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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 Summary	
AER Reporting Year	2015
Licence Register Number	W0022-01
Name of site	East Cork Landfill
Site Location	Rossmore, Carrigtwohill, Co. Cork
NACE Code	3821
Class/Classes of Activity	5(c), 5(d), 50.1
National Grid Reference (6E, 6 N)	8.25588E 51.8851N
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.	<p>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 2015. The gas extraction system has continued to perform with the enclosed flare burning off the gas generated. Minor exceedances have again been measured in the perimeter gas wells but are explained by the estuarine conditions and limestone bedrock that account for naturally occurring 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.</p> <p>Overall the site has been compliant with its Licence.</p>

Declaration:

All the data and information presented in this report has been checked and certified as being accurate. The quality of the information is assured to meet licence requirements.

_____	16/03/2016
Signature  experienced deputy)	Date

AIR-summary template

Lic No:

W0022-01

Year

2015

Answer all questions and complete all tables where relevant

Additional information

- 1 Does your site have licensed air emissions? If yes please complete table A1 and A2 below for the current reporting year and answer further questions. If **you do not have** licenced emissions and **do not complete a solvent management plan** (table A4 and A5) you do not need to complete the tables

Yes

Periodic/Non-Continuous Monitoring

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

No

- 3 Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist? [Basic air monitoring checklist](#) [AGN2](#)

Yes

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

Emission reference no:	Parameter/ Substance	Frequency of Monitoring	ELV in licence or any revision thereof	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence limit	Method of analysis	Annual mass load (kg)	Comments - reason for change in % mass load from previous year if applicable
Flare Stack	Methane (CH4)	Continuous	N/A	SELECT	741772	m3	yes	MAB	504405	Annual mass load refers to difference
Flare Stack	Carbon dioxide (CO2)	Continuous	N/A	SELECT	474732	m3	yes	ISO 12039:2001	887748	Annual mass load refers to difference
Flare Stack	Carbon monoxide (CO)	Continuous	<50mg/Nm3	No 30min mean can exceed the ELV	3.24	mg/Nm3	yes	ISO 12039:2001	8.54	
Flare Stack	Nitrogen oxides (NOx/NO2)	Annual	<150mg/Nm3	No 30min mean can exceed the ELV	136.69	mg/Nm3	yes	EN 14792:2005	360.42	
Flare Stack	Sulphur oxides (SOx/SO2)	Annual	N/A	SELECT	25.35	mg/Nm3	yes	EN 14792:2005	66.84	

AIR-summary template	Lic No: W0022-01	Year: 2015
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 thereof	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission	Annual maximum	Monitoring Equipment downtime (hours)	Number of ELV exceedences in current reporting year	Comments
		N/A	12 month					181		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.
Flare Stack	PRTR			100 % of values < ELV	m3					
	SELECT				SELECT					
	SELECT				SELECT					
	SELECT				SELECT					
	SELECT				SELECT					

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

Table A3: Abatement system bypass reporting table [Bypass protocol](#)

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

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

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

Solvent use and management on site

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

SELECT

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

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

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

Total

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

Lic No:

W0022-01

Year

2015

Additional information

1 Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions. If you do not have licensed emissions you only need to complete table W1 and or W2 for storm water analysis and visual inspections

No

2 Was it a requirement of your licence to carry out visual inspections on any surface water discharges or watercourses on or near your site? If yes please complete table W2 below summarising only any evidence of contamination noted during visual inspections

