1 belo	w listing all new bunds]						
and containment struc	tures on site, in addition	to all bunds which failed the int	egrity test-all bunding structu	res which failed including i										
listed in the table belo	w, please include all bun	ds outside the licenced testing p	eriod (mobile bunds and chen	nstore included)		Yes								
2 Please provide integrit						Other (2 Yearly)								
		erground pipelines (including sto	ormwater and foul), Tanks, sur	nps and containers? (conta	iners refers to	V								
3 "Chemstore" type unit: 4 How many bunds are of						Yes	9	-						
		thin the required test schedule?				9	9 9 bunds scheduled to be tested in 2020							
6 How many mobile bun	de ara an eita?					41	This includes barrel trays located within workshops							
7 Are the mobile bunds i		schedule?				No No	WORKSHOPS							
		sted within the required test sch	edule?			(v							
9 How many sumps on si 10 How many of these sur							0							
	ntegrity failures in table B						-	1						
11 Do all sumps and cham			3			N/A		4						
		d in a maintenance and testing pour integrity test programme?	rogramme?			N/A N/A		1						
	·			-		.,,		1						
Tabl	le B1: Summary details of	f bund /containment structure in	tegrity test											
									Integrity reports					Results of retest(if in
Bund/Containment									maintained on		Integrity test failure		Scheduled date	
structure ID	Туре	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	site?	Results of test	explanation <50 words	Corrective action taken	for retest	reporting year
	SELECT SELECT					SELECT SELECT			SELECT SELECT	SELECT		SELECT SELECT		
* Capacity required should comp	oly with 25% or 110% containment r	ule as detailed in your licence				SEEECT	Commentary		SEEECI	SEEECT		SEECI		
Has integrity testing be 15 in line with BS8007/EP.		ance with licence requirements a		harmatica and assess and ast		SELECT								
16 Are channels/transfer:		inment systems tested?		bunding and storage guideli	nes	SELECT								
17 Are channels/transfer	systems compliant in bot	th integrity and available volume	?			SELECT								
Pipeline/undergro	ound structure testing													
				. 2.6										
		ntegrity testing* on underground which failed the integrity test a				Yes								
2 Please provide integrit	y testing frequency perio	d				Other (2 Yearly)								
*please note integrity	testing means water tigh	tness testing for process and fou	I pipelines (as required under	your licence)										
Table	B2: Summary details of p	ipeline/underground structures	integrity test	ī										
1000												Ī		
				Type of secondary										
				containment				Integrity test						
Characterist IS	T	Managed of according	Does this structure have		Town interests to di	Integrity reports	Decular of took		Corrective action		Results of retest(if in current			
Structure ID	Type system SELECT	Material of construction: SELECT	Secondary containment? SELECT	SELECT	Type integrity testing SELECT	maintained on site? SELECT	Results of test SELECT	<50 words	taken	for retest	reporting year) SELECT	-		
								-	1			1		
									1	1		1		
							-							
		N	nentary for additional details											
		Please use comn	nentary for additional details i	not answered by tables/ qu	estions above		_							

Groundwater/Soil monitoring template	Lic No:	P0502-01	Year 2019	
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Comments

Are you required to carry out groundwater monitoring as part of your licence requirements?	no		Please provide an interpretation of groundwater monitoring data in
2 Are you required to carry out soil monitoring as part of your licence requirements?	no		the interpretation box below or if you require additional space please
Do you extract groundwater for use on site? If yes please specify use in comment section	no	Domestic Use Only	include a groundwater/contaminated land monitoring results interpretaion as an additional section in this AER
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, 4 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 monitoring			
below. <u>template</u>	SELECT		
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?	N/A		
9 Has any type of risk assesment been carried out for the site?	N/A		
10 Has a Conceptual Site Model been developed for the site?	N/A		
11 Have potential receptors been identified on and off site?	N/A		
12 Is there evidence that contamination is migrating offsite?	N/A		Please enter interpretation of data here

Table 1: Upgradient Groundwater monitoring results

	opg. aa.c	o. ounana		.g.couito						
										Upward trend in
										pollutant
	Sample									concentration
Date of	location	Parameter/		Monitoring	Maximum	Average				over last 5 years
sampling	reference	Substance	Methodology	frequency	Concentration++	Concentration+	unit	GTV's*	SELECT**	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

a	vater/Soil r	monitoring t	emplate		Lic No:	P0502-01		Year	2019		
Table 2:	Downgradi	ent Ground	water monit	toring results			_				
Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit SELECT	GTV's*	SELECT**	Upward trend in yearly average pollutant concentration over last 5 years of monitoring data SELECT	
*=	ote exceedance	of generic asses	sment criteria (G.	AC) such as a Grou	ndwater Threshold Value	(GTV) or an Interim	SELECT		<u>L</u>	SELECT	
upward tr	end in results fo		ng Guideline Tem		monitoring results is req link provided and submi	uired. In addition to	completing the above table, ALDER as a licensee return or		ndwater monito	ring template	
upward tr please com More inform assessment	end in results for plete the Groun nation on the us	ndwater Monitori e of soil and grou nd risk assessmer	ng Guideline Tem	uplate Report at the s otherwise instruct ds/ generic	monitoring results is req link provided and submi ted by the EPA.	uired. In addition to the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temperature of the temper	completing the above table,	r			

Table 3: Soil results

Tubic 3.	Jon results						
	Sample						
Date of	location	Parameter/		Monitoring	Maximum	Average	
sampling	reference	Substance	Methodology	frequency	Concentration	Concentration	unit
							SELECT
							SELECT

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

2019

Environmental Liabilities template

P0502-01

Lic No:

Year

Click here to access EPA guidance on Environmental Liabilities and Financial provision

			Commentary
1	ELRA initial agreement status		
		Not a Licence Requirement	
2	ELRA review status	NA	
3	Amount of Financial Provision cover required as determined by the latest ELRA	NA	
4	Financial Provision for ELRA status	NA	
5	Financial Provision for ELRA - amount of cover	NA	
6	Financial Provision for ELRA - type	NA	
	The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s		
7	Financial provision for ELRA expiry date	NA	
8	Closure plan initial agreement status	NA	
9	Closure plan review status	NA	
10	Financial Provision for Closure status	NA	
11	Financial Provision for Closure - amount of cover	NA	
12	Financial Provision for Closure - type	NA	
13_	Financial provision for Closure expiry date	NA	

	Environmental Management Programme/Continuous Improvement Programme	e template	Lic No:	P0502-01	Year
	Highlighted cells contain dropdown menu click to view		Additional Informat	tion	
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional information	Yes		Internal unaccredited EMS	
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	Yes			
	Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance				
3	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			

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	Training.Continue to train		In total 46 Personnel		
	all employees in		received training in 2019.		
	environmental matters.		Ten Hydraulic Harrows were		
	Training will be by means		deployed at six locations		
	of the screening of an		including the four sensitive		
	environmental DVD,		areas. Headland peat was		
	followed by a power point		collected at appicable		
	presentation .Employees		production areas and		
	get environmental training		returned as part of overall		
	at a minium of every two		production.		
	years and updates are				
	carried out from time to				
	time in addition to that .				Improved Environmental
		100		Individual	Management Practices
Waste reduction/Raw material usage	Waste Streamlining.It is	100	Quarterly waste reports are	marvicual	Widnagement Fractices
efficiency	planned to continue with		returned for records/filing		
chiciency	and where possible		and waste streams are		
	improve the current waste		segrated on site to maximise		
	management service		recycling potential.		
	provided by AES Ltd		recycling potential.		Income of Facines and and
	provided by ALS Eta	100		Cartian Hand	Improved Environmental
Reduction of emissions to Water	Tanining Continue to tonin	100		Section Head	Management Practices
Reduction of emissions to water	Training. Continue to train		Silt pond cleaning and		
	all employees in		upgrade was on target with		
	environmental matters.		one machines designated full		
	Training will be by means		time at silt control.		
	of the screening of an				
	environmental DVD,				
	followed by a power point				
	presentation.				Improved Environmental
		85		Individual	Management Practices

Environmental Management Pro	gramme/Continuous Imp	provement Programm	e template	Lic No:	P0502-01	Year	2019
Materials Handling/Storage/Bunding	Increased bund capacity		There were no additional				
	will be provided where		bund requirements.				
	required. Bund integrity						
	testing will be carried out						
	where required.				Improved Environmental		
		100		Individual	Management Practices		
Waste reduction/Raw material usage	Continue with the		In total 184.76 tonnes were				
efficiency	recycling of polyethylene.		sent off site for recycling.				
	The sourcing of more						
	recycling contractors will						
	be ongoing.				Improved Environmental		
		100		Individual	Management Practices		
Groundwater protection	It is proposed to upgrade		Septic tanks are continually				
	existing septic tank		being assessed and upgrade				
	systems where required.		works scheduled where				
			required.				
					Improved Environmental		
		100		Section Head	Management Practices		

	No	oise monitor	ing summary	report			Lic No:	P0502-01	Year	2019	
	onitoring a licend	-	-	od?			Noise	No]		
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? Does your site have a noise reduction plan When was the noise reduction plan last updated? Have there been changes relevant to site noise emissions (e.g. plant or operational changes) s								NA NA Enter date			
5 Have there	been changes re	elevant to site no	noise survey	g. plant or o	perational (manges) sin	ce the last	NA			
Table N1: No	ise monitoring s	ummary									
Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA_{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
								SELECT	SELECT		SELECT
*Please ensure tha	at a tonal analysis has	been carried out as pe	r guidance note NG4.	These records mu	st be maintained	d onsite for futu	re inspection				
	If nois	e limits exceede	d as a result of n	oise attribut	ed to site a	ctivities, ple	ase choose tl	he corrective action fro	om 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/Energ	rgy efficiency summary	Lic No:	P0502-01	Year	2019

Additional information

Not a Licence

requirement

1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below

SEAI - Large

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

Network (LIEN)

Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

Table R1 Energy usag	e on site			
Energy Use	Previous year		Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	21439.87	15471.48		
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (MWHrs)			
Electricity Consumption (MWHrs)	1425	1533.977		
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	1969.774	1389.119		
Natural gas (m3)				
Coal/Solid fuel (metric tonnes)	8	0		
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				Water Emissions	Water Consumption		
	Water extracted		-	companipation 1/ /c	Volume Discharged back to	Volume used i.e not discharged to environment e.g. released as steam	
Water use	Previous year m3/yr.	Current year m3/yr.	reporting year**	production*	environment(m ³ yr):	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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

Resource Usage/Energy efficiency summary Lic No: P0502-01 Year 2019

Table R3 Waste Stream					
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	16.57	0	14	2.57	
Non-Hazardous (Tonnes)	892.77	132.28	7.96	86.7	

Table R4: Energy Audit finding recommendations								
		Description of		Predicted energy				Status and
Date of audit	Recommendations	Measures proposed	Origin of measures	savings %	Implementation date	Responsibility	Completion date	comments
			SELECT					
			SELECT					
			SELECT					

	Table R5: Power Generation: Where	power is generated onsi	ite (e.g. power generat	ion facilities/food ar	nd drink industry)plea	ase complete the followi	ing information
•		Unit ID	Unit ID	Unit ID	Unit ID	Station Total	

	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 or	n Site				
•		•	•	•	•

Complaints and	Incidents summary templa	ate			Lic No:	P0502-01		Year	201	9				
		Complaints				1						•		
					Additional inform	ation								
Have you receive	d any environmental complaints in	the current reporting year? If	yes please complete											
	summary details of complaints re			No										
			1											
Table 1	Complaints summary			1	1			7						
			Brief description of	C										
Date	Catagoni	Other time (please specific)	complaint (Free txt <20	Corrective action< 20 words	Decelution status	Decelution date	Further information							
Date	Category	Other type (please specify)	worus)	WOIUS	Resolution status	Resolution date	rurtiler information	-						
								_1						
Total complaints														
open at start of														
reporting year Total new	0													
complaints														
received during														
reporting year	2													
Total complaints	2													
closed during														
reporting year	2													
Balance of	_													
complaints end of														
reporting year	0													
		•												
		Incidents												
					Additional inform	ation								
Have any incide	nts occurred on site in the current r													
	reporting year in	n Table 2 below	1	Yes		1								
*For information	on on how to report and what													
	stitutes an incident	What is an incident												
		<u>'</u>												
Table 2 Incidents sur	nmary													
			Incident			Other								
			category*please refer to			cause(please	Activity in progress at			Corrective action<20			Resolution	Likelihood of
Date of occurrence			guidance	Receptor	Cause of incident	specify)	time of incident	Communication	Occurrence	words		Resolution status	date	reoccurence
10/12/2019	Breach of ELV	Licenced discharge point (ty	1. Minor	Water	Adverse weather		None	EPA ref No. INCI017817	New	None	N/A			
												Complete	11/12/2019	Low
20/11/2019	Breach of ELV	Licenced discharge point (ty	1. Minor	Water	Adverse weather		None	EPA ref No. INCI017672	New	None	N/A			
												Complete	21/11/2019	Low
14/10/2019	Breach of ELV	Licenced discharge point (ty	1. Minor	Water	Not related to		None	EPA ref No. INIC017450	New	None	N/A			
					site activities									
												Complete	15/10/2019	Low
Total number of				1		u .		1	-	1			-, -,	
incidents current														
	3													
year Total number of														
incidents previous														
year % reduction	4													
% reduction	25.00%													

European Waste Code (EWC)	Description of Waste (in line with applicable EWC code)	Hazardous – YES/NO	Quantity (Tonnes)	Name & Permit No. of Agent/Carrier	Treatment Type – Recovered / Disposed / Recycled	Name, Address & Licence/Permit No. of FINAL Destination	Country
20 03 01 B	Municipal mixed residual non- household	No	22.28	AES Ltd WP-OY-08-601- 02	D01 - Deposit into or on to land (e.g. landfill, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
20 03 01 A	Municipal mixed residual household	No	110	AES Ltd WP-OY-08-601- 01	D01 - Deposit into or on to land (e.g. landfill, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
17 04 07	mixed metals	No	86.7	AES Ltd WP-OY-08-601- 00	R04 - Recycling/reclamation of metals and metal compounds	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
15 01 03	wooden packaging	No	7.96	AES Ltd WP-OY-08-601- 01	R01 - Use principally as a fuel or other means to generate energy	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
13 02 05*	mineral-based non- chlorinated engine, gear and lubricating oils	Yes	14	Enva Ireland Limited - L1745	R01 - Use principally as a fuel or other means to generate energy	R.D. Recycling, Houthalen, Reg No: 51727/1KD	Belgium
16 01 07*	oil filters	Yes	1.73	Enva Ireland Limited - L1745	R04 - Recycling/reclamation of metals and metal compounds	R.D. Recycling, Houthalen, Reg No: 51727/1KD	Belgium
11 01 13*	degreasing wastes containing hazardous substances	Yes	0.84	Safety Kleen Ireland Ltd - W0099	R11 - Use of waste obtained from any of the operations numbered R 1 to R 10	Solvent Recovery Management, PP33345F, Wheeland Rd., Knottingly, West Yorks	UK
02 01 04	waste plastics (except packaging)	No	184.76	ADN Materials Ltd.WFP- MN-12-0001-04	R03 - Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)	ADN Materials Ltd., Lossetts, Carrickmacross, Co. Monaghan - WFP-MN-12-0001-04	Ireland

Blackwater IPC Licence

Decommissioning and Rehabilitation

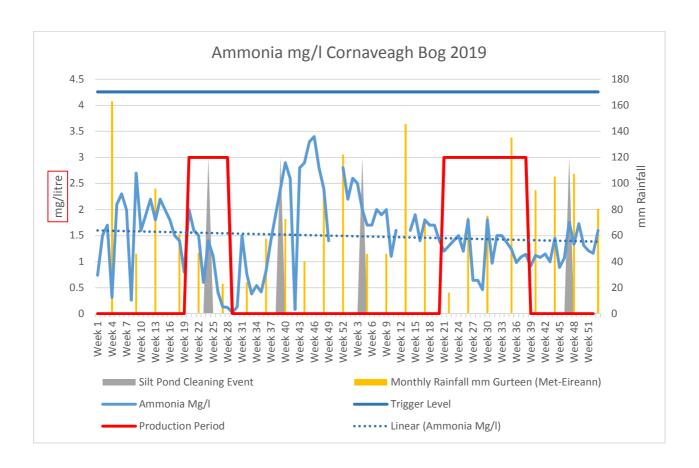
Bog Rehabilitation Progress Report 2019.

- There was ongoing monitoring of peatland rehabilitation carried out in previous years at Bunahinly and Kilmacshane Bog. Ongoing rehabilitation trials (cutaway re-wetting and *Sphagnum* inoculation) are continually being monitoring.
 Sphagnum inoculation at Bunihinly bog has not been effective so far (2 years after inoculation).
- Peatland rehabilitation carried out in Attymon Bog. This site had been revegetating naturally and had been used for sod-turf cutting. Drain-blocking carried out to re-wet peat and encourage the development of wet peatland habitats and encourage natural colonisation of bare peat areas. It is currently a mosaic of bare peat and pioneer peatland habitats. 191 ha targeted. 75% complete. Japanese Knotweed (Invasive species) management is ongoing at Attymon. A small area was sprayed with herbicide in 2017 and 2018. This is continued to be monitored and has been quite effective.
- Peatland rehabilitation carried out in Cloonkeen Bog. This site had been revegetating naturally and had been used for sod-turf cutting. Drain-blocking carried out to re-wet peat and encourage the development of wet peatland habitats and encourage natural colonisation of bare peat areas. It is currently a mosaic of bare peat and pioneer peatland habitats. 142 ha targeted. 75% complete.
- The Newown-Lough Gore Bog site rehabilitation plan was finalised and submitted to the EPA. Bog restoration has been completed in Lough Gore Bog (130 ha). This site forms part of the Bord na Mona Raised Bog Restoration Programme. This bog was drained but never fully developed. Peat dams have been inserted by an excavator to re-wet the peat, improve the condition of the overall bog and encourage the development of *Sphagnum*-rich active raised bog habitat. This bog is currently being considered for SAC/NHA designation by the NPWS as part of the National Raised Bog Special Area of Conservation Management Plan and the National Review of Raised Bog NHAs.
- Bog restoration ongoing in Newtown Bog (184 ha). This is 40% complete. This site forms part of the Bord na Mona Raised Bog Restoration Programme. This bog was drained but never fully developed. Peat dams have been inserted by an excavator to re-wet the peat, improve the condition of the overall bog and encourage the development of Sphagnum-rich active raised bog habitat. This bog is currently being considered for SAC/NHA designation by the NPWS as part of the National Raised Bog Special Area of Conservation Management Plan and the National Review of Raised Bog NHAs.

- A Greenhouse Gas Monitoring programme to investigate carbon fluxes on restored bog at Moyarwood finished in 2018 ((a continuation of the NEROS (EPAfunded project)). This research has shown that 8 years after bog restoration, Moyarwood bog (part of Derrydoo-Woodlough) has switched to a sink for CO2 and is a net GHG sink.
 - http://www.epa.ie/pubs/reports/research/biodiversity/Research_Report_236.pd <u>f</u>
 - https://www.sciencedirect.com/science/article/abs/pii/S0925857418300521?via %3Dihub
- Ballydangan Bog has been managed for conservation since 2009. The site is leased to a local community group. Many stakeholders are involved in this project which entails managing the site for the conservation of ground nesting birds, specifically Curlew and Red Grouse.
- This year has seen significant changes in Bord na Móna. Bord na Móna's Brown to Green Strategy delivers on national and EU decarbonisation policies. This has driven a significant reduction in peat-milling volumes and operational footprint in Summer 2019 which in turn enables progression of de-commissioning and rehabilitation plans. It is planned to close West Offaly Power and Lough Ree Power Stations by the end of 2020. Both stations were peat-fired and supplied by Bord na Móna. At a result, the industrial peat production bogs in the Blackwater Bog Group that supplied these power stations will begin a programme of rehabilitation and decommissioning. It is expected that this programme will start in 2020. The Blackwater bog group rehabilitation plans are currently being reviewed, updated and finalised as part of this process.
- As part of company re-structure in 2019, a dedicated operational unit has now been set up to plan, progress and report on de-commissioning and rehabilitation.
- Planning for rehabilitation with walk-over surveys to update rehabilitation plans was carried out at Castlegar, Gowla, Boughill and Derryfadda Bog in 2019.
- Bord na Móna are also supporting other GHG research projects (EPA-funded SMARTBOG). Garryduff has been selected as a research site for this project and it is planned to measure GHG fluxes, water quality and water flow from this site over the next few years.
- Bord na Mona is also supporting other research projects into various ecosystem services of peatlands such as WaterPeat (EPA) and SWAMP (EPA). These research projects are studying various ecosystem services of peatlands such as GHG fluxes, carbon storage and creating future carbon sinks, improving water quality and regulating water flows. Garryduff has been selected as a project site for the WaterPeat and SWAMP projects.
- The majority of the Bord na Móna property in this bog group has been
 organically certified with the aim of using some areas for the cultivation of plants
 for use in herbal medicine into the future. This project in ongoing. Bord na
 Mona have committed not to use herbicides in organically certified areas to
 maintain industrial railways and other infrastructure.

