SELECT	cells that are highlighted blue cont
guidance document link	cells that contain underlined text c
Table heading *	table headings followed by a symb
Cells with red indicator in top right corner	cells that have a red indicator in th

Please note an interpretation of results is still required. This should be en appropriately to fit your interpretation, if additional space is required plea template should have all cells sized appropri

:ain a dropdown menu click to select one option from the list

click to access relevant guidance documents for this section

ol have an associated footnote or instructions

ие top right corner contain a comment box with further instructions or clarification

ntered in the additional information/comments boxes within the templates. Please size these boxes se include an appendix to the AER template and merge it as part of the AER PDF document. The excel ately so that all text is readable before it is converted to PDF document.

Facility Information	on Summary		_
AER Reporting Year	2017		
Licence Register Number	W0022-01		
Name of site		East Corl	k Landfill
Site Location		Rossmore, Carrig	twohill, Co. Cork
NACE Code		38	21
Class/Classes of Activity		5(c), 5(	d), 50.1

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.

National Grid Reference (6E, 6 N)

East Cork Landfill has been closed since February 2007. Final Capping took place in 2008 and was completed in 2009. The environmental performance of the facility has continued to improve in comparison with previous years. No complaints were registered in 2017. The gas extraction system has continued to perform with the enclosed flare burning off the gas generated. Minor exceedences have again been measured in the perimeter gas wells but are explained by the estuarine conditions and limestone bedrock that account for naturally occuring CO2 and CH4. Both Leachate and groundwater results are similar to previous years. The noise survey was compliant for the year as would be expected with no large landfill compacting plant operating on the site. Overall the site has been compliant with its Licence.

8.25588E 51.8851N

# **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.

of the info	<u>rmation is assured to meet licence requiremen</u>
	28/03/2018
Signature, M e M	Date
experienced deputy)	

	AIR-summary template	Lic No:	W0022-01	Year	2017
	Answer all questions and complete all tables where relevant		Additional in	oformation.	
1	Does your site have licensed air emissions? If yes please complete table A1 and A2 below for the current reporting year and answer further questions. If you do not have licenced emissions and do not complete a solvent management plan (table A4 and A5) you do not need to complete the tables	Yes	Additional ir	normation	
	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 monitoring checklist?  checklist AGN2	Yes			
	Table A1: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous)				

Emission reference no:	Parameter/ Substance	Frequency of Monitoring	ELV in licence or any revision therof	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence limit	Method of analysis	Annual mass	Comments - reason for change in % mass load from previous year if applicable
					677554					load refers to
Flare Stack	Methane (CH4)	Continuous	N/A	SELECT		m3	yes	MAB		difference
					401789					load refers to
Flare Stack	Carbon dioxide (CO2)	Continuous	N/A	SELECT		m3	yes	ISO 12039:2001		difference
				No 30min mean can exceed	7.6					
Flare Stack	Carbon monoxide (CO)	Continuous		the ELV		mg/Nm3	yes	ISO 12039:2001	18.5	
	Nitrogen oxides			No 30min mean can exceed	122.7					
Flare Stack	(NOx/NO2)	Annual	<150mg/Nm3	the ELV		mg/Nm3	yes	EN 14792:2005	298.66	
	Sulphur oxides			No 30min mean can exceed	106.22					
Flare Stack	(SOx/SO2)	Annual	N/A	the ELV		mg/Nm3	yes	EN 14792:2005	43.64	

	AIR-summary template	Lic No:	W0022-01	Year	2017
	Continuous Monitoring				
4	Does your site carry out continuous air emissions monitoring?	Yes			
	If yes please review your continuous monitoring data and report the required fields below in Table A2 and compare it to its relevant Emission Limit Value (ELV)				
5	Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	Yes			
6	Do you have a proactive service agreement for each piece of continuous monitoring equipment?	Yes			
7	Did your site experience any abatement system bypasses? If yes please detail them in table A3 below	No			
	Table A2: Summary of average emissions -continuous monitoring				

Emission reference no:	Parameter/ Substance	ELV in licence or any revision therof		Compliance Criteria	Units of measurement	Annual Emission	Equipment downtime (hours)	Number of ELV exceedences in current reporting year	Comments
Flare Stack	PRTR	N/A	12 month	100 % of values < ELV	m3		178		Have recorded the combined annual downtime of Flare at East Cork Landfill Landfill in this section. The emissions totals have been submitted in the above table.
	SELECT				SELECT				
	SELECT				SELECT				
	SELECT				SELECT				
	SELECT				SELECT				

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

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

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

<sup>\*</sup> this should include all dates that an abatement system bypass occurred

<sup>\*\*</sup> 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:	W0022-01		Year	2017
Solve	ent use and manageme	nt on site							
Do you have a	total Emission Limit Value of d	irect and fugitive emi	ssions on site? if ye	s please fill out tables A4 and A5			SELECT		
	olvent Management Pla imission limit value	in Summary	Solvent regulations	Please refer to linked solver complete table 5			occo.		
Reporting year	ar Total solvent input on site (kg)		emissions as %of solvent input	Total Emission Limit Value (ELV) in licence or any revision therof	Compliance				
					SELECT				
Table /	 \S: Solvent Mass Baland	e summary			SELECT				
Table	(I) Inputs (kg)	ce summary		(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-	Solvents destroyed onsite through	Total emission of Solvent to air (kg)	
<u> </u>	•				•	•	Total		

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)		Lic No:	W0022-01		Year	2017		
			Additional info	rmation	=			
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	No							
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	No							
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
sw1				Quarterly	No ELV or					Median vaule
	upstream		pH	200.00.0	trigger levels	N/A	7.8	pH units	yes	for 2017
sw1				Quarterly	No ELV or					Median vaule
3001	upstream		Temperature	Quarterly	trigger levels	N/A	9.0	degrees C	yes	for 2017
sw1				Quarterly	No ELV or					Median vaule
SWI	upstream		Conductivity	Quarterly	trigger levels	N/A	6984.0	μS/cm @20oC	yes	for 2017
sw1				Quartorly	No ELV or					Median vaule
5W1	upstream		Dissolved Oxygen	Quarterly	trigger levels	N/A	9.1	mg/L	yes	for 2017

EK WOULTO	ing returns su	mmary template-W/	ATEN/ WASTEWA	ATER(SEVVER)		Lic No:	W0022-01	_	Year	
sw1				Quarterly	No ELV or					Median
3W1	upstream	Chlorides (as Cl)		Quarterly	trigger levels	N/A	17650	mg/L	yes	for 2
					No ELV or					Mediar
sw1	upstream		BOD	Quarterly	trigger levels	N/A	<1	mg/L	yes	for 2
	ирэн сан		БОБ			IV/A	1	IIIg/L	yes	
sw1				Quarterly	No ELV or					Mediar
	upstream		COD		trigger levels	N/A	342.0	mg/L	yes	for 2
sw1				Quarterly	No ELV or					Mediar
2441	upstream		Ammonia (as N)	Quarterly	trigger levels	N/A	0.5	mg/L	yes	for 2
					No ELV or					Mediar
sw1	upstream		Suspended Solids	Quarterly	trigger levels	N/A	63.5	mg/L	yes	for 2
	upstream	Chromium and	Suspenueu Sonus		No ELV or	IN/A	03.3	IIIg/L	yes	
sw1				Annual						Annual v
	upstream	compounds (as Cr)			trigger levels	N/A	<3	μg/L	yes	20:
sw1		Copper and		Annual	No ELV or					Annual v
2441	upstream	compounds (as Cu)		Allitual	trigger levels	N/A	<0.3	μg/L	yes	20:
		Cadmium and			No ELV or					Annual v
sw1	upstream	compounds (as Cd)		Annual	trigger levels	N/A	<0.08	μg/L	yes	20:
	upstream	compounds (as cu)			trigger levels	IN/A	<0.08	μg/ L	yes	
										Annual v
	upstream		CALCIUM			N/A	323.0	mg/L	yes	20:
sw1				Americal	No ELV or					Annual v
SWI	upstream		Iron	Annual	trigger levels	N/A	<0.95	μg/L	yes	20:
		Lead and compounds			No ELV or				,	Annual v
sw1	unstroam	(as Pb)		Annual		N/A	<0.2	ma/l	VOS	
	upstream	(dS PD)			trigger levels	IN/A	NU.Z	mg/L	yes	20:
					No ELV or					Annual v
sw1				Annual						2017. El
	upstream		Magnesium		trigger levels	N/A	1030.0	mg/L	yes	due to g
			Manganese (as		No ELV or	,			,	Annual v
sw1				Annual		N1/A	24.0	/1		
	upstream		Mn)		trigger levels	N/A	24.8	μg/L	yes	20:
sw1		Mercury and		Annual	No ELV or					Annual v
5112	upstream	compounds (as Hg)		Ailliadi	trigger levels	N/A	<0.01	μg/L	yes	20:
					No ELV or					Annual v
sw1	upstream		Potassium	Annual	trigger levels	N/A	312.0	mg/L	yes	20:
	apstream		Totassiani		trigger levels	,,,,	JIE.O	8/ =	703	
					N = 511/ ==					Annual v
sw1				Annual	No ELV or					2017. S
					trigger levels					site at e
	upstream		Sulphate			N/A	2470.0	mg/L	yes	
			Total Oxidised		No ELV or					Annual v
sw1	upstream		Nitrogen (TON)	Annual	trigger levels	N/A	<0.1	mg/L	yes	20
		Zinc and compounds			No ELV or	,			,	Annual
sw1				Annual		N1/A	13.3	/1		
	upstream	(as Zn)			trigger levels	N/A	13.2	μg/L	yes	20:
sw1				Annual	No ELV or					Annual v
****	upstream	Total phosphorus		71111001	trigger levels	N/A	22.2	mg/L	yes	20:
sw2					No ELV or					Mediar
SWZ	upstream		pH	Quarterly	trigger levels	N/A	7.8	pH units	yes	for 2
			,		No ELV or				,	Mediar
sw2	upstream		Temperature	Quarterly		N/A	9.0	degrees C	VOC	for 2
	ирзисан		remperature		trigger levels	IN/A	3.0	uegrees c	yes	
sw2				Quarterly	No ELV or					Mediar
	upstream		Conductivity	L ,	trigger levels	N/A	8060.0	μS/cm @20oC	yes	for 2
sw2				0	No ELV or					Mediar
SWZ	upstream		Dissolved Oxygen	Quarterly	trigger levels	N/A	8.9	mg/L	yes	for 2
			/ -		No ELV or				,	Mediar
sw2	upstream	Chlorides (as Cl)		Quarterly		N/A	18100	mg/L		for 2
	upstream	Cilionaes (as Ci)			trigger levels	IN/A	18100	IIIg/L	yes	
sw2				Quarterly	No ELV or					Mediar
****	upstream		BOD	Q==:::,	trigger levels	N/A	<1	mg/L	yes	for 2
					No ELV or					Mediar
sw2	upstream		COD	Quarterly	trigger levels	N/A	503.8	mg/L	yes	for 2
					No ELV or	,			144	Mediar
sw2			A ( NI)	Quarterly		N1/A	0.1	/1		
	upstream		Ammonia (as N)	-	trigger levels	N/A	0.1	mg/L	yes	for 2
sw2				Quarterly	No ELV or					Mediar
3 VV Z	upstream		Suspended Solids	quarterly	trigger levels	N/A	94.9	mg/L	yes	for 2
		Chromium and			No ELV or					Annual v
sw2	upstream	compounds (as Cr)		Annual		N/A	<3	μg/L	yes	20
	apstream				trigger levels	IV/M	-5	μg/ L	yes	
		Copper and		Annual	No ELV or					Annual v
sw2	upstream	compounds (as Cu)		,	trigger levels	N/A	<0.3	μg/L	yes	20
sw2		Cadmium and		A	No ELV or					Annual v
				Annual	trigger levels	N/A	<0.08	μg/L	yes	20
sw2	upstream	compounds (as Cd)								- 20
sw2	upstream	compounds (as Cd)			trigger levels				,	Annuals
		compounds (as Cd)	CALCUINA		trigger revers	N1/A	240.0			Annual v
sw2	upstream upstream	compounds (as Cd)	CALCIUM		No ELV or	N/A	340.0	mg/L	yes	Annual v 20 Annual v

MONITO	ring returns su	mmary template-W/	ATEK/WASTEWA	(SEWER)		Lic No:	W0022-01		Year	
sw2		Lead and compounds		Annual	No ELV or					Annual v
JWL	upstream	(as Pb)		71111001	trigger levels	N/A	<0.2	μg/L	yes	20:
_					No ELV or					Annual v
sw2				Annual	trigger levels		4000.0	10		2017. El
	upstream		Magnesium			N/A	1080.0	mg/L	yes	duator
sw2			Manganese (as	Annual	No ELV or					Annual v
	upstream		Mn)		trigger levels	N/A	12.6	μg/L	yes	20:
sw2		Mercury and		Annual	No ELV or					Annual v
	upstream	compounds (as Hg)		71111001	trigger levels	N/A	<0.01	mg/L	yes	20:
sw2				Annual	No ELV or					Annual v
3442	upstream		Potassium	Allitual	trigger levels	N/A	346.0	mg/L	yes	20:
sw2				Annual	No ELV or					Annual v
SWZ	upstream		Sulphate	Annuai	trigger levels	N/A	2640.0	mg/L	yes	20:
2			Total Oxidised		No ELV or					Annual v
sw2	upstream		Nitrogen (TON)	Annual	trigger levels	N/A	<0.1	mg/L	yes	20
_		Zinc and compounds			No ELV or					Annual v
sw2	upstream	(as Zn)		Annual	trigger levels	N/A	2.7	μg/L	yes	20:
		(22 2)			No ELV or	,		P-67 -	7-0-	Annual
sw2	upstream	Total phosphorus		Annual	trigger levels	N/A	<20	mg/L	ves	20
	apstream	Total phosphoras			No ELV or	19/75	120	mg/c	yes	Mediar
sw3	downstroam		nH	Quarterly		N/A	7.0	nH units	voc	
	downstream		pН		trigger levels No ELV or	IN/A	7.8	pH units	yes	for 2 Mediar
sw3			_	Quarterly						
	downstream		Temperature		trigger levels	N/A	8.6	degrees C	yes	for 2
sw3				Quarterly	No ELV or					Mediar
	downstream		Conductivity		trigger levels	N/A	36.5	μS/cm @20oC	yes	for 2
sw3				Quarterly	No ELV or					Media
3113	downstream		Dissolved Oxygen	Quarterly	trigger levels	N/A	9.2	mg/L	yes	for 2
sw3				Quarterly	No ELV or					Media
3W3	downstream	Chlorides (as Cl)		Quarterly	trigger levels	N/A	1775.0	mg/L	yes	for 2
2				0 1 1	No ELV or					Media
sw3	downstream		BOD	Quarterly	trigger levels	N/A	2.2	mg/L	yes	for 2
					No ELV or				,	Media
sw3	downstream		COD	Quarterly	trigger levels	N/A	537.0	mg/L	yes	for 2
					No ELV or	,			7-0-	Media
sw3	downstream		Ammonia (as N)	Quarterly	trigger levels	N/A	0.5	mg/L	yes	for 2
	downstream		Allillollia (as iv)		No ELV or	IN/A	0.5	IIIg/L	yes	Media
sw3	downstream		Suspended Solids	Quarterly	trigger levels	N/A	87.8	mg/L	yes	for 2
	downstream	Chromium and	Suspended Sonds		No ELV or	IN/A	87.8	IIIg/L	yes	Annual v
sw3				Annual				/		
	downstream	compounds (as Cr)			trigger levels	N/A	<3	μg/L	yes	20
sw3		Copper and		Annual	No ELV or					Annual v
	downstream	compounds (as Cu)			trigger levels	N/A	<0.3	μg/L	yes	20
sw3		Cadmium and		Annual	No ELV or					Annual v
	downstream	compounds (as Cd)			trigger levels	N/A	<0.08	μg/L	yes	20
sw3				Annual	No ELV or					Annual v
	downstream		CALCIUM	71111001	trigger levels	N/A	341.0	mg/L	yes	20
sw3				Annual	No ELV or					Annual v
5.45	downstream		Iron	Ailliuai	trigger levels	N/A	1.6	μg/L	yes	20
sw3		Lead and compounds		Annual	No ELV or					Annual v
3443	downstream	(as Pb)		Allitudi	trigger levels	N/A	<0.2	μg/L	yes	20
				•						
										Annual
sw3				Annual	No ELV or					2017. E
					trigger levels					due to g
	downstream		Magnesium		1	N/A	1110.0	mg/L	yes	of the
	dom.stream		Manganese (as		No ELV or	14/75		IIIg/ L	703	Annual v
sw3	downstream			Annual		N/A	34.8	ug/I	ves	20
	downstream	Mercury and	Mn)		trigger levels No ELV or	IN/A	34.0	μg/L	yes	Annual v
sw3	d	,		Annual		21/2	+0.01	/1		
	downstream	compounds (as Hg)			trigger levels	N/A	<0.01	mg/L	yes	20
sw3				Annual	No ELV or					Annual
-	downstream		Potassium		trigger levels	N/A	334.0	mg/L	yes	20
					1					Annual v
sw3				Annual	No ELV or					2017
3443				Ailliuai	trigger levels					locat
	downstream		Sulphate		<u> </u>	N/A	2490.0	mg/L	yes	estu
2			Total Oxidised		No ELV or					Annual
sw3	downstream		Nitrogen (TON)	Annual	trigger levels	N/A	<0.1	mg/L	yes	20
		Zinc and compounds	, -8 ( · 511)		No ELV or				,	Annual v
sw3		Line and compounds		Annual	INO LEV OI					