No

Table W1 Storm water monitoring

Location reference	Location relative to site activities	PRTR Parameter	Licensed Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments
sw1	upstream		pH	Quarterly	No ELV or trigger levels	N/A	8.2	pH units	yes	Median vaule for 2015
sw1	upstream		Temperature	Quarterly	No ELV or trigger levels	N/A	15.0	degrees C	yes	Median vaule for 2015
sw1	upstream		Conductivity	Quarterly	No ELV or trigger levels	N/A	6206.0	µS/cm @20oC	yes	Median vaule for 2015
sw1	upstream		Dissolved Oxygen	Quarterly	No ELV or trigger levels	N/A	8.7	mg/L	yes	Median vaule for 2015
sw1	upstream	Chlorides (as Cl)		Quarterly	No ELV or trigger levels	N/A	15119.0	mg/L	yes	Median vaule for 2015
sw1	upstream		BOD	Quarterly	No ELV or trigger levels	N/A	2.7	mg/L	yes	Median vaule for 2015
sw1	upstream		COD	Quarterly	No ELV or trigger levels	N/A	314.0	mg/L	yes	Median vaule for 2015
sw1	upstream		Ammonia (as N)	Quarterly	No ELV or trigger levels	N/A	1.6	mg/L	yes	Median vaule for 2015
sw1	upstream		Suspended Solids	Quarterly	No ELV or trigger levels	N/A	129.5	mg/L	yes	Median vaule for 2015
sw1	upstream	Chromium and compounds (as Cr)		Annual	No ELV or trigger levels	N/A	<1	µg/L	yes	Annual value for 2015
sw1	upstream	Copper and compounds (as Cu)		Annual	No ELV or trigger levels	N/A	1.2	µg/L	yes	Annual value for 2015
sw1	upstream	Cadmium and compounds (as Cd)		Annual	No ELV or trigger levels	N/A	<1	µg/L	yes	Annual value for 2015
	upstream		CALCIUM			N/A	308.0	mg/L	yes	Annual value for 2015
sw1	upstream		Iron	Annual	No ELV or trigger levels	N/A	39.8	µg/L	yes	Annual value for 2015
sw1	upstream	Lead and compounds (as Pb)		Annual	No ELV or trigger levels	N/A	<1	µg/L	yes	Annual value for 2015
sw1	upstream		Magnesium	Annual	No ELV or trigger levels	N/A	1112.0	mg/L	yes	Annual value for 2015. Elevation due to geology of the site
sw1	upstream		Manganese (as Mn)	Annual	No ELV or trigger levels	N/A	41.7	µg/L	yes	Annual value for 2015
sw1	upstream	Mercury and compounds (as Hg)		Annual	No ELV or trigger levels	N/A	<0.5	µg/L	yes	Annual value for 2015
sw1	upstream		Potassium	Annual	No ELV or trigger levels	N/A	348.0	mg/L	yes	Annual value for 2015
sw1	upstream		Sulphate	Annual	No ELV or trigger levels	N/A	2554.0	mg/L	yes	Annual value for 2015. Sample site at estuary
sw1	upstream		Total Oxidised Nitrogen (TON)	Annual	No ELV or trigger levels	N/A	<0.2	mg/L	yes	Annual value for 2015
sw1	upstream	Zinc and compounds (as Zn)		Annual	No ELV or trigger levels	N/A	<25	µg/L	yes	Annual value for 2015
sw1	upstream	Total phosphorus		Annual	No ELV or trigger levels	N/A	<0.04	mg/L	yes	Annual value for 2015
sw2	upstream		pH	Quarterly	No ELV or trigger levels	N/A	8.3	pH units	yes	Median vaule for 2015
sw2	upstream		Temperature	Quarterly	No ELV or trigger levels	N/A	14.4	degrees C	yes	Median vaule for 2015
sw2	upstream		Conductivity	Quarterly	No ELV or trigger levels	N/A	6882.0	µS/cm @20oC	yes	Median vaule for 2015
sw2	upstream		Dissolved Oxygen	Quarterly	No ELV or trigger levels	N/A	8.2	mg/L	yes	Median vaule for 2015
sw2	upstream	Chlorides (as Cl)		Quarterly	No ELV or trigger levels	N/A	18729.0	mg/L	yes	Median vaule for 2015
sw2	upstream		BOD	Quarterly	No ELV or trigger levels	N/A	4.1	mg/L	yes	Median vaule for 2015
sw2	upstream		COD	Quarterly	No ELV or trigger levels	N/A	192.0	mg/L	yes	Median vaule for 2015
sw2	upstream		Ammonia (as N)	Quarterly	No ELV or trigger levels	N/A	1.3	mg/L	yes	Median vaule for 2015
sw2	upstream		Suspended Solids	Quarterly	No ELV or trigger levels	N/A	178.0	mg/L	yes	Median vaule for 2015
	upstream		Total Alkalinity	Annual	No ELV or trigger levels	N/A		mg/L	yes	Annual value for 2015
sw2	upstream	Chromium and compounds (as Cr)		Annual	No ELV or trigger levels	N/A	<1	µg/L	yes	Annual value for 2015
sw2	upstream	Copper and compounds (as Cu)		Annual	No ELV or trigger levels	N/A	1.0	µg/L	yes	Annual value for 2015
sw2	upstream	Cadmium and compounds (as Cd)		Annual	No ELV or trigger levels	N/A	<1	µg/L	yes	Annual value for 2015