- Draft rehabilitation plans for the Blackwater bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015 and 2017, and again submitted to the EPA May 2018.
- The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in May 2018. This included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.
- A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

Bord na Mona Blackwater	Siltpond Monitoring Frequency & Results]									
IPPC Licence P0502-01		_									
X 202222 20	220521.05	Bog	SW SW-74	Monitoring	pH	SS	TS 384	Ammonia	TP	COD	Colour
202333.29 202300.90	229631.85 227130.53	Blackwater Bog Blackwater Bog	SW-74 SW-75	Q1 19 Q1 19	7.7 7.8	<5 <5	384 414	0.56	<0.05 <0.05	48 36	94 68
202300.90	226866.28	Blackwater Bog	SW-76	Q1 19 Q1 19	7.7	<5 <5	266	0.03	0.05	70	202
202231.03	226119.40	Blackwater Bog	SW-80	Q1 19	7.8	<5 <5	416	0.09	<0.05	36	72
181512.95	248204.34	Boughill	SW-130	Q1 19 Q1 19	7.1	<5	186	1.3	0.31	94	280
180902.52	249292.48	Boughill	SW-131	Q1 19	6.5	24	188	0.38	0.09	92	163
180550.26	249355.85	Boughill	SW-132	Q1 19	6.6	<5	210	0.16	<0.05	76	191
180070.42	250026.88	Boughill	SW-133	Q1 19	5.7	<5	98	0.38	0.05	77	185
179026.64	249928.15	Boughill	SW-134	Q1 19	6	<5	98	0.23	0.06	62	212
178971.22	249578.22	Boughill	SW-135	Q1 19	7.3	6	232	0.05	<0.05	60	136
179232.81	249514.39	Boughill	SW-136	Q1 19	6.3	<5	134	0.53	<0.05	62	234
179707.29	248776.74	Boughill	SW-137	Q1 19	7	<5	112	0.38	<0.05	64	201
179163.83	248580.13	Boughill	SW-138	Q1 19	7.1	<5	134	0.43	0.05	72	200
196834.50	231514.48	Clooniff	SW-58	Q1 19	6.5	12	222	<0.02	0.11	138	264
204193.18	233292.08	Bloomhill	SW-45	Q2 19	7.4	<5	184	0.12	< 0.05	70	193
209103.76	233133.72	Bloomhill	SW-46	Q2 19	8.1	<5	160	0.02	< 0.05	22	44
206357.24	236321.59	Kilgarvin	SW-88	Q2 19	7.1	17	150	1.3	< 0.05	80	240
207140.85	235210.03	Kilgarvin	SW-89	Q2 19	7.4	<5	196	3.4	< 0.05	80	200
207016.78	235121.11	Kilgarvin	SW-89A	Q2 19	7.5	12	180	2.5	< 0.05	62	146
208033.11	235779.32	Kilgarvin	SW-90	Q2 19	7.2	<5	119	1	< 0.05	85	262
206651.86	235235.78	Kilgarvin	SW-91	Q2 19	7.7	<5	242	2.2	< 0.05	59	132
206721.04	238609.93	Bunahinly	SW-92	Q2 19	6.6	<5	116	0.42	< 0.05	126	248
206662.99	238274.82	Bunahinly	SW-93	Q2 19	6.2	<5	88	0.17	< 0.05	108	269
205547.19	238164.83	Bunahinly	SW-94	Q2 19	7.1	<5	128	0.71	< 0.05	129	236
206521.02	236852.02	Kilgarvin	SW-95	Q2 19	7.4	<5	130	0.15	< 0.05	52	187
206966.18	236771.02	Kilgarvin	SW-96	Q2 19	7.4	6	192	0.09	<0.05	102	196
206284.38	240035.71	Bunahinly	SW-97	Q2 19	7	<5	134	0.1	<0.05	117	272
196289.52	229517.21	Clooniff	SW-54	Q2 19	6.2	<5	150	<0.02	0.06	57	353
178464.41	246488.91	Gowla	SW-125	Q3 19	6.6	10	206	0.17	0.11	87	424
179332.06	244537.90	Gowla	SW-127	Q3 19	6.7	5	142	0.21	0.08	99	372
179271.28	244726.80	Gowla	SW-128	Q3 19	6.7	6	178	0.23	0.06	95	354
180966.12	244030.48	Derryfadda Bog	SW-107	Q3 19	7	<5	171	1.3	0.06	82	337
180631.06	243928.81 243133.74	Killaderry	SW-108 SW-109	Q3 19 Q3 19	7	26	258	0.28	<0.05	89 96	349
181456.84 182202.14	243133.74 242638.34	Killaderry Killaderry	SW-109 SW-110	Q3 19 Q3 19	6.6 7	5	162 186	1.4 0.27	<0.05 0.06	96	319 406
182686.37	242038.34	Killaderry	SW-110	Q3 19 Q3 19	6.5	<5 8	165	0.27	<0.05	89	387
182715.77	241713.43	Killaderry	SW-111	Q3 19	6.5	7	101	0.098	<0.05	77	315
182704.22	240840.26	Killaderry	SW-112	Q3 19	6.8	5	289	0.572	<0.05	98	672
182203.20	241175.49	Killaderry	SW-114	Q3 19	6.8	5	133	0.86	<0.05	78	296
181563.73	241235.50	Killaderry	SW-115	Q3 19	6.7	<2	126	0.741	<0.05	64	267
182457.16	240577.59	Castlegar	SW-117	Q3 19	7	7	184	0.91	0.07	99	415
182399.93	239909.95	Castlegar	SW-118	Q3 19	4.5	<5	212	1.7	0.08	96	401
182093.30	245946.00	Derryfadda Bog	SW-99	Q4 19	6.7	7	91	0.285	<0.05	45	229
182388.81	245823.47	Derryfadda Bog	SW-100	Q4 19	7.4	<2	343	0.009	< 0.05	68	285
182316.10	245297.50	Derryfadda Bog	SW-101	Q4 19	6.4	<2	74	0.247	< 0.05	47	218
182139.73	245264.91	Derryfadda Bog	SW-102	Q4 19	6.5	3	246	0.128	<0.05	98	397
183228.01	244324.76	Derryfadda Bog	SW-103	Q4 19	6.6	2	109	0.281	<0.05	42	225
183590.31	240198.77	Castlegar	SW-119	Q4 19	6.2	<2	93	0.479	< 0.05	57	291
184106.45	239849.36	Castlegar	SW-120	Q4 19	5	<2	106	0.079	< 0.05	81	398
184125.26	239565.89	Castlegar	SW-121	Q4 19	4.2	<2	103	0.025	< 0.05	88	453
184137.69	239522.07	Castlegar	SW-122	Q4 19	5.3	<5	239	0.027	< 0.05	96	376
184479.03	239013.00	Castlegar	SW-123	Q4 19	6.9	3	109	0.18	<0.05	46	209
183794.87	237417.33	Castlegar	SW-124	Q4 19	6.5	5	115	0.202	< 0.05	67	309
202648.98	224016.88	Blackwater Bog	SW-78	Q4 19	6.5	7	128	0.432	<0.05	79	497
202934.41	224449.28	Blackwater Bog	SW-79	Q4 19	7	4	198	2.36	<0.05	66	327
203526.10	225073.81	Blackwater Bog	SW-83	Q4 19	6	4	148	1.09	< 0.05	106	594



Cornaveagh Bog

Cornaveagh Bog is an active production bog with the composite sampler located here during 2018 and 2019. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had 2% overall downtime during the period mainly because it is located on the silt pond outlet from Cornaveagh Bog which can have negative flow during winter flooding events, resulting in zero discharge during these events and limited safe access for a weekly grab sample. In addition, during periods, a grab sample would have been taken, where the sampler failed to take a composite sample, this enabled the licence requirement for a weekly ammonia sample and the associated requirement in the AER to trend the results. The ammonia trigger level of 4.26mg/l, as agreed with the Agency, was not exceeded during the period. There is an emerging reducing trend in Ammonia concentrations from the bog and this associated outlet, which mirrors the trend in other bogs where trending analysis has shown similar slight down ware trend of

There is no obvious link between the summer production, winter maintenance or silt pond maintenance events on the concentration of ammonia disharging from the peatlands. The only link expected would be that related to rainfall events and seasonal weather patterns and the subsequent surfacewater runoff and associated ammonia concentrations.

The sampler at this location may be relocated to fill any information gaps on other peatland catchments and to reflect the need to support the information gathering required for the Water Framework Directive's River Basin Management Plan. There is also an EPA lead research project commenced in 2019, called the SWAMP project, whose aims are to appraise and understand the nutrient impact from peatlands, to evaluate treatment technologies and to propose predictive tools for watershed management.

Extractive Waste Management Plan Implementation AER Update 2019

March 2020.

IPC Licence P0502-01.

1.0 Extractive Wastes.

Waste classified as extractive waste from peat extraction operations arise from three operations associated with this activity.

- Silt Pond excavations and maintenance
- Power Station Screenings
- Bog Timbers

There has been no change to the type and nature of these three waste streams and no new waste streams added to this list. These wastes streams continue to be stored and maintained at between 1 and 3 metres in height.

2.0 Condition 7.5 Extractive Waste Management

- An extractive waste management plan (EWMP) was submitted to the Agency in September 2012 and was approved.
- The EWMP was reviewed in September 2017. There were no substantial changes to the operation of the plan, associated waste facilities or to the waste deposited. The EWMP will be reviewed again in September 2022. At this stage, it is envisaged that many of the bogs will be in a decommissioning and rehabilitation phase, which will see the generation of bog timbers from production having ceased. In addition, and depending on the progress with bog stabilisation and rehabilitation, silt generation will be significantly reducing, which will lead to reduced volumes to be removed from the silt ponds.
- West Offaly Power will be ceasing operation at the end of 2020, so beyond this there will be no further generation of power station screenings.

3.0 Minimisation

- The IPC Licence has various conditions that require the installation, inspections and maintenance of silt ponds for operational areas and as such these requirements dictate the need for silt ponds and associated excavation materials and cleanings.
- Peat screenings are a factor of the screening process with West Offaly Power Ltd as these oversized bog timbers, stones and peat cannot be utilised in the power station.
- Bog timbers arise from the active production footprint and are naturally occurring. The active footprint is dictated by the peat production targets and customer supply contract and service level agreements.

4.0 Treatment

- Silt pond excavation and maintenance materials do not require any treatment and are stored as per the EWMP, adjacent to the associated silt pond.
- The factory screenings are permitted to be returned to the bog as they were naturally occurring materials from the bog, and as such do not require any treatment to serve this purpose.
- There is no treatment of bog timbers arising and these are stockpiled at various locations in associated bogs.

5.0 Recovery

- As per the EWMP, there is still no opportunity to recover these silt pond associated materials.
- Given the nature of these screenings as outlined in the EWMP, there is no further use identified, other than the permitted reuse of these natural materials in areas that required improvement for trafficking purposes.
- Bog timbers stored on the bog are natural to the peat bog and while there have been trails to recover this waste material, these have not proved viable.

6.0 Disposal

- Silt pond cleanings continue to be disposed of adjacent to the associated silt pond and will be incorporated back into the rehabilitation plans for these bogs, post production and decommissioning.
- Schedule 3 (ii) of this IPC Licence permits the disposal of peat screenings to the bog at designated locations agreed under Condition 7.4 and this continues to be the case.
- Bog timbers will continue to be stockpiled at suitable locations to be either incorporated back into the bog, as a supply of bog timbers for the crafting industry or will continue to decay naturally.



Annual Environmental Report 2019
Bord na Mona Biomass Ltd
(Allen Group of Bogs)
IPC Licence P0503-01

Facility Information Summary National Grid Reference (6E, 6 N) Licence Register Number Class/Classes of Activity **AER Reporting Year** Site Location Name of site NACE Code

applicable) and what they relate to e.g. air, A description of the activities/processes at the site for the reporting year. This should performance which was measured during include information such as production compliance with your licence listing all the reporting year and an overview of infrastructural changes, environmental exceedances of licence limits (where increases or decreases on site, any water, noise

2019	
P0503-01	
Bord na Mona Allen	
Derrygreenagh, Rochfortbridge, Co Westmeath	
0892	
1.4	
249450, 238140	
Activities on site can be divided into two components firstly the milling ha	1 2

elated to dust from Ballykean bog and which was also resolved to the satisfaction of the complainant. In relation Agency was also notified of the interim cessation of peat extraction, pending regularisation, the notification of a down on the 2018 figure. The quarterly grab sampling was 100% compliant with regard to the ELV's, as was the smoke from a malicious fire started at a disused building at Timhoe workshop, that was resolved, and the other continuous composite sampling. The number of incidents reported reduced by 50% in 2019 compared to 2018, to silt pond cleaning, 100% of ponds received the required two cleanings, with fortnightly inspections dictating the cleaning schedules. Decommissioning and Rehabilitation works are described in an attachment. During the proposed planning application at Timahoe Bog for a Solarfarm and a change of use for the Clonsast workshop. can be divided into two components, firstly the milling, harrowing, ridiging and harvesting of Station and lorry outloading facilities. Production achieved was approximately 260,455 tones which was 61% period of reporting, consent was sought and approved for Wildcrafting and Herb trials at Ballykean Bog. The experienced. There were 2 environmental complaints received during the reporting period. One related to peat into stockpiles and secondly the transportation of that peat via an internal rail network to the Power These were mainly trigger level exceedances for ammonia and COD due to the exceptionally dry summer

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.

Date

Group/Facility manager Signature

(or nominated, suitably qualified and

experienced deputy)

	AIR-summary template	Lic No:	P0503-01	Year	2019
	Answer all questions and complete all tables where relevant				
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	No		Additional information Fugitive emissions only	
	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			
3	Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist? Basic air monitoring checklist checklist AGN2	Yes			

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

Emission reference no:	Parameter/ Substance	Frequency of	ELV in licence or any revision therof	Licence Compliance criteria	Measured value		Compliant with licence limit	Method of analysis	Annual mass	Comments -reason for change in % mass load from previous year if applicable
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		

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

AIR-summary template	Lic No:	P0503-01	Year	2019
Continuous Monitoring				
4 Does your site carry out continuous air emissions monitoring?	No			
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)				
5 Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	No			
6 Do you have a proactive service agreement for each piece of continuous monitoring equipment?	No			
7 Did your site experience any abatement system bypasses? If yes please detail them in table A3 below Table A2: Summary of average emissions -continuous monitoring	No			

Emission	Parameter/ Substance		Averaging Period	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:					measurement			Equipment	exceedences in	
		ELV in licence or						downtime (hours)	current	
		any revision therof							reporting year	
DM-2	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	14420	303	0	0	Dust monitioring took place on 4 occasions for 28 days each time between April and August
DM-03	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	12264	231	0	0	
DM-05	Total Particulates	350	140 DAYS	Daily average < ELV	mg/m2/day	14616	195	0	0	
	SELECT				SELECT					

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

Table A3: Abatement system bypass reporting table

Bypass protocol

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

^{*} this should include all dates that an abatement system bypass occurred

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

AIR-summa	ary template				Lic No:	P0503-01		Year	2019	
S	olvent use and management	on site								
8 Do you have a	total Emission Limit Value of	direct and fugitive em	nissions on site? if y	es please fill out tables A4 and a	A5					
Table A4: Solv Emission limit	ent Management Plan Sumn	nary Total VOC	Solvent regulations	Please refer to linked solver complete table 5		1				
Linission mine	value		regulations	complete table 3	and o					
	1=:::::::::::::::::::::::::::::::::::::	T =			Ia "					
Reporting ye	ar Total solvent input on site (kg)	Total VOC emissions to Air	Total VOC emissions as %of		Compliance					
		from entire site (direct and fugitive)	solvent input	Total Emission Limit Value (ELV) in licence or any revision						
				therof						
					SELECT					
	1				SELECT					
Tab	ole A5: Solvent Mass Balance	Summary							1	
	(I) Inputs (kg)			(0)	Outputs (kg)					
Solvent		Organic solvent	Solvents lost in	Collected waste solvent (kg)	Fugitive Organic	Solvent released	Solvents	Total emission of		
	(I) Inputs (kg)	emission in waste	water (kg)		Solvent (kg)	in other ways e.g.	destroyed onsite	Solvent to air (kg)		
							Total			

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)		Lic No:	P0503-01	Year	2019
			Additional information		
Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions. If you do not have licenced emissions you only need to complete table W1 and or W2 for storm water analysis and visual inspections	Yes				
Was it a requirement of your licence to carry out visual inspections on any surface 2 water discharges or watercourses on or near your site? If yes please complete table W2 below summarising only any evidence of contamination noted during visual inspections	Yes		Monthly COD and Yard Run Off		
Table W1 Storm water monitoring					

Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	 ELV or trigger level in licence or any revision thereof*	Compliance	Measured value	Unit of measurement	Compliant with licence	Comments
	SELECT	SELECT	SELECT		SELECT		SELECT	SELECT	
	SELECT	SELECT	SELECT		SELECT		SELECT	SELECT	

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

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

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
			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 y comment section of Table W		rief details in the	No	Additional information
	Was all monitoring carried out in accordance with EPA				
	guidance and checklists for Quality of Aqueous Monitoring	External /Internal			
	Data Reported to the EPA? If no please detail what areas	Lab Quality	Assessment of		
4	require improvement in additional information box	checklist	results checklist	Yes	Surface water monitoring was carried out on a quarterly basis. The results of which are attached.

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		ELV or trigger values in licence or any revision therof ^{Note 2}	Licence Compliance criteria	Measured value		Compliant with licence			Procedural reference standard number	Annual mass load (kg)	Comments
	SELECT	SELECT	SELECT		SELECT		SELECT		SELECT	SELECT	SELECT	SELECT			

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

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

AER Monitoring returns summary template-WATER/WASTEWATER(SEWE	₹)	Lic No:	P0503-01	Yea
Continuous monitoring			Additional Information	
5 Does your site carry out continuous emissions to water/sewer monitoring?	Yes		See note above	
If yes please summarise your continuous monitoring data below in Table W4 and compare it to its relevant Emission Limit Value (ELV)				
$6 \\ \frac{\text{Did continuous monitoring equipment experience downtime? If yes please record downtime in table W4 below}{}$	Yes		Total of 13 days over 365 days	
7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site?		Annual calibration :	schedule and trouble shooting service.	
8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 below	No			·

Table W4: Summary of average emissions -continuous monitoring

	Emission released to	Parameter/ Substance					Annual Emission for current reporting year (kg)		Number of ELV exceedences in reporting year	Comments
SW-65A	Water	Suspended Solids	35	24 hour	Not Listed	mg/L		312	0	Down time primarially due to battery failure.Its not possible to report average continuous emissions as this sampler is located on one of 99 silt ponds and samplers are moved around periodically to allow for analysis of other silt pond performance.
SW-65A	Water	Ammonia (as N)	3	Weekly	NA	mg/L				
SW-65A	Water	Total phosphorus	NA	Weekly	NA	mg/L				
SW-65A	Water	COD	100	Weekly	NA	mg/L				
SW-65A	Water	Volumetric flow	NA	24 hour	NA	m3/day				
SW-65A	Water	Total Dissolved Solids	NA	Weekly	NA	mg/L				

2019

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

Table W5: Abatement system bypass reporting table

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

*Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline tes	sting template				Lic No:	P0503-01		Year	201	9				
Bund testing	7	dropdown menu cli	ick to see options				Additional information							
Are you required by yo	ur licence to undertake ir	ntegrity testing on bunds and con	ntainment structures ? if yes p											
		to all bunds which failed the inte ds outside the licenced testing pe			mobile bunds must be									
1 2 Please provide integrity			(mobile bunds and cher	iistore iliciadea)		Yes Other (2 Yearly)		-						
		u erground pipelines (including sto	rmwater and foul), Tanks, sur	mps and containers? (cont	ainers refers to	Other (2 really)								
3 "Chemstore" type units	s and mobile bunds)					Yes								
4 How many bunds are o	on site?					3		-						
							One bund was tested and passed in							
							2019. Two bunds were tested and							
5 How many of these but 6 How many mobile bund		hin the required test schedule?				3 90	passed in 2018.	-						
7 Are the mobile bunds i	ncluded in the bund test					No	Visually inspected							
8 How many of these mo 9 How many sumps on si		sted within the required test sche	edule?			0		-						
10 How many of these sur	mps are integrity tested w	vithin the test schedule?				0								
Please list any sump in 11 Do all sumps and cham	itegrity failures in table B					SELECT		٦						
12 If yes to Q11 are these	failsafe systems included	I in a maintenance and testing pr	ogramme?			SELECT		1						
13 Is the Fire Water Reten	ntion Pond included in you	ur integrity test programme?				SELECT		_						
Tabl	le B1: Summary details of	bund /containment structure int	tegrity test	<u> </u>										
									Integrity reports					Results of retest(if in
Bund/Containment									Integrity reports maintained on		Integrity test failure		Scheduled date	current
structure ID	Туре	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	site?	Results of test	explanation <50 words	Corrective action taken	for retest	reporting year
EPL Main Bund 503-37-05	reinforced concrete		Gas Oil	132440 litres	44000 litres	Hydraulic test			Yes	Pass 2018		NA	NA	NA
Clonsast Heating Bund														
503-37-07 Ballycon Main Bund	reinforced concrete		Gas Oil	9288 litres	5500 litres	Hydraulic test			Yes	Pass 2018		NA	NA	NA
503-37-09	reinforced concrete		Gas Oil	346500 litres litres	315000 litres	Hydraulic test			Yes	Pass 2019		NA	NA	NA
	ly with 25% or 110% containment re een carried out in accorda	ule as detailed in your licence ance with licence requirements as	nd are all structures tested				Commentary	٦						
15 in line with BS8007/EP	A Guidance?			bunding and storage guide	lines	Yes								
16 Are channels/transfer s 17 Are channels/transfer		nment systems tested? h integrity and available volume?	?			No No		-						
	,							_						
Pipeline/undergro	und structure testing	1												
•		-					No underground pipe lines that							
Are you required by yo 1 all underground structu	our licence to undertake ir ures and pipelines on site	ntegrity testing* on underground which failed the integrity test a	I structures e.g. pipelines or s nd all which have not been to	umps etc ? if yes please filested withing the integrity	I out table 2 below listing test period as specified	Yes	require testing							
2 Please provide integrit	y testing frequency perio	d				Other (Every 3 Years)		1						
*please note integrity t	testing means water tight	tness testing for process and foul	l pipelines (as required under	your licence)										
Table	B2: Summary details of p	ipeline/underground structures i	integrity test	I								7		
				Type of secondary										
				containment				Integrity test						
			Does this structure have			Integrity reports			Corrective action	Scheduled date	Results of retest(if in current			
Structure ID	Type system SELECT	Material of construction: SELECT	Secondary containment? SELECT	SELECT	Type integrity testing SELECT	maintained on site? SELECT	Results of test SELECT	<50 words	taken	for retest	reporting year) SELECT			
	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	DELECT			+	SELECT			
									1	1				
							7							
		Please use comm	nentary for additional details	not answered by tables/ o	uestions above									
			,	, ,			_							

Groundwater/Soil monitoring template Lic No: P0503-01 Year 2019

Comments

ng data in
ace please
results R

Table 1: Upgradient Groundwater monitoring results

	Sample									
Date of	location	Parameter/		Monitoring	Maximum	Average				
sampling	reference	Substance	Methodology	frequency	Concentration++	Concentration+	unit	GTV's*	SELECT**	
							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

Date of sampling	Sample location reference	Parameter/ Substance	Monitoring frequency	Maximum Concentration	Average Concentration	unit	GTV's*	SELECT**	
						SELECT			SELECT
						SELECT			SELECT

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

Groundwater monitoring template

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

<u>Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (EPA 2013).</u>

Groundwater/Soil monitoring template	Lic No:	P0503-01		Year	2019)		
						5.11		
**Depending on location of the site and proximity to other sensitive	re receptors alternative Rece	ptor based Water Quality standa	ds should be used in		Groundwater	Drinking water		
addition to the GTV e.g. if the site is close to surface water compare	to Surface Water Environme	ental Quality Standards (SWEQS),	f the site is close to a	<u>Surface</u>	<u>regulations</u>	(private supply)	Drinking water (public	Interim Guideline
drinking water supply compare	results to the Drinking Wate	er Standards (DWS)		water EQS	GTV's	<u>standards</u>	supply) standards	Values (IGV)

Groundwater/Soil monitoring template Lic No: P0503-01 Year 2019	Groundwater/Soil monitoring template	Lic No:	P0503-01	Year	2019	
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Table 3: Soil results

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

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

Environmental Liabilities template Lic No: P0503-01 Year 2019

Click here to access EPA guidance on Environmental Liabilities and Financial provision

			Commentary
1	ELRA initial agreement status		
		Not a licence requirement	
2	ELRA review status	NA	
3	Amount of Financial Provision cover required as determined by the latest ELRA	NA	
4	Financial Provision for ELRA status	NA	
5	Financial Provision for ELRA - amount of cover	NA	
6	Financial Provision for ELRA - type	NA	
	,,		
7	Financial provision for ELRA expiry date	NA	
8	Closure plan initial agreement status	NA	
9	Closure plan review status	NA	
10	Financial Provision for Closure status	NA	
11	Financial Provision for Closure - amount of cover	NA	
12	Financial Provision for Closure - type	NA	
13_	Financial provision for Closure expiry date	NA	

	Environmental Management Programme/Continuous Improvement Programme	e template	Lic No:	P0503-01	Year
	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	Inter	rnal unaccredited EMS	
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 Programm	e (EMP) report				
Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	Continue to train all	90	In total 0 Personnel received		
	employees in		training in 2019. Training		
	environmental matters.		taking place every three		
	Training will be by means		years.There were 12		
	of a new four module		hydraulic harrows deployed		
	training programme		across the licence area.		
	delivered by dedicated		Headland peat was collected		
	Bord na Mona Training		at all locations and returned		
	Specialists. This new		as part of overall production		
	training programme		figures.		
	includes Environmental				
	Compliance _ IPPC,				
	Biodiversity, Archaeology				
	and Energy Management.				Improved Environmental
	<u> </u>			Individual	Management Practices

Environmental Management Pro	gramme/Continuous Imp	rovement Programm	e template	Lic No:	P0503-01	Year	201
Waste reduction/Raw material usage	Waste streamlining is a	90	Installed a waste				
efficiency	project we are particularly		management system.				
	interested in continuing		Monthly waste reports are				
	and hope to reduce wastes		returned for records/filing				
	further in the future and		and waste streams are				
	be more efficient in		segrated on site to maximise				
	dealing with all aspects of		recycling potential. In an				
	waste management		attempt to curtail illegal				
			dumping on Bord na Mona				
			remain in contact with Laois,				
			Offaly and Kildare Co				
			Councils.				
					Improved Environmental		
				Section Head	Management Practices		
Waste reduction/Raw material usage	Continue with the		In total 223.22 tonnes were				
efficiency	recycling of polyethylene.		sent off site for recycling.				
	The sourcing of more		Procurement also exploring				
	recycling contractors will		the possibility of securing				
	be ongoing.		further recyclers.				
					Improved Environmental		
				Individual	Management Practices		
Energy Management	As part of an Energy	90	The monthly consumption of		Reduce overall energy output		
	Awareness campaign all		energy was regurally		while maintaining		
	aspects of energy		communicated to the		productivity.		
	consumption will be		relevant personnel. This				
	communicated to		included the KPI's for peat				
	personnel with the		production, maintenance				
	intention of reducing		and transportation as well as				
	consumption through		bog pumping and workshop				
	awareness		electrical consumption.				
				Section Head			

Environmental Management P	Programme/Continuous Imp	rovement Programm	e template	Lic No:	P0503-01	Year	2019
Reduction of emissions to Water	Continue to train all	100	All personnel trained in				
	employees in		Environmental Awareness				
	environmental matters.		every three years. There				
	Training will be by means		were 12 hydraulic harrows				
	of a new four module		deployed across the licence				
	training programme		area and headland peat was				
	delivered by dedicated		collected and returned as				
	Bord na Mona Training		part of overall production				
	Specialists. This new		figures.				
	training programme						
	includes Environmental						
	Compliance _ IPPC,						
	Biodiversity, Archaeology				Improved Environmental		
	and Energy Management.			Individual	Management Practices		

	N	oise monitor	ing summary	/ report			Lic No:	P0503-01	Year	2019	
		ce requirement to		od?				No]		
Was noise monitoring carried out using the EPA Guidance note, including completion of the						of the	Noise Guidance note NG4	NA			
	e have a noise r		idded iii tile guit	dance note as	table 0:		note NO4	NA			
When was th	e noise reduction	on plan last upda	ted?					Enter date			
Have there	been changes r	elevant to site no	oise emissions (e noise survey		perational o	changes) sin	ce the last	NA			
Table N1: No	ise monitoring	summary]					
Date of monitoring	Noise sensitive location location -NSL							Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
								SELECT	SELECT		SELECT
*Please ensure th	at a tonal analysis has	been carried out as pe	er guidance note NG4.	These records mu	st be maintained	d onsite for futu	re inspection			SELECT	
If noise limits exceeded as a result of noise attributed to site activities, please choose the corrective action from the following options?											
										1	
			** please	explain the r	reason for n	ot taking ac	tion/resoluti	on of noise issues?			