AER Mo	onitoring returns	summary template-W	/ATER/WASTEW	ATER(SEWER)		Lic No:	W0022-01		Year	2017								
SW:	,			Annual	No ELV or					Annual value for								
SW.	downstrea	m Total phosphorus		Allitual	trigger levels	N/A	30.700	mg/L	yes	2017								
	SELECT	SELECT	SELECT			N/A		SELECT	SELECT									
	SELECT	SELECT	SELECT			N/A		SELECT	SELECT									
License	d Emissions to v	ater and /or wastewa	ater(sewer)-perio	odic monitorir	g (non-continu	ious)												
Mac the	ro any recult in bread	of licence requirements? If	voc placea provida bri	iof dotails in the		]												
3 Was tile		comment section of Table W			SELECT		Additional information											
Was a	I monitoring carried o	ut in accordance with EPA																
		ality of Aqueous Monitoring	External /Internal															
		no please detail what areas		Assessment of														
4 requ	ire improvement in a	ditional information box	checklist	results checklist	SELECT													
Table V	/3: Licensed Emi	sions to water and /c	r wastewater (se	ewer)-periodi	monitoring (n	on-continuous)												
			•		٠.	•			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	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 please compare results against EQS for Surface water or relevant receptor quality standards

	Note 2: Where Emission Limit Values (ELV) do not apply to your licence please compare results again	ist EQS for Surface v	water of relevant receptor quality standards
	Continuous monitoring		Additional Information
5	Does your site carry out continuous emissions to water/sewer monitoring?	SELECT	
	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 blow below	SELECT	
7	Do you have a proactive service contract for each piece of continuous monitoring equipment on site?	SELECT	
8	Did abatement system bypass occur during the reporting year? If yes please complete table W5 below	SELECT	

Table W4: Summary of average emissions -continuous monitoring

			ELV or trigger					% change +/- from			
			values in licence or					previous reporting	Monitoring	Number of ELV	
Emission	Emission		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
	SELECT	SELECT		SELECT	SELECT	SELECT					
	SELECT	SELECT		SELECT	SELECT	SELECT					

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

Table W5: Abatement system bypass reporting table

Table WJ. A	Datement 3yst	em 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	

<sup>\*</sup>Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline tes	ting template				Lic No:	W0022-01		Year	2017					1
Bund testing	1	dropdown menu cli	ck to see ontions				Additional information							•
	ur licence to undertake in	tegrity testing on bunds and cont	•	ease fill out table B1 below	listing all new bunds and		Additional information							
		bunds which failed the integrity			bunds must be listed in									
1		e the licenced testing period (mob	olle bunds and chemstore inc	luded)		Yes								
<ol> <li>Please provide integrity</li> <li>Does the site maintain</li> </ol>		i rground pipelines (including storn	nwater and foul). Tanks, sum	ns and containers? (contain	ers refers to "Chemstore"	3 years		+						
3 type units and mobile b	ounds)	.0 6. F ( 6	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, , , , , , , , , , , , , , , , , , , ,		No								
4 How many bunds are o		nin the required test schedule?				-	3	-						
6 How many mobile bund		iin the required test schedule?					)	+						
7 Are the mobile bunds in						No								
8 How many of these mo 9 How many sumps on sit		ted within the required test sched	fule?					+						
10 How many of these sun								1						
Please list any sump int 11 Do all sumps and chami	tegrity failures in table B1					N/A		_						
		in a maintenance and testing pro	gramme?			N/A N/A		+						
13 Is the Fire Water Reten	ition Pond included in you	ir integrity test programme?				SELECT		1						
Tab	le B1: Summary details of	bund /containment structure into	egrity test	1										
	, , , , , , , , , , , , , , , , , , , ,													
													4	
													4	Results of
Bund/Containment									Integrity reports maintained on		Integrity test failure		Scheduled date	retest(if in 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
Leachate Lagoon	reinforced concrete		leachate	1400		Structural assessment		Nov-08	Yes	Pass		SELECT	2018	
Surfacewater Lagoon Surfacewater Lagoon	reinforced concrete reinforced concrete		surfacewater surfacewater	10000 2500		Structural assessment Structural assessment		Nov-08 Nov-08	Yes	Pass Pass		SELECT	2018	
* Capacity required should com	ply with 25% or 110% containment	rule as detailed in your licence					Commentary	<del>-</del>	1		1			
Has integrity testing be 15 line with BS8007/EPA G		nce with licence requirements and	d are all structures tested in	bunding and storage guideling	nes	Yes								
16 Are channels/transfer s	systems to remote contain				<del></del> -	SELECT								
17 Are channels/transfer	systems compliant in both	n integrity and available volume?				Yes								
Pipeline/undergro	und structure testing							<b>-</b>						
Are you required by you	ur licence to undertake in	tegrity testing* on underground s	structures e.g. pipelines or su	mps etc ? if yes please fill o	ut table 2 below listing all									
		ich failed the integrity test and a	ll which have not been tested	d withing the integrity test p	period as specified	SELECT		-						
2 Please provide integrity *please note integrity t		រ ness testing for process and foul p	pipelines (as required under v	our licence)		SELECT		_1						
				1										
Table	B2: Summary details of p	ipeline/underground structures in	ntegrity test									1		
				Type of secondary										
				containment				Integrity test						
			Does this structure have			Integrity reports		failure explanation			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			
	SEECT	SEEECT	SEECT	SEECT	SEEECI	SEECO	SEEECI				SEEECT			
									1			-		
<u> </u>									1	<del></del>		4		
							╗							
		Please use comm	nentary for additional details	not answered by tables / our	estions ahove									
		r rease ase commi	icina, ioi additional details	not answered by tables/ qui	LUCIUM BUOVE		1							

Groundwater/Soil monitoring template	Lic No:	W0022-01	Year	2017	
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### Comments

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?  3 Do you extract groundwater for use on site? If yes please specify use in comment section  Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there an upward  4 trend in results for a substance? If yes, please complete the Groundwater Monitoring Guideline Template Report (link in cell G8) answer questions 5-12 below.  5 Is the contamination related to operations at the facility (either current and/or historic)  6 Have actions been taken to address contamination issues? If yes please summarise remediation strategies proposed/undertaken for the remediation strategy  8 Is there a licence condition to carry out for the site?  9 Has any type of risk assessment because of the site?  10 Has a Conceptual Site Model been developed for the site?  Please sprovide an interpretation of groundwater monitoring data in the interpretation box below or if you require additional space please interpretation box below or if you require additional space please interpretation box below or if you require additional space please interpretation box below or if you require additional space please interpretation box below or if you require additional space please interpretation box below or if you require additional space please include a groundwater/contaminated land monitoring results include a groundwater for use and additional space please include a groundwater for use include a groundwater for use and additional space please include a groundwater for use include a for use i					
3 Do you extract groundwater for use on site? If yes please specify use in comment section  Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there an upward  4 trend in results for a substance? If yes, please complete the Groundwater Monitoring Guideline Template Report (link in cell G8) Groundwater and submit separately through ALDER as a licensee return AND monitoring answer questions 5-12 below.  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  7 Please specify the proposed time frame for the remediation strategy  8 Is there a licence condition to carry out/update ELRA for the site?  9 Has any type of risk assessment been carried out for the site?  10 Has a Conceptual Site Model been developed for the site?  yes  include a groundwater/contaminated land monitoring results interpretation as an additional section in this AER  interpretation as an additional section in this AER  interpretation as an additional section in this AER  There are 5 ground water wells on site at East Cork Landfill. BH3 &BH4  are up gradient while BH1 & BH2 are down gradient . BH5 located on private property, was dry during 2017, TOC and ammonia tigger limits fro BH1/BH2 &BH3 were not exceeded. Quarterly ammonia tigger limits fro BH1/BH2 &BH3 were not exceeded. Quarterly ammonia tigger limits fro BH1/BH2 &BH3 were not exceeded. Quarterly developed for the site?  9 Has any type of risk assessment been carried out for the site?  yes  4 the location of the site in realtion to the estuary and the effect of slaine	1 1	to carry out groundwater monitoring as part of your	licence	yes	Please provide an interpretation of groundwater monitoring data in the
Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there an upward  4 trend in results for a substance? If yes, please complete the Groundwater Monitoring Guideline Template Report (link in cell G8) Groundwater and submit separately through ALDER as a licensee return AND monitoring answer questions 5-12 below.  5 Is the contamination related to operations at the facility (either current and/or historic) 6 Have actions been taken to address contamination issues?If yes please summarise remediation strategies proposed/undertaken for the site 7 Please specify the proposed time frame for the remediation strategy 8 Is there a licence condition to carry out/update ELRA for the site? 9 Has any type of risk assessment been carried out for the site? 9 Has any type of risk assessment been carried out for the site? 9 Has a Conceptual Site Model been developed for the site? 9 Location of the site in realtion to the estuary and the effect of slaine	2 Are you required	to carry out soil monitoring as part of your licence re	equirements?	no	interpretation box below or if you require additional space please
criteria such as GTVs or IGVs are exceeded or is there an upward  4 trend in results for a substance? If yes, please complete the Groundwater Monitoring Guideline Template Report (link in cell G8) answer questions 5-12 below.  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 7 Please specify the proposed time frame for the remediation strategy 8 Is there a licence condition to carry out/update ELRA for the site?  9 Has any type of risk assesment been carried out for the site?  10 Has a Conceptual Site Model been developed for the site?  9 Lass and the facility (either current and/or historic) no  There are 5 ground water wells on site at East Cork Landfill. BH3 &BH4 are up gradient while BH1 & BH2 are down gradient. BH5 located on private property, was dry during 2016&2017. During 2017, TOC and ammonia tigger limits fro BH1/BH2 &BH3 were not exceeded. Quarterly parameters such as conducivity, chlorides, sodium and potassium were exceeded frequently during 2017. These exceedences are attributed to the location of the site in realtion to the estuary and the effect of slaine	<sup>3</sup> Do you extract gro	oundwater for use on site? If yes please specify use in	n comment section	no	
6 Have actions been taken to address contamination issues?If yes please summarise remediation strategies proposed/undertaken for the site  7 Please specify the proposed time frame for the remediation strategy 8 Is there a licence condition to carry out/update ELRA for the site?  9 Has any type of risk assesment been carried out for the site?  10 Has a Conceptual Site Model been developed for the site?  yes  are up gradient while BH1 & BH2 are down gradient . BH5 located on private property , was dry during 2017, TOC and ammonia tigger limits fro BH1/BH2 &BH3 were not exceeded. Quarterly parameters such as conducivity, chlorides, sodium and potassium were exceeded frequently during 2017. These exceedences are attributed to the location of the site in realtion to the estuary and the effect of slaine	criteria such as G 4 trend in results fo Groundwater Mo and submit separa	IVs or IGVs are exceeded or is there an upward or a substance? If yes, please complete the nitoring Guideline Template Report (link in cell G8) ately through ALDER as a licensee return AND	monitoring	no	
remediation strategies proposed/undertaken for the site  SELECT  private property, was dry during 2016&2017. During 2017, TOC and ammonia tigger limits fro BH1/BH2 &BH3 were not exceeded. Quarterly parameters such as conducivity, chlorides, sodium and potassium were 9 Has any type of risk assessment been carried out for the site?  10 Has a Conceptual Site Model been developed for the site?  yes  private property, was dry during 2017, During 2017, TOC and ammonia tigger limits fro BH1/BH2 &BH3 were not exceeded. Quarterly parameters such as conducivity, chlorides, sodium and potassium were exceeded frequently during 2017. These exceedences are attributed to the location of the site in realtion to the estuary and the effect of slaine	5 Is the contaminat	ion related to operations at the facility (either currer	nt and/or historic)	no	There are 5 ground water wells on site at East Cork Landfill. BH3 &BH4
8 Is there a licence condition to carry out/update ELRA for the site?  9 Has any type of risk assesment been carried out for the site?  10 Has a Conceptual Site Model been developed for the site?  9 ELECT  yes  exceeded frequently during 2017. These exceedences are attributed to the location of the site in realtion to the estuary and the effect of slaine		, ,	e summarise	SELECT	
9 Has any type of risk assesment been carried out for the site?  10 Has a Conceptual Site Model been developed for the site?  yes  exceeded frequently during 2017. These exceedences are attributed to the location of the site in realtion to the estuary and the effect of slaine	7 Please specify the	proposed time frame for the remediation strategy		SELECT	ammonia tigger limits fro BH1/BH2 &BH3 were not exceeded. Quarterly
10 Has a Conceptual Site Model been developed for the site? yes the location of the site in realtion to the estuary and the effect of slaine	8 Is there a licence	condition to carry out/update ELRA for the site?		SELECT	parameters such as conducivity, chlorides, sodium and potassium were
	9 Has any type of ri	sk assesment been carried out for the site?		yes	exceeded frequently during 2017. These exceedences are attributed to
44.00	10 Has a Conceptual	Site Model been developed for the site?		yes	the location of the site in realtion to the estuary and the effect of slaine
11 Have potential receptors been identified on and off site? yes water on the ground water wells. Overall, ground water results were	11 Have potential re	ceptors been identified on and off site?		yes	water on the ground water wells. Overall, ground water results were
12 Is there evidence that contamination is migrating offsite?  N/A  similar to previous years.	12 Is there evidence	that contamination is migrating offsite?		N/A	similiar to previous years.