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sw2	upstream		CALCIUM		No ELV or trigger levels	N/A	332.0	mg/L	yes	Annual value for 2015
sw2	upstream		Iron	Annual	No ELV or trigger levels	N/A	23.9	µg/L	yes	Annual value for 2015
sw2	upstream	Lead and compounds (as Pb)		Annual	No ELV or trigger levels	N/A	99.0	µg/L	yes	Annual value for 2015
sw2	upstream		Magnesium	Annual	No ELV or trigger levels	N/A	1167.0	mg/L	yes	Annual value for 2015. Elevation due to geology of the site.
sw2	upstream		Manganese (as Mn)	Annual	No ELV or trigger levels	N/A	31.7	µg/L	yes	Annual value for 2015
sw2	upstream	Mercury and compounds (as Hg)		Annual	No ELV or trigger levels	N/A	<0.5	mg/L	yes	Annual value for 2015
sw2	upstream		Potassium	Annual	No ELV or trigger levels	N/A	375.0	mg/L	yes	Annual value for 2015
sw2	upstream		Sulphate	Annual	No ELV or trigger levels	N/A	2648.0	mg/L	yes	Annual value for 2015
sw2	upstream		Total Oxidised Nitrogen (TON)	Annual	No ELV or trigger levels	N/A	<0.2	µg/L	yes	Annual value for 2015
sw2	upstream	Zinc and compounds (as Zn)		Annual	No ELV or trigger levels	N/A	36.0	µg/L	yes	Annual value for 2015
sw2	upstream	Total phosphorus		Annual	No ELV or trigger levels	N/A	0.1	mg/L	yes	Annual value for 2015
sw3	downstream		pH	Quarterly	No ELV or trigger levels	N/A	8.2	pH units	yes	Median vaule for 2015
sw3	downstream		Temperature	Quarterly	No ELV or trigger levels	N/A	14.6	degrees C	yes	Median vaule for 2015
sw3	downstream		Conductivity	Quarterly	No ELV or trigger levels	N/A	6473.0	µS/cm @20oC	yes	Median vaule for 2015
sw3	downstream		Dissolved Oxygen	Quarterly	No ELV or trigger levels	N/A	7.9	mg/L	yes	Median vaule for 2015
sw3	downstream	Chlorides (as Cl)		Quarterly	No ELV or trigger levels	N/A	15339.0	mg/L	yes	Median vaule for 2015
sw3	downstream		BOD	Quarterly	No ELV or trigger levels	N/A	3.2	mg/L	yes	Median vaule for 2015
sw3	downstream		COD	Quarterly	No ELV or trigger levels	N/A	277.0	mg/L	yes	Median vaule for 2015
sw3	downstream		Ammonia (as N)	Quarterly	No ELV or trigger levels	N/A	0.2	mg/L	yes	Median vaule for 2015
sw3	downstream		Suspended Solids	Quarterly	No ELV or trigger levels	N/A	79.3	mg/L	yes	Median vaule for 2015
SW3	downstream		Total Alkalinity	Annual	No ELV or trigger levels	N/A		mg/L	yes	Annual value for 2015
sw3	downstream	Chromium and compounds (as Cr)		Annual	No ELV or trigger levels	N/A	<1	µg/L	yes	Annual value for 2015
sw3	downstream	Copper and compounds (as Cu)		Annual	No ELV or trigger levels	N/A	1.4	µg/L	yes	Annual value for 2015
sw3	downstream	Cadmium and compounds (as Cd)		Annual	No ELV or trigger levels	N/A	<1	µg/L	yes	Annual value for 2015
sw3	downstream		CALCIUM	Annual	No ELV or trigger levels	N/A	330.0	mg/L	yes	Annual value for 2015
sw3	downstream		Iron	Annual	No ELV or trigger levels	N/A	18.9	µg/L	yes	Annual value for 2015

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)										Lic No:	W0022-01	Year	2015
sw3	downstream	Lead and compounds (as Pb)		Annual	No ELV or trigger levels	N/A	<1	µg/L	yes	Annual value for 2015			
sw3	downstream		Magnesium	Annual	No ELV or trigger levels	N/A	1160.0	mg/L	yes	Annual value for 2015. Elevation due to geology			
sw3	downstream		Manganese (as Mn)	Annual	No ELV or trigger levels	N/A	26.1	µg/L	yes	Annual value for 2015			
sw3	downstream	Mercury and compounds (as Hg)		Annual	No ELV or trigger levels	N/A	<0.5	mg/L	yes	Annual value for 2015			
sw3	downstream		Potassium	Annual	No ELV or trigger levels	N/A	369.0	mg/L	yes	Annual value for 2015			
sw3	downstream		Sulphate	Annual	No ELV or trigger levels	N/A	2425.0	mg/L	yes	Annual value for 2015. Site located in estuary			
sw3	downstream		Total Oxidised Nitrogen (TON)	Annual	No ELV or trigger levels	N/A	<0.2	mg/L	yes	Annual value for 2015			
3	sw3	downstream	Zinc and compounds (as Zn)	Annual	No ELV or trigger levels	N/A	<25	µg/L	yes	Annual value for 2015			
4	sw3	downstream	Total phosphorus	Annual	No ELV or trigger levels	N/A	<0.04	mg/L	yes	Annual value for 2015			

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

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

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

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

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

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

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

Table W4: Summary of average emissions -continuous monitoring

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

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

Table W5: Abatement system bypass reporting table

Date	Duration (hours)	Location	Resultant emissions	Reason for bypass	Corrective action*	Was a report submitted to the EPA?	When was this report submitted?
						<input type="text" value="SELECT"/>	

*Measures taken or proposed to reduce or limit bypass frequency

Bund testing

dropdown menu click to see options

Additional information

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

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

Yes	
3 years	
No	
3	
3	
0	
No	
0	
0	
0	
N/A	
N/A	
SELECT	

Please list any sump integrity failures in table B1

- 11 Do all sumps and chambers have high level liquid alarms?
- 12 If yes to Q11 are these failsafe systems included in a maintenance and testing programme?
- 13 Is the Fire Water Retention Pond included in your integrity test programme?