Any additional comments? (less than 200 words)

Resource Usage/Energy efficiency summary	Lic No:	P0503-01	Year	2019

1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below

SEAI - Large
Industry Energy
Network (LIEN)
ase state percentage

Is the site a member of any accredited programmes for reducing energy usage/water conservation such as the SEAI programme linked to the right? If yes please list them in additional information

Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

		Additional information
low	NA	
ge ergy IEN)	Yes	
ntage	NA	

Table R1 Energy usag	e on site			
Energy Use	Previous year	Current year	compared to previous	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	12512	5973	-61.00%	-52.00%
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (MWHrs)			
Electricity Consumption (MWHrs)	838	143	-61	-82.00%
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	1148	582.03	-61.00%	-49.00%
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		•		Water Emissions	Water Consumption		
	Water		compared to	, , , , , , , , , , , , , , , , , , ,	Volume Discharged	Volume used i.e not discharged to environment e.g.	
		Water extracted Current year m3/yr.		15 010.4 5.10	2	released as steam m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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.

Table R3 Waste Stream Summary

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

Resourc	e Usage/Energy efficiency sur	mmary			Lic No:	P0503-01	Year	2019
		Total	Landfill	Incineration	Recycled	Other		
	Hazardous (Tonnes)	27.76	0	0	27.76	0		
	Non-Hazardous (Tonnes)	1641.14	65.12	0	1576.01	0		

Resource Usage/Energy efficiency summary 2019 Lic No: P0503-01 Year Table R4: Energy Audit finding recommendations Predicted energy Description of Status and Measures proposed Origin of measures savings % comments Date of audit Recommendations Implementation date Responsibility Completion date SELECT SELECT

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

SELECT

	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 or	n Site				

Complaints and Incidents summary template	Lic No:	P0503-01	Year	2019
 Complaints				•
	Additional informa	ation		
Have you received any environmental complaints in the current reporting year? If yes please complete				

Table 1 Co	omplaints summary						
			Brief description of				
			complaint (Free txt <20				
Date	Category	Other type (please specify)	words)	Corrective action< 20 words	Resolution status	Resolution date	Further information
05/02/2019	Air		Complaint about dust	Personnel working in the area	Complete	11/02/2019	Reported to Agency
			blowing into the	informed and made aware of			Ref: LR040433
			property from	their environmental training.			
			Ballykeane Bog	Headland moved further down			
				the bog.			
21/06/2019	Air		Complaint about smoke	Fire Services called, fire	Complete	21/06/2019	Reported to Agency
			blowing into the	extinguished.			Ref:LR042923
			property from a fire at				
			Timahoe Workshop				
	SELECT				SELECT		
			•				
Total complaints							
open at start of							

	Incidents			
	incidents	S		A 1 101 11 6
				Additional informati
Have any incidents occurred on site in the current rep	orting year? Please list all inciden	its for current reporting		
year in T	able 2 below		Yes	
				<u> </u>
*For information on how to report and what				

summary details of complaints received on site in table 1 below

mmary													
		Incident			Other								
		category*please refer to			cause(please	Activity in progress at			Corrective action<20	Preventative action		Resolution	Likelihood of
Incident nature	Location of occurrence	guidance	Receptor	Cause of incident	specify)	time of incident	Communication	Occurrence	words	<20 words	Resolution status	date	reoccurence
Trigger level reached	Ballydermot SWE-1	1. Minor	Wat	er Other (add	Unknown	Normal activities	EPA INCI016052	New	Outfall checked.	None possible	Complete	25/02/2019	Low
				details)									
Trigger level reached	Lullybeg Bog SW-56	1. Minor	Wat	er Unknown	Unknown	Normal activities	EPA INCI016053	New	Outfall checked.	None possible	Complete	25/02/2019	Medium
Trigger level reached	Ballydermot SWE-1	1. Minor	Wat	er Unknown	Unknown	Normal activities	EPA INCI016481	New	Outfall checked.	None possible	Complete	17/05/2019	Medium
Fire	Timahoe Workshop Shed	2. Limited	Air	Not related to	Not related to	Normal activities	EPA INCI016656	New	Fire Service called	Area patrolled	Complete	17/06/2019	Low
				site activities	site activities								
Trigger level reached	Ballykilleen Bog SW-35A	1. Minor	Wat	er Unknown	Unknown	Normal activities	EPA INCI016660	New	Outfall checked.	None possible	Complete	19/06/2019	Medium
Fire	Timahoe Workshop Yard	1. Minor	Air	Not related to	Not related to	Normal activities	EPA INCI016761	New	Fire Service called	Area patrolled	Complete	04/07/2019	Low
				site activities	site activities								
Fire	Timahoe Workshop Shed	1. Minor	Air	Not related to	Not related to	Normal activities	EPA INCI016926	Recurring	Fire Service called	Area patrolled	Complete	02/08/2019	Low
				site activities	site activities								
	Incident nature Trigger level reached Trigger level reached Trigger level reached Fire Trigger level reached Fire	Incident nature Trigger level reached Trigger level reached Lullybeg Bog SW-56 Trigger level reached Eire Trigger level reached Ballydermot SWE-1 Eire Timahoe Workshop Shed Trigger level reached Ballykilleen Bog SW-35A Fire Timahoe Workshop Yard	Incident nature Location of occurrence Trigger level reached Ballydermot SWE-1 1. Minor Trigger level reached Lullybeg Bog SW-56 Trigger level reached Ballydermot SWE-1 1. Minor Fire Timahoe Workshop Shed Trigger level reached Ballykilleen Bog SW-35A 1. Minor Trigger level reached Trigger level reached Trigger level reached Trigger level reached Trigger level reached Trigger level reached Trigger level reached Trigger level reached Trigger level reached Timahoe Workshop Yard 1. Minor	Incident nature Location of occurrence Trigger level reached Ballydermot SWE-1 1. Minor Wat Trigger level reached Bullydermot SWE-1 1. Minor Wat Trigger level reached Bullydermot SWE-1 1. Minor Wat Trigger level reached Bullydermot SWE-1 1. Minor Wat Fire Timahoe Workshop Shed 2. Limited Air Trigger level reached Bullydermot SWE-3 1. Minor Wat Air Trigger level reached Trigger level reached Bullydermot SWE-3 1. Minor Wat Air Trigger level reached Timahoe Workshop Yard 1. Minor Air	Incident ature Location of occurrence guidance actegory*please refer to guidance Receptor Cause of incident Trigger level reached Ballydermot SWE-1 1. Minor Water Other (add details) Trigger level reached Lullybeg Bog SW-56 1. Minor Water Unknown Trigger level reached Ballydermot SWE-1 1. Minor Water Unknown Fire Timahoe Workshop Shed 2. Limited Air Not related to site activities Trigger level reached Ballykilleen Bog SW-35A 1. Minor Water Unknown Fire Timahoe Workshop Yard 1. Minor Water Unknown Fire Timahoe Workshop Yard 1. Minor Air Not related to site activities	Incident nature Location of occurrence guidance Trigger level reached Ballydermot SWE-1 1. Minor Water Other (add details) Trigger level reached Lullybeg Bog SW-56 1. Minor Water Unknown Trigger level reached Ballydermot SWE-1 1. Minor Water Unknown Unknown Trigger level reached Ballydermot SWE-1 1. Minor Water Unknown Unknown Unknown Air Not related to site activities Trigger level reached Ballydermot SWE-1 1. Minor Water Unknown Unknown Not related to site activities Trigger level reached Ballydermot SWE-1 1. Minor Water Unknown Not related to site activities Trigger level reached Ballydermot SWE-1 1. Minor Water Unknown Not related to site activities Trigger level reached Trimahoe Workshop Yard 1. Minor Air Not related to site activities Site activities Fire Timahoe Workshop Shed 1. 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Minor Air Not related to Not related to Not related to Normal activities	Incident nature Location of occurrence guidance Trigger level reached Ballydermot SWE-1 Trigger level reached Ballydermot SWE-1 Trigger level reached Lullybeg Bog SW-56 Lullybeg Bog SW-56 I. Minor Water Unknown Unknown Water Unknown Water Unknown Water Unknown Water Unknown Workahop Shed Trigger level reached Ballydermot SWE-1 I. Minor Water Unknown Water Unknown Workahop Shed J. Minor Water Unknown Workahop Shed Water Unknown Unknown Normal activities Workahop Shed J. Minor Water Unknown Workahop Shed Workahop Shed J. Minor Water Unknown Workahop Shed Water Unknown Workahop Shed Workahop Shed J. Minor Water Unknown Workahop Shed Workahop Shed Workahop Shed J. Minor Water Unknown Workahop Shed Workahop Shed Workahop Shed J. Minor Water Unknown Workahop Shed Workahop Shed Workahop Shed J. Minor Water Unknown Workahop Shed Workahop Shed J. Minor Water Workahop Shed Workahop Shed J. Minor Workahop Shed J. 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Minor Water Other (add details) Trigger level reached Lullybeg Bog SW-56 1. Minor Water Unknown Unknown Unknown Normal activities EPA INCI016052 New Outfall checked. Trigger level reached Ballydermot SWE-1 1. Minor Water Unknown Unknown Unknown Normal activities EPA INCI016053 New Outfall checked. Trigger level reached Ballydermot SWE-1 1. Minor Water Unknown Unknown Normal activities EPA INCI016053 New Outfall checked. Trigger level reached Ballydermot SWE-1 1. Minor Water Unknown Unknown Normal activities EPA INCI016053 New Outfall checked. Trigger level reached Ballydermot SWE-1 1. Minor Water Unknown Unknown Normal activities EPA INCI016050 New Fire Service called Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site activities Site Site Site Site Site Site Site Site	Incident nature Location of occurrence Undident nature Ballydermot SWE-1 I. 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Minor Air Not related to Site activities FPA INCI016926 Recurring FPA INCI016926 Recurring Fire Service called Area patrolled Area patrolled	Incident nature Location of occurrence guidance Receptor Water Other (add details) Trigger level reached Lullybeg Bog SW-56 Lullybeg Bog SW-56 Trigger level reached Ballydermot SWE-1 Limitor Water Unknown Unknown Water Unknown Unknown Water Unknown Water Unknown Water Unknown Water Unknown Water Unknown Unknown Water Unknown Water Unknown Water Unknown Water Unknown Water Unknown Water Unknown Water Unknown Water Water Water Water Unknown Unknown Wormal activities FPA INCI016053 New Outfall checked. 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01/08/2019	Fire
Total number of	
incidents current	
year	7
Total number of	
incidents previous	
year	14
% reduction/	
increase	-50.00%

constitutes an incident

reporting year
Total new
complaints
received during
reporting year
Total complaints
closed during
reporting year
Balance of
complaints end of
reporting year

European Waste Code (EWC)	Description of Waste (in line with applicable EWC code)	Hazardous – YES/NO	Quantity (Tonnes)	Name & Permit No. of Agent/Carrier	Treatment Type – Recovered / Disposed / Recycled	Name, Address & Licence/Permit No. of FINAL Destination	Country
02 01 04	waste plastics (except packaging)	No	223.22	Walker Recycling Services Ltd., Clonkeen, Portlaoise,Co.Laois	R03 - Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)	ADN Materials Ltd.,Lossets,Carrickmacross, Co.Monaghan. WFP-MN-12- 0001-05	Ireland
11 01 13*	degreasing wastes containing hazardous substances	Yes	0.6	Safety Kleen Ireland Ltd - W0099	R11 - Use of waste obtained from any of the operations numbered R 1 to R 10	Solvent Recovery Management, PP33345F, Wheeland Rd., Knottingly, West Yorks	UK
13 02 05*	mineral-based non- chlorinated engine, gear and lubricating oils	Yes	6.86	Enva Ireland Limited (Portlaoise) - W0184	R01 - Use principally as a fuel or other means to generate energy	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland
15 02 02*	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	Yes	0	Enva Ireland Limited (Portlaoise) - W0184	R01 - Use principally as a fuel or other means to generate energy	Lindenschmidt, Kreutzal - Reg No: E97095037	Germany
16 06 01	Lead Acid Batteries	Yes	0.24	Enva Ireland Limited (Portlaoise) - W0184	R04 - Recycling/reclamation of metals and metal compounds	R.D. Recycling, Houthalen, Reg No: 51727/1KD	Belgium
16 01 07*	oil filters	Yes	0.24	Enva Ireland Limited (Portlaoise) - W0184	R04 - Recycling/reclamation of metals and metal compounds	R.D. Recycling, Houthalen, Reg No: 51727/1KD	Belgium
13 05 07*	oily water from oil/water separators	Yes	19.82	Enva Ireland Limited (Portlaoise) - W0184	R01 - Use principally as a fuel or other means to generate energy	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland
17 04 07	mixed metals	No	124.25	AES Ltd WP-OY-08-601- 01	R04 - Recycling/reclamation of metals and metal compounds	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland
20 03 01 A	Municipal mixed residual household	No	5.48	AES Ltd WP-OY-08-601- 01	D05 - Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY-08-601-01	Ireland
20 03 01 C	Municipal mixed dry recyclables	No	1.045	AES Ltd WP-OY-08-601- 01	R03 - Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY-08-601-01	Ireland
20 03 01 B	Municipal mixed residual non- household	No	59.65	AES Ltd WP-OY-08-601- 01	D05 - Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY-08-601-01	Ireland
15 01 10*	packaging containing residues of or contaminated by hazardous substances	Yes	0	Enva Ireland Limited (Portlaoise) - W0184	R02 - Solvent reclamation/regeneration	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland

Allen IPC Licence

Decommissioning and Rehabilitation

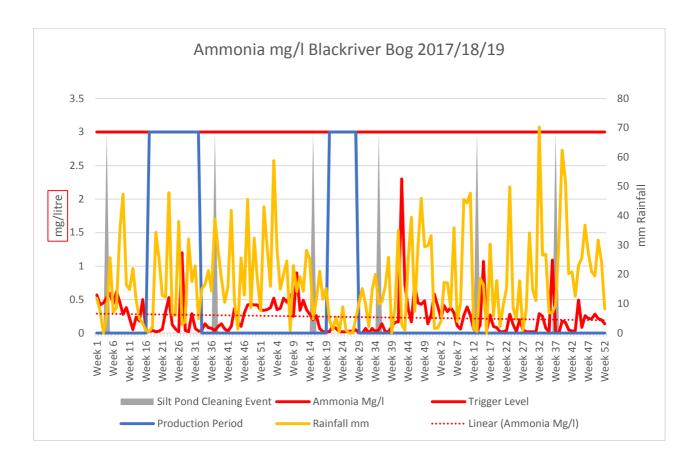
Bog Rehabilitation Progress Report 2019.

- There was ongoing monitoring of peatland rehabilitation carried out in previous years at Derrylea, Clonsast, Clonsast North, Ballycon, Lullymore and Glashabaun Bogs.
- Some rehabilitation maintenance work was carried at Lullymore Bog in 2019. This was to re-block a leak from a wetland and raise water-levels.
- A small re-wetting trial was set up at Lodge Bog (34 ha), in association with the
 Irish Peatland Conservation Council (IPCC) in 2017. There is ongoing consultation
 with the IPCC regarding this trial and annual monitoring. Kildare Birdwatch
 Ireland are also monitoring the response of birds to re-wetting at this site. Rewetting has been successful at this site and pioneer wet cutaway vegetation is
 continuing to develop.
- Lodge Bog was also used for a *Sphagnum* inoculation trial using a product called BeadaMoss. BeadaMoss is a product that acts as a small Sphagnum moss 'seed' and is used in peatland rehabilitation in the UK. A small area (0.5 ha) of rewetted cutaway was spread with BeadaMoss to investigate if this product had potential to help establish *Sphagnum* moss on the cutaway. This trial is in the early stages and no definitive results are expected for several years. The progress of the *Sphagnum* inoculation trial was slow. There was ongoing monitoring of this trial in 2019.
- Active rehabilitation work in Cavemount bog is ongoing. Drain-blocking started
 on the western side in 2018 and continued in 2019. Some ground works were
 also carried out with a bulldozer to help stabilise a small section of the headland
 and to block field drains. This is a phased rehabilitation programme and will be
 completed over several years. Cavemount is developing as a cutaway wetland
 and is attracting nationally important wintering and breeding bird species. This
 cutaway wetland will continue to be managed to enhance its biodiversity value.
- Cavemount has also been selected as a demonstration site for the CAREPEAT INTERREG project. Some rehab trials as part of this research project have been carried out to level selected areas before re-wetting.
- A Greenhouse Gas (GHG) flux tower has been constructed in Lullymore in association with several academic institutions (UCC, WIT, TCD, UCD). Bord na Mona are funding a PHD student (UCC) to carry out GHG research at this site.
 2020 is the first year of a 3 year project. This research will establish if cutaway at Lullymore (Birch woodland mosaic) has potential to develop as a Carbon sink or source, and will help inform peatland rehabilitation management to re-create GHG sinks in the cutaway.