**Table 1: Upgradient Groundwater monitoring results** 

	- 10									
Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration++	Average Concentration+	unit	GTV's*	IGV	Upward trend in pollutant concentration over last 5 years of monitoring data
	BH4	pН	Meter	Quartely	7.6	7.2	unit		9.5	no
	BH4	Temp	Meter	Quartely					25	no
	BH4	Elec.Conductivity	Meter	Quartely	5980	1509		800-1875	1000	no
	BH4	Chlorides	titration	Quartely	7080	5342	uS/cm	24-187.5	250	no
		Ammoniacal								
	BH4	Nitorgen	ISE	Quartely	0.7	0.4	mg/l	0.065-0.175	trigger limit none	no
	BH4	Iron	ICP	Quartely			mg/l		0.2	no
	BH4	TON	HACH	Quartely	116	32.4	ug/l	-	No abnormal change	no
	BH4	TOC	TOC analyser	Quartely	27.4	13.4	mg/l		trigger limit none	no
	BH4	Cadmium	ICP	Annual	0.127	0.127	mg/l	-	0.005	no
	BH4	Chromium (total)	ICP	Annual	4.45	4.45	ug/l	37.5	0.03	no
	BH4	Copper	COLORIMETRY	Annual	10.3	10.3	ug/l	1500	0.03	no
	BH4	Cyanide (Total)	ICP	Annual	<0.05	<0.05	ug/l	-	0.01	no
	BH4	Lead	ICP	Annual	0.495	0.495	ug/l	18.75	0.01	no
	BH4	Mangnesium	ICP	Annual	449	449	ug/l	-	50	no

water/Soil r	monitoring temp	ate		Lic No:	W0022-01		Year	201	7
BH4	Manganese	ICP	Annual	234	234	mg/l	-	0.05	no
BH4	Mercury	ICP	Annual	0.02	0.02	ug/l	0.75	0.001	no
BH4	Nickle	ICP	Annual			ug/l	15	0.02	no
BH4	Potassium	ICP	Annual	150	147	ug/l	-	5	no
5.1.4		Aquakem auto	A I			,,			
BH4	Sulphate	analyser	Annual	775	775	mg/l	187.5	200	no
BH4	Total Alkalinity	icp	Annual	225	225	mg/l	-		no
		spectrophotometry							
BH4	Total Phosphorus	apha	Annual	434	434	mg/l	0.09		no
BH4	Phenols	GC-MS	Annual	<1	<1	mg/l		0.5	no
BH4	Naphthalene	GC-MS	Annual	<1	<1	ug/l		2	no
BH4	Acenaphthylene	GC-MS	Annual	<1	<1	ug/l			no
BH4	Anthracene	GC-MS	Annual	<1	<1	ug/l			no
BH4	Chrysene	GC-MS	Annual	<1	<1	ug/l			no
BH4	Fluoranthene	GC-MS	Annual	<1	<1	ug/l			no
BH4	Fluorene	GC-MS	Annual	<1	<1	ug/l		0.03	no
BH4	Pyrene	GC-MS	Annual	<1	<1	ug/l		0.1	no
BH4	Phenanthrene	GC-MS	Annual	<1	<1	ug/l			no
	Bromodichloromet								
BH4	hane	GC-MS	Annual	<1	<1	ug/l			no
BH4	Bromoform	GC-MS	Annual	<1	<1	ug/l			no
BH4	Chloroform	GC-MS	Annual	<1	<1	ug/l			no
	Dibromochloromet								
BH4	hane	GC-MS	Annual	<1	<1	ug/l			no
	Dibromochloromet								
BH4	hane	GC-MS	Annual	<1	<1	ug/l			no
BH4	Vinyl Chloride	GC-MS	Annual	<1	<1	ug/l			no
BH4	Chloromethane	GC-MS	Annual	<1	<1	ug/l			no
BH4	Trichloroethene	GC-MS	Annual			ug/l			no
BH4	Bromomethane	GC-MS	Annual	<1	<1	ug/l			no
	Trichloromonofluo								
BH4	romethane	GC-MS	Annual	<1	<1	ug/l			no
BH4	11 Dichloroethene	GC-MS	Annual	<1	<1	ug/l			no
BH4	Chloromethane	GC-MS	Annual	<1	<1	ug/l			no
BH4	1,1-dichloroethane	GC-MS	Annual	<1	<1	ug/l			no
	11								
BH4	Dichloropropene	GC-MS	Annual	<1	<1	ug/l			no
						-			
BH4	1,2 dicloroethane	GC-MS	Annual	<1	<1	ug/l			no
	1,2-					- 5,			
BH4	dichloropropane	GC-MS	Annual	<1	<1	ug/l			no
	1,1,1-					01.			-
BH4	trichloroethane	GC-MS	Annual	<1	<1	ug/l			no
5117	112	50 IVI5		\ <u>1</u>	\ <u>1</u>	ω <sub>6</sub> / ι	1		
BH4	Trichloroethane	GC-MS	Annual	<1	<1	ug/l			no
5114	1,3-	SC IVIS		<b>\1</b>	\1	ug/1	+		110
BH4	dichloropropane	GC-MS	Annual	<1	<1	ug/l			no
BH4	2-Hexanone	GC-IVIS GC-MS	Annual	<1	<1	ug/l			no
DП4	Z-HEXAIIUIIE	GC-IVIS	miliuai			ug/I	1	l	110

		- 4 -						-	
oundwater/Soil	monitoring templa	ate		Lic No:	W0022-01		Year	2017	
	1,2-								
BH4	dibromoethane	GC-MS	Annual	<1	<1	ug/l			no
BH4	Chlorobenzene	GC-MS	Annual	<1	<1	ug/l			no
	1,1,1,2-		1						
BH4	tetrachloroethane	GC-MS	Annual	<1	<1	ug/l			no
BH4	Ethylbenzene	GC-MS	Annual	<1	<1	ug/l			no
BH4	Xylene P&M	GC-MS	Annual	<1	<1	ug/l			no
BH4	Styrene	GC-MS	Annual	<1	<1	ug/l			no
			I						
BH4	Isopropylbenzene	GC-MS	Annual	<1	<1	ug/l			no
	1,1,2,2-		1						
BH4	tetrachloroethane	GC-MS	Annual	<1	<1	ug/l			no
	1,2,3-		1						
BH4	trichloropropane	GC-MS	Annual	<1	<1	ug/l			no
BH4	Propylbenzene	GC-MS	Annual			ug/l			no
BH4	2-chlorotoluene	GC-MS	Annual	<1	<1	ug/l			no
BH4	4-chlorotoluene	GC-MS	Annual	<1	<1	ug/l	1		no
	4.2.5								
BH4	1,3,5-	24.22	Annual	-1	-11	/!			
BH4	trimethylbenzene	GC-MS	Alliuai	<1	<1	ug/l			no
BH4	Tert Butyl Benzene	GC-MS	Annual	<1	<1	ug/l			no
ВП4	reit butyi belizene	GC-IVIS	Alliuai	<1	<1	ug/I			110
	1,2,4-								
BH4	trimethylbenzene	GC-MS	Annual	<1	<1	ug/l			no
5.14	a. Anicary is crizeric	303		<b>1</b>	``	ω <sub>0</sub> / ι			
BH4	sec-butylbenzene	GC-MS	Annual	<1	<1	ug/l			no
5.74	230 Sacy.Sci.zelic					~6/ .			
BH4	Pentachlorophenol	GC-MS	Annual	<0.4	<0.4	ug/l			no
						J,			
BH4	Tetrachloroethene	GC-MS	Annual	<1	<1	ug/l			no
	Hexachlorobenzen					<i>J.</i>			
BH4	e	GC-MS	Annual	<1	<1	ug/l			no
	Hexachlorobutadie								
BH4	ne	GC-MS	Annual	<1	<1	ug/l			no
	2,4,6-								
BH4	Trichlorophenol	GC-MS	Annual	<1	<1	ug/l			no
BH4	2,4-Dichlorophenol	GC-MS	Annual	<1	<1	ug/l			no
	2,4-								
BH4	Dimethylphenol	GC-MS	Annual	<1	<1	ug/l		10	no
BH4	2-Chlorophenol	GC-MS	Annual	<1	<1	ug/l		10	no
BH4	1,2,4-	GC-MS	Annual	<1	<1	ug/l			no
	1,2-								
BH4	dichlorobenzene	GC-MS	Annual	<1	<1	ug/l			no
	1,3-								
BH4	dichlorobenzene	GC-MS	Annual	<1	<1	ug/l			no

Groundwater/Soil n	nonitoring templ	ate		Lic No:	W0022-01		Year	2017		
Si Sulluwater/SUILI				LIC INU.	VV0022-01		ıcaı	2017		
BH4	1,4- dichlorobenzene	GC-MS	Annual	<1	<1	ug/l			no	
BH4	2,4,5- Trichlorophenol	GC-MS	Annual	<1	<1	ug/l			no	
BH4	2,4-Dinitrotoluene	GC-MS	Annual	<1	<1	ug/l			no	
BH4	2,6-Dinitrotoluene	GC-MS	Annual	<1	<1	ug/l			no	
BH4	2- Chloronaphthalene	GC-MS	Annual	<1	<1	ug/l			no	
5	2- Methylnaphthalen	****	Appropri	-4		11			20	
BH4	e 2 Marthulahanal	GC-MS	Annual	<1	<1	ug/l	<del>                                     </del>	ļ	no	
BH4	2-Methylphenol	GC-MS	Annual	<1	<1	ug/l	<del>                                     </del>	ļ	no	
BH4	2-Nitrophenol	GC-MS	Annual	<1	<1	ug/l	<del>                                     </del>		no	
B.114	4-Bromophenyl		Appual	1	-1		ĺ		no	
BH4	Phenyl Ether 4-Chloro-3-	GC-MS	Annual	<1	<1	ug/l	+	ļ	no	
BUA		GC-MS	Annual	_1	-1	110 /l	ĺ		no	
BH4	methylphenol	GC-MS	Aiiilual	<1	<1	ug/l	1	<b> </b>	no	
ВПЛ	4-Chlorophenyl	CC MC	Annual	_1	-1	ug/I	ĺ		no	
BH4 BH4	phenyl ether 4-Nitrophenol	GC-MS GC-MS	Annual	<1	<1	ug/l ug/l	<del>                                     </del>	<u> </u>	no no	
BH4	4-Nitrophenol Acenaphthene	GC-MS GC-MS	Annual	<1	<1	ug/l ug/l	<del>                                     </del>	30	no no	
вп4	Benzo(a)anthracen	GC-IVIS	, unidai	<1	<1	ug/I	<del>                                     </del>	30	110	
BH4	e e	GC-MS	Annual	<1	<1	ug/l	ĺ		no	
BH4	Benzo(a)pyrene	GC-MS	Annual	<1	<1	ug/l	<del>                                     </del>	<del>                                     </del>	no	
БПЧ	Benzo(b)fluoranth	GC 1913		``	\ <u>`</u>	∽6/ ¹	<del>                                     </del>	<del>                                     </del>		
BH4	ene	GC-MS	Annual	<1	<1	ug/l	ĺ		no	
БПЧ	Benzo(g,h,i)peryle	GC 1913		<u> </u>	\ <u>1</u>	∽6/ ¹	$\vdash$	<del> </del>		
BH4	ne	GC-MS	Annual	<1	<1	ug/l	ĺ		no	
DITH	Benzyl Butyl	GC 1913		\ <u>'</u>	\ <u>`</u>	∽6/ ¹	$\vdash$	<del> </del>		
BH4	Phthalate	GC-MS	Annual	<1	<1	ug/l	ĺ		no	
DITH	Bis(2- chloroethoxy)meth	23 1113		``	, <u>ı</u>	ω <sub>5</sub> / ι				
BH4	ane	GC-MS	Annual	<1	<1	ug/l	ĺ		no	
ВП4	alle	GC-IVIS	, unidai	<b>\1</b>	<b>\1</b>	ug/1	<del>                                     </del>	<del>                                     </del>	110	
	Bis(2-						ĺ	ļ		
BH4	chloroethyl)ether	GC-MS	Annual	<1	-1	ug/l	ĺ	E00	no	
вп4	Bis(2-	GC-IVIS	Airiuai	<1	<1	ug/I	<del>                                     </del>	500	110	
	chloroisopropyl)et						ĺ			
BH4	her	GC-MS	Annual	<1	<1	ug/I	ĺ		no	
вн4	her Bis(2-	GC-IVIS	Airiuai	<1	<1	ug/l	<del>                                     </del>	<del> </del>	110	
	ethylhexyl)phthala									
BH4	te	GC-MS	Annual	<1	<1	ug/l	<u> </u>	ļ	no	
	Dibenz(a,h)anthrac		1				ĺ	ļ		
BH4	ene	GC-MS	Annual	<1	<1	ug/l	<u> </u>	ļ	no	
BH4	Dibenzofuran	GC-MS	Annual	<1	<1	ug/l	<u> </u>	ļ	no	
BH4	Diethylphthalate	GC-MS	Annual	<1	<1	ug/l			no	

dwater/S	oil monitoring templa	ate		Lic No:	W0022-01		Year	2017	
water/3		u C		LIC INU.	VVUUZZ-U1		Tear	Z017	
BH4	di-n- 4 Butylphthalate	GC-MS	Annual	<1	<1	ug/l			no
ВП4	Di-n-	GC-IVIS	Alliuai	<1	<1	ug/i			110
BH4		GC-MS	Annual	<1	<1	ug/l			no
BH4		GC-MS	Annual	<b>\1</b>	<u> </u>	ug/l	-		no
ВП4	4 Dipnenylamine	GC-IVIS	Ailiuai			ug/i			110
BH4	4 Hexachloroethane	GC-MS	Annual	-1	.1	/1			
ВП4	Indeno(1,2,3-	GC-IVIS	Ailiuai	<1	<1	ug/l	+		no
BH4		GC-MS	Annual	-1	<1	/1			
BH4		GC-MS	Annual	<1 <1	<1	ug/l			no no
BH4		GC-IVIS	Annual	<1	<1	ug/l ug/l			no
ВП4	n-Nitrosodi-n-	GC-IVI3	Ailiuai	<1	<1	ug/1			110
BH4		CC 145	Annual	<1	<1	/1			
		GC-MS	Annual	<1	<1	ug/l	+		no
BH4	4 Acetone	GC-IVIS	Ailiuai			ug/l	_		no
BULL	1 Diable		Annual		.4	//			
BH4		GC-MS	Annual	<1	<1	ug/l		<del>                                     </del>	no
BH4 BH4		GC-MS GC-MS	Annual	-1	-4	ug/l		1	no
BH4			Annual	<1	<1	ug/l	+		no
ВН4		GC-MS	Arinuai	<1	<1	ug/l		10	no
DILL	Dichlorodifluorom		Annual	-1	.1	/1			
BH4		GC-MS	Annual	<1	<1	ug/l	+		no
	Ethyl								
BH4	Chloride/Chloroeth		Annual			/1			
ВП4	4 ane Ethyl	GC-MS	Annual			ug/l			no
	Ether/Diethyl								
DILL		GC-MS	Annual			/1			
BH4	4 Ether Iodomethane/Met	GC-IVIS	Ailiuai			ug/l	+		no
BH4		GC-MS	Annual			/1			
ВП4	4 Hyr louide	GC-IVIS	Ailiuai			ug/l			no
BH4	4 Carbon Disulphide	GC-MS	Annual	<1	<1	/1			
BH4		GC-MS	Annual	<1	<1	ug/l ug/l			no no
- 5114	Chlormethyl	GC-1V13	Airidai			ug/1	+		110
	Cyanide/Chloroace		1						
BH4		GC-MS	Annual			ug/l			no
BH4		GC-IVIS GC-MS	Annual			ug/l		<del>                                     </del>	no
DI14	Trans-1,2	GC-IVI3	, unidai			ug/1		<del>                                     </del>	110
BH4		GC-MS	Annual	<1	<1	ug/l			no
BH4		GC-MS	Annual	<b>\1</b>	\1	ug/l		<u> </u>	no
1 0114	2,2-	30 1413				ug/1		<u> </u>	110
BH4	,	GC-MS	Annual	<1	<1	ug/l			no
5114	cis-12	GC 1413	, unidai	<b>\1</b>	<b>\1</b>	чь/ і	+		110
BH4		GC-MS	Annual	<1	<1	ug/l			no
BH4		GC-MS	Annual	<b>\1</b>	<b>\1</b>	ug/l	+		no
BH4		GC-MS	Annual			ug/l	+		no
ВП4	Bromochlorometh	GC-IVI3	, tilliuai			ug/1	1	1	110
BH4		GC-MS	Annual	<1	<1	ug/l			no
1 0114	- anc	GC-IVI3	, unidai	<b>\1</b>	\1	ug/1		<u> </u>	110
BH4	4 Methacrylonitrile	GC-MS	Annual			ug/l			no
BH4		GC-IVIS	Annual			ug/l		<del>                                     </del>	no
ВП4	- I-Cilioroputalle	GC-IVI3	, ti ii iuui			ug/1			110