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

Bund/Containment structure ID	Type	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	Integrity reports maintained on site?	Results of test	Integrity test failure explanation <50 words	Corrective action taken	Scheduled date for retest	Results of retest (if in current reporting year)
Leachate Lagoon	reinforced concrete		leachate	1400	1000	Structural assessment		Nov-08	Yes	Pass		SELECT	2016	
Surfacewater Lagoon	reinforced concrete		surfacewater	10000	7500	Structural assessment		Nov-08	Yes	Pass			2017	
Surfacewater Lagoon	reinforced concrete		surfacewater	2500	2000	Structural assessment		Nov-08	Yes	Pass		SELECT	2017	

Has integrity testing been carried out in accordance with licence requirements and are all structures tested in

- 15 line with BS8007/EPA Guidance?

[bundings and storage guidelines](#)

Yes	
SELECT	
Yes	

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

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

Pipeline/underground structure testing

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

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

- 2 Please provide integrity testing frequency period

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

SELECT	
SELECT	

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

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

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

Groundwater/Soil monitoring template			Lic No: W0022-01		Year 2015					
15/8/2015	BH4	Acenaphthylene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Anthracene	GC-MS	Annual	<0.01	<0.01	ug/l		1000ug/l	no
15/8/2015	BH4	Chrysene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Fluoranthene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Fluorene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Pyrene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Phenanthrene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Bromodichlorome thane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Bromoform	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Chloroform	GC-MS	Annual	<0.01	<0.01	ug/l		12 ug/l	no
15/8/2015	BH4	Dibromochlorome thane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	Dibromochlorome thane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	Vinyl Chloride	GC-MS	Annual	<1.0	<1.0	ug/l	0.375 ug/l	0.375 ug/l	no
15/8/2015	BH4	Chloromethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	Trichloroethene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	Bromomethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	Trichloromonofluo romethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	1,1-Dichloroethene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	Chloromethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	1,1- dichloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	1,1 Dichloropropene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	1,2 dicloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	1,2- dichloropropane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	1,1,1- trichloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	112 Trichloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	1,3- dichloropropane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	2-Hexanone	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	1,2- dibromoethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	Chlorobenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	1,1,1,2- tetrachloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	Ethylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l		10 ug/l	no
15/8/2015	BH4	Xylene P&M	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	Styrene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	Isopropylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	1,1,1,2,2- tetrachloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	1,2,3- trichloropropane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	Propylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	2-chlorotoluene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	4-chlorotoluene	GC-MS	Annual	<1.0	<1.0	ug/l			no

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15/8/2015	BH4	1,3,5-trimethylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	Tert Butyl Benzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	1,2,4-trimethylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	sec-butylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH4	Pentachlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l		2.0 ug/l	no
15/8/2015	BH4	Tetrachloroethene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Hexachlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l		0.03 ug/l	no
15/8/2015	BH4	Hexachlorobutadiene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	2,4,6-Trichlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l		200 ug/l	no
15/8/2015	BH4	2,4-Dichlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	2,4-Dimethylphenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	2-Chlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l		200 ug/l	no
15/8/2015	BH4	1,2,4-trichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	1,2-dichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	1,3-dichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	1,4-dichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	2,4,5-Trichlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	2,4-Dinitrotoluene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	2,6-Dinitrotoluene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	2-Chloronaphthalene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	2-Methylnaphthalene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	2-Methylphenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	2-Nitrophenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	4-Bromophenyl Phenyl Ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	4-Chloro-3-methylphenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	4-Chlorophenyl phenyl ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	4-Nitrophenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Acenaphthene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Benzo(a)anthracene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Benzo(a)pyrene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Benzo(b)fluoranthene	GC-MS	Annual	<0.01	<0.01	ug/l			no