- The majority of the Bord na Móna property in this bog group has been
 organically certified with the aim of using some areas for the cultivation of plants
 for use in herbal medicine into the future. This project in ongoing. Bord na
 Mona have committed not to use herbicides in organically certified areas to
 maintain industrial railways and other infrastructure.
- Draft rehabilitation plans for the Allen bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015 and 2017, and again submitted to the EPA May 2018.
- The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in May 2018. This included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.
- A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

		Bord na Mona Allen Siltpond Monitoring Frequency & Results										
		IPPC	Licence P05	03-01								
Х	Υ	Bog	SW	Monitoring	Sample Date	рН	SS	TS	Ammonia	TP	COD	Colour
269197.57	228032.68	Glashabaun South	SW-47	Q 1 19	20/02/2019	7.4	5	180	0.7	0.05	56	219
268823.95	228190.35	Glashabaun South	SW-48	Q 1 19	20/02/2019	7.4	5	224	0.23	0.05	61	149
269054.43	228057.26	Glashabaun South	SW-49	Q 1 19	20/02/2019	7.3	92	280	0.63	0.05	65	161
269278.18	227938.86	Glashabaun South	SW-50	Q 1 19	20/02/2019	7.3	5	258	0.2	0.05	61	146
266471.63	226777.93	Glashabaun South	SW-51	Q 1 19	20/02/2019	7.4	5	336	0.19	0.05	96	267
266530.75	226503.86	Glashabaun South	SW-52	Q 1 19	20/02/2019	7.7	5	356	0.14	0.05	57	145
266677.4	226324.12	Glashabaun South	SW-53	Q 1 19	20/02/2019	7.5	5	268	0.22	0.05	70	209
268454.98	225617.94	Lullybeg	SW-56	Q 1 19	18/02/2019	7.6	5	121	3.9	0.05	59	138
273261.1	224710.84	Lodge	SW-60	Q 1 19	20/02/2019	8	5	264	0.02	0.05	43	91
273158.15	224383.3	Lodge	SW-61	Q 1 19	20/02/2019	7.8	5	314	0.94	0.05	52	195
268001.63	223625.99	Barnaran	SW-62	Q 1 19	20/02/2019	7.6	5	339	0.48	0.05	65	156
265940.18	224925.96	Blackriver	SW-65	Q 1 19	18/02/2019	7.9	5	108	0.28	0.05	65	144
264507.34	223259.15	Ballydermot	SW-67A	Q 1 19	18/02/2019	8	12	136	0.62	0.05	77	226
263592.36	226625.93	Codd South	SW-45	Q 2 19	25/05/2019	8	5	306	0.05	0.05	64	123
265523.7	225264.93	Blackriver	SW-65A	Q 2 19	25/05/2019	8	5	440	0.03	0.05	67	135
264457.64	225650.79	Codd South	SW-67	Q 2 19	25/05/2019	8.2	5	305	0.06	0.05	55	79
266794.47	229663.32	Ticknevin	SW-68	Q 2 19	25/05/2019	7.5	5	292	1.1	0.05	61	123
266266.45	229593.59	Ticknevin	SW-69	Q 2 19	25/05/2019	8	5	348	0.05	0.05	80	165
265768.96	229932.59	Ticknevin	SW-70	Q 2 19	25/05/2019	7.8	5	394	0.04	0.05	83	175
265060.79	228192.45	Glashabaun North	SW-71	Q 2 19	25/05/2019	7.9	5	366	0.24	0.05	52	86
264299.21	227722	Codd North	SW-72	Q 2 19	25/05/2019	8	5	432	0.04	0.05	58	79
263602.31	227263.88	Sheridans	SW-73	Q 2 19	25/05/2019	7.6	5	260	0.07	0.05	92	335
263712.36	226714.35	Codd North	SW-74	Q 2 19	25/05/2019	7.9	5	222	0.16	0.05	51	119
263831.27	226569.76	Codd North	SW-75	Q 2 19	25/05/2019	8	5	396	2.7	0.05	42	91
264471.44	226292.96	Codd North	SW-76	Q 2 19	25/05/2019	7.9	5	418	1.5	0.05	48	76
261589.1	228825.1	Ballykilleen	SW-35A	Q2 19	29/05/2019	6.7	5	204	0.62	0.05	107	473
248527.2	224119.1	Mountlucas	SW-11A	Q3 19	29/07/2019	7.9	5	456	0.41	0.07	31	45
247623.23	225441.21	Clonad	SW-12	Q3 19	29/07/2019	7.8	5	382	0.88	0.07	51	87
245572.38	225495.02	Clonad	SW-12A	Q3 19	29/07/2019	8.1	5	322	0.05	0.05	41	83
245814.66	223083.89	Clonad	SW-13	Q3 19	29/07/2019	7.7	5	274	0.6	0.07	49	114
250869.07	219763.05	Ballykeane	SW-14	Q3 19	29/07/2019	8.1	5	412	0.13	0.08	56	105
250117.79	219970.86	Ballykeane	SW-15	Q3 19	29/07/2019	7.6	5	398	0.56	0.06	44	97

249524.55	220230.29	Ballykeane	SW-16	Q3 19	29/07/2019	7.7	5	458	0.04	0.13	33	78
251030.51	221700	Ballykeane	SW-17	Q3 19	29/07/2019	8.2	5	262	0.03	0.05	61	103
250247.9	219855.73	Ballykeane	SW-18	Q3 19	29/07/2019	7.7	5	240	1.1	0.07	68	162
253272.1	225558.7	Mountlucas	SW-19	Q3 19	30/07/2019	7.6	5	420	0.02	0.08	57	48
259705.78	214693.84	Derrylea	SW-43	Q3 19	30/07/2019	8	5	404	0.04	0.07	65	121
255326.91	214636.24	Derrylea	SW-43A	Q3 19	30/07/2019	7.8	20	512	0.05	0.19	78	71
240694.98	230298.04	Daingean Derries	SW-1	Q4 19	14/11/2019	7.7	3	268	0.064	0.07	52	252
239594.68	230408.21	Daingean Derries	SW-2	Q4 19	14/11/2019	6.3	6	81	0.254	0.05	46	274
238801.4	230901.25	Daingean Derries	SW-3	Q4 19	14/11/2019	4.7	2	77	0.07	0.05	65	294
238933.48	231178.52	Daingean Derries	SW-4	Q4 19	14/11/2019	6.1	2	105	0.113	0.05	71	339
239107.6	231601.27	Daingean Derries	SW-5	Q4 19	14/11/2019	4.8	2	61	0.116	0.05	43	202
239491.98	231872.83	Daingean Derries	SW-6	Q4 19	14/11/2019	6.8	2	46	0.151	0.05	34	179
240411.24	231853.09	Daingean Derries	SW-7	Q4 19	14/11/2019	5.8	2	31	0.119	0.05	41	232
240239.99	231828.83	Daingean Derries	SW-7A	Q4 19	14/11/2019	6.7	2	39	0.109	0.05	35	186
243969.34	228585.84	Rathdrum	SW-8	Q4 19	14/11/2019	7.5	2	358	0.303	0.11	45	200
241227.37	229904.04	Rathdrum	SW-9	Q4 19	14/11/2019	7.6	2	284	0.081	0.09	54	196
241835.4	230389.25	Rathdrum	SW-9A	Q4 19	14/11/2019	7.6	3	131	0.193	0.13	53	164
243801.34	228449.41	Rathdrum	SW-10	Q4 19	14/11/2019	7.2	2	114	0.289	0.07	65	370



Blackriver bog is an active fuel peat production bog with the composite sampler located here during 17/18/19, but there wasn't any peat production in this bog during the 2019 season. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had 3.5% downtime during the period and returned 52 weekly ammonia results. The ammonia trigger level of 3.0mg/l, as agreed with the Agency, was not exceeded during the period. The results above, over the three years have started to show a downward trend in concentrations, either due to lack of production during the reporting period or a general reducing ammonia concentration regardless of activities, as has been demonstrated at other bogs, and the flat or downwards trends submitted to the EPA in 2013, as required by condition 6.14. The sampler is 3 years at this location covering two production seasons so the trending to include the outcome for 2020 will better inform this current trend from 2019.

There is no obvious link between the summer production, winter maintenance, or silt pond maintenance events on the concentration of Ammonia discharging from this peatland. The only link expected would be that related to rainfall events, seasonal weather patterns and the subsequent surface water runoff and associated ammonia concentrations.

The sampler at this location may be relocated to fill any information gaps on other peatland catchments and to reflect the need to support the information gathering required for the Water Framework Directive's River Basin Management Plan, the bog rehabilitation programme and the EPA funded SWAMP project, whose aims are to appraise and understand the nutrient impact from peatlands, to evaluate treatment technologies and to propose predictive tools for watershed management.

Extractive Waste Management Plan Implementation AER Update 2019

March 2019.

IPC Licence P0503-01.

1.0 Extractive Wastes.

Waste classified as extractive waste from peat extraction operations arise from three operations associated with this activity.

- Silt Pond excavations and maintenance
- Power Station Screenings
- Bog Timbers

There has been no change to the type and nature of these three waste streams and no new waste streams added to this list. These wastes streams continue to be stored and maintained at between 1 and 3 metres in height.

2.0 Condition 7.5 Extractive Waste Management

- An extractive waste management plan (EWMP) was submitted to the Agency in September 2012 and was approved.
- The EWMP was reviewed in September 2017. There were no substantial changes to the operation of the plan, associated waste facilities or to the waste deposited. The EWMP will be reviewed again in September 2022. At this stage, it is envisaged that many bogs will be entering a decommissioning and rehabilitation phase, which will see a significant reduction in the generation of bog timbers. In addition, and depending on the progress with bog stabilisation and rehabilitation, silt generation will significantly reduce which will lead to reduced volumes to be removed from the silt ponds.

3.0 Minimisation

- The IPC Licence has various conditions that require the installation, inspections and maintenance of silt ponds for operational areas and as such these requirements dictate the need for silt ponds and associated excavation materials and cleanings.
- Peat screenings are a factor of the screening process with Edenderry Power Ltd as these oversized bog timbers, stones and peat cannot be utilised in the power station.
- Bog timbers arise from the active production footprint and are naturally occurring. The active footprint is dictated by the peat production targets and customer supply contract and service level agreements.

4.0 Treatment

- Silt pond excavation and maintenance materials do not require any treatment and are stored as per the EWMP, adjacent to the associated silt pond.
- The factory screenings are permitted to be returned to the bog as they were naturally occurring materials from the bog, and as such do not require any treatment to serve this purpose.

• There is no treatment of bog timbers arising and these are stockpiled at various locations in associated bogs.

5.0 Recovery

- As per the EWMP, there is still no opportunity to recover these silt pond associated materials.
- Given the nature of these screenings as outlined in the EWMP, there is no further use identified, other than the permitted reuse of these natural materials in areas that required improvement for trafficking purposes.
- Bog timbers stored on the bog are natural to the peat bog and while there have been trails to recover this waste material, these have not proved viable.

6.0 Disposal

- Silt pond cleanings continue to be disposed of adjacent to the associated silt pond and will be incorporated back into the rehabilitation plans for these bogs, post production and decommissioning.
- Schedule 3 (ii) of this IPC Licence permits the disposal of peat screenings to the bog at designated locations agreed under Condition 7.4 and this continues to be the case.
- Bog timbers will continue to be stockpiled at suitable locations to be either incorporated back into the bog, as a supply of bog timbers for the crafting industry or will continue to decay naturally.



Annual Environmental Report 2019 Bord na Mona Energy Ltd (Mountdillon Group of Bogs) IPC Licence P0504-01

Facility Information Summary

National Grid Reference (6E, 6 N) Licence Register Number Class/Classes of Activity **AER Reporting Year** Site Location Name of site NACE Code

applicable) and what they relate to e.g. air, A description of the activities/processes at the site for the reporting year. This should performance which was measured during compliance with your licence listing all include information such as production nfrastructural changes, environmental the reporting year and an overview of exceedances of licence limits (where increases or decreases on site, any water, noise

201 P0504-01 Mour

Activities on site can be divided into two components, firstly the milling, harrowing, ridging rehabilitation phase. There were 3 environmental complaints received during the reporting ncidents of exceedance in trigger levels for Ammonia and COD at various emission points achieved was 354376 tonnes which was a 58% reduction on 2018. Production has ceased and harvesting of peat into stockpiles and secondly the transportation of that peat via an period, all related to dust nuisance and all reported to the Agency through ALDER, and 5 Mostrim Bog and notification of an interim cessation of peat extraction at Mountdillon, Decommissioning and Rehabilitation works are described in an attachment. During the in 85% of the Mountdillon bogs and these are now entering the decommissioning and notification of a proposed Windfarm at Derryadd Bog, a revised rehabilitation plan for exceedances in 2019 was the same as 2018. In relation to silt pond cleaning, 100% of internal rail network to the Power Station and lorry outloading facilities. Production as partof the quarterly sampling requirements, all in in-active bogs. The number of reporting period, there were a number of notifications to the Agency, including ponds received the required two cleanings with some ponds receiving three. pending regularisation.

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.

31/03/2020

Date

Group/Facility manager Signature

(or nominated, suitably qualified and

experienced deputy)

	AIR-summary template	Lic No:	P0504-01	Year	2019
1	Answer all questions and complete all tables where relevant Does your site have licensed air emissions? If yes please complete table A1 and A2 below for the current reporting year and answer further questions. If you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not need to complete the tables			Additional information	
	Periodic/Non-Continuous Monitoring	No		Fugitive emissions only	
2	Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of TableA1 below	No			
3	Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist? Basic air monitoring monitoring monitoring checklist? checklist AGN2	Yes			

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

Emission reference no:		ELV in licence or any revision therof	Licence Compliance criteria	Measured value		Compliant with licence limit	Method of analysis	Annual mass	Comments -reason for change in % mass load from previous year if applicable
	SELECT		SELECT		SELECT	SELECT	SELECT		
	SELECT		SELECT		SELECT	SELECT	SELECT		
	SELECT		SELECT		SELECT	SELECT	SELECT		
	SELECT		SELECT		SELECT	SELECT	SELECT		

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

AIR-summary template	Lic No:	P0504-01	Year	2019
Continuous Monitoring				
4 Does your site carry out continuous air emissions monitoring?	No			
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)				
5 Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	No			
6 Do you have a proactive service agreement for each piece of continuous monitoring equipment?	No			
7 Did your site experience any abatement system bypasses? If yes please detail them in table A3 below Table A2: Summary of average emissions -continuous monitoring	No			

Emission	Parameter/ Substance		Averaging Period	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:					measurement			Equipment	exceedences in	
		ELV in licence or						downtime (hours)	current	
		any revision therof							reporting year	
		350mg/m2/day	84			5880	178	0	0	Dust monitoring took place on
										3 occasions for 28 days each
										time between May and Aug
DM-01	Total Particulates			Daily average < ELV	mg/m2/day					
DM-02	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	4256	122	0	0	
DM-05	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	5152	134	0	0	
DM-06	Total Particulates	350mg/m2/day	84	Daily average < ELV	mg/m2/day	6272	140	0	0	
	SELECT				SELECT					

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

Table A3: Abatement system bypass reporting table	Bypass protocol
Table A3: Abatement system bybass reporting table	Dypass protocor

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

AIR-summary template		Lic No:	P0504-01		Year	2019								
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														
Table A4: Solvent Management Plan Summary		se refer to linked solvent regulations		No										
Total VOC Emission limit value	regulations	complete table 5 and 6												
Reporting year Total solvent input on Total VOC site (kg) emissions to	Total VOC emissions as %of	Compliance	2											
from entire s	e solvent input Total En	nission Limit Value												
(direct and fugi	(ELV) in therof	licence or any revision												
		SELECT												
		SELECT												
Table A5: Solvent Mass Balance summary						1								
(I) Inputs (kg)		(O) Outputs (kg)	1											
Solvent (I) Inputs (kg) emission in wa		ed waste solvent (kg) Fugitive Org		Solvents destroyed										
(i) inputs (kg) emission in wa	ste water (kg)	Solvent (kg)	in other ways e.g.	onsite through	Solvent to air (kg)									
			<u> </u>	Total										

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)		Lic No:	P0504-01		Year	2019
			Additional information			
Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions. If you do not have licenced emissions you only need to complete table W1 and or W2 for storm water analysis and visual inspections	Yes					
Was it a requirement of your licence to carry out visual inspections on any surface water discharges or watercourses on or near your site? If yes please complete table W2 below summarising only any evidence of contamination noted during visual inspections	Yes	Monthly COD a	analysis of yard runoff is attached in a separa	ate document.		
Table W1 Storm water monitoring						

	Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	 ELV or trigger level in licence or any revision thereof*	Compliance	Measured value	Unit of measurement	Compliant with licence	Comments
		SELECT	SELECT	SELECT		SELECT		SELECT	SELECT	
Ī		SELECT	SELECT	SELECT		SELECT		SELECT	SELECT	

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

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

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
			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

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 Lab Quality
4 additional information

NO Additional information

Surface water monitoring was carried out on a quarterly basis. The results of which are attached. Monthly COD yard runoff results are also attached.

4 Assessment of additional information in accordance with EPA guidance and checklists from the EPA? If no please detail what areas require improvement in Lab Quality (see the EPA?)

4 Assessment of the EPA? If no please detail what areas require improvement in Lab Quality (see the EPA?)

5 Assessment of the EPA? If no please detail what areas require improvement in Lab Quality (see the EPA?)

6 Additional information

8 Usual Reported Surface water monitoring was carried out on a quarterly basis. The results of which are attached. Monthly COD yard runoff results are also attached.

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

 Emission released to	Parameter/ SubstanceNote 1	Type of sample	Frequency of monitoring	ELV or trigger values in licence or any revision therof ^{Note 2}	Licence Compliance criteria	Measured value	Compliant with licence		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

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)		Lic No:	P0504-01	Year						
Continuous monitoring			Additional Information							
5 Does your site carry out continuous emissions to water/sewer monitoring?	Yes									
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 4 W4 below	Yes		172 days in 365. See note below							
7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site?	Yes	Annual calibration	schedule and trouble shooting service							
8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 below	No									

Table W4: Summary of average emissions -continuous monitoring

Emission reference	Emission released to	Parameter/ Substance	ELV or trigger values in licence or any revision thereof	Averaging Period		Units of measurement	Annual Emission for current reporting year (kg)	% change +/- from previous reporting year	Equipment	Number of ELV exceedences in reporting year	Comments
SW77A	Water	Suspended Solids	35	24 hour	Not lifted	mg/L			4128	0	Down time is usually due to no flow and battery failure issues. However during the reporting year the sampler gave considerable problems due to both software and mechanical breakdowns. Currently a review of all samplers is under way. Its not possible to report average continuous emissions as this sampler is located on one of 151 sitl ponds and samplers are moved around periodically to allow for analysis
SW77A	Water	Ammonia (as N)	1.42	Weekly		mg/L					
SW77A	Water	Total phosphorus	NA	Weekly	NA	mg/L					
SW77A	Water	COD	100	Weekly	NA	mg/L					
SW77A	Water	volumetric flow	NA	24 hour	NA	m3/day					
SW77A	Water	Total Dissolved Solids	NA	Weekly	NA	mg/L					

2019

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

Table W5: Abatement system bypass reporting table

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

*Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline test	ting template				Lic No:	P0504-01		Year	2019)				1
Bund testing]	dropdown menu cl	ick to see options				Additional information	_						
and containment struct	tures on site, in addition t	tegrity testing on bunds and cor to all bunds which failed the into is outside the licenced testing po	egrity test-all bunding structu	ires which failed including i		Yes								
2 Please provide integrity Does the site maintain a 3 "Chemstore" type units 4 How many bunds are or	a register of bunds, unde s and mobile bunds)	d erground pipelines (including sto	rmwater and foul), Tanks, su	mps and containers? (conta	iners refers to	Other (2 Yearly) Yes	3							
6 How many mobile bund 7 Are the mobile bunds in 8 How many of these mob	ow many of these bunds have been tested within the required test schedule? ow many mobile bunds are on site? re the mobile bunds included in the bund test schedule? ow many of these mobile bunds have been tested within the required test schedule? ow many of these mobile on site are included in the intergity test schedule?						3 All Bunds were tested in 2019 7 0							
10 How many of these sum Please list any sump int 11 Do all sumps and chamb 12 If yes to Q11 are these f	mps are integrity tested w tegrity failures in table B: bers have high level liquio failsafe systems included	vithin the test schedule? 1 d alarms? in a maintenance and testing pr	rogramme?			N/A N/A	0	<u> </u>						
	·	ur integrity test programme? bund /containment structure in	tegrity test	T		N/A		_						
Bund/Containment	Туре	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		Scheduled date	Results of retest(if in current reporting yea
Structure 15	1790	specify outer type	Trouble Containing	netual capacity	copactly required	Type of integrity test	one co ype	rest date	3100	included of rest	Expandion Se word	Concern della talen	ion recest	reporting year
	Reinforced Concrete		Gas Oil	224608		Hydraulic Test		20/09/2019	Yes	Pass	N/A		N/A	N/A
	Reinforced Concrete		Gas Oil	36720	2500	D Hydraulic Test		18/10/2019	Yes	Pass	N/A		N/A	N/A
	Reinforced Concrete ly with 25% or 110% containment ru	le as detailed in your licence	Gas Oil	104580	2300	Hydraulic Test	Commentary	09/10/2019	Yes	Pass	N/A	N/A	N/A	N/A
15 in line with BS8007/EPA	A Guidance?	nce with licence requirements a	nd are all structures tested	bunding and storage guideli	nes	SELECT	,							
16 Are channels/transfer sy			_			SELECT								
		h integrity and available volume:	,			SELECT		1						
Are you required by you	ures and pipelines on site	.l stegrity testing* on underground which failed the integrity test a d				Yes Other (2 Yearly)	Petrol tank Tested 04 April 2018 and Passed							
*please note integrity to	testing means water tight	ness testing for process and fou	I pipelines (as required under	your licence)			<u>'</u>	_						
Table F	B2: Summary details of pi	peline/underground structures i	integrity test									1		
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			
												1		
												-		

Groundwater/Soil monitoring template Lic No: P0504-01 Year 2019

Comments

1 Are you required to carry out groundwater monitoring as part of your licence requirements? 2 Are you required to carry out soil monitoring as part of your licence requirements? no Please provide an interpretation of groundwater monitoring the interpretation box below or if you require additional space.	
2 Are you required to carry out soil monitoring as part of your licence requirements? no the interpretation box below or if you require additional space	data in
	ce please
Do you extract groundwater for use on site? If yes please specify use in comment 3 section no include a groundwater/contaminated land monitoring resident interpretation as an additional section in this AER	sults
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, 4 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. SELECT	
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? N/A	
9 Has any type of risk assesment been carried out for the site? N/A	
10 Has a Conceptual Site Model been developed for the site? N/A	
11 Have potential receptors been identified on and off site? N/A	
12 Is there evidence that contamination is migrating offsite? N/A Please enter interpretation of data here	

Table 1: Upgradient Groundwater monitoring results

Date of	Sample location	Parameter/		Monitoring	Maximum	Average				
sampling	reference	Substance	Methodology	frequency	Concentration++	Concentration+	unit	GTV's*	SELECT**	
							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

	2011116144									
	Sample									
Date of	location	Parameter/		Monitoring	Maximum	Average				
sampling	reference	Substance	Methodology	frequency	Concentration	Concentration	unit	GTV's*	SELECT**	
							SELECT			SELECT
							SELECT			SELECT

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

Groundwater monitoring template

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

<u>Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (EPA 2013).</u>

Groundwater/Soil monitoring template	Lic No:	P0504-01		Year	2019)		
					Croundwater	Drinking water		
**Depending on location of the site and proximity to other sensitive	receptors alternative Rece	eptor based Water Quality standar	Is should be used in			Drinking water		
addition to the GTV e.g. if the site is close to surface water compare to	o Surface Water Environme	ental Quality Standards (SWEQS), I	the site is close to a	<u>Surface</u>	<u>regulations</u>	(private supply)	Drinking water (public	Interim Guideline
drinking water supply compare r	esults to the Drinking Wate	er Standards (DWS)		water EQS	GTV's	<u>standards</u>	supply) standards	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

Environmental Liabilities template Lic No: P0504-01 Year 2019

Click here to access EPA guidance on Environmental Liabilities and Financial provision

			Commentary
1	ELRA initial agreement status		
		Not a Licence Requirement	
2	ELRA review status	NA	
3	Amount of Financial Provision cover required as determined by the latest ELRA	NA	
4	Financial Provision for ELRA status	NA	
5	Financial Provision for ELRA - amount of cover	NA	
6	Financial Provision for ELRA - type	NA	
7	Financial provision for ELRA expiry date	NA	
8	Closure plan initial agreement status	NA	
9	Closure plan review status	NA	
10	Financial Provision for Closure status	NA	
11	Financial Provision for Closure - amount of cover	NA	
12	Financial Provision for Closure - type	NA	
13_	Financial provision for Closure expiry date	NA	

	Environmental Management Programme/Continuous Improvement Programme	e template	Lic No:	P0504-01	Year
	Highlighted cells contain dropdown menu click to view		Additional Inform	ation	
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional information	Yes		Internal unaccredited EMS	
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	Yes			
2	Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance with the licence requirements	Yes			
3	Do you maintain an environmental documentation/communication system to inform the public on	res			
4	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	Training.Continue to train all employees in environmental matters. Training will be by means of the screening of an environmental DVD, followed by a power point	Status (% completeu)	In total 79 Personnel received training in 2019. 7 hydraulic harrows were deployed during the 2019 production season.	nesponsibility	intermediate outcomes
	presentation.	90		Individual	Improved Environmental Management Practices
Waste reduction/Raw material usage efficiency	Waste Streamlining.It is planned to continue with and where possible improve the current waste management service provided by AES Ltd		Installed a waste management system. Quarterly waste reports are returned for records/filing and waste streams are segrated on site to maximise recycling potential.		
		100		Section Head	Improved Environmental Management Practices
Reduction of emissions to Water	Training. Continue to train all employees in environmental matters. Training will be by means of the screening of an environmental DVD, followed by a power point presentation.		In total 79 Personnel received training in 2019.		Improved Environmental
		90		Individual	Management Practices

Environmental Management Pro	gramme/Continuous Imp	rovement Programm	e template	Lic No:	P0504-01	Year	
Materials Handling/Storage/Bunding	Increased bund capacity		There were no additional				
	will be provided where		bund requirements. Bund				
	required. Bund integrity		integrity testing was carried				
	testing will be carried out		out in 2019				
	where required.				Improved Environmental		
		80		Individual	Management Practices		
Waste reduction/Raw material usage	Continue with the		In total 262.62 tonnes of				
efficiency	recycling of polyethylene.		polythene were sent off site				
	The sourcing of more		for recycling. Procurement				
	recycling contractors will		also exploring the possibility				
	be ongoing.		of securing further recyclers.		Lancia de la comunicación		
		400		to Post of	Improved Environmental		
Emiliary (Martin		100		Individual	Management Practices		
Energy Efficiency/Utility conservation	Continue with the		The site successfully				
	implementation process of		managed the energy				
	the Energy Standard 50001.		standard 50001. Energy				
			management is ongoing at				
			the site				
					Improved Environmental		
		100		Section Head	Management Practices		
Groundwater protection	It is proposed to upgrade	100	Septic tanks are continually	Jection Head	ivialiagement Fractices		
Groundwater protection	existing septic tank systems		being assessed and upgrade				
	where required.		works scheduled where				
	where required.		required.				
			required.		Improved Environmental		
					improved Environmental		

	N	oise monitor	ing summary	/ report			Lic No:	P0504-01	Year	2019	
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? 13 Does your site have a noise reduction plan 14 When was the noise reduction plan last updated? 15 Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since noise survey?							Noise Guidance note NG4 ce the last	NO NA NA Enter date NA			
Table N1: No	ise monitoring	summary									
Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA_{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
								SELECT	SELECT		SELECT
*Please ensure tha	at a tonal analysis has	been carried out as pe	r guidance note NG4.	These records mu	st be maintained	d onsite for futur	e inspection				
	If nois	e limits exceede	d as a result of n	oise attribut	ed to site ac	ctivities, ple	ase choose tl	ne corrective action fro	om the following options?	SELECT	
			** please	explain the r	reason for n	ot taking ac	tion/resoluti	on of noise issues?]	