Groundwa	ater/Soil m	nonitoring templ	ate		Lic No:	W0022-01		Year	2017	
		Carbon								
	BH4	Tetrachloride	GC-MS	Annual	<1	<1	ug/l			no
	BH4	Dibromomethane	GC-MS	Annual	<1	<1	ug/l			no
		Methyl								
	BH4	Methacrylate	GC-MS	Annual			ug/l			no
		13								
		Dichloropropene,ci								
	BH4	S	GC-MS	Annual	<1	<1	ug/l			no
		MIBK/4 Methyl 2								
	BH4	Pentanone	GC-MS	Annual			ug/l			no
		13								
		Dichloropropene,tr								
	BH4	ans	GC-MS	Annual	<1	<1	ug/l			no
	BH4	Ethyl Methacrylate	GC-MS	Annual			ug/l			no
	BH4	Bromobenzene	GC-MS	Annual	<1	<1	ug/l			no
		Trans 14 Dichloro								
	BH4	2 Butene, tran	GC-MS	Annual			ug/l			no
	BH4	P Isopropyltoluene	GC-MS	Annual	<1	<1	ug/l			no
	BH4	N Butyl Benzene	GC-MS	Annual			ug/l			no
		1,2-dibromo-3-								
	BH4	chloropropane	GC-MS	Annual			ug/l			no
		1,2,3-								
	BH4	trichlorobenzene	GC-MS	Annual			ug/l			no
	BH4	Mecoprop	GC-MS	Annual	<0.4	<0.4	ug/l			no
	BH4	Bentazone	GC-MS	Annual	<0.4	<0.4	ug/l			no
	BH4	Simazine		Annual	<0.4	<0.4	ug/l		IGV	no
	BH3	pH	Meter	Quartely	7	6.9	units		9.5	no
-	BH3	Temp	Meter	Quartely					25	no
	D1:2	Florida di Stati		Ouertely	4	44.0	6.1			
	BH3	Elec.Conductivity	Meter	Quartely	14.4	11.0	uS/cm	800-1875	1000	no
	BH3	Chlorides	titration	Quartely	5410	4480	mg/l	24-187.5	250	no
	DUO	Ammoniacal	165	Quartoly	0.2	6.7	m = //	0.005		20
	BH3	Nitorgen	ISE ICP	Quartely Quartely	8.3	6.7	mg/l	0.065-0.175	trigger limit 150mg/l	
+	BH3	Iron TON	ICP HACH	Quartely	-10	0.2	ug/l		0.2	no
+	BH3	TOC		Quartely	<10 4.1	0.2 3.1	mg/l	-	·	no
+	BH3		TOC analyser ICP	Annual	4.1 <0.08	<0.08	mg/l			no
+	čha	Cadmium	ICP	Ailluai	<u.u8< td=""><td>&lt;0.08</td><td>ug/l</td><td>-</td><td>0.005</td><td>no</td></u.u8<>	<0.08	ug/l	-	0.005	no
	вн3	Chromium (total)	ICP	Annual	_2		ug/l	27.5	0.00	no
	BH3	Chromium (total) Copper	COLORIMETRY	Annual	<3 0.681	<3 0.681	ug/l	37.5	0.03	no no
+	BH3		ICP	Annual	<0.05	<0.05	ug/l	1500	0.03	no
+	BH3	Cyanide (Total) Lead	ICP	Annual	<0.05	<0.05	ug/l ug/l	40.75	0.01	no no
	BH3	Mangnesium	ICP	Annual	324	324	mg/l	18.75	0.01 50	no
	BH3	Manganese	ICP	Annual	1250	1250	ug/l	-		no
	BH3	Mercury	ICP	Annual	<0.01	<0.01	ug/l	0.75	0.05	no
	BH3	Nickle	ICP	Annual	\U.U1	\U.U1	_		0.001	no
	DF13	INICKIE	ICP	Ailliuai			ug/l	15	U.U2	IIU

water/Se	oil monitoring templ	ate		Lic No:	W0022-01		Year	2017	7
BH3	3 Potassium	ICP	Annual	190	129	mg/l	-	5	no
внз	3 Sulphate	Aquakem auto analyser	Annual	191	191	mg/l	187.5	200	no
BH3	•	icp	Annual	110	110	mg/l	-	200	no
51.15	, ocarranamicy	,		110	110	6/			
внз	3 Total Phosphorus	spectrophotometry apha	Annual	55.7	55.7	mg/l	0.09		no
BH3		GC-MS	Annual	<1	<1	ug/l	0.03	0.5	no
BH3		GC-MS	Annual	<1	<1	ug/l	_	2	no
BH3	'	GC-MS	Annual	<1	<1	ug/l	+		no
BH3		GC-MS	Annual	<1	<1	ug/l	+		no
BH3		GC-MS	Annual	<1	<1	ug/l	+		no
BH3		GC-MS	Annual	<1	<1	ug/l	+		no
BH3		GC-MS	Annual	<1	<1	ug/l	+	0.03	no
BH3		GC-MS	Annual	<1	<1	ug/l	+	0.03	no
BH3		GC-MS	Annual	<1	<1	ug/l	+	0.1	no
DI13	Bromodichloromet	GC-IVI3	, a ii idai	<b>\1</b>	1	ug/1	1	<del>                                     </del>	110
внз		GC-MS	Annual	<1	<1	ua/I			no
BH3		GC-MS GC-MS	Annual	<1	<1	ug/l ug/l	+	+	no no
BH3		GC-MS	Annual	<1	<1	ug/l	+	-	no
ВПЗ	Dibromochloromet	GC-IVIS	Ailiuai	<b>\1</b>	<b>\1</b>	ug/1	+		110
внз		GC-MS	Annual	<1	_1	/			20
ВНЗ		GC-IVIS	Alliuai	<1	<1	ug/l	+		no
DUID	Dibromochloromet		Annual	.4		//			
BH3		GC-MS		<1	<1	ug/l	+		no
BH3		GC-MS	Annual	<1	<1	ug/l	+		no
BH3		GC-MS	Annual	<1	<1	ug/l	+		no
BH3		GC-MS	Annual			ug/l	1		no
BH3		GC-MS	Annual	<1	<1	ug/l	+		no
	Trichloromonofluo		A			,,			
BH3	3 romethane	GC-MS	Annual	<1	<1	ug/l	+		no
						,,			
BH3		GC-MS	Annual	<1	<1	ug/l	1		no
BH3	3 Chloromethane	GC-MS	Annual	<1	<1	ug/l	+		no
			A						
BH3		GC-MS	Annual	<1	<1	ug/l	1		no
	11								
BH3	B Dichloropropene	GC-MS	Annual	<1	<1	ug/l	+		no
BH3	· · · · · · · · · · · · · · · · · · ·	GC-MS	Annual	<1	<1	ug/l	1		no
	1,2-							1	
BH3		GC-MS	Annual	<1	<1	ug/l			no
	1,1,1-								
BH3		GC-MS	Annual	<1	<1	ug/l		<b></b>	no
	112								
BH3		GC-MS	Annual	<1	<1	ug/l	1		no
	1,3-		l						
BH3		GC-MS	Annual	<1	<1	ug/l			no
BH3		GC-MS	Annual			ug/l		ļ	no
	1,2-		1					1	
BH3		GC-MS	Annual	<1	<1	ug/l			no
BH3	3 Chlorobenzene	GC-MS	Annual	<1	<1	ug/l		1	no

oundwater/	Soil monitoring templ	ate		Lic No:	W0022-01		Year	201	7	
			1							
	1,1,1,2-									
BH	tetrachloroethane	GC-MS	Annual	<1	<1	ug/l			no	
BH	13 Ethylbenzene	GC-MS	Annual	<3	<3	ug/l			no	
BH	13 Xylene P&M	GC-MS	Annual	<1	<1	ug/l			no	
B⊦	13 Styrene	GC-MS	Annual	<1	<1	ug/l			no	
	,					· ·				
BH	13 Isopropylbenzene	GC-MS	Annual	<1	<1	ug/l			no	
	, , , ,					,				
	1,1,2,2-									
BH	tetrachloroethane	GC-MS	Annual	<1	<1	ug/l			no	
	1,2,3-									
BH		GC-MS	Annual	<1	<1	ug/l			no	
BH		GC-MS	Annual			ug/l			no	
BH		GC-MS	Annual	<1	<1	ug/l		1	no	1
BH		GC-MS	Annual	<1	<1	ug/l		1	no	1
1				_		or ·		İ		1
	1,3,5-									
BH		GC-MS	Annual	<1	<1	ug/l			no	
	,,			_		6/				
BH	13 Tert Butyl Benzene	GC-MS	Annual	<1	<1	ug/l			no	
<u> </u>	is reference, semicone				-	₩, ·	1			
	1,2,4-									
BH		GC-MS	Annual	<1	<1	ug/l			no	
<u> </u>	is crimetry/serizerie				-	₩, ·	1			
BH	sec-butylbenzene	GC-MS	Annual	<1	<1	ug/l			no	
	15 See Bury IDENZENC			**	**	u <sub>6</sub> /1			110	
BH	13 Pentachlorophenol	GC-MS	Annual	<1	<1	ug/l			no	
5.	is remading opinion			1.1	**	ω <sub>6/</sub> .				
BH	13 Tetrachloroethene	GC-MS	Annual	<1	<1	ug/l			no	
	Hexachlorobenzen	00 1113	7 1111001	**	**	u <sub>6</sub> /1			110	
ВН		GC-MS	Annual	<1	<1	ug/l			no	
5.	Hexachlorobutadie			**	**	~6/·				
BH		GC-MS	Annual	<1	<1	ug/l			no	
, DI	2,4,6-	205		``	``	ΔP/ 1	1			1
BH		GC-MS	Annual	<1	<1	ug/l		1	no	
		- = :::=		',	,,	, γ <sub>0</sub> / ,	1	1		1
BH	13 2,4-Dichlorophenol	GC-MS	Annual	<1	<1	ug/l			no	
<u> </u>	2,4-				-	61 -	†	1		1
BH	, , , , , , , , , , , , , , , , , , ,	GC-MS	Annual	<1	<1	ug/l		10	no	
BH		GC-MS	Annual	<1	<1	ug/l	1	10	no	1
	2 00.00.101101				-	~6/ .	†	10		1
	1,2,4-									
BH		GC-MS	Annual	<1	<1	ug/l		1	no	
ы	1,2-	30 1913		<b>'1</b>	``	ч <sub>Б</sub> / г	+	+		1
BH	, , , , , , , , , , , , , , , , , , ,	GC-MS	Annual	<1	<1	ug/l			no	
БГ	1,3-	SC WIS		1	\1	ug/1	+	<del> </del>	110	1
BH		GC-MS	Annual	>1	>1	ug/l		1	no	
БГ	1,4-	GC-IVI3	, uniqui	/1	/1	ug/1	+	<del> </del>	110	1
BH	· ·	GC-MS	Annual	<1	<1	lug/l		1	no	
БГ	is ulcilioropelizelle	GC-IVI3	Ailliuai	<1	<b>~1</b>	ug/l			110	

roundwater/Soil	monitoring templ	ate		Lic No:	W0022-01		Year	2017		
	2,4,5-									
BH3	Trichlorophenol	GC-MS	Annual	<1	<1	ug/l			no	
BH3	2,4-Dinitrotoluene	GC-MS	Annual	<1	<1	ug/l			no	
BH3	2,6-Dinitrotoluene	GC-MS	Annual	<1	<1	ug/l			no	
	2-									
BH3	Chloronaphthalene	GC-MS	Annual	<1	<1	ug/l			no	
	2-									
	Methylnaphthalen									
BH3	е	GC-MS	Annual	<1	<1	ug/l			no	
BH3	2-Methylphenol	GC-MS	Annual	<1	<1	ug/l			no	
BH3	2-Nitrophenol	GC-MS	Annual	<1	<1	ug/l			no	
5.10	4-Bromophenyl		A I			,				
BH3	Phenyl Ether	GC-MS	Annual	<1	<1	ug/l			no	
5.10	4-Chloro-3-		A I			,				
BH3	methylphenol	GC-MS	Annual	<1	<1	ug/l			no	
D1:2	4-Chlorophenyl		Annual							
BH3	phenyl ether	GC-MS	Annual	<1	<1	ug/l			no	
BH3	4-Nitrophenol	GC-MS	Annual	-11	-11	ug/l			no	
BH3	Acenaphthene	GC-MS	Annual	<1	<1	ug/l		30	no	
DUD	Benzo(a)anthracen	GC-MS	Annual	-1		/1				
BH3 BH3	e Benzo(a)pyrene	GC-MS	Annual	<1 <1	<1 <1	ug/l			no no	
впэ	Benzo(b)fluoranth	GC-IVIS	Ailiuai	<1	<1	ug/l			110	
внз	ene	GC-MS	Annual	<1	<1	ug/l			no	
БПЭ	Benzo(g,h,i)peryle	GC-IVIS	Ailiuai	<b>\1</b>	<u> </u>	ug/i			110	
внз	ne	GC-MS	Annual	<1	<1	ug/l			no	
DIIS	Benzyl Butyl	GC IVIS	7 ti i i dai	\1	\1	u <sub>g</sub> /1			110	
внз	Phthalate	GC-MS	Annual	<1	<1	ug/l			no	
5.13	Bis(2-	00.110		,,	1	ω <sub>0</sub> / ι				
	chloroethoxy)meth									
внз	ane	GC-MS	Annual	<1	<1	ug/l			no	
			1		1					
	Bis(2-									
внз	chloroethyl)ether	GC-MS	Annual	<1	<1	ug/l		500	no	
-	Bis(2-					Ŭ.				
	chloroisopropyl)et									
внз	her	GC-MS	Annual	<1	<1	ug/l			no	
	Bis(2-					_				
	ethylhexyl)phthala									
BH3	te	GC-MS	Annual	<1	<1	ug/l			no	
	Dibenz(a,h)anthrac									
BH3	ene	GC-MS	Annual	<1	<1	ug/l			no	
BH3	Dibenzofuran	GC-MS	Annual	<1	<1	ug/l			no	
BH3	Diethylphthalate	GC-MS	Annual	<1	<1	ug/l			no	
	di-n-									
BH3	Butylphthalate	GC-MS	Annual	<1	<1	ug/l			no	