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15/8/2015	BH4	Benzo(g,h,i)perylene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Benzyl Butyl Phthalate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Bis(2-chloroethoxy)methane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Bis(2-chloroethyl)ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Bis(2-chloroisopropyl)ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Bis(2-ethylhexyl)phthalate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Dibenz(a,h)anthracene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Dibenzofuran	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Diethylphthalate di-n-	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Butylphthalate di-n-	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	octylphthalate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Diphenylamine	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Hexachloroethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Indeno(1,2,3-c,d)pyrene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Isophorone	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Nitrobenzene	GC-MS	Annual	<0.01	<0.01	ug/l		10 ug/l	no
15/8/2015	BH4	n-Nitrosodi-n-propylamine	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Acetone	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Dichloromethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Tetrahydrofuran	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Toluene	GC-MS	Annual	<0.01	<0.01	ug/l		10 ug/l	no
15/8/2015	BH4	Xylene-o	GC-MS	Annual	<0.01	<0.01	ug/l		10 ug/l	no
15/8/2015	BH4	Dichlorodifluoromethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Ethyl Chloride/Chloroethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Ethyl Ether/Diethyl Ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Iodomethane/Methyl iodide	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Carbon Disulphide	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Allyl Chloride	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Chlormethyl Cyanide/Chloroacetonitrile	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Propanenitrile	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Trans-1,2 Dichloroethene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	MTBE	GC-MS	Annual	<0.01	<0.01	ug/l		30 ug/l	no
15/8/2015	BH4	2,2-dichloropropane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	cis-12 Dichloroethene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	2-Butanone	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Methyl Acrylate	GC-MS	Annual	<0.01	<0.01	ug/l			no

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15/8/2015	BH4	Bromochloromethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Methacrylonitrile	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	1-Chlorobutane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Carbon Tetrachloride	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Dibromomethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Methyl Methacrylate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	1,3-Dichloropropene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	MIBK/4 Methyl 2 Pentanone	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	1,3-Dichloropropene,trans	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Ethyl Methacrylate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Bromobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Trans 1,2-Dichloro Butene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	p-Isopropyltoluene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	N Butyl Benzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	1,2-dibromo-3-chloropropane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	1,2,3-trichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH4	Mecoprop	GC-MS	Annual	<0.01	<0.01	ug/l	0.075 ug/l		no
15/8/2015	BH4	Bentazone	GC-MS	Annual	<0.01	<0.01	ug/l	0.075 ug/l		no
15/8/2015	BH4	Simazine	GC-MS	Annual	<0.01	<0.01	ug/l	0.075 ug/l		no
quarterly	BH3	pH	Meter	quarterly	7.4	7.1	UNIT		9.5	no
quarterly	BH3	Temp	Meter	quarterly			SELECT			no
quarterly	BH3	Elec.Conductivity	Meter	quarterly	12.2	11.3	uS/cm		1000	no
quarterly	BH3	Chlorides	titration	quarterly	4509	3899	mg/l		250	no
quarterly	BH3	Ammoniacal Nitrogen	ISE	quarterly	25.9	10.1	mg/l		0.02NH3	no
quarterly	BH3	Iron	ICP	quarterly			ug/l		1.0mg/l	no
quarterly	BH3	TON	HACH	quarterly	5.4	4.6	mg/l		no abnormal change	no
quarterly	BH3	TOC	TOC analyser	quarterly	3.1	1.8	mg/l		no abnormal change	no
15/8/2015	BH3	Cadmium	ICP	Annual	<1	<1	ug/l		0.005mg/l	no
15/8/2015	BH3	Chromium (total)	ICP	Annual	<1	<1	ug/l		0.03mg/l	no
15/8/2015	BH3	Copper	COLORIMETRY	Annual	<1	<1	ug/l		0.03mg/l	no
15/8/2015	BH3	Cyanide (Total)	ICP	Annual	<0.01	<0.01	ug/l		0.01mg/l	no
15/8/2015	BH3	Lead	ICP	Annual	<1	<1	ug/l		0.01mg/l	no
15/8/2015	BH3	Magnesium	ICP	Annual	239	239	mg/l		50 mg/l	no
15/8/2015	BH3	Manganese	ICP	Annual	1249	1249	ug/l		0.03mg/l	no
15/8/2015	BH3	Mercury	ICP	Annual	<0.5	<0.5	ug/l		0.001mg/l	no
15/8/2015	BH3	Nickle	ICP	Annual	1.07	1.07	mg/l		0.02 mg/l	no
15/8/2015	BH3	Potassium	ICP	Annual	93.3	93.3			5 mg/l	no
15/8/2015	BH3	Sulphate	Aquakem auto analyser	Annual	312	312	mg/l		200 mg/l	no
15/8/2015	BH3	Total Alkalinity	icp	Annual	175	175	mg/l			no
15/8/2015	BH3	Total Phosphorus	spectrophotometry	Annual	<0.04	<0.04	mg/l			no
15/8/2015	BH3	Phenols	GC-MS	Annual	<1.0	<1.0	ug/l		0.5ug/l	no
15/8/2015	BH3	Naphthalene	GC-MS	Annual	<0.01	<0.01	ug/l		1.0 ug/l	no