Any additional comments? (less than 200 words)

Resource Usage/Energy efficiency summary Lic No: P0504-01 Year 2019

1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below

SEAI - Large Industry Energy Network (LIEN)

Is the site a member of any accredited programmes for reducing energy usage/water conservation such as the SEAI programme linked to the right? If yes please list them in additional information

Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

		Additional information
	Sep-19	
		The site secured accrediation to the energy standard
	Yes	50001
è		Not a Licence
	No	requirement

A ddisional information

Table R1 Energy usag	e on site			
Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	15225	7295	-58%	-52.00%
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (MWHrs)			
Electricity Consumption (MWHrs)	1639.399	195.114	-58	-88
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	1337.08	710.56	-58	-46.00%
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	e on site		•		Water Emissions	Water Consumption	
	Water extracted		-	consumption 17 70	Volume Discharged back to	Volume used i.e not discharged to environment e.g. released as steam	
Water use	Previous year m3/yr.	Current year m3/yr.	reporting year**	production*	environment(m ³ yr):	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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

Resource Usage/Energy efficiency summary	Lic No:	P0504-01	Year	2019
------------------------------------------	---------	----------	------	------

Table R3 Waste Stream	Summary				
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	5.22			5.22	
Non-Hazardous (Tonnes)	4497.11	0.52		265.83	4230.76

Resource Usage/Energy efficiency summary 2019 Lic No: P0504-01 Year Table R4: Energy Audit finding recommendations Predicted energy Description of Status and Measures proposed Origin of measures savings % Date of audit Recommendations Implementation date Responsibility Completion date comments 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

SELECT

	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 or	Site				

Complaints and Incidents summary template		Lic No:	P0504-01	Year	2019	
 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	3 complaints in total all reported to	the Agency			

Table 1	Complaints summary						
			Brief description of complaint	Corrective action< 20			
ate	Category	Other type (please specify)	(Free txt <20 words)	words	Resolution status	Resolution date	Further information
			Dust affecting house		Complete	12/04/2019	Reported on Alder on
				Both parties have			09/05/2019 Ref. No.
11/04/2019	Air			agreed a resoulution			LR041926
						15/04/2019	Reported on Alder on
			Moss and Algae growth on	BNM did not accept			09/05/2019 Ref. No.
14/04/2019	Air		house	Liability	Complete		LR041925
						30/06/2019	Reported on Alder on
				Both parties have			04/07/2019 Ref. No.
14/04/2019	Air		Dust affecting house	agreed a resoulution	Complete		LR042889
otal complaints oen at start of opporting year otal new omplaints occived during otal complaints osed during opporting year opporting year		3 3					
lalance of							
omplaints end of							

	Incid	dents		
·				Additional information
Have any incidents occurred on site in the current repo	orting year? Please list all incidents for on 2 below		Yes	
*For information on how to report and what	What is an incident			

ble 2 Incidents su	mmary													
te 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			Likelihood
	Trigger level reached	SW28A Cloonaddra Bog		Water	Not related to site activities		No activity	EPA Ref. No. INC1016473	New	There was no activity upstream of this point that would lead to exceedance in trigger level, therefore no corrective actions are possible	NA	Complete	15/05/2019	
20/05/2019	Trigger level reached	SW76 Lough Bannow	1. Minor	Water	Not related to site activities		No activity	EPA Ref No. INCI016541		There was no activity upstream of this point that would lead to exceedance in trigger level, therefore no corrective actions are possible	NA	·		
17/04/2019	Trigger level reached	SW 77A Corlea	1. Minor	Water	Not related to site activities		No activity	EPA RefNo. Incl016472		There was no activity upstream of this point that would lead to exceedance in trigger level, therefore no corrective actions are possible	NA	Complete	23/05/2019	
30/07/2019	Trigger level reached	SW 105 Whites Bog Cuilna gCun	1. Minor	Water	Not related to site activities		No activity	EPA Ref No. INCI017211		There was no activity upstream of this point that would lead to exceedance in trigger level, therefore no corrective actions are possible		Complete	02/08/2019	

Complaints and Incidents summary t	emplate			Lic No:	P0504-01		Year	201	9	
02/07/2019 Trigger level reached	SW 77A Corlea	1. Minor	Water	Not related to site activities		No activity	EPA Ref No. INCI016980	New	There was no activity upstream of this point that	NA
									would lead to exceedance in trigger level, therefore	
									no corrective actions are	
otal number of ncidents current										
ear	5									
otal number of										
ncidents previous										
ear	5									
reduction/										
rease 45%										

Waste Sum	mary Continued			Lic No:	P0504-01		Year
European Waste Code (EWC)	Description of Waste (in line with applicable EWC code)	Hazardous – YES/NO	Quantity (Tonnes)	Name & Permit No. of Agent/Carrier	Treatment Type – Recovered / Disposed / Recycled	Name, Address & Licence/Permit No. of FINAL Destination	Country
02 01 04	waste plastics (except packaging)	No	262.62	ADN Materials Ltd.WFP- MN-12-0001-04	R03 - Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)	ADN Materials Ltd., Lossetts, Carrickmacross, Co. Monaghan - WFP-MN-12-0001-04	Ireland
13 02 05*	mineral-based non- chlorinated engine, gear and lubricating oils	Yes	3.2	Enva Ireland Limited (Portlaoise) - W0184	R01 - Use principally as a fuel or other means to generate energy	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland
15 01 01	paper and cardboard packaging	No	5.52	Mulleady's Limited (Drumlish) - W0169	R03 - Recycling/reclamation of organic substances which are not used as solvents (including composting and		Ireland
15 01 03	wooden packaging	No	1.66	AES Ltd WP-OY-08-601- 01	R01 - Use principally as a fuel or other means to generate energy	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
15 02 02*	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	Yes	0.07	Enva Ireland Limited - L1745	R01 - Use principally as a fuel or other means to generate energy	Lindenschmidt, Kreutzal - Reg No: E97095037	Germany
16 01 07*	oil filters	Yes	1.68	Enva Ireland Limited (Portlaoise) - W0184	R04 - Recycling/reclamation of metals and metal compounds	R.D. Recycling, Houthalen, Reg No: 51727/1KD	Belgium
16 06 01*	lead batteries	Yes	0	Enva Ireland Limited (Portlaoise) - W0184	R04 - Recycling/reclamation of metals and metal compounds	Campine Recycling, Beerse - MLAV/05173/GVDA	Belgium
11 01 13*	degreasing wastes containing hazardous substances	Yes	0.27	Safety Kleen Ireland Ltd - W0099	R02 - Solvent reclamation/regeneration	Solvent Recovery Management, PP33345F, Wheeland Rd., Knottingly, West Yorks	UK
13 05 03*	interceptor sludges	Yes	0	Enva Ireland Limited (Portlaoise) - W0184	R01 - Use principally as a fuel or other means to generate energy	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	Ireland
17 04 07	mixed metals	No	0.03	AES Ltd WP-OY-08-601- 01	R04 - Recycling/reclamation of metals and metal compounds	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
20 03 01 A	Municipal mixed residual household	No	0.5	AES Ltd WP-OY-08-601- 01	D05 - Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland
20 03 01 B	Municipal mixed residual non- household	No	19.38	AES Ltd WP-OY-08-601- 01	D05 - Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY- 08-601-01	Ireland

20 01 21*	Household waste fluorescent lamps and other mercury containing waste	Yes	1 ()	KMK Metals Recycling Ltd L2952	R04 - Recycling/reclamation of metals and metal compounds	KMK Metals Recycling Ltd, Cappincur Industrial Estate, Daingean Rd, Cappincur, Tullamore, Co. Offaly - L2952	Ireland
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Mountdillon IPC Licence

Decommissioning and Rehabilitation

Bog Rehabilitation Progress Report 2019.

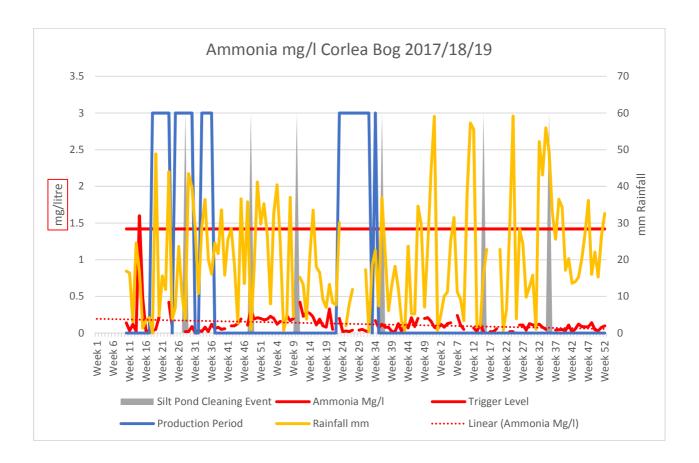
- Peatland rehabilitation was carried out in Corlea Bog. A small area (25 ha) was
 targeted in 2019 for drain-blocking. This site had been revegetating naturally
 and was re-wetted in 2018. Drain-blocking carried out to re-wet peat and
 encourage the development of wet peatland habitats and encourage natural
 colonisation of bare peat areas. It is currently a mosaic of bare peat and pioneer
 wetland habitats. Longford County Council are currently developing a cycling
 and walking track at Corlea.
- Bog restoration has been completed in Clonwhelan Bog (225 ha). This site forms
 part of the Bord na Mona Raised Bog Restoration Programme. This bog was
 drained but never fully developed. Peat dams have been inserted by an
 excavator to re-wet the peat, improve the condition of the overall bog and
 encourage the development of Sphagnum-rich active raised bog habitat. This bog
 is currently being considered for SAC/NHA designation by the NPWS as part of
 the National Raised Bog Special Area of Conservation Management Plan and the
 National Review of Raised Bog NHAs.
- Bog restoration is ongoing in Mostrim Bog (50 of 370 ha completed). Two
 excavators are currently operating at Mostrim Bog and carrying out bog
 restoration actions. This site forms part of the Bord na Mona Raised Bog
 Restoration Programme. This bog was drained but never fully developed. Peat
 dams have been inserted by an excavator to re-wet the peat, improve the
 condition of the overall bog and encourage the development of Sphagnum-rich
 active raised bog habitat.
- Longford County Council are currently developing a cycling and walking track at Knappogue.
- The Edera Bog site rehabilitation plan was circulated to stakeholders and finalised in 2019. A rehabilitation trial was carried out at Edera Bog in 2019.
 Edera is a production bog with relatively deep residual peat in part. Its current status is bare peat. Drain-blocking was carried out to re-wet peat and encourage the development of wet peatland habitats and encourage natural colonisation of bare peat areas. I
- Planning for rehabilitation with walk-over surveys to update rehabilitation plans was carried out at Knappoggue Bog in 2019. There is ongoing natural colonisation and re-wetting at this bog.
- This year has seen significant changes in Bord na Móna. Bord na Móna's Brown
 to Green Strategy delivers on national and EU decarbonisation policies. This has
 driven a significant reduction in peat-milling volumes and operational footprint in
 Summer 2019 which in turn enables progression of de-commissioning and
 rehabilitation plans. It is planned to close West Offaly Power and Lough Ree

Power Stations by the end of 2020. Both stations were peat-fired and supplied by Bord na Móna. At a result, the industrial peat production bogs in Mountdillion that supplied these power stations will begin a programme of rehabilitation and decommissioning. It is expected that this programme will start in 2020. The Mountdillion bog group rehabilitation plans are currently being reviewed, updated and finalised as part of this process.

- The site rehabilitation plans for Derryadd, Derryarogue and Lough Bannow Bogs were updated to take account of a renewable energy development being proposed by Bord na Mona on these cutaway sites (Derryadd Windfarm).
- The majority of the Bord na Móna property in this bog group has been
 organically certified with the aim of using some areas for the cultivation of plants
 for use in herbal medicine into the future. This project in ongoing. Bord na
 Mona have committed not to use herbicides in organically certified areas to
 maintain industrial railways and other infrastructure.
- Draft rehabilitation plans for the Mountdillon bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015 and 2017, and again submitted to the EPA May 2018.
- The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in May 2018. This included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.
- A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

			Bord na l	Mona Mountdillon	Siltpond Monitoring Frequency & Results							
			IPPC Li	cence P0504-01								
Х	Υ	Bog	SW	Monitoring	Sampled	рН	SS	TS	Ammonia	TP	COD	Colour
210349.35	273925.60	Clooneeny	SW-60	Q1 19	06/02/2019	7	5	130	0.63	0.05	46	166
210544.96	273475.13	Clooneeny	SW-61	Q1 19	06/02/2019	7	5	124	0.98	0.05	75	224
210395.34	272549.20	Clooneeny	SW-62	Q1 19	06/02/2019	7.6	5	114	0.52	0.05	46	98
210626.21	272173.61	Clooneeny	SW-63	Q1 19	06/02/2019	7.6	5	120	0.22	0.05	60	129
209739.62	271940.65	Clooneeny	SW-65	Q1 19	06/02/2019	7.5	5	122	0.44	0.05	55	137
209556.46	272203.00	Clooneeny	SW-66	Q1 19	06/02/2019	7.2	5	116	0.16	0.05	71	295
204806.31	268664.26	Derryadd	SW-68	Q1 19	20/03/2019	7.3	5	225	0.08	0.05	90	266
207219.29	268277.37	Derryadd	SW-70	Q1 19	20/03/2019	6.3	5	128	0.58	0.05	56	134
207139.24	268700.31	Derryadd	SW-71	Q1 19	20/03/2019	7.5	5	252	0.26	0.05	41	189
207066.22	270009.38	Killashee	SW-71A	Q1 19	20/03/2019	7.3	5	186	0.02	0.06	74	182
206957.05	270175.39	Killashee	SW-71B	Q1 19	20/03/2019	7.6	5	248	0.14	0.05	76	191
206552.83	271606.89	Killashee	SW-71C	Q1 19	20/03/2019	7.3	5	210	0.46	0.05	51	144
195895.85	269701.45	Clonadra	SW-28	Q2 19	13/05/2019	7.3	5	244	0.33	0.05	82	306
196464.25	269128.74	Clonadra	SW-28A	Q2 19	13/05/2019	7.6	5	274	2.2	0.05	39	101
197386.00	269672.35	Clonadra	SW-29	Q2 19	13/05/2019	6.7	11	144	0.02	0.06	93	256
197431.16	269547.71	Clonadra	SW-30	Q2 19	13/05/2019	7.5	5	283	0.04	0.05	66	189
195960.31	269910.87	Clonadra	SW-34	Q2 19				No flow or ba				
205704.47	264985.60	Derryadd	SW-73	Q2 19	20/05/2010		1.0	No flow or ba		0.12	0.7	2.52
206483.50	264717.84	Loughbannow	SW-74	Q2 19	20/05/2019	6.7	16	276	0.02	0.12	97	262
208383.69	266053.14	Loughbannow	SW-75	Q2 19	20/05/2019	6.8	5	184	0.25	0.05	25	95
209436.50	266841.89	Loughbannow	SW-76	Q2 19	20/05/2019	7.7	5	302	1.5	0.05	20	73
203032.90	265358.57	Derryshannoge	SW-79	Q2 19	20/05/2019	8.3	5	298	0.02	0.05	47	108
204109.47	264468.02	Derryshannoge	SW-80	Q2 19	20/05/2019	7.9	5	472	0.09	0.05	24	49
204202.83	265197.44	Derryshannoge	SW-83 SW-84	Q2 19	20/05/2019	7.9	5	414	0.19	0.05	33	85
204246.77	265266.02	Derryshannoge		Q2 19	20/07/2010	7.7	-	No flow or ba		0.12	60	150
239153.00	272761.06	Milkernagh	SW-100	Q3 19	30/07/2019	7.7	5	264	0.03	0.13	60	150
238999.58	271185.82 270926.89	Coolnagun Bog	SW-101 SW-102	Q3 19	30/07/2019 30/07/2019	6.7 8.0	5	178 449	0.09	0.1	91 22	298 38
238932.15 237624.43	269656.41	Coolnagun Bog	SW-102 SW-103	Q3 19	30/07/2019	7.6	5	320	0.02 0.03	0.1	34	54
236100.91	269178.31	Coolnagun Bog Coolnagun Bog	SW-103 SW-104	Q3 19	30/07/2019	6.7	5	368	0.8	0.07	94	327
238622.3	269573.1	Whites Bog	SW-104 SW-105	Q3 19 Q3 19	30/07/2019	7.7	5	472	2.8	0.13	31	53
238547.6	269228.9	Whites Bog Whites Bog	SW-103 SW-106	Q3 19 Q3 19	30/07/2019	7.7	5	424	0.04	0.15	50	89
236347.0	209228.9	Whites Bog Whites Bog	SW-100	Q3 19 Q3 19	30/07/2019	8.1	5	470	0.14	0.13	45	74
		Whites Bog Whites Bog	SW-107 SW-108	Q3 19 Q3 19	30/07/2019	8.0	5	476	0.14	0.08	62	126
		Whites Bog Whites Bog	SW-108	Q3 19 Q3 19	30/09/2019	7.7	2	341	0.782	0.11	71	305
		Cuilcraff	SW-109	Q3 19 Q3 19	30/07/2019	7.7	5	458	0.782	0.08	52	128
		Cuilcraff	SW-111	Q3 19 Q3 19	30/09/2019	7.8	2	393	0.046	0.05	72	259
		Cuilcraff	SW-111	Q3 19	30/09/2019	7.4	2	249	0.054	0.05	90	426
209520.92	261717.87	Loughbannow	SW-77	Q4 19	30/09/2019 7.4 2 249 No flow or ba				0.05	70	.20	
	261574.22	Corlea	SW-77A	Q4 19	13/11/2019	7.6	2	374	0.046	0.05	47	156
	263302.19	Loughbannow	SW-77A	Q4 19 Q4 19	07/11/2019	7.5	12	283	1.36	0.05	40	260
	261055.08	Derrycolumb	SW-88	Q4 19	07/11/2019	7.6	9	260	1.7	0.05	45	249
	260736.89	Derrycolumb	SW-88A	Q4 19	07/11/2019	7.7	12	185	0.163	0.05	43	310
	260347.41	Derrycolumb	SW-89	Q4 19	07/11/2019	7.7	5	85	0.409	0.05	37	216
200013.71	2005 T7.T1	Dellycolullo	511-07	Q 1 17	01/11/2017	/	J	1 00	0.407	0.05	31	210

209457.03	259759.30	Derrycolumb	SW-90	Q4 19	07/11/2019	7.9	7	264	0.255	0.05	53	257
207371.13	259735.70	Derrycolumb	SW-91	Q4 19	07/11/2019	7.8	7	309	0.107	0.05	65	251
208445.3	261154.8	Derrycolumb	SW91-A	Q4 19	07/11/2019	7.3	6	213	0.094	0.05	82	396
208008.49	259636.58	Derrycolumb	SW-92	Q4 19	13/11/2019	7.8	3	360	0.107	0.05	72	232
206651.08	262095.91	Derrycolumb	SW-93	Q4 19	13/11/2019	7.4	2	233	0.112	0.05	85	339
206995.27	262194.95	Derrycolumb	SW-93A	Q4 19	13/11/2019	7.40	2	257	0.315	0.05	51	128



Corlea bog is an in-active production bog with the composite sampler located in this bog in March 2017 and it remains at this location for the reporting period 2019. This bog cease production in 2017 and did not resume in 2018 or 19. Since production ceased the bog has been in a decommissioning and rehabilitation phase with rewetting occurring in 2018 and 2019. The composite sampler takes a flow proportional composite sample over a 24-hour period but had 44% downtime during the period due to periods when there was no summer discharge, water was backed up in the Winter/Spring seasons from river fluvial flooding or for technical issues. During most of these technical events, grab samples were taken. The ammonia trigger level of 1.42mg/l, as agreed with the Agency, was not exceeded during the reporting period. Overall the results are maintaining a slight downward trend as rehabilitation continues and this is inline with the downwards trends submitted to the EPA in 2013 as required by condition 6.14. It has been established that the most relevant influencing variable on Ammonia is rainfall and activities, so due to lower rainfall levels in 2019 and rewetting of sections of the bog as required under condition 10, ammonia levels are reducing

The sampler at this location may be relocated to fill any information gaps on other peatland catchments and to reflect the need to support the information gathering required for the Water Framework Directive's River Basin Management Plan, or maybe retained to track levels as rehabilitation and rewetting continues to result in stabilization of the bog. There is also an EPA lead research project commencing in 2019, called the SWAMP project, whose aims are to appraise and understand the nutrient impact from peatlands, to evaluate treatment technologies and to propose predictive tools for watershed management.

Extractive Waste Management Plan Implementation AER Update 2019

March 2020.

IPC Licence P0504-01.

1.0 Extractive Wastes.

Waste classified as extractive waste from peat extraction operations arise from three operations associated with this activity.

- Silt Pond excavations and maintenance
- Power Station Screenings
- Bog Timbers

There has been no change to the type and nature of these three waste streams and no new waste streams added to this list. These wastes streams continue to be stored and maintained at between 1 and 3 metres in height.

2.0 Condition 7.5 Extractive Waste Management

- An extractive waste management plan (EWMP) was submitted to the Agency in September 2012 and was approved.
- The EWMP was reviewed in September 2017. There were no substantial changes to the operation of the plan, associated waste facilities or to the waste deposited. The EWMP will be reviewed again in September 2022. At this stage, it is envisaged that many of the bogs will be in a decommissioning and rehabilitation phase, which will see the generation of bog timbers from production cease. In addition, and depending on the progress with bog stabilisation and rehabilitation, silt generation will be significantly reducing, which will lead to reduced volumes to be removed from the silt ponds.
- Lough Ree Power will be ceasing operation at the end of 2020, so beyond this there will be no further generation of power station screenings.

3.0 Minimisation

- The IPC Licence has various conditions that require the installation, inspections and maintenance of silt ponds for operational areas and as such these requirements dictate the need for silt ponds and associated excavation materials and cleanings.
- Peat screenings are a factor of the screening process with Lough Ree Power Ltd as these oversized bog timbers, stones and peat cannot be utilised in the power station.
- Bog timbers arise from the active production footprint and are naturally occurring. The active footprint is dictated by the peat production targets and customer supply contract and service level agreements.