Groundwater/Soil		ate	_	Lic No:	W0022-01		Year	2017		
	Di-n-		I							
BH3	octylphthalate	GC-MS	Annual	<1	<1	ug/l			no	
BH3	Diphenylamine	GC-MS	Annual			ug/l			no	
			1							
BH3	Hexachloroethane	GC-MS	Annual	<1	<1	ug/l			no	
DU 2	Indeno(1,2,3-		A			. 11				
BH3	c,d)pyrene	GC-MS	Annual	<1	<1	ug/l		ļ	no	
BH3	Isophorone	GC-MS GC-MS	Annual Annual	<1 <1	<1	ug/l	-		no	
BH3	Nitrobenzene n-Nitrosodi-n-	GC-IVIS	Alliuai	<1	<1	ug/l			no	
внз	propylamine	GC-MS	Annual			ug/l			no	
BH3	Acetone	GC-MS	Annual			ug/l			no	
DIIS	Accione	GC IVIS	7 ti il iddi			ug/1			110	
внз	Dichloromethane	GC-MS	Annual	<3	<3	ug/l			no	
BH3	Tetrahydrofuran	GC-MS	Annual	.5	.5	ug/l		1	no	
BH3	Toluene	GC-MS	Annual	<1	<1	ug/l		<u> </u>	no	
BH3	Xylene -o	GC-MS	Annual	<1	<1	ug/l		10	no	
	Dichlorodifluorom					Ŭ.				
BH3	ethane	GC-MS	Annual	<1	<1	ug/l			no	
	Ethyl									
	Chloride/Chloroeth									
BH3	ane	GC-MS	Annual			ug/l			no	
	Ethyl									
	Ether/Diethyl									
BH3	Ether	GC-MS	Annual			ug/l			no	
	Iodomethane/Met									
BH3	hyl Iodide	GC-MS	Annual			ug/l			no	
DU 2	6. 1 6 1.1.1.1.		A	.4		. 11				
BH3 BH3	Carbon Disulphide Allyl Chloride	GC-MS GC-MS	Annual Annual	<1 <1	<1 <1	ug/l	-		no no	
BH3	Chlormethyl	GC-MS	Annuai	<1	<1	ug/l			no	
	Cyanide/Chloroace									
BH3	tonitrile	GC-MS	Annual			ug/l			no	
BH3	Propanenitrile	GC-MS	Annual			ug/l			no	
55	Trans-1,2							1	5	
внз	Dichloroethene	GC-MS	Annual	<1	<1	ug/l			no	
BH3	MtBE	GC-MS	Annual	<1	<1	ug/l			no	
	2,2-					Ŭ.				
внз	dichloropropane	GC-MS	Annual	<1	<1	ug/l			no	
	cis-12									
внз	Dichloroethene	GC-MS	Annual	<1	<1	ug/l			no	
BH3	2-Butanone	GC-MS	Annual			ug/l			no	
BH3	Methyl Acrylate	GC-MS	Annual			ug/l			no	
	Bromochlorometh									
BH3	ane	GC-MS	Annual	<1	<1	ug/l			no	
BH3	Methacrylonitrile	GC-MS	Annual			ug/l			no	
BH3	1-Chlorobutane	GC-MS	Annual			ug/l			no	
	Carbon									
BH3	Tetrachloride	GC-MS	Annual	<1	<1	ug/l			no	

oundwater/Soil n	nonitoring templ	ate		Lic No:	W0022-01		Year	2017	
вн3	Dibromomethane	GC-MS	Annual	<1	<1	ug/l			no
	Methyl								
BH3	Methacrylate	GC-MS	Annual			ug/l			no
	13								
	Dichloropropene,ci								
BH3	S	GC-MS	Annual	<1	<1	ug/l			no
	MIBK/4 Methyl 2								
BH3	Pentanone	GC-MS	Annual	<1	<1	ug/l			no
	13								
	Dichloropropene,tr		l						
BH3	ans	GC-MS	Annual	<1	<1	ug/l			no
5112	File 184 alberta Late		Annual			. 11			
BH3 BH3	Ethyl Methacrylate Bromobenzene	GC-MS GC-MS	Annual	<1	<1	ug/l			no no
ВН3	Trans 14 Dichloro	GC-IVIS	Ailiuai	<1	<1	ug/l			no
внз	2 Butene, tran	GC-MS	Annual			ug/l			no
BIIS	2 Butelle, trail	GC-IVI3	Airidai			ug/1			110
внз	P Isopropyltoluene	GC-MS	Annual	<1	<1	ug/l			no
BH3	N Butyl Benzene	GC-MS	Annual	<1	<1	ug/l			no
	1,2-dibromo-3-					-			
BH3	chloropropane	GC-MS	Annual	<1	<1	ug/l			no
	1,2,3-								
BH3	trichlorobenzene	GC-MS	Annual	<1	<1	ug/l			no
BH3	Mecoprop	GC-MS	Annual	<0.08	<0.08	ug/l			no
BH3	Bentazone	GC-MS	Annual			ug/l			no
BH3	Simazine		Annual	<0.01	<0.01	ug/l		IGV	no

<sup>.++</sup> maximum concentration indicates the maximum measured concentration from all monitoring results produced during the reporting year

Groundwater/Soil monitoring template Lic No: W0022-01 Year 2017

Ground\	water/Soil m	nonitoring temp	ate		Lic No:	W0022-01		Year	2017	
Table 2:	Downgradie	ent Groundwate	r monitoring	results						
										Upward trend in yearly average pollutant
Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit	GTV's*	SELECT**	concentration over last 5 years of monitoring da
ourripiirig	BH1	pH	Meter	Quartely	8.7	7	unic	OIVO	9.5	or monitoring dat
	BH1	Temp	Meter	Quartely	0.7				25	no
	DITE	Temp	Meter	quartery					23	110
	BH1	Elec.Conductivity	Meter	Quartely	15.8	10.6	uS/cm	800-1875	1000	no
	BH1	Chlorides	titration	Quartely	6770	4460	mg/l	24-187.5	250	no
		Ammoniacal		,			3,			
	BH1	Nitorgen	ISE	Quartely	27.4	9.8	mg/l	0.065-0.175	trigger limit 50mg/l	no
	BH1	Iron	ICP	Quartely			ug/l		0.2	no
	BH1	TON	HACH	Quartely	0.2	94.9	mg/l	-	No abnormal change	no
	BH1	TOC	TOC analyser	Quartely	25.5	11.2	mg/l		trigger limit 40 mg/l	no
	BH1	Cadmium	ICP	Annual	<0.08	<0.08	ug/l	-	0.005	no
	BH1	Chromium (total)	ICP	Annual	<3	<3	ug/l	37.5	0.03	no
	BH1	Copper	COLORIMETRY	Annual	<0.3	<0.3	ug/l	1500	0.03	no
	BH1	Cyanide (Total)	ICP	Annual	<0.05	<0.05	ug/l	-	0.01	no
	BH1	Lead	ICP	Annual	<0.2	<0.2	ug/l	18.75	0.01	no
	BH1	Mangnesium	ICP	Annual	391	391	mg/l	-	50	no
	BH1	Manganese	ICP	Annual	7180	7180	ug/l	-	0.05	no
	BH1	Mercury	ICP	Annual	<0.01	<0.01	ug/l	0.75	0.001	no
	BH1	Nickle	ICP	Annual			ug/l	15	0.02	no
	BH1	Potassium	ICP	Annual	126.00	94.90	mg/l	-	5	no
	BH1	Sulphate	Aquakem auto analyser	Annual	755	755	mg/l	187.5	200	no
	BH1	Total Alkalinity	icp	Annual	365	365	mg/l	-		no
	BH1	Total Phosphorus	spectrophotometry apha	Annual	365	365	mg/l	0.09		no
	BH1	Phenols	GC-MS	Annual	<1	<1	ug/l		0.5	no
	BH1	Naphthalene	GC-MS	Annual	<1	<1	ug/l		2	no
	BH1	Acenaphthylene	GC-MS	Annual	<1	<1	ug/l			no
	BH1	Anthracene	GC-MS	Annual	<1	<1	ug/l			no
	BH1	Chrysene	GC-MS	Annual	<1	<1	ug/l			no
	BH1	Fluoranthene	GC-MS	Annual	<1	<1	ug/l			no
	BH1	Fluorene	GC-MS	Annual	<1	<1	ug/l		0.03	no
	BH1	Pyrene	GC-MS	Annual	<1	<1	ug/l		0.1	no
	BH1	Phenanthrene	GC-MS	Annual	<1	<1	ug/l			no
	BH1	Bromodichloromet hane	GC-MS	Annual	<1	<1	ug/l			no
	BH1	Bromoform	GC-MS	Annual	<1	<1	ug/l		1	no
	DUIA	Ch.L f		A = = = l		.4	<u> </u>	1	+	

<1

<1

<1

<1

<1

<1

ug/l

ug/l

ug/l

no

no

no

BH1

BH1

BH1

Chloroform

Dibromochloromet

hane

Dibromochloromet

hane

GC-MS

GC-MS

GC-MS

Annual

Annual

Annual

dwater/So	oil monitoring templa	ate		Lic No:	W0022-01		Year	2017
BH1	Vinyl Chloride	GC-MS	Annual	<1	<1	ug/l		no
BH1	Chloromethane	GC-MS	Annual	<1	<1	ug/l		no
BH1	Trichloroethene	GC-MS	Annual			ug/l		no
BH1	Bromomethane	GC-MS	Annual	<1	<1	ug/l		no
	Trichloromonofluo							
BH1	romethane	GC-MS	Annual	<1	<1	ug/l		no
BH1	11 Dichloroethene	GC-MS	Annual	<1	<1	ug/l		no
BH1	Chloromethane	GC-MS	Annual	<1	<1	ug/l		no
BH1	1,1-dichloroethane	GC-MS	Annual	<1	<1	ug/l		no
	11							
BH1	Dichloropropene	GC-MS	Annual	<1	<1	ug/l		no
BH1	1,2 dicloroethane	GC-MS	Annual	<1	<1	ug/l		no
	1,2-					-		
BH1	dichloropropane	GC-MS	Annual	<1	<1	ug/l		no
	1,1,1-					-		
BH1	trichloroethane	GC-MS	Annual	<1	<1	ug/l		no
	112					<i>G</i> ,		
BH1	Trichloroethane	GC-MS	Annual	<1	<1	ug/l		no
	1,3-					-		
BH1	·	GC-MS	Annual	<1	<1	ug/l		no
BH1		GC-MS	Annual			ug/l		no
	1,2-					<i>G</i> ,		
BH1	·	GC-MS	Annual	<1	<1	ug/l		no
BH1		GC-MS	Annual	<1	<1	ug/l		no
						<i>G</i> ,		
	1,1,1,2-							
BH1		GC-MS	Annual	<1	<1	ug/l		no
BH1		GC-MS	Annual	<1	<1	ug/l		no
BH1		GC-MS	Annual	<1	<1	ug/l		no
BH1		GC-MS	Annual	<1	<1	ug/l		no
	,					<i>G</i> ,		
BH1	Isopropylbenzene	GC-MS	Annual	<1	<1	ug/l		no
	124 147							
	1,1,2,2-							
BH1		GC-MS	Annual	<1	<1	ug/l		no
	1,2,3-					<i>G</i> ,		
BH1		GC-MS	Annual	<1	<1	ug/l		no
BH1		GC-MS	Annual			ug/l		no
BH1		GC-MS	Annual	<1	<1	ug/l		no
BH1		GC-MS	Annual	<1	<1	ug/l		no
				-		2.8/		
	1,3,5-							
BH1		GC-MS	Annual	<1	<1	ug/l		no
1 3111	cc,.czc.					~5/.	+	
BH1	Tert Butyl Benzene	GC-MS	Annual	<1	<1	ug/l		no
5111	. c. c Datyr Denzente			``	`.	~b/ ¹		
	1,2,4-							
BH1		GC-MS	Annual	<1	<1	ug/l		no
5111	CCary.Denzene		1			~ <sub>0</sub> /.	1	

Groundy	vater/Soil m	nonitoring templ	ate		Lic No:	W0022-01		Year	2017		
	BH1	sec-butylbenzene	GC-MS	Annual	<1	<1	ug/l			no	
				1							
	BH1	Pentachlorophenol	GC-MS	Annual	<1	<1	ug/l			no	
	BH1	Tetrachloroethene	GC-MS	Annual	<1	<1	ug/l			no	
	DUI	Hexachlorobenzen	GC-IVI3	Airidai	<u> </u>	\1	ug/l			110	
	BH1	е	GC-MS	Annual	<1	<1	ug/l			no	
		Hexachlorobutadie					* 0,				
	BH1	ne	GC-MS	Annual	<1	<1	ug/l			no	
		2,4,6-									
	BH1	Trichlorophenol	GC-MS	Annual	<1	<1	ug/l			no	
				1							
	BH1	2,4-Dichlorophenol	GC-MS	Annual	<1	<1	ug/l			no	
	DU1	2,4-	66.446	Annual	-1	-1	/1		4.0	20	
	BH1 BH1	Dimethylphenol 2-Chlorophenol	GC-MS GC-MS	Annual	<1 <1	<1 <1	ug/l ug/l		10 10	no no	
	חוח	2-Ciliorophienol	GC-IVI3	, amoun	\1	1	ug/1		10	110	
		1,2,4-									
	BH1	trichlorobenzene	GC-MS	Annual	<1	<1	ug/l			no	
		1,2-					_				
	BH1	dichlorobenzene	GC-MS	Annual	<1	<1	ug/l			no	
		1,3-									
	BH1	dichlorobenzene	GC-MS	Annual	<1	<1	ug/l			no	
	5.14	1,4-									
	BH1	dichlorobenzene 2,4,5-	GC-MS	Annual	<1	<1	ug/l			no	
	BH1	Z,4,5- Trichlorophenol	GC-MS	Annual	<1	<1	ug/l			no	
	DITI	ттетногорпеног	GC IVIS	7 timadi	<u> </u>	<u> </u>	u <sub>6</sub> /1			110	
	BH1	2,4-Dinitrotoluene	GC-MS	Annual	<1	<1	ug/l			no	
		,					<u> </u>				
	BH1	2,6-Dinitrotoluene	GC-MS	Annual	<1	<1	ug/l			no	
		2-		1							
	BH1	Chloronaphthalene	GC-MS	Annual	<1	<1	ug/l			no	
		2- Methylnaphthalen									
	BH1	e e	GC-MS	Annual	<1	<1	ug/l			no	
	BH1	2-Methylphenol	GC-MS	Annual	<1	<1	ug/l			no	
	BH1	2-Nitrophenol	GC-MS	Annual	<1	<1	ug/l			no	
		4-Bromophenyl					- 0/				
	BH1	Phenyl Ether	GC-MS	Annual	<1	<1	ug/l			no	
		4-Chloro-3-									
	BH1	methylphenol	GC-MS	Annual	<1	<1	ug/l			no	
		4-Chlorophenyl									
	BH1	phenyl ether	GC-MS	Annual	<1	<1	ug/l			no	
	BH1	4-Nitrophenol	GC-MS	Annual	-1	-1	ug/l			no	
	BH1	Acenaphthene Benzo(a)anthracen	GC-MS	Annual	<1	<1	ug/l		30	no	
	BH1	e e	GC-MS	Annual	<1	<1	ug/l			no	
	5			1	`-	`-	~ <sub>6</sub> / '	1	1		1