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15/8/2015	BH3	Acenaphthylene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Anthracene	GC-MS	Annual	<0.01	<0.01	ug/l		1000ug/l	no
15/8/2015	BH3	Chrysene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Fluoranthene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Fluorene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Pyrene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Phenanthrene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Bromodichlorome thane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Bromoform	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Chloroform	GC-MS	Annual	<0.01	<0.01	ug/l		12 ug/l	no
15/8/2015	BH3	Dibromochlorome thane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	Dibromochlorome thane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	Vinyl Chloride	GC-MS	Annual	<1.0	<1.0	ug/l	0.375 ug/l	0.375 ug/l	no
15/8/2015	BH3	Chloromethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	Trichloroethene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	Bromomethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	Trichloromonofluo romethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	1,1-Dichloroethene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	Chloromethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	1,1- dichloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	1,1 Dichloropropene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	1,2 dicloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	1,2- dichloropropane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	1,1,1- trichloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	112 Trichloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	1,3- dichloropropane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	2-Hexanone	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	1,2- dibromoethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	Chlorobenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	1,1,1,2- tetrachloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	Ethylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l	10 ug/l	10 ug/l	no
15/8/2015	BH3	Xylene P&M	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	Styrene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	Isopropylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	1,1,1,2,2- tetrachloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	1,2,3- trichloropropane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	Propylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	2-chlorotoluene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	4-chlorotoluene	GC-MS	Annual	<1.0	<1.0	ug/l			no

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15/8/2015	BH3	1,3,5-trimethylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	Tert Butyl Benzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	1,2,4-trimethylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	sec-butylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH3	Pentachlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l		2.0 ug/l	no
15/8/2015	BH3	Tetrachloroethene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Hexachlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l		0.03 ug/l	no
15/8/2015	BH3	Hexachlorobutadiene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	2,4,6-Trichlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l		200 ug/l	no
15/8/2015	BH3	2,4-Dichlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	2,4-Dimethylphenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	2-Chlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l	200 ug/l	200 ug/l	no
15/8/2015	BH3	1,2,4-trichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	1,2-dichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	1,3-dichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	1,4-dichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	2,4,5-Trichlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	2,4-Dinitrotoluene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	2,6-Dinitrotoluene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	2-Chloronaphthalene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	2-Methylnaphthalene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	2-Methylphenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	2-Nitrophenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	4-Bromophenyl Phenyl Ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	4-Chloro-3-methylphenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	4-Chlorophenyl phenyl ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	4-Nitrophenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Acenaphthene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Benzo(a)anthracene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Benzo(a)pyrene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Benzo(b)fluoranthene	GC-MS	Annual	<0.01	<0.01	ug/l			no

Groundwater/Soil monitoring template			Lic No: W0022-01		Year 2015					
15/8/2015	BH3	Benzo(g,h,i)perylene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Benzyl Butyl Phthalate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Bis(2-chloroethoxy)methane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Bis(2-chloroethyl)ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Bis(2-chloroisopropyl)ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Bis(2-ethylhexyl)phthalate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Dibenz(a,h)anthracene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Dibenzofuran	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Diethylphthalate di-n-	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Butylphthalate di-n-	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	octylphthalate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Diphenylamine	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Hexachloroethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Indeno(1,2,3-c,d)pyrene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Isophorone	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Nitrobenzene	GC-MS	Annual	<0.01	<0.01	ug/l		10 ug/l	no
15/8/2015	BH3	n-Nitrosodi-n-propylamine	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Acetone	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Dichloromethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Tetrahydrofuran	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Toluene	GC-MS	Annual	<0.01	<0.01	ug/l		10 ug/l	no
15/8/2015	BH3	Xylene -o	GC-MS	Annual	<0.01	<0.01	ug/l		10 ug/l	no
15/8/2015	BH3	Dichlorodifluoromethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Ethyl Chloride/Chloroethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Ethyl Ether/Diethyl Ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Iodomethane/Methyl iodide	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Carbon Disulphide	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Allyl Chloride	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Chlormethyl Cyanide/Chloroacetonitrile	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Propanenitrile	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Trans-1,2 Dichloroethene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	MtBE	GC-MS	Annual	<0.01	<0.01	ug/l		30 ug/l	no
15/8/2015	BH3	2,2-dichloropropane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	cis-12 Dichloroethene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	2-Butanone	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH3	Methyl Acrylate	GC-MS	Annual	<0.01	<0.01	ug/l			no