4.0 Treatment

- Silt pond excavation and maintenance materials do not require any treatment and are stored as per the EWMP, adjacent to the associated silt pond.
- The factory screenings are permitted to be returned to the bog as they were naturally occurring materials from the bog, and as such do not require any treatment to serve this purpose.
- There is no treatment of bog timbers arising and these are stockpiled at various locations in associated bogs.

5.0 Recovery

- As per the EWMP, there is still no opportunity to recover these silt pond associated materials.
- Given the nature of these screenings as outlined in the EWMP, there is no further use identified, other than the permitted reuse of these natural materials in areas that required improvement for trafficking purposes.
- Bog timbers stored on the bog are natural to the peat bog and while there have been trails to recover this waste material, these have not proved viable.

6.0 Disposal

- Silt pond cleanings continue to be disposed of adjacent to the associated silt pond and will be incorporated back into the rehabilitation plans for these bogs, post production and decommissioning.
- Schedule 3 (ii) of this IPC Licence permits the disposal of peat screenings to the bog at designated locations agreed under Condition 7.4 and this continues to be the case.
- Bog timbers will continue to be stockpiled at suitable locations to be either incorporated back into the bog, as a supply of bog timbers for the crafting industry or will continue to decay naturally.



Annual Environmental Report 2019
Bord na Mona Energy Ltd
(Kilberry Group of Bogs)
IPC Licence P0506-01

Facility Information Summary
AER Reporting Year
Licence Register Number
Name of site
Site Location
NACE Code
Class/Classes of Activity
National Grid Reference (6E, 6 N)

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.

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		Bord na Mona Kilberry	sord na Mona, Leabeg, Tullamore, Co Offaly	0892	1.4	19540	
		Bord	ona, Leabe			180050, 319540	
STO7	0506-01		Sord na M				

outloading facilities for transportation to a Moss Peat Factory or direct to the Docks. Production achieved was approximately 98440 tonnes which was a 53% reduction on 2018. Dust monitoring was fully compliant during Activities on site can be divided into two components, firstly the milling, harrowing, ridiging and harvesting of the reporting period. Trigger levels were reached 18 times for COD during the quarterly grab sampling, which chemicals in peat. The composite sampling regime was 100% compliant in relation to Suspended Solids ELV's. was a 40% reduction on 2018. These exceedances were all investigated for any activity or incident that could complaints received during the reporting period. In relation to sift pond cleaning, 100 % of the 35 silt ponds There were no Ammonia trigger levels breached during the reporting period. There were no environmental cleaning schedules. Decommissioning and Rehabilitation works are described in an attachment. During the received the required two cleanings, with some individual ponds receiving more, inspections dictating the eporting period, there were a number of notifications to the Agency, including notification of an interim have caused the higher than normal COD results, but were reported as attributed to natural background peat into stockpiles and secondly the transportation of that peat via an internal rail network to the lorry cessation of peat extraction at Kilberry, pending regularisation.

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
Stroup/Facility manager
for nominated, suitably qualified and experienced deputy)

	AIR-summary template	Lic No:	P0506-01	Year	2019
	Answer all questions and complete all tables where relevant		عناداد ۵	ilif	
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			ional information ve emissions only	
	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	Yes			
3	Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist? Basic air monitoring checklist? checklist AGN2	Yes			

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

Emission reference no:		ELV in licence or any revision therof	Licence Compliance criteria		Compliant with licence limit	Method of analysis	Annual mass	Comments - reason for change in % mass load from previous year if applicable
	SELECT		SELECT	SELECT	SELECT	SELECT		
	SELECT		SELECT	SELECT	SELECT	SELECT		
	SELECT		SELECT	SELECT	SELECT	SELECT		
	SELECT		SELECT	SELECT	SELECT	SELECT		

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

	AIR-summary template	Lic No:	P0506-01	Year	2019
	Continuous Monitoring				
4	Does your site carry out continuous air emissions monitoring?	No			
	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)				
5	Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	No			
6	Do you have a proactive service agreement for each piece of continuous monitoring equipment?	No			
7	Did your site experience any abatement system bypasses? If yes please detail them in table A3 below Table A2: Summary of average emissions -continuous monitoring	No			

Emission	Parameter/ Substance		Averaging Period	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:					measurement			Equipment	exceedences in	
		ELV in licence or						downtime (hours)	current	
		any revision therof							reporting year	
DM-01 Gilltown	Total Particulates	350	336 DAYS	Daily average < ELV	mg/m2/day	30940	231	0	0	

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

Table A3: Abatement system bypass reporting table

Bypass protocol

Table	A3. Abatement	t system bypass reporti	ing table			
Date*	Du	uration** (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

	AIR-summary	template				Lic No:	P0506-01		Year	2019	
		ent use and management	on site								
									I		
8	Do you have a tota	al Emission Limit Value of o	direct and fugitive em	issions on site? if y	es please fill out tables A4 and A	A 5					
				la .		7	No				
	Emission limit valu	Management Plan Summ ie	ary Iotal VOC	Solvent regulations	Please refer to linked solver complete table 5						
	Reporting year	Total solvent input on site (kg)		Total VOC emissions as %of		Compliance	1				
		Site (kg)	from entire site	solvent input	Total Emission Limit Value						
			(direct and fugitive)		(ELV) in licence or any revision therof						
					therof	CELECT					
						SELECT SELECT	1				
	Table A	 N5: Solvent Mass Balance	summary			SELECT					
										1	
		(I) Inputs (kg)			(O)	Outputs (kg)					
	Solvent		Organic solvent	Solvents lost in	Collected waste solvent (kg)	Fugitive Organic	Solvent released	Solvents	Total emission of	-	
		(I) Inputs (kg)	-	water (kg)		Solvent (kg)		destroyed onsite	Solvent to air (kg)		
			"、								
				•	•	•	•	Tota			

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER	.)	Lic No:	P0506-01	Year	2019
			Additional information		
Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions. If you do not have licenced emissions you only need to complete table W1 and or W2 for storm water analysis and visual inspections	Yes				
Was it a requirement of your licence to carry out visual inspections on any surface 2 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			Monthly COD and Yard Run Off		
Table W1 Storm water monitoring					

ocation eference	Location relative to site activities	PRTR Parameter	Licenced Parameter	 ELV or trigger level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments
	SELECT	SELECT	SELECT		SELECT		SELECT	SELECT	
	SELECT	SELECT	SELECT		SELECT		SELECT	SELECT	

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

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

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
			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 External /Internal		
Data Reported to the EPA? If no please detail what areas Lab Quality Assessment of		
4 require improvement in additional information box checklist results checklist	Yes	Surface water monitoring was carried out on a quarterly basis. The results of which are attached.

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		ELV or trigger values in licence or any revision therof ^{Note 2}	Licence Compliance criteria	Measured value		Compliant with licence			Procedural reference standard number	Annual mass load (kg)	Comments
	SELECT	SELECT	SELECT		SELECT		SELECT		SELECT	SELECT	SELECT	SELECT			
	SELECT	SELECT	JEEECI		SELECT		SEEECI		SELECT	SELECT	JEEECI	JEEEC.			
	SELECT	SELECT	SELECT		SELECT		SEEECT		SELECT	SELECT	SEEECI	SEECT			

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

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

	AER Monitoring returns summary template-WATER/WASTEWATER(SEWER	R)	Lic No:	P0506-01
	Continuous monitoring			Additional Information
5	Does your site carry out continuous emissions to water/sewer monitoring?	Yes		See note above
	If yes please summarise your continuous monitoring data below in Table W4 and compare it to its relevant Emission Limit Value (ELV)			
6	$\label{eq:decomposition} Did continuous monitoring equipment experience downtime? $			
	table W4 below	Yes		Yes. Total of 19 days.
_	Do you have a proactive service contract for each piece of continuous monitoring equipment on			
′	site?	Yes	Annual calibration :	schedule and trouble shooting service.
8	Did abatement system bypass occur during the reporting year? If yes please complete table W5			

Table W4: Summary of average emissions -continuous monitoring

			ELV or trigger values in licence					% change +/- from previous reporting		Number of ELV	
Emission	Emission		or any revision	Averaging	Compliance	Units of	Annual Emission for current	year	Equipment	exceedences in	
reference no:	released to	Parameter/ Substance	thereof	Period	Criteria	measurement	reporting year (kg)		downtime (hours)	reporting year	Comments
SW-4	Water	Suspended Solids	35	24 hour	Not Listed	mg/L			456	0	Down time primarially due to battery failure. Its not possible to report average continuous emissions as this sampler is located on one of 35 silt ponds and samplers are moved around periodically to allow for analysis of other silt pond performance.
SW-4	Water	Ammonia (as N)	4.53	Weekly	NA	mg/L					
SW-4	Water	Total phosphorus	NA	Weekly	NA	mg/L					
SW-4	Water	COD	100	Weekly	NA	mg/L					
SW-4	Water	Volumetric flow	NA	24 hour	NA	m3/day					
SW-4	Water	Total Dissolved Solids	NA	Weekly	NA	mg/L					

2019

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

Table W5: Abatement system bypass reporting table

Date	Duration (hours)	 Resultant emissions	Reason for bypass	action*		When was this report submitted?
					SELECT	

*Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline tes	ting template				Lic No:	P0506-01		Year	2019					
Bund testing]	dropdown menu cl	ick to see options				Additional information	_						
		tegrity testing on bunds and cor												
		to all bunds which failed the into Is outside the licenced testing p			nobile bunds must be	.,								
2 Please provide integrity	y testing frequency period	i				Yes Other (2 Yearly)								
		rground pipelines (including sto	rmwater and foul), Tanks, sur	nps and containers? (conta	iners refers to	.,								
3 "Chemstore" type units 4 How many bunds are or						Yes 0		-						
		nin the required test schedule?												
6 How many mobile bund 7 Are the mobile bunds in		schedule?						-						
8 How many of these mol	bile bunds have been tes	ted within the required test sch	edule?			0								
9 How many sumps on sit 10 How many of these sun						0		1						
	tegrity failures in table B	1				SELECT		- 1						
		in a maintenance and testing p	rogramme?			SELECT		1						
13 Is the Fire Water Reten	ntion Pond included in you	ir integrity test programme?				SELECT								
Table	e B1: Summary details of	bund /containment structure in	tegrity test					-						
														Danisha of
									Integrity reports					Results of retest(if in
Bund/Containment structure ID	Type	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test time	Test date	maintained on site?	Results of test	Integrity test failure explanation <50 words	Corrective action taken	Scheduled date for retest	current reporting year
	,		Product containment	Actual capacity	capacity required	Type of integrity test		rest date	site:	nesults of test	explanation <50 words	Corrective action taken	ioi retest	reporting year
	ly with 25% or 110% containment ru een carried out in accorda	le as detailed in your licence nce with licence requirements a	nd are all structures tested				Commentary	٦						
15 in line with BS8007/EPA	A Guidance?			bunding and storage guideli	nes	Yes								
16 Are channels/transfer s 17 Are channels/transfer s		nment systems tested? n integrity and available volume	?			No No		-						
								_						
Pipeline/undergrou	und structure testing]						_						
Are you required by you	ur licence to undertake in	tegrity testing* on underground	structures e.g. pipelines or s	umps etc ? if ves please fill	out table 2 below listing		No underground pipe lines that require testing							
1 all underground structu	ures and pipelines on site	which failed the integrity test a				Yes								
2 Please provide integrity *please note integrity t		f ness testing for process and fou	I pipelines (as required under	your licence)		Other (Every 3 Years)		_						
				_										
Table I	R2: Summary details of n	neline/underground structures	integrity test									1		
Table I	B2: Summary details of pi	peline/underground structures	integrity test											
Table I	B2: Summary details of p	peline/underground structures	integrity test											
Table I	B2: Summary details of pi	peline/underground structures	integrity test	Type of secondary containment										
Table I	B2: Summary details of pi	peline/underground structures	integrity test Does this structure have	Type of secondary containment		Integrity reports		Integrity test	Corrective action	Scheduled date	Results of retest(if in current			
Structure ID	Type system	Material of construction:	Does this structure have Secondary containment?	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	reporting year)			
Structure ID			Does this structure have		Type integrity testing SELECT		Results of test SELECT	failure explanation						
Structure ID	Type system	Material of construction:	Does this structure have Secondary containment?	containment		maintained on site?		failure explanation			reporting year)			
Structure ID	Type system	Material of construction:	Does this structure have Secondary containment?	containment		maintained on site?		failure explanation			reporting year)			
Structure ID	Type system	Material of construction:	Does this structure have Secondary containment?	containment		maintained on site?		failure explanation			reporting year)			
Structure ID	Type system	Material of construction: SELECT	Does this structure have Secondary containment?	Containment	SELECT	maintained on site?		failure explanation			reporting year)			

Groundwater/Soil monitoring template	Lic No:	P0506-01	Voor 2010	
Groundwater/Soil monitoring template	Lic No:	P0506-01	Year 2019	

Comments

		Comments	
1 Are you required to carry out groundwater monitoring as part of your licence requirements?	no		Please provide an interpretation of groundwater monitoring data in
2 Are you required to carry out soil monitoring as part of your licence requirements?	no		the interpretation box below or if you require additional space please
Do you extract groundwater for use on site? If yes please specify use in comment			include a groundwater/contaminated land monitoring results
³ section	no		interpretaion as an additional section in this AER
Do monitoring results show that groundwater generic			
assessment criteria such as GTVs or IGVs are exceeded or is			
4 there an upward trend in results for a substance? If yes, please			
complete the Groundwater Monitoring Guideline Template <u>Groundwater</u>			
Report (link in cell G8) and submit separately through ALDER as monitoring			
a licensee return AND answer questions 5-12 below. <u>template</u>	NA		
5 Is the contamination related to operations at the facility (either current and/or			
historic)	NA		
6 Have actions been taken to address contamination issues?If yes please summarise			
remediation strategies proposed/undertaken for the site	NA		
7 Please specify the proposed time frame for the remediation strategy	NA		
8 Is there a licence condition to carry out/update ELRA for the site?	NA		
9 Has any type of risk assesment been carried out for the site?	NA		
10 Has a Conceptual Site Model been developed for the site?	NA		
11 Have potential receptors been identified on and off site?	NA		
12 Is there evidence that contamination is migrating offsite?	NA		Please enter interpretation of data here

Table 1: Upgradient Groundwater monitoring results

				0						
										Upward trend in
										pollutant
	Sample									concentration
Date of	location	Parameter/		Monitoring	Maximum	Average				over last 5 years
sampling	reference	Substance	Methodology	frequency	Concentration++	Concentration+	unit	GTV's*	SELECT**	of monitoring data
							SELECT			SELECT
							SELECT			SELECT

^{.+} where average indicates arithmetic mean

Table 2: Downgradient Groundwater monitoring results

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

Sample Date of sampling reference Substance Methodology frequency Concentration Concentration Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select Select
*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.

drinking water supply compare results to the Drinking Water Standards (DWS)

water EQS

GTV's

<u>standards</u>

supply) standards

Groundwater/Soil monitoring template	Lic No:	P0506-01	Year	2019	
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Table 3: Soil results

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

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

Environmental Liabilities template Lic No: P0506-01 Year 2019

Click here to access EPA guidance on Environmental Liabilities and Financial provision

			Commentary
1	ELRA initial agreement status	Not a licence requirement	
2	ELRA review status	NA	
3	Amount of Financial Provision cover required as determined by the latest ELRA	NA	
4	Financial Provision for ELRA status	NA	
5	Financial Provision for ELRA - amount of cover	NA	
6	Financial Provision for ELRA - type	NA	
7	Financial provision for ELRA expiry date	NA	
8	Closure plan initial agreement status	NA	
9	Closure plan review status	NA	
10	Financial Provision for Closure status	NA	
11	Financial Provision for Closure - amount of cover	NA	
12	Financial Provision for Closure - type	NA	
13_	Financial provision for Closure expiry date	NA	

	Environmental Management Programme/Continuous Improvement Programme	e template	Lic No:	P0506-01	Year	2019
	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	Interna	l unaccredited EMS		
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 Progr	ramme (EMP) report				
Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	Training.Continue to train	100	In total 0 personnel received		
	all employees in		training in 2019 as training		
	environmental matters.		takes place every three		
	Training will be by means		years. Hydraulic harrows		
	of the screening of an		continue to be depolyed at		
	environmental DVD,		dust sensitive areas.		
	followed by a power point		Headland peat was collected		
	presentation. Deploy		during the production		
	Hydraulic Harrows at dust		season.		
	sensitive areas in addition				
	to headland Peat				
	Collection.				
	Continue with the				
	collection of headland				
	neat particularly at dust			Section Head	Reduced emissions

nvironmental Management Pro	ogramme/Continuous Improveme	nt Programme template	Lic No:	P0506-01	Year	
Vaste reduction/Raw material usage	Waste Streamlining.It is	100 Quarterly waste reports are	2			
fficiency	planned to continue with	returned for records/filing				
	and where possible	and waste streams are				
	improve the current waste	segrated on site to maximis	e			
	management service	recycling potential.				
	provided by AES Ltd					
				Improved Environmental		
			Individual	Management Practices		
eduction of emissions to Water	Training. Continue to train	100 In total 0 personnel receive	d			
	all employees in	training in 2019 as training				
	environmental matters.	takes place every three				
	Training will be by means	years. Training covers SOP'	S			
	of the screening of an	in relation to silt control and	d			
	environmental DVD,	general IPC license				
	followed by a power point	awareness.				
	presentation.		Section Head	Reduced emissions		
Naterials Handling/Storage/Bunding	Increased bund capacity	0 No additional bund capacity				
0, 212 102, 21200	will be provided where	was required during 2019				
	required.	3-5-5				
	·					
				Improved Environmental		
			Section Head	Management Practices		
Vaste reduction/Raw material usage	Continue with the	100 11.04 tonnes of polyethyler				
fficiency	recycling of polyethylene.	was recycled in 2019.				
,	The sourcing of more					
	recycling contractors will					
	be ongoing.					
	, ,					
			Land to did a call	Dadward		
phagnum Project	A small scale trial is	100 This are last has not	Individual	Reduced emissions		
phagnum Project	A small scale trial is	100 This project has not				
	commenced in 2012. Its	progressed				
	purpose is to trial grow					
	sphagnum moss on a small area of cutaway in Kilberry					
	bog.					
				Improved Environmental		

	N	oise monitor	ring summary	/ report			Lic No:	P0506-01	Year	2019	
		ce requirement oise summary be		od?				No]		
		d out using the E ment report" inc				of the	Noise Guidance note NG4	NA			
	e have a noise r		nuueu iii tile guit	dance note as	s table 0:		note NG4	NA			
		on plan last upda	ted?					Enter date			
Have there	been changes r	elevant to site no	oise emissions (e noise survey		perational o	changes) sin	ce the last	NA			
Table N1: No	oise monitoring	summary				1					
Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
								SELECT	SELECT		SELECT
	1										
*Please ensure th		been carried out as pe						ne corrective action fro	om the following options?	SELECT	
										_	
			** please	e explain the i	reason for n	ot taking ac	tion/resoluti	on of noise issues?			

Any additional comments? (less than 200 words)

Resource Usage/Energy efficiency summary	Lic No:	P0506-01	Year	2019

1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below

SEAI - Large
Industry Energy
Network (LIEN)
ase state percentage

NA

NA

Additional information

Is the site a member of any accredited programmes for reducing energy usage/water conservation such as the SEAI programme linked to the right? If yes please list them in additional information

Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

Table R1 Energy usag	e on site			
Energy Use	Previous year		compared to previous	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	2575.86	1425	-53.00%	-19.00%
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (MWHrs)			
Electricity Consumption (MWHrs)	158.445	95.255	-53	-39.00%
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	237.911	133.602	-53.00%	-43.80%
Natural gas (m3)				
Coal/Solid fuel (metric tonnes)				
Peat (metric tonnes)				
Renewable Biomass				

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

Table R3 Waste Stream Summary

Renewable energy generated on site

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

Resourc	ce Usage/Energy efficiency su	mmary			Lic No:	P0506-01	Year	2019
		Total	Landfill	Incineration	Recycled	Other		
	Hazardous (Tonnes)	18.14	0	0.07	17.88	0		
	Non-Hazardous (Tonnes)	272.83	8.2375	0	264.598	0		

Resource Usage/Energy efficiency summary 2019 Lic No: P0506-01 Year Table R4: Energy Audit finding recommendations Predicted energy Description of Status and Measures proposed Origin of measures savings % Date of audit Recommendations Implementation date Responsibility Completion date comments 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

SELECT

	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 or	n Site				

Complaints and	d Incidents summary templ	ata			Ha Na	DOTOC OA		V	2019		
Complaints and	u incluents summary tempi	Complain			Lic No:	P0506-01		Year	2019		
		Compiair	its		Additional inform						
Have you recei	ived any environmental complaints summary details of complaints	in the current reporting year? If s received on site in table 1 below		No	Additional inform	lation					
Table 1	1 Complaints summary		7								
.abic .			Brief description of								
1			complaint (Free txt <20								
Date	Category	Other type (please specify)	words)	Corrective action < 20 words		Resolution date	Further information				
	SELECT				SELECT						
Total complaints open at start of											
reporting year											
Total new											
complaints											
received during											
reporting year	C	2									
Total complaints											
closed during reporting year											
Balance of		4									
complaints end of											
reporting year	C										
		Incident	ts			\mathbf{I}_{\cdot}					
Have any incidents	s occurred on site in the current rep vear in Ti	orting year? Please list all incider able 2 below		Yes	Additional inform	nation					
	,]			_					
	ion on how to report and what nstitutes an incident	What is an incident									
Table 2 Incidents su	ımmarv		7								
TODIC Z INCIDENTS SU	,		Incident			Other					
			category*please refer to				Activity in progress at			Corrective action<20	Preventative action

Table 2 Incidents su	mmary													
			Incident			Other								
			category*please refer to			cause(please	Activity in progress at			Corrective action<20	Preventative action		Resolution	Likelihood of
Date of occurrence	Incident nature	Location of occurrence	guidance	Receptor	Cause of incident	specify)	time of incident	Communication	Occurrence	words	<20 words	Resolution status	date	reoccurence
13/03/2019	Trigger level reached	Ummerus SW-4	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI016173	Recurring	Outfall checked.	None possible	Complete	14/03/2019	Low
09/04/2019	Trigger level reached	Prosperous SW-17	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI016301	New	Outfall checked.	None possible	Complete	09/04/2019	Low
01/05/2019	Trigger level reached	Ummerus SW-4	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI016431	Recurring	Outfall checked.	None possible	Complete	02/05/2019	Low
05/06/2019	Trigger level reached	Ummerus SW-4	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI016614	Recurring	Outfall checked.	None possible	Complete	05/06/2019	Low
11/07/2019	Trigger level reached	Ummerus SW-6A	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI016849	New	Outfall checked.	None possible	Complete	11/07/2019	Low
24/07/2019	Trigger level reached	Gilltown SW-9	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI016913	New	Outfall checked.	None possible	Complete	24/07/2019	Low
24/07/2019	Trigger level reached	Gilltown SW-11	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI016914	New	Outfall checked.	None possible	Complete	24/07/2019	Low
24/07/2019	Trigger level reached	Ummerus SW-4	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI016915	Recurring	Outfall checked.	None possible	Complete	24/07/2019	High
23/05/2019	Trigger level reached	Allen SW-13	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI017656	New	Outfall checked.	None possible	Complete	26/11/2019	Medium
23/05/2019	Trigger level reached	Allen SW-14	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI017657	New	Outfall checked.	None possible	Complete	26/11/2019	Medium
20/06/2019	Trigger level reached	Ummerus SW-4	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI017658	Recurring	Outfall checked.	None possible	Complete	26/11/2019	Medium
15/08/2019	Trigger level reached	Ummerus SW-4	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI017659	Recurring	Outfall checked.	None possible	Complete	26/11/2019	Medium
11/11/2019	Trigger level reached	Kilberry SW-1	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI017697	New	Outfall checked.	None possible	Complete	03/12/2019	Medium
11/11/2019	Trigger level reached	Kilberry SW-2	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI017698	New	Outfall checked.	None possible	Complete	03/12/2019	Medium
11/11/2019	Trigger level reached	Kilberry SW-3	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI017699	New	Outfall checked.	None possible	Complete	03/12/2019	Medium
11/11/2019	Trigger level reached	Kilberry SW-3A	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI017701	New	Outfall checked.	None possible	Complete	03/12/2019	Medium
11/11/2019	Trigger level reached	Kilberry SW-3C	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI017702	New	Outfall checked.	None possible	Complete	03/12/2019	Medium
28/11/2019	Trigger level reached	Ummerus SWE-1	1. Minor	Water	Unknown	Unknown	Normal activities	EPA INCI017714	New	Outfall checked.	None possible	Complete	05/12/2019	Low
Total number of			•						_				_	