	monitoring templa			Lic No:	W0022-01		Year	2017	
BH1	Benzo(a)pyrene	GC-MS	Annual	<1	<1	ug/l			no
	Benzo(b)fluoranth								
BH1	ene	GC-MS	Annual	<1	<1	ug/l			no
	Benzo(g,h,i)peryle								
BH1	ne	GC-MS	Annual	<1	<1	ug/l			no
	Benzyl Butyl								
BH1	Phthalate	GC-MS	Annual	<1	<1	ug/l			no
	Bis(2-								
	chloroethoxy)meth								
BH1	ane	GC-MS	Annual	<1	<1	ug/l			no
	Bis(2-								
BH1	chloroethyl)ether	GC-MS	Annual	<1	<1	ug/l		500	no
	Bis(2-								
	chloroisopropyl)et								
BH1	her	GC-MS	Annual	<1	<1	ug/l			no
	Bis(2-					5.			
	ethylhexyl)phthala								
BH1	te	GC-MS	Annual	<1	<1	ug/l			no
	Dibenz(a,h)anthrac			_					
BH1	ene	GC-MS	Annual	<1	,1	ug/l			no
BH1	Dibenzofuran	GC-MS	Annual	<1	<1	ug/l			no
BH1	Diethylphthalate	GC-MS	Annual	<1	<1	ug/l			no
DIII	di-n-			`-	``	чь/ і			110
BH1	Butylphthalate	GC-MS	Annual	<1	<1	ug/l			no
DIII	Di-n-	GC IVIS	7 ti il idai	<b>\1</b>	``	u <sub>6</sub> /1			110
BH1	octylphthalate	GC-MS	Annual	<1	<1	ug/l			no
BH1	Diphenylamine	GC-MS	Annual	<b>\1</b>	``	ug/l			no
DIII	Diplienylamine	GC IVIS	7 ti il idai			ug/i	+		110
BH1	Hexachloroethane	GC-MS	Annual	<1	<1	ug/l			no
DIII	Indeno(1,2,3-	GC-IVI3	Ailidai	<b>\1</b>	<u></u>	ug/i	+		110
BH1	c,d)pyrene	GC-MS	Annual	<1	<1	ug/l			no
BH1	Isophorone	GC-MS	Annual	<1	<1	ug/l			no
BH1	Nitrobenzene	GC-MS	Annual	<1	<1	ug/l			no
DIII	n-Nitrosodi-n-	GC IVIS	7 ti i i dai	<b>\1</b>	``	u <sub>B</sub> /1			110
BH1	propylamine	GC-MS	Annual			ug/l			no
BH1	Acetone	GC-MS	Annual			ug/l	+		no
DIII	Acetone	GC-IVI3	Ailidai			ug/1	+		110
BH1	Dichloromethane	GC-MS	Annual	<3	<3	ug/l	1		no
BH1	Tetrahydrofuran	GC-IVIS GC-MS	Annual	\3	\3	ug/l	+	1	no
BH1	Toluene	GC-MS	Annual	<1	<1	ug/I	+	1	no
BH1	Xylene -o	GC-MS GC-MS	Annual	<1	<1		-	10	no
DUIT	Dichlorodifluorom	GC-IVIS	Alliudi	<1	<1	ug/l	+	10	110
DU1		CC MS	Annual	-1	-1	/	1		
BH1	ethane	GC-MS	Alliuai	<1	<1	ug/l			no
	Ethyl						1		
DUIA	Chloride/Chloroeth						1		
BH1	ane	GC-MS	Annual			ug/l			no
	Ethyl						1		
5.1.4	Ether/Diethyl						1		
BH1	Ether	GC-MS	Annual			ug/l			no

Groundwater/Soil	monitoring templa	ate		Lic No:	W0022-01		Year	2017	
	Iodomethane/Met								
BH1	hyl lodide	GC-MS	Annual			ug/l	<u> </u>		no
BH1	Carbon Disulphide	GC-MS	Annual	<1	<1	ug/l			no
BH1	Allyl Chloride	GC-MS	Annual			ug/l			no
	Chlormethyl								
	Cyanide/Chloroace								
BH1	tonitrile	GC-MS	Annual			ug/l			no
BH1	Propanenitrile	GC-MS	Annual			ug/l			no
	Trans-1,2								
BH1	Dichloroethene	GC-MS	Annual	<1	<1	ug/l			no
BH1	MtBE	GC-MS	Annual	<1	<1	ug/l			no
	2,2-								
BH1	dichloropropane	GC-MS	Annual	<1	<1	ug/l			no
	cis-12		1						
BH1	Dichloroethene	GC-MS	Annual	<1	<1	ug/l			no
BH1	2-Butanone	GC-MS	Annual			ug/l	1		no
BH1	Methyl Acrylate	GC-MS	Annual			ug/l			no
	Bromochlorometh								
BH1	ane	GC-MS	Annual	<1	<1	ug/l			no
			l			,			
BH1	Methacrylonitrile	GC-MS	Annual			ug/l			no
BH1	1-Chlorobutane	GC-MS	Annual			ug/l			no
DUA	Carbon		A	.a	.4	. /1			
BH1	Tetrachloride	GC-MS	Annual	<1	<1	ug/l	1		no
BH1	Dibromomethane	GC-MS	Annual	<1	<1	/1			
BHI	Methyl	GC-MS	Afiriuai	<1	<1	ug/l			no
BH1	Methacrylate	GC-MS	Annual			ug/l			no
DIII	13	GC-IVI3	Airidai			ug/1	1		110
	Dichloropropene,ci								
BH1	S	GC-MS	Annual	<1	<1	ug/l			no
DITI	MIBK/4 Methyl 2	00 1113	7 ti i i dai	\1	\1	ид/1			110
BH1	Pentanone	GC-MS	Annual			ug/l			no
5.12	13								
	Dichloropropene,tr								
BH1	ans	GC-MS	Annual	<1	<1	ug/l			no
	5.10			\ <u>-</u>	<u>-</u>				
BH1	Ethyl Methacrylate	GC-MS	Annual			ug/l			no
BH1	Bromobenzene	GC-MS	Annual	<1	<1	ug/l			no
-	Trans 14 Dichloro					- 0,			
BH1	2 Butene, tran	GC-MS	Annual			ug/l			no
			1			Ŭ,			
BH1	P Isopropyltoluene	GC-MS	Annual	<1	<1	ug/l			no
BH1	N Butyl Benzene	GC-MS	Annual			ug/l			no
	1,2-dibromo-3-					-			
BH1	chloropropane	GC-MS	Annual			ug/l			no

No.   No.										
BH1	ndwater/Soil m	nonitoring templ	ate		Lic No:	W0022-01		Year	2017	
BH1										
BH1		1,2,3-								
BH1	BH1	trichlorobenzene	GC-MS	Annual			ug/l			no
BH1	BH1	Mecoprop	GC-MS	Annual	<0.04	<0.04	ug/l			no
BHZ	BH1	Bentazone	GC-MS	Annual	<0.04	<0.04	ug/l			no
BH2   Temp	BH1	Simazine		Annual	<0.04	<0.04	ug/l		IGV	no
BH2   Elec Conductivity	BH2	pН	Meter	Quartely	7.9	7.5	units		9.5	no
BH2	BH2	Temp	Meter	Quartely			ug/l		25	no
BH2										
BH2	BH2	Elec.Conductivity	Meter	Quartely	5.6	2.1	ug/l	800-1875	1000	no
BH2	BH2	Chlorides	titration	Quartely	27	18	ug/l	24-187.5	250	no
BH2		Ammoniacal								
BH2	BH2	Nitorgen	ISE	Quartely	22.7	7.9	ug/l	0.065-0.175	trigger limit 100	no
BH2	BH2	Iron	ICP	Quartely			ug/l		0.2	no
BH2	BH2	TON	HACH	Quartely	11.0	4.8	ug/l	-	No abnormal change	no
BH2   Cadmium   ICP   Annual   <0.08   <0.08   Ug/l   .   0.005   no	BH2	TOC	TOC analyser	Quartely	9.8	5.3	ug/l			no
BH2   Chromium (total)   ICP   Annual   <3   <3   Ug/l   37.5   0.03   no	BH2	Cadmium	ICP	Annual	<0.08	<0.08		-		no
BH2							<u>.</u>			
BH2	BH2	Chromium (total)	ICP	Annual	<3	<3	ug/l	37.5	0.03	no
BH2   Lead   CP	BH2	Copper	COLORIMETRY	Annual	<0.3	<0.3		1500	0.03	no
BH2	BH2	Cyanide (Total)	ICP	Annual	<0.05	<0.05	ug/l	-	0.01	no
BH2   Manganese			ICP	Annual				18.75		no
BH2   Manganese   ICP   Annual		Mangnesium	ICP	Annual						no
BH2   Mercury   ICP   Annual   <0.01   <0.01   ug/l   0.75   0.001   no			ICP	Annual			_	-		
BH2	BH2	-	ICP	Annual		<0.01		0.75	0.001	no
BH2			ICP	Annual			•			
BH2   Sulphate   Aquakemato analyser   Annual   755   755   ug/l   187.5   200   no			ICP	Annual	4.8	4.8				no
BH2			Aquakem auto							
BH2		·							200	
BH2	BH2	Total Alkalinity	icp	Annual	365	365	ug/l	-		no
BH2			spectrophotometry							
BH2   Naphthalene   GC-MS   Annual   <1   <1   ug/l   2   no								0.09		
BH2   Acenaphthylene   GC-MS   Annual   <1   <1   ug/l   ug/l   no			GC-MS				_		0.5	no
BH2		<u> </u>					-		2	
BH2   Chrysene   GC-MS   Annual   <1   <1   ug/l     no							•			
BH2										
BH2   Fluorene   GC-MS   Annual   <1   <1   ug/l   ug/l   0.03   no		<u> </u>								
BH2										
BH2   Phenanthrene   GC-MS   Annual   <1   <1   ug/l   ug/l   no							_			
Bromodichloromet							•		0.1	
BH2         hane         GC-MS         Annual         <1	BH2		GC-MS	Annual	<1	<1	ug/l			no
BH2         Bromoform         GC-MS         Annual         <1									<u> </u>	
BH2   Chloroform   GC-MS   Annual   <1   <1   ug/l   ug/l   no		hane	GC-MS			<1				no
Dibromochloromet	BH2	Bromoform	GC-MS		<1		ug/l			no
BH2         hane         GC-MS         Annual         <1         <1         ug/I         no           Dibromochloromet         BH2         hane         GC-MS         Annual         <1	BH2		GC-MS	Annual	<1	<1	ug/l			no
Dibromochloromet   BH2   hane   GC-MS   Annual   <1   <1   ug/l     no   no		Dibromochloromet								
BH2         hane         GC-MS         Annual         <1         <1         ug/l         no           BH2         Vinyl Chloride         GC-MS         Annual         <1	BH2	hane	GC-MS	Annual	<1	<1	ug/l			no
BH2 Vinyl Chloride GC-MS Annual <1 <1 ug/l no		Dibromochloromet								
, C.	BH2	hane	GC-MS	Annual	<1	<1	ug/l		1	no
BH2 Chloromethane GC-MS Annual <1 <1 ug/l no	BH2	Vinyl Chloride	GC-MS	Annual	<1	<1	ug/l			no
	BH2	Chloromethane	GC-MS	Annual	<1	<1	ug/l			no

Groundwater/So	il monitoring templa	ate		Lic No:	W0022-01		Year	2017		
BH2	Trichloroethene	GC-MS	Annual		1.0022.01	ug/l	1	2317	no	
BH2	Bromomethane	GC-MS	Annual	<1	<1	ug/l			no	
DITE	Trichloromonofluo	00 1113	7 11 1001	11	``	u <sub>6</sub> /1			110	
BH2	romethane	GC-MS	Annual	<1	<1	ug/l			no	
5.12	romeanane									
BH2	11 Dichloroethene	GC-MS	Annual	<1	<1	ug/l			no	
BH2	Chloromethane	GC-MS	Annual	<1	<1	ug/l			no	
				_	_					
BH2	1,1-dichloroethane	GC-MS	Annual	<1	<1	ug/l			no	
	11			_	_					
BH2	Dichloropropene	GC-MS	Annual	<1	<1	ug/l			no	
						6/				
BH2	1,2 dicloroethane	GC-MS	Annual	<1	<1	ug/l			no	
	1,2-					- 0/				
BH2	dichloropropane	GC-MS	Annual	<1	<1	ug/l			no	
	1,1,1-					30/				
BH2	trichloroethane	GC-MS	Annual	<1	<1	ug/l			no	
	112					-				
BH2	Trichloroethane	GC-MS	Annual	<1	<1	ug/l			no	
	1,3-					O,				
BH2	dichloropropane	GC-MS	Annual	<1	<1	ug/l			no	
BH2	2-Hexanone	GC-MS	Annual			ug/l			no	
	1,2-					Ţ.				
BH2	dibromoethane	GC-MS	Annual	<1	<1	ug/l			no	
BH2	Chlorobenzene	GC-MS	Annual	<1	<1	ug/l			no	
	1,1,1,2-									
BH2	tetrachloroethane	GC-MS	Annual	<1	<1	ug/l			no	
BH2	Ethylbenzene	GC-MS	Annual	<1	<1	ug/l			no	
BH2	Xylene P&M	GC-MS	Annual	<1	<1	ug/l			no	
BH2	Styrene	GC-MS	Annual	<1	<1	ug/l			no	
BH2	Isopropylbenzene	GC-MS	Annual	<1	<1	ug/l			no	
	1,1,2,2-					1				
BH2	tetrachloroethane	GC-MS	Annual	<1	<1	ug/l			no	
	1,2,3-									
BH2	trichloropropane	GC-MS	Annual	<1	<1	ug/l			no	
BH2	Propylbenzene	GC-MS	Annual			ug/l			no	
BH2	2-chlorotoluene	GC-MS	Annual	<1	<1	ug/l			no	
BH2	4-chlorotoluene	GC-MS	Annual	<1	<1	ug/l			no	
						1				
	1,3,5-									
BH2	trimethylbenzene	GC-MS	Annual	<1	<1	ug/l			no	
						1				
BH2	Tert Butyl Benzene	GC-MS	Annual	<1	<1	ug/l			no	
	1,2,4-									
BH2	trimethylbenzene	GC-MS	Annual	<1	<1	ug/l			no	