Groundwater/Soil monitoring template					Lic No:	W0022-01	Year	2015	
15/8/2015	BH3	Bromochloromethane	GC-MS	Annual	<0.01	<0.01	ug/l		no
15/8/2015	BH3	Methacrylonitrile	GC-MS	Annual	<0.01	<0.01	ug/l		no
15/8/2015	BH3	1-Chlorobutane	GC-MS	Annual	<0.01	<0.01	ug/l		no
15/8/2015	BH3	Carbon Tetrachloride	GC-MS	Annual	<0.01	<0.01	ug/l		no
15/8/2015	BH3	Dibromomethane	GC-MS	Annual	<0.01	<0.01	ug/l		no
15/8/2015	BH3	Methyl Methacrylate	GC-MS	Annual	<0.01	<0.01	ug/l		no
15/8/2015	BH3	1,3-Dichloropropene	GC-MS	Annual	<0.01	<0.01	ug/l		no
15/8/2015	BH3	MIBK/4 Methyl 2-Pentanone	GC-MS	Annual	<0.01	<0.01	ug/l		no
15/8/2015	BH3	1,3-Dichloropropene,trans	GC-MS	Annual	<0.01	<0.01	ug/l		no
15/8/2015	BH3	Ethyl Methacrylate	GC-MS	Annual	<0.01	<0.01	ug/l		no
15/8/2015	BH3	Bromobenzene	GC-MS	Annual	<0.01	<0.01	ug/l		no
15/8/2015	BH3	Trans 1,2-Dichloro-2-Butene	GC-MS	Annual	<0.01	<0.01	ug/l		no
15/8/2015	BH3	p-Isopropyltoluene	GC-MS	Annual	<0.01	<0.01	ug/l		no
15/8/2015	BH3	N-Butyl Benzene	GC-MS	Annual	<0.01	<0.01	ug/l		no
15/8/2015	BH3	1,2-dibromo-3-chloropropane	GC-MS	Annual	<0.01	<0.01	ug/l		no
15/8/2015	BH3	1,2,3-trichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l		no
15/8/2015	BH3	Mecoprop	GC-MS	Annual	<0.01	<0.01	ug/l	0.075 ug/l	no
15/8/2015	BH3	Bentazone	GC-MS	Annual	<0.01	<0.01	ug/l	0.075 ug/l	no
15/8/2015	BH3	Simazine		Annual	<0.01	<0.01	ug/l	0.075 ug/l	no

.+ where average indicates arithmetic mean

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

Table 2: Downgradient Groundwater monitoring results

Date of sampling	Sample location reference	Parameter/Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit	GTV's*	IGV	Upward trend in yearly average pollutant concentration over last 5 years of monitoring data
quarterly	BH1	pH	Meter	quarterly	7.1	5.9	UNIT		9.5	no
quarterly	BH1	Temp	Meter	quarterly			SELECT			no
					7.3	2.9			1000	no
quarterly	BH1	Elec.Conductivity	Meter	quarterly			uS/cm			no
quarterly	BH1	Chlorides	titration	quarterly	2506	842.3	mg/l		250	no
quarterly	BH1	Ammoniacal Nitrogen	ISE	quarterly	1.9	1.3	mg/l		0.02NH3	no
quarterly	BH1	Iron	ICP	quarterly			ug/l		1.0mg/l	no
quarterly	BH1	TON	HACH	quarterly	2.4	2			no abnormal change	no
quarterly	BH1	TOC	TOC analyser	quarterly	9.1	8.2	mg/l		no abnormal change	no
15/8/2015	BH1	Cadmium	ICP	Annual	<1	<1	ug/l		0.005mg/l	no
15/8/2015	BH1	Chromium (total)	ICP	Annual	<1	<1	ug/l		0.03mg/l	no
15/8/2015	BH1	Copper	COLORIMETRY	Annual	1.62	2.62	ug/l		0.03mg/l	no

Groundwater/Soil monitoring template				Lic No:	W0022-01	Year	2015			
15/8/2015	BH1	Cyanide (Total)	ICP	Annual	<0.01	<0.01	ug/l		0.01mg/l	no
15/8/2015	BH1	Lead	ICP	Annual	<1	<1	ug/l		0.01mg/l	no
15/8/2015	BH1	Magnesium	ICP	Annual	34.6	34.6	mg/l		50 mg/l	no
15/8/2015	BH1	Manganese	ICP	Annual	1105	1105	ug/l		0.03mg/l	no
15/8/2015	BH1	Mercury	ICP	Annual			ug/l		0.001mg/l	no
15/8/2015	BH1	Nickle	ICP	Annual	4	4	mg/l		0.02 mg/l	no
15/8/2015	BH1	Potassium	ICP	Annual	8.79	8.79			5 mg/l	no
15/8/2015	BH1	Sulphate	Aquakem auto analyser	Annual	37.3	37.3	mg/l		200 mg/l	no
15/8/2015	BH1	Total Alkalinity	icp	Annual	362	362	mg/l			no
15/8/2015	BH1	Total Phosphorus	spectrophotometry apha	Annual	0.17	0.17	mg/l			no
15/8/2015	BH1	Phenols	GC-MS	Annual	<0.01	<0.01	ug/l		0.5ug/l	no
15/8/2015	BH1	Naphthalene	GC-MS	Annual	<0.01	<0.01	ug/l		1.0 ug/l	no
15/8/2015	BH1	Acenaphthylene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Anthracene	GC-MS	Annual	<0.01	<0.01	ug/l		1000ug/l	no
15/8/2015	BH1	Chrysene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Fluoranthene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Fluorene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Pyrene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Phenanthrene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Bromodichloromethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Bromoform	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Chloroform	GC-MS	Annual	<1.0	<1.0	ug/l		12 ug/l	no
15/8/2015	BH1	Dibromochloromethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	Dibromochloromethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	Vinyl Chloride	GC-MS	Annual	<1.0	<1.0	ug/l	0.375 ug/l	0.375 ug/l	no
15/8/2015	BH1	Chloromethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	Trichloroethene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	Bromomethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	Trichloromonofluoromethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	1,1-Dichloroethene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	Chloromethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	1,1-dichloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	1,1-Dichloropropene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	1,2-dichloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	1,2-dichloropropane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	1,1,1-trichloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	1,1,2-Trichloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	1,3-dichloropropane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	2-Hexanone	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	1,2-dibromoethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	Chlorobenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	1,1,1,2-tetrachloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	Ethylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l	10 ug/l	10 ug/l	no
15/8/2015	BH1	Xylene P&M	GC-MS	Annual	<1.0	<1.0	ug/l			no