11/11/2019	Trigger level reached	Kilberry SW-3C	1. Minor
28/11/2019	Trigger level reached	Ummerus SWE-1	1. Minor
Total number of			
incidents current			
year	18		
Total number of			
incidents previous			
year	25		
% reduction/			
increase	-40.00%		

Waste Summary Continued Lic No: P0506-01 Year 2019		

Code (EWC)	Description of Waste (in line with applicable EWC code)	Hazardous – YES/NO	Quantity (Tonnes)	Name & Permit No. of Agent/Carrier	Treatment Type – Recovered / Disposed / Recycled	Name, Address & Licence/Permit No. of FINAL Destination	Country
							Ireland
						ADN Materials	
					R03 - Recycling/reclamation of organic substances	Ltd.,Lossets,Carrickmacross,	
				Walker Recycling Services Ltd., Clonkeen,	which are not used as solvents (including composting	Co.Monaghan. WFP-MN-12-	
02 01 04	waste plastics (except packaging)	No	11.04	Portlaoise,Co.Laois	and other biological transformation processes)	0001-05	
							UK
						Solvent Recovery Management,	
	degreasing wastes containing				R11 - Use of waste obtained from any of the operations	PP33345F, Wheeland Rd., Knottingly,	
11 01 13*	hazardous substances	Yes	0	Safety Kleen Ireland Ltd - W0099	numbered R 1 to R 10	West Yorks	
							Ireland
13 02 05*	mineral-based non-chlorinated engine, gear and lubricating oils	Yes	3.33	Enva Ireland Limited (Portlaoise) - W0184	R01 - Use principally as a fuel or other means to generate energy	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	
13 02 03	gear and lubricating ons	res	3.33	Liiva ileialid Liilited (Portiaoise) - Wo104	generate energy	ilidustriai Estate, Fortiadise - W0104	Germany
	absorbants filter materials (including						
	absorbents, filter materials (including oil filters not otherwise specified),						
	wiping cloths, protective clothing				R01 - Use principally as a fuel or other means to	Lindenschmidt, Kreutzal - Reg No:	
15 02 02*	contaminated by hazardous substances	Yes	0.15	Enva Ireland Limited (Portlaoise) - W0184	generate energy	E97095037	
							Belgium
16 06 01	Lead Acid Batteries	Yes	0	Enva Ireland Limited (Portlaoise) - W0184	R04 - Recycling/reclamation of metals and metal compounds	R.D. Recycling, Houthalen, Reg No: 51727/1KD	
100001	Ecod Field Batteries	103		Enterior Entree (Fordable) Trolor	compounds	31/2//183	Belgium
					R04 - Recycling/reclamation of metals and metal	R.D. Recycling, Houthalen, Reg No:	
16 01 07*	oil filters	Yes	0.21	Enva Ireland Limited (Portlaoise) - W0184	compounds	51727/1KD	
							Ireland
13 05 07*	allumator from all (mater consectors	Yes	14.26	Enus Iroland Limited (Doublesies), WO194	R01 - Use principally as a fuel or other means to	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	
13 03 07	oily water from oil/water separators	res	14.20	Enva Ireland Limited (Portlaoise) - W0184	generate energy	ilidustriai Estate, Portiadise - W0164	Ireland
17 04 07	and an about	A) -	0	AES Ltd WP-OY-08-601-01	R04 - Recycling/reclamation of metals and metal	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	
17 04 07	mixed metals	No	U	AES Ltd WP-OY-08-601-01	compounds	industrial Estate, Portiaoise - W0184	Ireland
					D05 - Specially engineered landfill (e.g. placement into	AES LTD. Cappingur Tullamore Co	
20 03 01 A	Municipal mixed residual household	No	0.8375	AES Ltd WP-OY-08-601-01	lined discrete cells which are capped and isolated from one another and the environment, etc.)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY-08-601-01	
		-			, , , , , , , , , , , , , , , , , , , ,		Ireland
					R03 - Recycling/reclamation of organic substances		
20 03 01 C	Municipal mixed dry recyclables	No	0.558	AES Ltd WP-OY-08-601-01	which are not used as solvents (including composting and other biological transformation processes)	AES LTD, Cappincur, Tullamore, Co. Offaly - WP-OY-08-601-01	
20 03 01 0	ividincipal finized dry recyclables	NU	0.336	WE3 EIG MAL-01-00-001-01	and other biological transformation processes)	Gridiy - WF-01-06-001-01	Ireland
					D05 - Specially engineered landfill (e.g. placement into		
	Municipal mixed residual non-				lined discrete cells which are capped and isolated from	AES LTD, Cappincur, Tullamore, Co.	
20 03 01 B	household	No	7.4	AES Ltd WP-OY-08-601-01	one another and the environment, etc.)	Offaly - WP-OY-08-601-01	
							Ireland
15 01 10*	packaging containing residues of or contaminated by hazardous substances	Yes	0.19	Enva Ireland Limited (Portlaoise) - W0184	R02 - Solvent reclamation/regeneration	Enva Ireland Limited, Clonminam Industrial Estate, Portlaoise - W0184	
12 OT 10.	contaminated by nazardous substances	162	0.19	Eliva ireialiu Lillilled (PORTIAOISE) - WU184	RUZ - SOIVEILL RECIAMATION/ regeneration	muustridi Estate, PORtidoise - WU184	

Kilberry IPC Licence

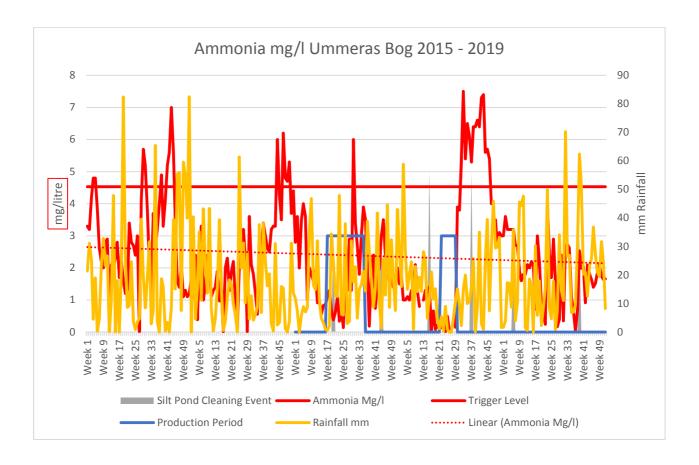
Decommissioning and Rehabilitation

Bog Rehabilitation Progress Report 2019.

- Ongoing rehabilitation trials (cutaway re-wetting and *Sphagnum* inoculation) are being monitoring at Kilberry Bog. Rehabilitation (field-drain blocking) was carried out in part of the cutaway in Kilberry (52 ha) during 2019. The current status of this area is bare peat. Drain-blocking was carried out to re-wet and encourage natural colonisation of bare peat areas with peatland vegetation.
- Planning for rehabilitation with walk-over surveys to update rehabilitation plans was carried out at Ummeras Bog in 2019. There is ongoing natural colonisation at this bog.
- Bord na Móna are also supporting other GHG research projects (EPA-funded SMARTBOG). Ummeras Bog has been selected as a research site for this project and it is planned to measure GHG fluxes, water quality and water flow from this site over the next few years.
- The majority of the Bord na Móna property in this bog group has been organically certified with the aim of using some areas for the cultivation of plants for use in herbal medicine into the future. This project in ongoing. Bord na Mona have committed not to use herbicides in organically certified areas to maintain industrial railways and other infrastructure
- Draft rehabilitation plans for the Kilberry bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015 and 2017, and again submitted to the EPA May 2018.
- The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in May 2018. This included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.
- A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

Bord na Mona Kilberry	Siltpond Monitoring Frequency & Results
IPPC Licence P0506-01	

Х	Υ	Bog	SW	Monitoring	Sampled	pН	SS	TS	Ammonia	TP	COD	Colour
283610.02	228467.98	Prosperous	SW-15	Q1 19	09/04/2019	7	5	120	1.8	0.05	92	274
283497.47	230604.25	Prosperous	SW-16	Q1 19	09/04/2019	7	14	130	1.7	0.06	85	285
284083.62	229490.13	Prosperous	SW-17	Q1 19	09/04/2019	6.3	24	180	0.07	0.23	235	620
282032.94	221405.51	Allen	SW-13	Q2 19	23/05/2019	7.8	5	158	0.63	0.1	111	459
279374.51	221128.33	Allen	SW-14	Q2 19	23/05/2019	7.8	5	178	0.63	0.07	118	461
279522.44	220979.75	Allen	SW-14A	Q2 19	23/05/2019	6.8	5	168	1.6	0.06	93	386
263559.73	214906.67	Ummeras	SW-5	Q3 19	11/07/2019	7.1	5	204	0.02	0.11	77	489
262581.53	214669.12	Ummeras	SW-6	Q3 19	11/07/2019	7	6	222	0.02	0.07	77	485
262280.17	215578.65	Ummeras	SW-6A	Q3 19	11/07/2019	7.5	5	230	1.2	0.23	135	253
262597.34	216781.70	Ummeras	SW-4	Q3 19	11/07/2019	7.7	5	300	0.54	0.09	96	169
279548.84	233696.75	Gilltown	SW-7	Q3 19	24/07/2019	7.4	5	202	1.5	0.08	77	199
280775.39	233404.44	Gilltown	SW-9	Q3 19	24/07/2019	6.4	5	139	1.5	0.09	121	331
279677.46	231646.85	Gilltown	SW-11	Q3 19	24/07/2019	6.5	7	156	2.8	0.09	124	375
266654.80	199892.88	Kilberry	SW-1	Q4 19	11/11/2019	6.3	3	135	1.62	0.1	105	493
267239.42	201958.36	Kilberry	SW-2	Q4 19	11/11/2019	6.1	2	166	0.707	0.05	117	490
267200.77	201949.29	Kilberry	SW-3	Q4 19	11/11/2019	6.2	2	205	0.64	0.05	120	492
268870.08	199128.68	Kilberry	SW-3A	Q4 19	11/11/2019	5.8	2	127	0.721	0.05	101	528
270082.33	199354.32	Kilberry	SW-3B	Q4 19	11/11/2019	7.2	2	204	1.45	0.05	67	338
270684.25	201649.88	Kilberry	SW3-C	Q4 19	11/11/2019	5.5	2	149	0.766	0.05	108	435



Ummeras bog is an active production bog with the composite sampler located here from 2015 to 2019, but no production took place at this bog during the 2019 season. This bog has officially cease production and it will now be programmed for decommissioning and rehabilitation. The composite sampler takes a flow proportional composite sample over a 24 hour period. The sampler had 5% downtime during the period but returned 52 weekly ammonia results during the period of this 2019 AER, which were composite and grab samples to cover the 5% sampler downtime. The ammonia trigger level of 4.53mg/l, as agreed with the Agency, was not exceed during this reporting period, having had exceedances in the previous year 2018 all of which were reported to the EPA. It is assumed that this is down to the lack of peat extraction activities in the reporting period.

Overall the results in the previous 4 yrs has started to show a continuing downward trend and this is broadly in-line with typical trends submitted to the EPA in 2013 as required by condition 6.14. It has been established that the most relevant influencing variable on Ammonia is rainfall and the trend analysis above indicates linkage between high rainfall events, ammonia concentrations and activities.

The sampler at this location may be retained here to monitor trends during the decommissioning and rehabilitation phase and fill any information gaps to reflect the need to support the information gathering required for the Water Framework Directive's River Basin Management Plan. There is also an EPA lead research project commencing in 2019, called the SWAMP project, whose aims are to appraise and understand the nutrient impact from peatlands, to evaluate treatment technologies and to propose predictive tools for watershed management.

Extractive Waste Management Plan Implementation AER Update 2019

March 2020.

IPC Licence P0506-01.

1.0 Extractive Wastes.

Waste classified as extractive waste from peat extraction operations arise from two operations associated with this activity.

- Silt Pond excavations and maintenance
- Bog Timbers

There has been no change to the type and nature of these two waste streams and no new waste streams added to this list. These wastes streams continue to be stored and maintained at between 1 and 3 metres in height.

2.0 Condition 7.5 Extractive Waste Management

- An extractive waste management plan (EWMP) was submitted to the Agency in September 2012 and was approved.
- The EWMP was reviewed in September 2017. There were no substantial changes to the operation of the plan, associated waste facilities or to the waste deposited. The EWMP will be reviewed again in September 2022.

3.0 Minimisation

- The IPC Licence has various conditions that require the installation, inspections and maintenance of silt ponds for operational areas and as such these requirements dictate the need for silt ponds and associated excavation materials and cleanings.
- Bog timbers arise from the active production footprint and are naturally occurring. The active footprint is dictated by the peat production targets and customer supply contract and service level agreements.

4.0 Treatment

- Silt pond excavation and maintenance materials do not require any treatment and are stored as per the EWMP, adjacent to the associated silt pond.
- There is no treatment of bog timbers arising and these are stockpiled at various locations in associated bogs.

5.0 Recovery

- As per the EWMP, there is still no opportunity to recover these silt pond associated materials
- Bog timbers stored on the bog are natural to the peat bog and while there have been trails to recover this waste material, these have not proved viable.

6.0 Disposal

- Silt pond cleanings continue to be disposed of adjacent to the associated silt pond and will be incorporated back into the rehabilitation plans for these bogs, post production and decommissioning.
- Bog timbers will continue to be stockpiled at suitable locations to be either incorporated back into the bog, as a supply of bog timbers for the crafting industry or will continue to decay naturally.



Annual Environmental Report 2019
Bord na Mona Energy Ltd
(CuilnaMona Group of Bogs)
IPC Licence P0507-01

AER Reporting Year
Licence Register Number
Name of site
Site Location
NACE Code
Class/Classes of Activity
National Grid Reference (6E, 6 N)

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.

Activities on site can be divided into two components, firstly the milling, harrowing, ridiging and harvesting of peat into stockpiles and secondly the transportation of that peat via an internal rail network to the lorry outloading facilities for transportation to a Moss Peat Factory or direct to the Docks. There was no peat production achieved in 2019 for any bogs in the Cuil na Mona bogs. The quarterly grab sampling was 100% compliant with the Suspended Solids ELV, with 21 trigger level exceedances relating to COD reached. These exceedances were all investigated for any activity or incident that could have caused the higher than normal COD results, but were reported as attributed to natural background chemicals in peat. The composite sampling regime was 100% compliant in relation to Suspended Solids ELV's and Ammonia trigger levels with 9 of the 21 COD trigger levels exceedances, all reported to the EPA. There were no environmental complaints received during the raporting period. In relation to silt pond cleaning, 100% of the 22 silt ponds received two claanings, with inspections dictating the cleaning schedules. Rehabilitation works are described in an attachment. During the period there were various returns made to the EPA including notification of an interim cessation of peat extraction at Kilberry, pending regularisation.

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 Signature Group/Facility manager (or nominated, suitably qualified and

experienced deputy)

<u>.</u>

	AIR-summary	template				Lic No:	P0507-01		P0507-01	2019	9	
	Answer all question	ons and complete all table	es where relevant									
								Additional informati	ion	Ī		
	Does your site h	nave licensed air emissio	ons? If yes please co	mplete table A1 a	and A2 below for the current							
1		•	•		issions and do not complete	There are no dust sensetive locations or dust monitoring locations within the licence area						
	a solve	ent management plan (table A4 and A5) yo	u <u>do not</u> need to	complete the tables	locations within the licence area						
						No						
	Doriodi	/Non Continuous N	Annitoring .									
	Periodic	c/Non-Continuous N	nonitoring									
2	Are there any res	ults in breach of licence re	equirements? If yes p	lease provide brief	details in the comment section							
			of TableA1 belo	w		NA						
2				Basic air								
3		g carried out in accordand d using the basic air monit		monitoring checklist	AGN2	NA						
	note AG2 an	u using the basic all monin	toring checklist:	CHECKIST	AGNZ	IVA						
	Table A1: Lice	nsed Mass Emission	ıs/Ambient data	-periodic mon	itoring (non-continuous)							
											Comments -reason	
				ELV in licence or				6 1::1			for change in % mass	
	Emission reference no:	Parameter/ Substance	Frequency of Monitoring	any revision therof	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence limit	Method of analysis	Annual mass load (kg)	load from previous year if applicable	
	_	SELECT			SELECT		SELECT	SELECT	SELECT	. 0,	, , ,	
		SELECT			SELECT		SELECT	SELECT	SELECT			
		SELECT			SELECT		SELECT	SELECT	SELECT			
	Note 1: Volumetri	SELECT c flow shall be included as	a reportable parame	ater	SELECT		SELECT	SELECT	SELECT			
	Note 1. Volumetri	e now shall be included as	ra reportable parame	.tci								
		Continuous N	Monitoring									
4	Doos vous sito sa	ry out continuous air emi	ssions monitoring?			SELECT						
				port the required f	ields below in Table A2 and	SLECT						
		compare it t	to its relevant Emission	on Limit Value (ELV)			T			Ī		
5	Did continuous me	onitoring equipment expe	rience downtime? If y	es please record d	owntime in table A2 below	SELECT						
6		active service agreement				SELECT						
	Do you nave a pro	active service agreement	ior each piece of con	unuous monitoring	g equipment?	SELECT						
7	Did your si	te experience any abatem	ent system bypasses	? If yes please deta	il them in table A3 below	SELECT						

Lic No:

P0507-01

P0507-01

2019

AIR-summary template

 AIR-summary template
 Lic No:
 P0507-01
 P0507-01
 2019

Table A2: Summary of average emissions -continuous monitoring

Emission	Parameter/ Substance		Averaging Period	Compliance Criteria	Units of	Annual Emission	Annual maximum	Monitoring	Number of ELV	Comments
reference no:					measurement			Equipment	exceedences in	
		ELV in licence or						downtime (hours)	current	
		any revision therof							reporting year	
	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 Bypass protocol

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

^{*} this should include all dates that an abatement system bypass occurred

	Solvent	use and manageme	nt on site						
8	Do you have a tota	l Emission Limit Value of (direct and fugitive em	issions on site? if y	es please fill out tables A4 and A	.5	SELECT		
	Table A4: Solvent Management Plan Summary Total VOC Emission limit value		Solvent Please refer to linked solvent regulations to regulations complete table 5 and 6						
	Reporting year Total solvent input on site (kg) Total VOC emissions to Air from entire site (direct and fugitive		emissions to Air	Total VOC emissions as %of solvent input Total Emission Limit Value (ELV) in licence or any revision therof					
						SELECT			
						SELECT			
	Table A5:	(I) Inputs (kg)	ce summary		(O)	Outputs (kg)			

^{**} 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

	AIR-summary t	template			Lic No:	P0507-01		P0507-01	2019	
	Solvent	(I) Inputs (kg)	Organic solvent emission in waste gases(kg)	Collected waste solvent (kg)	Solvent (kg)			Total emission of Solvent to air (kg)		
L							Total			

AER Mo	onitorin	ng returns sui	mmary template-W	ATER/WASTEW	VATER(SEWER	t)	Lic No:	P0507-01		Year	2019
								Additional information		1	
please	Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions. If you do not have licenced emissions you only need to complete table W1 and or W2 for storm water analysis and visual inspections				Yes						
2 water dis	Was it a requirement of your licence to carry out visual inspections on any surface 2 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				Quarterly Grab samp	oling results are attached.					
Ta	able W	1 Storm wate	er monitoring								
Locati refere	re	Location elative to site activities	PRTR Parameter	Licenced Parameter	_	ELV or trigger level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments
		SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	

SELECT

SELECT

SELECT

SELECT

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

SELECT

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
			SELECT		
			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	SELECT	Additional information
		Surface water monitoring was carried out on a quarterly basis. The results of which are attached.
Was all monitoring carried out in accordance with EPA		
guidance and checklists for Quality of Aqueous Monitoring External /Internal		
Data Reported to the EPA? If no please detail what areas <u>Lab Quality</u> <u>Assessment of</u>		
require improvement in additional information boy checklist results checklist	Voc	

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		ELV or trigger values in licence or any revision therof ^{Note 2}		Measured value		Compliant with licence			Annual mass load (kg)	Comments
	SELECT	SELECT	SELECT		SELECT		SELECT		SELECT	SELECT	SELECT	SELECT		

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

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

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER	R)	Lic No:	P0507-01	Year
Continuous monitoring			Additional Information	
5 Does your site carry out continuous emissions to water/sewer monitoring?	Yes			
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	Yes	The o	omposite sampler was down a total of 61 days in 20	019.
, Do you have a proactive service contract for each piece of continuous monitoring equipment on $^{7}\mathrm{site?}$	Yes	Annual calibr	ration schedule and trouble shooting service	
Did abatement system bypass occur during the reporting year? If yes please complete table W5 below	No			
Table W4: Summary of average emissions -continuous monitoring		•		

	Emission released to			0 0			1.5		Number of ELV exceedences in reporting year	Comments
SW-8	Water	Suspended Solids	35	24 hour	Not Listed	mg/L		1464	0	The composite sampler was down a total of 61 days in 2019 mainly due to battery failure. Its not possible to report average continuous emissions as this sampler is located on one of 22 silt ponds and samplers are moved around periodically to allow for analysis of other silt pond performance.
SW-8	Water	Ammonia (as N)	2.88	Weekly	NA	mg/L				
SW-8	Water	Total phosphorus	NA	Weekly	NA	mg/L				
SW-8	Water	COD	100	Weekly	NA	mg/L				
SW-8	Water	Volumetric flow	NA	24 hour	NA	m3/day				
SW-8	Water	Total Dissolved Solids	NA	Weekly	NA	mg/L				