1										
oundwater/S	oil monitoring templ	ate	1	Lic No:	W0022-01	·	Year	2017		1
BH2	2 sec-butylbenzene	GC-MS	Annual	<1	<1	ug/l			no	
ВП2	2 Sec-batymenzene	GC-IVI3	, unidai	<1	<1	ug/i			110	+
BH2	2 Pentachlorophenol	GC-MS	Annual	<1	<1	ug/l			no	
						- 01				1
BH2	2 Tetrachloroethene	GC-MS	Annual	<1	<1	ug/l			no	
	Hexachlorobenzen									
BH2		GC-MS	Annual	<1	<1	ug/l			no	
	Hexachlorobutadie									
BH2		GC-MS	Annual	<1	<1	ug/l			no	
	2,4,6-					,				
BH2	2 Trichlorophenol	GC-MS	Annual	<1	<1	ug/l	1		no	
BH2	2 2,4-Dichlorophenol	GC-MS	Annual	<1	_1	ug/l		1	no	
ВП2	2,4-Dicfilorophenoi	GC-IVI3	, tilliadi	<1	<1	ug/I	+	1	110	-
BH2		GC-MS	Annual	<1	<1	ug/l		10	no	
BH2		GC-MS	Annual	<1	<1	ug/l	1	10	no	1
3				_	_		1	1		1
	1,2,4-							1		
BH2		GC-MS	Annual	<1	<1	ug/l			no	
	1,2-									
BH2		GC-MS	Annual	<1	<1	ug/l			no	
	1,3-		l			,				
BH2		GC-MS	Annual	<1	<1	ug/l	1	ļ	no	1
5.11	1,4-		Annual	-1	-1	/1				
BH2	2 dichlorobenzene 2,4,5-	GC-MS	Annual	<1	<1	ug/l	+	-	no	1
BH2		GC-MS	Annual	<1	<1	ug/l			no	
BIIZ	- memorophenor	OC IVIS	,	<u> </u>	\1	чь/ і			110	1
BH2	2 2,4-Dinitrotoluene	GC-MS	Annual	<1	<1	ug/l			no	
1	,			_	_		1			1
BH2	2 2,6-Dinitrotoluene	GC-MS	Annual	<1	<1	ug/l			no	
	2-									
BH2		GC-MS	Annual	<1	<1	ug/l	1		no	1
	2-									
	Methylnaphthalen									
BH2		GC-MS	Annual	<1	<1	ug/l	1	1	no	-
BH2 BH2		GC-MS GC-MS	Annual Annual	<1	<1	ug/l	1	-	no no	-
BHZ	2 2-Nitrophenol 4-Bromophenyl	GC-IVIS	Airiuai	<1	<1	ug/l	+		110	1
BH2		GC-MS	Annual	<1	<1	ug/l			no	
BIIZ	4-Chloro-3-	GC IVIS	,	<u> </u>	\1	чь/ і			110	1
BH2		GC-MS	Annual	<1	<1	ug/l			no	
	4-Chlorophenyl			_	_	0/ -				
BH2	' '	GC-MS	Annual	<1	<1	ug/l			no	
BH2		GC-MS	Annual			ug/l			no	]
BH2	2 Acenaphthene	GC-MS	Annual	<1	<1	ug/l		30	no	
	Benzo(a)anthracen									
BH2	2 e	GC-MS	Annual	<1	<1	ug/l	1	1	no	1

water/Soil r	monitoring templa	ate		Lic No:	W0022-01		Year	201	7
BH2	Benzo(a)pyrene	GC-MS	Annual	<1	<1	ug/l			no
	Benzo(b)fluoranth					· ·			
BH2	ene	GC-MS	Annual	<1	<1	ug/l			no
	Benzo(g,h,i)peryle								
BH2	ne	GC-MS	Annual	<1	<1	ug/l			no
	Benzyl Butyl					· ·			
BH2	Phthalate	GC-MS	Annual	<1	<1	ug/l			no
	Bis(2-					-			
	chloroethoxy)meth								
BH2	ane	GC-MS	Annual	<1	<1	ug/l			no
						· ·			
	Bis(2-								
BH2	chloroethyl)ether	GC-MS	Annual	<1	<1	ug/l		500	no
	Bis(2-					· ·			
	chloroisopropyl)et								
BH2	her	GC-MS	Annual	<1	<1	ug/l			no
	Bis(2-					-			
	ethylhexyl)phthala								
BH2	te	GC-MS	Annual	<1	<1	ug/l			no
	Dibenz(a,h)anthrac					· ·			
BH2	ene	GC-MS	Annual	<1	,1	ug/l			no
BH2	Dibenzofuran	GC-MS	Annual	<1	<1	ug/l			no
BH2	Diethylphthalate	GC-MS	Annual	<1	<1	ug/l			no
	di-n-					· ·			
BH2	Butylphthalate	GC-MS	Annual	<1	<1	ug/l			no
	Di-n-								
BH2	octylphthalate	GC-MS	Annual	<1	<1	ug/l			no
BH2	Diphenylamine	GC-MS	Annual			ug/l			no
BH2	Hexachloroethane	GC-MS	Annual	<1	<1	ug/l			no
	Indeno(1,2,3-								
BH2	c,d)pyrene	GC-MS	Annual	<1	<1	ug/l			no
BH2	Isophorone	GC-MS	Annual	<1	<1	ug/l			no
BH2	Nitrobenzene	GC-MS	Annual	<1	<1	ug/l			no
	n-Nitrosodi-n-								
BH2	propylamine	GC-MS	Annual			ug/l			no
BH2	Acetone	GC-MS	Annual			ug/l			no
BH2	Dichloromethane	GC-MS	Annual	<3	<3	ug/l			no
BH2	Tetrahydrofuran	GC-MS	Annual			ug/l		1	no
BH2	Toluene	GC-MS	Annual	<1	<1	ug/l			no
BH2	Xylene -o	GC-MS	Annual	<1	<1	ug/l		10	no
	Dichlorodifluorom								
BH2	ethane	GC-MS	Annual	<1	<1	ug/l		1	no
	Ethyl								
	Chloride/Chloroeth								
BH2	ane	GC-MS	Annual			ug/l		1	no
	Ethyl					1		1	
	Ether/Diethyl								
BH2	Ether	GC-MS	Annual			ug/l		1	no

roundwater/Soil r	monitoring templa	ate		Lic No:	W0022-01		Year	2017	
	Iodomethane/Met								
BH2	hyl lodide	GC-MS	Annual			ug/l			no
BH2	Carbon Disulphide	GC-MS	Annual	<1	<1	ug/l			no
BH2	Allyl Chloride	GC-MS	Annual			ug/l			no
	Chlormethyl								
	Cyanide/Chloroace								
BH2	tonitrile	GC-MS	Annual			ug/l			no
BH2	Propanenitrile	GC-MS	Annual			ug/l			no
	Trans-1,2								
BH2	Dichloroethene	GC-MS	Annual	<1	<1	ug/l			no
BH2	MtBE	GC-MS	Annual	<1	<1	ug/l			no
	2,2-								
BH2	dichloropropane	GC-MS	Annual	<1	<1	ug/l			no
	cis-12								
BH2	Dichloroethene	GC-MS	Annual	<1	<1	ug/l			no
BH2	2-Butanone	GC-MS	Annual			ug/l			no
BH2	Methyl Acrylate	GC-MS	Annual			ug/l			no
	Bromochlorometh								
BH2	ane	GC-MS	Annual	<1	<1	ug/l			no
BH2	Methacrylonitrile	GC-MS	Annual			ug/l			no
BH2	1-Chlorobutane	GC-MS	Annual			ug/l			no
	Carbon								
BH2	Tetrachloride	GC-MS	Annual	<1	<1	ug/l			no
BH2	Dibromomethane	GC-MS	Annual	<1	<1	ug/l			no
	Methyl								
BH2	Methacrylate	GC-MS	Annual			ug/l			no
	13								
	Dichloropropene,ci								
BH2	S	GC-MS	Annual	<1	<1	ug/l			no
	MIBK/4 Methyl 2								
BH2	Pentanone	GC-MS	Annual			ug/l			no
	13								
	Dichloropropene,tr								
BH2	ans	GC-MS	Annual	<1	<1	ug/l			no
BH2	Ethyl Methacrylate	GC-MS	Annual			ug/l			no
BH2	Bromobenzene	GC-MS	Annual	<1	<1	ug/l			no
	Trans 14 Dichloro								
BH2	2 Butene, tran	GC-MS	Annual			ug/l			no
BH2	P Isopropyltoluene	GC-MS	Annual	<1	<1	ug/l			no
BH2	N Butyl Benzene	GC-MS	Annual			ug/l			no
	1,2-dibromo-3-								
BH2	chloropropane	GC-MS	Annual			ug/l			no

Groundw	ater/Soil n	nonitoring templ	ate		Lic No:	W0022-01		Year	2017		
		4.2.2									
		1,2,3-		l			,,				
	BH2	trichlorobenzene	GC-MS	Annual			ug/l			no	
	BH2	Mecoprop	GC-MS	Annual	<0.04	<0.04	ug/l			no	
	BH2	Bentazone	GC-MS	Annual	<0.04	<0.04	ug/l			no	
	BH2	Simazine		Annual	<0.04	<0.04	ug/l		IGV	no	
*please note exceedance of generic assessment criteria (GAC) such as a Groundwater Threshold Value (GTV) or an Interim Guideline Value (IGV) or an upward trend in results for a substance indicates that further interpretation of monitoring results is required. In addition to completing the above table, please complete the Groundwater Monitoring Guideline Template Report at the link provided and submit separately through ALDER as a licensee return or as otherwise instructed by the											
				EPA.							

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

<u>Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (EPA 2013).</u>

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	<b>Drinking water</b>		
<u>Surface</u>	regulations	(private supply)	Drinking water (public	Interim Guideline
water EQS	GTV's	standards	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: W0022-01 Year 2017

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

			Commentary
1	ELRA initial agreement status	Submitted and not agreed by EPA;	Closed February 2007
2	ELRA review status	SELECT	
3	Amount of Financial Provision cover required as determined by the latest ELRA	Specify	Authority Responsibility as
4	Financial Provision for ELRA status	SELECT	
5	Financial Provision for ELRA - amount of cover	Specify	
6	Financial Provision for ELRA - type	SELECT	
7	Financial provision for ELRA expiry date	Enter expiry date	
8	Closure plan initial agreement status	SELECT	
9	Closure plan review status	SELECT	
10	Financial Provision for Closure status	SELECT	
11	Financial Provision for Closure - amount of cover	Specify	
12	Financial Provision for Closure - type	SELECT	
13	Financial provision for Closure expiry date	Enter expiry date	

	<b>Environmental Management Programme/Continuous Improvement Programme</b>	template	Lic No:	W0022-01	Year
	Highlighted cells contain dropdown menu click to view		Additional Informa	tion	
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional information	Yes		sections on use of manual, site location and types of waste accepted and procedures,	
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			

<b>Environmental Management Program</b>	me (EMP) report				
Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
			Improvement of gas		
	Maintain low complaint		extraction system and		
Reduction of emissions to Air	numbers against the facility	100	operation	Site Staff & Management	Reduced emissions
	Improved gas intake to		Improvement of site practice		Increased compliance with
	flare unit and more		to ensure increased gas		licence conditions. Better
Gas extraction system	efficient burning of gas	75	capture	Site Staff & Contractor	quality gas arising at Flare unit
			Improvement of Civic		
			Amenity Site layout and		
	Improve annual recycling		improved maintenance of		Installation of infrastructure
Materials Handling/Storage/Bunding	rate by 5%	60	existing infrastructure	Site Staff & Management	and improved housekeeping
			Examine site practise and		
			usuage to identify areas of		
Additional improvements	Improve site infrastructure	30	infrastructural improvement.	Site Staff & Management	Installation of infrastructure
			Lineine with Consults.		
			Liasing with Security		
			Company and An Gardaí		
			Síochana to deter would-be		
			intruders. Infrastructure		Improved Environmental
			positioned to deter would-be		Management Practices &
Additional improvements	Improve Site security	90	intruders	Site Staff & Management	cleaner site
			Deduction of wests intole-		
	To control on time per a stall		Reduction of waste intake,		In averaged committee on with
A 1 199	To control environmental		improved litter capture and	S., S. K	Increased compliance with
Additional improvements	nuisances at the facilty	80	improved site practices	Site Staff	licence conditions

Environmental Management Programme/Continuous Improvement Programme template				Lic No:	W0022-01	Year	201
	Review the closure						
	modifications of the Waste						
	Licence following the		Testing regime inspected to				
	closure of landfill in Feb		make workload more		Increased compliance with		
Additional improvements	2007	70	efficient for site staff	Site management	licence conditions		

Noise monitoring summary report	Lic No:	W0022-01	Year	2017
Was noise monitoring a licence requirement for the AER period?     If yes please fill in table N1 noise summary below		Yes	]	
	Noise		]	
2 Was noise monitoring carried out using the EPA Guidance note, including completion of the	Guidance	Yes		
"Checklist for noise measurement report" included in the guidance note as table 6?	note NG4			
3 Does your site have a noise reduction plan		SELECT		
4 When was the noise reduction plan last updated?		Enter date		
$_{\rm 5}$ Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since survey?	the last noise	No		

Table N1: Nois	able N1: Noise monitoring summary										
Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	$LA_{eq}$	LA <sub>90</sub>	LA <sub>10</sub>	LA <sub>max</sub>	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site compliant</u> with noise limits (day/evening/night)?
22/11/2018	30min	N1		48	38.6	50	70.5	No	No	No noise from landfill site. External noise from normal countryside noise. Dogs barking from adjacent farm.	Yes
22/11/2018	30min	N3		45.4	35.8	44.2	71	No	No	No noise from landfill site. External noise from road, nature and adjacent quarry	Yes
22/11/2018	30min	N4		54.6	45.5	57.8	79.7	No	No	No noise from landfill site. Noise from cars stopping at the kiosk attributed to the noise levels recorded.External noise from road, nature and adjacent quarry.	Yes

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

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

SELECT

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

Any additional comments? (less than 200 words)

Resource Usage/Energy efficiency summary Lic No: W0022-01 2017 Year

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

SEAI - Large Network (LIEN)

SELECT

**Additional information** 

2015

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

Table R1 Energy usag	e on site			
Energy Use	Previous year	Current year	compared to previous reporting	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	61.508	63.258	3%	
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (N	/IWHrs)			
Electricity Consumption (MWHrs)	61.508	63.258	3%	
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)	1	1	0%	
Light Fuel Oil (m3)	100	95	-5%	
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 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(m <sup>3</sup> yr):	m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply	198	180	-10%	Non applicable	180	0	
Recycled water							
Total							

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

<sup>\*\*</sup> 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)					
Non-Hazardous (Tonnes)					

#### Resource Usage/Energy efficiency summary Lic No: W0022-01 Year 2017 Table R4: Energy Audit finding recommendations Description of Predicted energy Status and Recommendations Date of audit Measures proposed Origin of measures savings % Implementation date Responsibility Completion date comments Jun-15 Replacement of lighting Replace units when failenergy audit 10% 31/03/2017 Energy Audit find Jan-16 Site management SELECT SELECT

Table R5: Power Generation: Where power is generated onsite (e.g. power generation facilities/food and drink industry)please complete the following info										
Unit ID Unit ID Unit ID Station Total										
Technology										
Primary Fuel										
-1 1-55										

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		

Resolution

Likelihood of reoccurence SELECT SELECT SELECT SELECT SELECT SELECT

Complaints and Incidents summary template		Lic No:	W0022-01	Year	2017	
Complaints						
		Additional informa	ition			
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		1				
			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		
	SELECT				SELECT		
	SELECT				SELECT		
	SELECT				SELECT		
Total complaints open at start of reporting year Total new complaints received during	0						
reporting year Total complaints closed during reporting year	0						
Balance of complaints end of reporting year	0						

	Incidents			
				Additional information
Have any incidents occurred on site in the current report	rting year? Please list all incid	ents for current reporting		
year in Tab	le 2 below		No	
*For information on how to report and what				
constitutes an incident	What is an incident			

increase

Table 2 Incidents sur	mmary												
						Other	Activity in				Preventative		ī
			Incident category*please			cause(please	progress at			Corrective action<20	action <20		R
Date of occurrence	Incident nature	Location of occurrence	refer to guidance	Receptor	Cause of incident	specify)	time of incident	Communication	Occurrence	words	words	Resolution status	d
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT	ī
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT	ī
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT	ī
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT	ī
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT	ī
Total number of													
incidents current													
year	0	ı											
Total number of													
incidents previous													
year	0	ı											
% reduction/													
I.		1											

WASTE SUMMARY Lic No: W0022-01 Year 2017 dropdown list click to see options

4.1 RELEASES TO AIR Link to previous years emissions data | PRTR#: W0022 | Facility Name : East Cork Landfill Site | Filename : AER summary East Cork 2017.xdsx | Return Year : 2017 |

	R	ELEASES TO AIR			Please enter all quantities in this s	ection in KGs		
	POLLUTANT		METHOD				QUANTITY	
			M	ethod Used				
						T (Total)	A (Accidental)	
No. An	nex II Name	M/C/E	Method Code	Designation or Description	Emission Point 1	KG/Year	KG/Year	F (Fugitive) KG/Year
				Measured through analysis of flare flue				
				gas emissions				
01	Methane (CH4)	M	OTH	monitoring	0	0 364887.0	0.0	364887.0
0.	modulato (OTT)			Measured through	, and a second s	0 001001.0		00.1001.0
				analysis of flare flue				
				gas emissions				
02	Carbon monoxide (CO)	M	ISO 12039:2001	monitoring	0	0 18.5	0.0	18.5
				Measured through				
				analysis of flare flue				
	0 1 " 11 (000)		ISO 12039:2001	gas emissions				
03	Carbon dioxide (CO2)	M	180 12039:2001	monitoring Measured through	0	0 1524473.0	0.0	1524473.0
				analysis of flare flue				
				gas emissions				
07	Non-methane volatile organic compounds	M	EN 13649:2001	monitoring	0	0 16.5	0.0	16.5
0.	Tron motitatio volutilo organio sompoundo			Measured through	S S		,	, 10.0
				analysis of flare flue				
				gas emissions				
08	Nitrogen oxides (NOx/NO2)	M	EN 14792:2005	monitoring	0	0 298.66	0.0	298.66
				Measured through				
				analysis of flare flue				
	Cululum auddan (COur(COO)		EN 14791:2005	gas emissions		0 400.00	2 0.0	100.00
11	Sulphur oxides (SOx/SO2)	M	EN 14791:2005	monitoring	0	0 106.22	0.0	106.22

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

#### SECTION B: REMAINING PRTR POLLUTANTS

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

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

SECTION C : REMAININ	NG POLLUTANT EMISSIONS (AS require	ea in your Licence)						
	F	RELEASES TO AIR			Please enter all quantities in this:	section in KGs		
	POLLUTANT		METHOD				QUANTITY	
			N	Method Used				
						T (Total)	A (Accidental)	
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	KG/Year	KG/Year	F (Fugitive) KG/Year

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

Additional Data Requested from Landfill operators perators are requested to provide summary data on landfill gas (Methane) Landfill: East Cork Landfill Site Please enter summary data on the quantities of methane flared and / or utilised Method Used Designation or Description T (Total) kg/Year M/C/E Facility Total Capacity m3 per hour Total estimated methane generation 827570.2 (as per site model) Gas Sim model N/A Measured through analysis of flare flue gas emissions monitoring Methane flared 462683 880.0 (Total Flaring Capacity) (Total Utilising Capacity) Methane utilised in engine/s Gas Sim model and measured through Net methane emission analysis of flare flue (as reported in Section gas emissions 364886.6 A above nonitoring

 WASTE SUMMARY
 Lic No:
 W0022-01
 Year
 2017

#### 5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

PRTR#: W0022 | Facility Name: East Cork Landfill Site | Filename: AER summary East Cork 2017.xlsx | Return Year: 2016 |

28/03/2018 09:47

			Please enter all quantities on this sheet in T  Quantity (Tonnes per Year)			Method Used		Haz Waste: Name and Licence/Permit No of Next Destination Facility Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Address of Next Destination Facility Non Haz Waste: Address	Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS	Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
Transfer Destination	European Waste Code	Hazardous	Description of Was	e Waste Treatment Operation	M/C/E	Method Used	Location of Treatment				
Within the Country	13 02 08	Yes	other engine, gear ar 5.38 lubricating oils	d R9	М	Weighed	Offsite in Ireland	Enva Ltd,W184-01	Clonminam Industrial Estate,.",Portlaoi se,Co Laois,Ireland	Enva Ltd,W184-01	Clonminam Industrial Estate,".",Portlaoi e,Co Laois,Ireland
Within the Country	15 01 01	No	paper and cardboard 65.98 packaging	R3	м	Weighed	Offsite in Ireland	greenstar Ltd,W136-02	Corbally North, Srasfields Court, Glanmire, Co Cork, Ireland		
Within the Country	15 01 02	No	17.65 plastic packaging	R5	М	Weighed	Offsite in Ireland	Green Dragon Recycling Ltd,CK/09/0629/01	Corbally North,Sarsfields Court,Glanmire, Co Cork,Ireland		
Within the Country	15 01 04	No	1.51 metallic packaging	R4	М	Weighed	Offsite in Ireland	Green Dragon Recycling Ltd,CK/09/0629/01	Corbally North,Sarsfields Court,Glanmire, Co Cork,Ireland		
Within the Country	15 01 07	No	30.36 glass packaging	R5	М	Weighed	Offsite in Ireland	Mr Binman,W0061-01	Luddenmore,Gra nge,Kilmallock,C o Limerick,Ireland Cappincur Industrail		Cappincur Industrail
Within the Country	16 06 01	Yes	1.94 lead batteries	R6	М	Weighed	Offsite in Ireland	KMK Metals Ltd,W0133-03	Estate,Daingean Rd,Tullamore,Co Offaly,Ireland		Estate,Daingean Rd,Tullamore,Co Offaly,Ireland
Within the Country	16 06 04	No	alkaline batteries 0.0 (except 16 06 03)	R13	М	Weighed	Offsite in Ireland	KMK Metals Ltd,W0133-03	Industrail Estate,Daingean Rd,Tullamore,Co Offaly,Ireland		
Within the Country	17 01 07	No	mixture of concrete, bricks, tiles and ceramics other than those mentioned in 1 224.38 01 06	7 R5	м	Weighed	Offsite in Ireland	Ballineen Skip Hire,WCP-CK-09-0608-04	Connagh,Balline en ,Co Cork,,,Ireland Wastewater Treatment		
Within the Country	19 07 03	No	landfill leachate othe than those mentione 6522.8 in 19 07 02		М	Weighed	Offsite in Ireland	Carrigtwohill Wastewater Treatment Plant, D0044-01	Plant,Tullagreen, Carrigtwohill Wastewater Treatment		
Within the Country	20 01 01	No	50.18 paper and cardboard	R3	М	Weighed	Offsite in Ireland	greenstar Ltd,W136-02	Corbally North, Srasfields Court, Glanmire, Co Cork, Ireland		

WASTE SUMMAR	RY			Lic No:	W0022-01		Year	201		
Within the Occupa						Walahad			41-42 Cookstown Industrial Estate,Tallaght,D ublin,D24,Irelan	
Within the Country	20 01 02	No	0.0 glass	R5	М	Weighed	Offsite in Ireland	MSM Recycling Ltd,W0079-01	d	
									Glen Abbey	
									Business	
								Textile Recycling Ltd, WCP-DC-	Park,Tallaght,Du	
Within the Country	20 01 11	No	2.65 textiles	R5	М	Weighed	Offsite in Ireland	08-1225-01	blin,D24,Ireland	
									Cappincur	Cappincu
			discarded equipment						Industrail Estate,Daingean	Industrai Estate,Da
			containing						Rd,Tullamore,Co KMK Metals	Rd,Tullan
Within the Country	20 01 23	Yes	0.1 chlorofluorocarbons	R4	M	Weighed	Offsite in Ireland	KMK Metals Ltd,W0133-03	Offaly,Ireland Ltd,W0133-03	Offaly,Ire
									Clonminam	
			paint, inks, adhesives						Industrial	
			and resins other than those mentioned in 20						Estate,".",Portla oise,Co	
Vithin the Country	20 01 28	No	13.68 01 27	R1	М	Weighed	Offsite in Ireland	Enva Ltd,W184-01	Laois,Ireland	
			discarded electrical and						Consissus	Conning
			electronic equipment other than those						Cappincur Industrail	Cappincu Industrai
			mentioned in 20 01 21						Estate, Daingean	Estate,Da
Within the Country	20 01 35	Yes	and and 20 01 23 0.0 containing hazardous	PA	М	Weighed	Offsite in Ireland	KMK Metals Ltd,W0133-03	Rd,Tullamore,Co KMK Metals Offaly,Ireland Ltd,W0133-03	Rd,Tullan Offaly,Ire
vicini the Country	200133	165			IVI	weighed	Offsite in freiand	KIVIK IVIELAIS ELU, WO133-03		Onaly,ire
			discarded electrical and						Cappincur Industrail	
			electronic equipment other than those						Estate,Daingean	
			mentioned in 20 01 21,						Rd,Tullamore,Co	
Within the Country	20 01 36	No	164.7 20 01 23 and 20 01 35	R4	М	Weighed	Offsite in Ireland	KMK Metals Ltd,W0133-03	Offaly,Ireland	
			discarded electrical and						Cappincur	
			electronic equipment other than those						Industrail Estate,Daingean	
			mentioned in 20 01 21,						Rd,Tullamore,Co	
Within the Country	20 01 36	No	0.0 20 01 23 and 20 01 35	R4	М	Weighed	Offsite in Ireland	KMK Metals Ltd,W0133-03	Offaly,Ireland	
									Tait's	
			wood other than that					CTO Environmental Solutions	Farm,Rostellan, Midleton,Co	
Within the Country	20 01 38	No	446.72 mentioned in 20 01 37	R13	М	Weighed	Offsite in Ireland	Ltd,CK/09/0018/02	Cork,Ireland	
									Pouladuff	
Vithin the Country	20 01 40	No	193.4 metals	R4	М	Weighed	Offsite in Ireland	Pouladuff Dismantlers Ltd,CK/0584/01	Rd,Togher,Cork, Cork,Ireland	
,								-10,0., 100., 10		
									Corbally	
									North, Srasfields	
Mithin the Count	20.04.09	Ne	biodegradable kitchen	D2	M	Majahad	Offician in Irola - 1		Court, Glanmire,	
Within the Country	20 01 08	No	0.16 and canteen waste	N.S	М	Weighed	Offsite in Ireland	greenstar Ltd,W136-02	Co Cork,Ireland	
									Controlle	
									Corbally North,Srasfields	
									Court, Glanmire,	
Within the Country	20 03 01	No	586.28 mixed municipal waste	D13	М	Weighed	Offsite in Ireland	greenstar Ltd,W136-02	Co Cork,Ireland	
									Corbally North Stockfolds	
									North,Srasfields Court,Glanmire,	
Within the Country	20 03 03	No	137.32 street-cleaning residues	D13	м	Weighed	Offsite in Ireland	greenstar Ltd,W136-02	Co Cork,Ireland	

WASTE SUMMARY	Υ			Lic No:	W0022-01		Year	20	17
Within the Country	20 03 07	No	1034.38 bulky waste	D13	М	Weighed	Offsite in Ireland	greenstar Ltd,W136-02	Corbally North,Srasfields Court,Glanmire, Co Cork,Ireland
Maritie de Constant	00.00.04	No.				Welstand	Official to bollow d	CTO Environmental Solutions	Tait's Farm,Rostellan, Midleton,Co
Within the Country	20 02 01	No	417.77 biodegradable waste		М	Weighed	Offsite in Ireland	Ltd,CK/09/0018/02	Cork,Ireland Clonminam Industrial Estate,',Portlaoi se,Co
Within the Country	20 01 25	No	0.34 edible oil and fat	R3	M	Weighed	Offsite in Ireland	Enva Ltd,W184-01	Laois,Ireland

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

Were any wastes accepted onto your site for recovery or disposal or treatment prior to recovery or disposal within the boundaries of your facility?; (waste generated within your boundaries is

1 to be captured through PRTR reporting)

If yes please enter details in table 1 below

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 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	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/increase	only applies if the	treatment operation carried out	waste	
site (total			Please enter an	reporting year (tonnes)		previous year +/ -	from previous	waste has a packaging	at your site and the description	remaining on	
tonnes/annum)			accurate and detailed			%	reporting year	component	of this operation	site at the end	
			description - which							of reporting	
			applies to relevant EWC							year (tonnes)	
			code								
	European Waste Catalogue EWC codes		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

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 onsit
--

- 5 Is all waste storage infrastructure as required by your licence and approved by the Agency in place? If no please list waste storage infrastructure required on site
- 6 Does your facility have relevant nuisance controls in place?
- 7 Do you have an odour management system in place for your facility? If no why?
- 8 Do you maintain a sludge register on site?

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

Table 2 Waste type and tonnage-landfill only

	and torninge randim 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
68,200	0	0		
21,400	0		Site closed Feb 2007	
13,800	0			
7,800	0			

Table 3 General information-Landfill only

SELECT	
SELECT	
SELECT	

Additional Information

ASTE SUMMARY		Lic No: W0022-01			Year	2017						
Area ID Date landfilling comm	Date landfilling commenced	Date landfilling ceased	Currently landfilling	Private or Public Operated		Predicted date to cease landfilling	Licence permits asbestos	Is there a separate cell for asbestos?		*	Lined disposal area occupied by waste	Unlined area
										SELECT UNIT	SELECT UNIT	SELECT UNIT
te Closed Feb 2007												

WASTE SUMMARY					Lic No:	W0022-01		Year	2	017
Table 4 Environme	ntal monitoring-landfill only	Landfill Manual-Monitoring Star	dards							
	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		Were emission limit values agreed with the Agency (ELVs)	Was topography of the site surveyed in reporting year	Has the statement under S53(A)(5) of WMA been submitted in reporting year	Comments		
Yes	V	Yes	Yes	Yes	Yes	Yes	Yes	All license conditions being met under current monitoring regime		
	Manual linked above for relevant Landfill ndfill only		163	1103	ires	ites	ires	regime	4	
Area uncapped*	Area with temporary cap	Area with final cap to LD		Area with waste that should be permanently capped to date under						
SELECT UNIT	SELECT UNIT	Standard m2 ha, a	Area capped other	licence	What materials are used in the cap	Comments				
					1mm HDPE welded liner, geotextile drainage layer and protection barrier covered with 1m of suitable, screened					
0		65760m2	(	65760m2	soil.		1			
*please note this include	•									
Table 6 Leachate-L						Vee	ī			
	s leachate from your site treated in a Waste Water Treatment Plant?  s leachate released to surface water? If yes please complete leachate mass load information below  Yes									
3 reachine released to surface water: in yes please complete reachine mass load morniation below										
Volume of leachate in reporting year(m3)	Leachate (BOD) mass load (kg/annum)	Leachate (COD) mass load (kg/annum)	Leachate (NH4) mass load (kg/annum)	Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	Specify type of leachate treatment	Comments			
							Values are in line with than previous			

Volume of leachate in		Leachate (COD) mass load	Leachate (NH4) mass	Leachate (Chloride)		Specify type of leachate	
reporting year(m3)	Leachate (BOD) mass load (kg/annum)	(kg/annum)	load (kg/annum)	mass load kg/annum	Leachate treatment on-site	treatment	Comments
						Wastewater	Values are in line
						Treatment Plant	with than previous
						with Mixing tank,	years due but with a
						Batch operated	decreased volume
						Treatment	of leachate taken
6522.8	1655	7166.6	1986.9	2669.6	No	System	off-site.
	•					=	

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

Tubic / Lunanii Gus	Table 7 Landilli Gas-Landilli 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			
677554							
				Gas captured figure is			
				Annual Methane burn-			
				off in kg/annum. Areas			
				of elevated VOC's are			
				identified by the			
				surveys and are			
				attended to by site			
	0	0	Yes	staff.			

Comments on liner type