2019

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

Table W5: Abatement system bypass reporting table

Date	Duration (hours)				When was this report submitted?
				EPA?	
				SELECT	

^{*}Measures taken or proposed to reduce or limit bypass frequency

Integrity reports retest!if ii maintained on Integrity test failure Scheduled date current	Bund/Pipeline tes	sting template				Lic No:	P0507-01		Year	2019	9				
The continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue of the continue o	Bund testing	7	dropdown menu c	lick to see options				Additional information					•		•
The second including inside programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and including strategies and second transport programma (and includin															
Protect provided registery stating frequency protecting frequency protec						mobile bunds must be		No fixed Bunds on site.							
These are to fined baseds in the Call Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Short Shor	1			(mobile bunds and cher	mstore included)										
Table 81 Summay detail of an analysis for the property financian in register of bunds, and experted developed profession for the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of the contribution of t	2 Please provide integrit	ty testing frequency perio	od				Other (2 Yearly)								
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Are you required by your licence to undertake integrity testing* on underground structures e.g., pipelines or sumps etc? If yes please fill out table 2 below listing 1 all underground structures and pipelines on site which failed the integrity test and all which have not been tested withing the integrity test period as specified 2 Please provide integrity testing frequency period *please note integrity testing frequency period *please note integrity testing frequency period Table 82: Summary details of pipeline/underground structures integrity test Type of secondary containment Type of secondary containment Does this structure have Does this structure have Structure ID Type system Material of construction: Secondary containment? SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT				?											
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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) Table B2: Summary details of pipeline/underground structures integrity test Type of secondary containment Does this structure ID Type system Material of construction: Secondary containment? Structure ID Type system Material of construction: Secondary containment? SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT															
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Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment Containment C															
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Structure ID Type system Material of construction: Secondary containment? Type integrity testing maintained on site? Results of test <50 words taken for retest reporting year) SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT SELECT				Does this structure have			Integrity reports			Corrective action	Scheduled date	Results of retest/if in current			
	Structure ID			Secondary containment?			maintained on site?					reporting year)			
Please use commentary for additional details not answered by tables/ questions above		SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT				SELECT			
Please use commentary for additional details not answered by tables/ questions above	L				1	1				1	1		1		
Please use commentary for additional details not answered by tables/ questions above								_							
			Please use comn	mentary for additional details	not answered by tables/ or	uestions above									

Groundwater/Soil monitoring template	Lic No:	P0507-01	Year	2019
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Comments

	COI	iments
Are you required to carry out groundwater monitoring as part of your licence requirements?	No	monitoring data in the interpretation box below or if
2 Are you required to carry out soil monitoring as part of your licence by you extract groundwater for use on siter if yes please specify	No	you require additional space please include a
³ use in comment section	No	groundwater/contaminated land monitoring results interpretaion as an additional section in this AER
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 <u>Groundwater</u>		
the Groundwater Monitoring Guideline Template monitoring Report (link in cell G8) and submit separately template	SELECT	
Is the contamination related to operations at the facility (either		
current and/or historic)	SELECT	
6 Have actions been taken to address contamination issues?If yes please summarise remediation strategies proposed/undertaken	SELECT	
7 Please specify the proposed time frame for the remediation	SELECT	
8 Is there a licence condition to carry out/update ELRA for the site?	SELECT	
9 Has any type of risk assesment been carried out for the site?	SELECT	
10 Has a Conceptual Site Model been developed for the site?	SELECT	
11 Have potential receptors been identified on and off site? 12 Is there evidence that contamination is migrating offsite?	SELECT SELECT	Please enter interpretation of data here
12 is there evidence that containination is migrating offsite:	JLLLCI	Flease effici filterpretation of data fiere

	water/Soil n	nonitoring t	emplate		Lic No:	P0507-01		Year	2019	
able 1:	Upgradient	Groundwa	ter monitorii	ng results						
Table 1: Upgradient Groundwater monitoring results Date of Sample sampli location ng reference e gy frequency Naximum Average SELECT SELECT										
										in pollutant
										concentration
Date		Paramet								over last 5
-					Maximum	_				years of
sampli		Substanc	Methodolo		Concentratio	Concentrati				
ng	reference	е	gy	frequency	n++	on+		GTV's*	SELECT**	
							SELECT			SELECT
	_									
					ured concentration	on from all mo	nitoring results	produced durir	ng the reporti	ing year
Table 2:	Downgradi	ent Ground	water monit	oring results		T	T			Г
										Unward trond
										· •
										_
										•
Date		Paramet								
	Sample				Maximum	Average				
•			Methodolo	Monitoring		_				[-
sampli				_	n	on	unit	GTV's*	SELECT**	_
•	reference	E	9)							
	reference	е	9)				SELECT			SELECT

water regulations supply)

GTV's

standards

EQS

(public supply)

<u>standards</u>

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/3011 monitoring template LIC NO. POSO7-01 Year 2019	Groundwater/Soil monitoring template	Lic No:	P0507-01	Year 2019
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Table 3: Soil results

Date		Paramet					
of	Sample	er/			Maximum	Average	
sampli	location	Substanc	Methodolo	Monitoring	Concentratio	Concentrati	
ng	reference	е	gу	frequency	n	on	unit
							SELECT
							SELECT

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

Environmental Liabilities template

Lic No:

P0507-01

Year

2019

Click here to access EPA guidance on Environmental Liabilities and Financial provision

			Commentary
1	ELRA initial agreement status		
		Not a licence requirement	
2	ELRA review status	NA	
3	Amount of Financial Provision cover required as determined by the latest ELRA	NA	
4	Financial Provision for ELRA status	NA	
_			
5	Financial Provision for ELRA - amount of cover	NA	
_	Financial Dravision for FLDA tune	NA	
6	Financial Provision for ELRA - type	NA NA	
7	Financial provision for ELRA expiry date	NA	
8	Closure plan initial agreement status	NA NA	
9	Closure plan review status	NA	
10	Financial Provision for Closure status	NA	
11	Financial Provision for Closure - amount of cover	NA	
12	Financial Provision for Closure - type	NA	
13	Financial provision for Closure expiry date	NA	

	Environmental Management Programme/Continuous Improvement Programm	o tomplato	Lic No:	P0507-01	Voor	2010
	Environmental Management Programme/Continuous improvement Programm	ie tempiate	LIC NO:	P0507-01	Year	2019
	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	Intern	al unaccredited EMS		
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	Yes				
	Does the EMS maintain an Environmental Management Programme (EMP) as required in					
3		Yes				
3	accordance with the needed requirements	103				
	Do you maintain an environmental documentation/communication system to inform the public on					
4	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	Training. Continue to train all employees in environmental matters. Training will be by means of the screening of an environmental DVD, followed by a power point presentation.	70	O person received training in 2019 as there was no production, with limited activities in general. Training takes place every three years.		Improved Environmental Management Practices
Waste reduction/Raw material usage efficiency	Waste Streamlining.It is planned to continue with and where possible improve the current waste management service provided by AES Ltd	100	Quarterly waste reports are returned for records/filing and waste streams are segrated on site to maximise recycling potential. As activities limited there was no waste produced in 2019.		Improved Environmental Management Practices

Environmental Management Pro	gramme/Continuous Im	provement Programn	ne template	Lic No:	P0507-01	Year 20
Reduction of emissions to Water	Training. Continue to train all employees in environmental matters. Training will be by means of the screening of an environmental DVD, followed by a power point presentation.	100	O person received training in 2019 as there was no production, with limited activities in general. Training takes place every three years.	Section Head	Improved Environmental Management Practices	
Materials Handling/Storage/Bunding	Increased bund capacity will be provided where required.	0	No additional bund capacity was required during 2019	Individual	Improved Environmental Management Practices	
Waste reduction/Raw material usage efficiency	Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing.	100	No polyethyelene was sent off site in 2019.	Individual	Improved Environmental Management Practices	

	N	oise monitor	ing summary	/ report			Lic No:	P0507-01	Year	2019	
		ce requirement oise summary be		od?				No]		
		d out using the E ment report" inc				of the	Noise Guidance note NG4	NA			
	te have a noise r		iluueu III tile guit	adiice note as	s table of		note NG4	NA	-		
		on plan last upda	ted?					Enter date			
Have there	been changes r	elevant to site no	oise emissions (e noise survey		perational o	hanges) sin	ce the last	NA			
Table N1: No	oise monitoring	summary									
Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
								SELECT	SELECT		SELECT
*Please ensure th		been carried out as pe						ne corrective action fro	om the following options?	SELECT	
										1	
			** please	explain the i	reason for n	ot taking ac	tion/resoluti	on of noise issues?			

Any additional comments? (less than 200 words)

Resource Usage/Energy efficiency summary Lic No: P0507-01 Year 2019

1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below

SEAI - Large Industry Energy Network (LIEN)

Is the site a member of any accredited programmes for reducing energy usage/water conservation

2 such as the SEAI programme linked to the right? If yes please list them in additional information

Network

Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

		Additional information
	Sep-18	
Yes		The site attained accrediation to the energy standard 50001
NA		

Table R1 Energy usag	e on site			
Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	414	0	-100	-100.00%
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (MWHrs)			
Electricity Consumption (MWHrs)	711	0	-100	-100
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	40	0	-100	-100.00%
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 usag	e on site]	•	. ,	Water Emissions		
	Water extracted		,	consumption if it	Volume Discharged back to	Volume used i.e not discharged to environment e.g. released as steam	
Water use	Previous year m3/yr.	Current year m3/yr.	reporting year**	production*	environment(m ³ yr):	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
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

Resource Usage/Energy efficiency summary	Lic No:	P0507-01	Year	2019
Resource Usage/Energy efficiency summary	Lic No:	P0507-01	Year	2019

Table R3 Waste Stream	Summary				,
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	0	0	0	0	0
Non-Hazardous (Tonnes)	0	0	0	0	0

Table R4: Energy Au	ıdit finding recommenda	tions]					
	Description of							Status and
Date of audit	Recommendations	Measures proposed	Origin of measures	savings %	Implementation date	Responsibility	Completion date	comments
			SELECT					
			SELECT					
			SELECT					

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

Primary Fuel Thermal Efficiency Unit Date of Commission Total Starts for year Total Running Time Total Electricity Generated (GWH) House Load (GWH)		•			7.11	
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		Unit ID	Unit ID	Unit ID	Unit ID	Station Total
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	Technology					
Unit Date of Commission Total Starts for year Total Running Time Total Electricity Generated (GWH) House Load (GWH) KWH per Litre of Process Water	Primary Fuel					
Total Starts for year Total Running Time Total Electricity Generated (GWH) House Load (GWH) KWH per Litre of Process Water	Thermal Efficiency					
Total Running Time Total Electricity Generated (GWH) House Load (GWH) KWH per Litre of Process Water	Unit Date of Commission					
Total Electricity Generated (GWH) House Load (GWH) KWH per Litre of Process Water	Total Starts for year					
House Load (GWH) KWH per Litre of Process Water	Total Running Time					
KWH per Litre of Process Water	Total Electricity Generated (GWH)					
	House Load (GWH)					
KWH per Litre of Total Water used on Site	KWH per Litre of Process Water					
	KWH per Litre of Total Water used or	Site				

Complaints ar	nd Incidents summary temp				Lic No:	P0507-01		Year	2019	
		Complaint	ts							
					Additional information	n				
					There were no					
					complaints of an					
Have your	accined any anyiranmental	complaints in the current repo	whine word If was		environmental					
		f complaints in the current repo		No	nature					
	Complaints summary	i compianits received on site in	Table 1 below	NU	nature					
Table 1	Complaints summary		Brief description of			1		1		
			complaint (Free txt	Corrective actions		Resolution				
Date	Category	Other type (please specify)		20 words		date	Further information			
Date	SELECT	Other type (picase specify)	120 Words)	20 W0103	SELECT	uutc	r di tilei illiorillation			
Total	SEEECT				SELECT			J		
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								

P0507-01 Complaints and Incidents summary template Lic No: Year 2019

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

All reportable incidents related to trigger levels for COD

*For information on how to report and

what co	nstitutes an incident	What is an incident	1											
Table 2 Incident	ts summary		T											
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 reoccurence
			o o o o o			Naturally Occuring		INCI016067						
21/02/2019	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)		Normal activities		New	Inspected Outfall	Monitor results	Complete	21/02/2019	Low
						Naturally Occuring		INCI016175						
13/03/2019	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI016432	Recurring	Inspected Outfall	Monitor results	Complete	14/03/2019	Low
02/05/2019	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)	Occurring	Normal activities		Recurring	Inspected Outfall	Monitor results	Complete	02/05/2019	Low
						Naturally Occuring		INCI016615						
05/06/2019	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)		Normal activities		Recurring	Inspected Outfall	Monitor results	Complete	05/06/2019	Low
13/06/2019	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI016717	Recurring	Inspected Outfall	Monitor results	Complete	13/06/2019	Low
						Naturally Occuring								
22/08/2019	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)		Normal activities	INCI017555	Recurring	Inspected Outfall	Monitor results	Complete	08/11/2019	Medium
27/08/2019	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI017572	Recurring	Inspected Outfall	Monitor results	Complete	08/11/2019	Medium
24/09/2019	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI017573	Recurring	Inspected Outfall	Monitor results	Complete	08/11/2019	Medium
						Naturally Occuring		INCI017574						
	Trigger level reached	SW6 Cuil na Mona	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI017575	New	Inspected Outfall	Monitor results	Complete	08/11/2019	Medium
05/11/2019	Trigger level reached	SW9 Cuil na Mona	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI017576	New	Inspected Outfall	Monitor results	Complete	08/11/2019	Medium
05/11/2019	Trigger level reached	SW19 Cuil na Carton	1. Minor	Water	Other (add details)		Normal activities		New	Inspected Outfall	Monitor results	Complete	08/11/2019	Medium
05/11/2019	Trigger level reached	SW14A Cuil na Carton	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI017577	New	Inspected Outfall	Monitor results	Complete	08/11/2019	Medium
20/06/2019	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI017660	Recurring	Inspected Outfall	Monitor results	Complete	26/11/2019	Medium
	Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI017661		Inspected Outfall	Monitor results	Complete	26/11/2019	Medium

mplaints and Incidents summary t	emplate			Lic No:	P0507-01		Year	2019	9				_
08/10/2019 Trigger level reached	SW8 Cuil na Mona	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI017662	Recurring	Inspected Outfall	Monitor results	Complete	26/11/2019	Medium
					Naturally Occuring		INCI017663					25/44/2040	
29/10/2019 Trigger level reached 05/11/2019 Trigger level reached		1. Minor	Water	Other (add details) Other (add details)	Naturally Occuring	Normal activities Normal activities	INCI017693	Recurring	Inspected Outfall	Monitor results Monitor results	Complete	02/12/2019	Medium
05/11/2019 Trigger level reached		1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI017694	New	Inspected Outfall	Monitor results	Complete	03/12/2019	Medium
05/11/2019 Trigger level reached	SW-9 Cuil na Carton	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI017695	New	Inspected Outfall	Monitor results	Complete	03/12/2019	Medium
05/11/2019 Trigger level reached	SW-12 Cuil na Carton	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI017695	New	Inspected Outfall	Monitor results	Complete	03/12/2019	Medium
05/11/2019 Trigger level reached	SW-14A Cuil na Carton	1. Minor	Water	Other (add details)	Naturally Occuring	Normal activities	INCI017695	New	Inspected Outfall	Monitor results	Complete	03/12/2019	Medium

Total number of incidents current year 21

Total number of incidents previous year 6
% reduction/ increase 70%

European							Country
Waste Code	Description of Waste (in line	Hazardous –	Quantity		Treatment Type – Recovered / Disposed /	Name, Address & Licence/Permit	
(EWC)	with applicable EWC code)	YES/NO	(Tonnes)	Name & Permit No. of Agent/Carrier	Recycled	No. of FINAL Destination	

^{*}Note: No waste tekn off site in 2019 due to No activity.

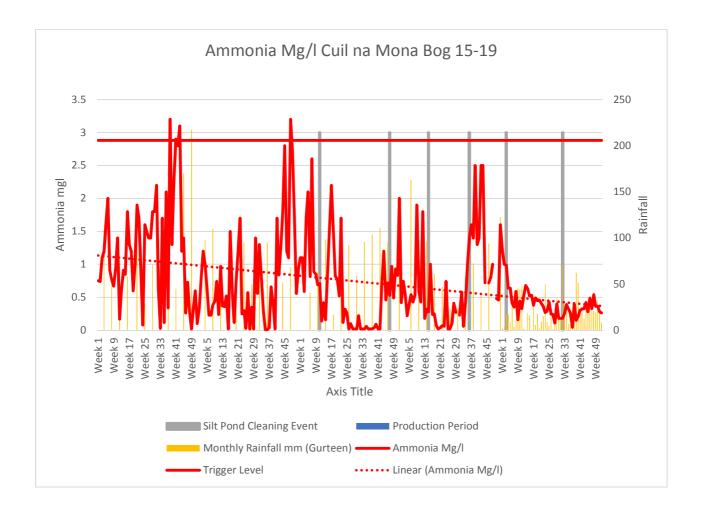
Coolnamona IPC Licence

Decommissioning and Rehabilitation

Bog Rehabilitation Progress Report 2019.

- No peatland rehabilitation actions were carried out in the Coolnamona licence area in 2019.
- There was ongoing monitoring of peatland rehabilitation carried out in previous years at Cashel Bog. Drain-blocking has re-wetted the targeted area and is developing typical pioneer cutaway habitats.
- The majority of the Bord na Móna property in this bog group has been
 organically certified with the aim of using some areas for the cultivation of plants
 for use in herbal medicine into the future. This project in ongoing. Bord na
 Mona have committed not to use herbicides in organically certified areas to
 maintain industrial railways and other infrastructure.
- Draft rehabilitation plans for the Coolnamona bogs licensed area, including more detailed draft plans for each component bog unit were submitted to the EPA in 2013 and these were reviewed and updated in 2015 and 2017, and again submitted to the EPA May 2018.
- The new Biodiversity Action Plan (2016-2021) was launched in 2016 with the annual Biodiversity Action Plan review day being held in May 2018. This included an update on the progress of this plan, bog restoration and cutaway rehabilitation for a wide range on statutory and non-statutory consultees including members of the EPA, NPWS, BWI, Bord na Mona, Coillte, Inland Fisheries Ireland, An Taisce, IPCC, Irish Red Grouse Association, Irish Wildlife Trust, NARGC, local game councils, Midland Regional Planning Authority as well as a range of local community groups and Heritage Officers from counties Laois, Offaly, Kildare, Roscommon, Longford, Meath, Galway, Westmeath and Dublin.
- A copy of our Biodiversity Action Plan is available to view and download at http://www.bordnamona.ie/our-company/biodiversity/

			Bord na	Mona Cuil								
		Quarterly (Grab Res	ults IPC Lice	ence P0507							
Х	Υ	Bog	SW	Monitoring	Sampled	рН	SS	TS	Ammonia	TP	COD	Colour
245488.4	191084.9	Cashel	SW-16	Q1 19	09/04/2019	6.8	5	254	0.54	0.05	89	393
246065.5	191080.9	Cashel	SW-17	Q1 19	09/04/2019	7.4	5	276	0.08	0.05	31	54
241983.5	195773.2	Coolnamona	SW-8	Q1 19	09/04/2019	7.1	5	172	0.65	0.09	71	309
244939.8	195193.2	Coolnacarton	SW-13	Q2 19	23/05/2019	7.9	5	324	0.79	0.05	84	122
246075	192615.1	Cashel	SW-18	Q2 19	23/05/2019	7.3	5	180	0.3	0.05	93	288
241454.2	198643.3	Coolnamona	SW-1	Q3 19	11/07/2019	7.3	6	330	1.4	0.1	71	132
240535.9	197955.6	Coolnamona	SW-2	Q3 19	11/07/2019	7.2	7	264	2.7	0.09	65	133
242328.8	198179.9	Coolnamona	SW-3	Q3 19	11/07/2019	7.3	5	292	2.7	0.08	79	130
241044	196363.1	Coolnamona	SW-6	Q4 19	05/11/2019	6.8	2	213	0.575	0.05	104	670
243248.9	196667.6	Coolnamona	SW-9	Q4 19	05/11/2019	6.5	2	318	0.076	0.05	198	970
242800.6	192359.5	Coolnacarton	SW-12	Q4 19	05/11/2019	5.2	2	200	0.034	0.05	171	880
243650.1	192140.2	Coolnacarton	SW-14	Q4 19	05/11/2019	6.7	2	130	1.19	0.05	71	389
243409.8	192198.7	Coolnacarton	SW-14A	Q4 19	05/11/2019	4.8	2	186	0.118	0.05	134	776



The composite sampler has been located at this bog since 2015. This bog has not been in production for several years and will be entering the decommissioning and rehabilitation phase. The composite sampler takes a flow proportional composite sample over a 24hour period. The sampler had 16% downtime during the period but returned 52 weekly ammonia results during the period of this 2019 AER, by ensuring grab samples were taken when the sampler was down. The ammonia trigger level of 2.88mg/l, as agreed with the Agency, was not exceeded during the period. Combining the 2015 to 2019 results above demonstrates concentrations continuing to trend downwards and this is in-line with the downwards/level trends submitted to the EPA in 2013 as required by condition 6.14.

As has been establish previously, there is no obvious link between activities and ammonia concentrations. Comparing monthly rainfall from the nearest met station at Gurteen shows an expected link between rainfall and a lagging peak in ammonia concentrations, however all results were below the trigger level.

The sampler at this location may be relocated to fill any information gaps on other peatland catchments and to reflect the need to support the information gathering required for the Water Framework Directive's River Basin Management Plan. There is also an EPA lead research project commencing in 2019, called the SWAMP project, whose aims are to appraise and understand the nutrient impact from peatlands, to evaluate treatment technologies and to propose predictive tools for watershed management.

Extractive Waste Management Plan Implementation AER Update 2019

March 2020.

IPC Licence P0507-01.

1.0 Extractive Wastes.

Waste classified as extractive waste from peat extraction operations arise from two operations associated with this activity.

- Silt Pond excavations and maintenance
- Bog Timbers

There has been no change to the type and nature of these two waste streams and no new waste streams added to this list. These wastes streams continue to be stored and maintained at between 1 and 3 metres in height.

2.0 Condition 7.5 Extractive Waste Management

- An extractive waste management plan (EWMP) was submitted to the Agency in September 2012 and was approved.
- The EWMP was reviewed in September 2017. There were no substantial changes to the operation of the plan, associated waste facilities or to the waste deposited. The EWMP will be reviewed again in September 2022.

3.0 Minimisation

- The IPC Licence has various conditions that require the installation, inspections and maintenance of silt ponds for operational areas and as such these requirements dictate the need for silt ponds and associated excavation materials and cleanings.
- Bog timbers arise from the active production footprint and are naturally occurring. The active footprint is dictated by the peat production targets and customer supply contract and service level agreements.

4.0 Treatment

- Silt pond excavation and maintenance materials do not require any treatment and are stored as per the EWMP, adjacent to the associated silt pond.
- There is no treatment of bog timbers arising and these are stockpiled at various locations in associated bogs.

5.0 Recovery

- As per the EWMP, there is still no opportunity to recover these silt pond associated materials
- Bog timbers stored on the bog are natural to the peat bog and while there have been trails to recover this waste material, these have not proved viable.

6.0 Disposal

- Silt pond cleanings continue to be disposed of adjacent to the associated silt pond and will be incorporated back into the rehabilitation plans for these bogs, post production and decommissioning.
- Bog timbers will continue to be stockpiled at suitable locations to be either incorporated back into the bog, as a supply of bog timbers for the crafting industry or will continue to decay naturally.

Siltpond Cleaning Programme 2019 IPPC Licence: P0503-01

Works: Allen				
Bog Area & Nr Ponds	1 Cleaning	2 Cleanings	3 Cleanings	4 Cleanings
Daingean (20)	20	20		
Clonad (7)	7	7		
Ballykeane (8)	8	8		
Mount Lucas(2)	2	2		
Esker (9)	9	9		
Ballycon (1)	1	1		
Cloncreen (10)	10	10		
Garrymore (4)	4	4		
Derrylea (2)	2	2		
Ballydermot (13)	13	13		
Blackriver (10)	10	10		
Lullymore (15)	12	12		
Ballykilleen(1)	1	1		