Groundwater/Soil monitoring template				Lic No:	W0022-01	Year	2015			
15/8/2015	BH1	Styrene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	Isopropylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	1,1,2,2-tetrachloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	1,2,3-trichloropropane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	Propylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	2-chlorotoluene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	4-chlorotoluene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	1,3,5-trimethylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	Tert Butyl Benzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	1,2,4-trimethylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH1	sec-butylbenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Pentachlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l		2.0 ug/l	no
15/8/2015	BH1	Tetrachloroethene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Hexachlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l		0.03 ug/l	no
15/8/2015	BH1	Hexachlorobutadiene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	2,4,6-Trichlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l		200 ug/l	no
15/8/2015	BH1	2,4-Dichlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	2,4-Dimethylphenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	2-Chlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l		200 ug/l	no
15/8/2015	BH1	1,2,4-trichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	1,2-dichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	1,3-dichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	1,4-dichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	2,4,5-Trichlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	2,4-Dinitrotoluene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	2,6-Dinitrotoluene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	2-Chloronaphthalene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	2-Methylnaphthalene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	2-Methylphenol	GC-MS	Annual	<0.01	<0.01	ug/l			no

Groundwater/Soil monitoring template				Lic No:	W0022-01	Year	2015			
15/8/2015	BH1	2-Nitrophenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	4-Bromophenyl Phenyl Ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	4-Chloro-3-methylphenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	4-Chlorophenyl phenyl ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	4-Nitrophenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Acenaphthene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Benzo(a)anthracene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Benzo(a)pyrene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Benzo(b)fluoranthene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Benzo(g,h,i)perylene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Benzyl Butyl Phthalate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Bis(2-chloroethoxy)methane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Bis(2-chloroethyl)ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Bis(2-chloroisopropyl)ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Bis(2-ethylhexyl)phthalate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Dibenz(a,h)anthracene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Dibenzofuran	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Diethylphthalate di-n-Butylphthalate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Di-n-octylphthalate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Diphenylamine	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Hexachloroethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Indeno(1,2,3-c,d)pyrene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Isophorone	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Nitrobenzene	GC-MS	Annual	<0.01	<0.01	ug/l		10 ug/l	no
15/8/2015	BH1	n-Nitrosodi-n-propylamine	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Acetone	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Dichloromethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Tetrahydrofuran	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Toluene	GC-MS	Annual	<0.01	<0.01	ug/l		10 ug/l	no
15/8/2015	BH1	Xylene -o	GC-MS	Annual	<0.01	<0.01	ug/l		10 ug/l	no
15/8/2015	BH1	Dichlorodifluoromethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Ethyl Chloride/Chloroethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Ethyl Ether/Diethyl Ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Iodomethane/Methyl Iodide	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Carbon Disulphide	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Allyl Chloride	GC-MS	Annual	<0.01	<0.01	ug/l			no

Groundwater/Soil monitoring template				Lic No:	W0022-01	Year	2015			
15/8/2015	BH1	Chlormethyl Cyanide/Chloroac etonitrile	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Propanenitrile	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Trans-1,2 Dichloroethene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	MTBE	GC-MS	Annual	<0.01	<0.01	ug/l		30 ug/l	no
15/8/2015	BH1	2,2- dichloropropane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	cis-12 Dichloroethene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	2-Butanone	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Methyl Acrylate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Bromochlorometh ane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Methacrylonitrile	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	1-Chlorobutane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Carbon Tetrachloride	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Dibromomethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Methyl Methacrylate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	13 Dichloropropene,c is	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	MIBK/4 Methyl 2 Pentanone	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	13 Dichloropropene,t rans	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Ethyl Methacrylate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Bromobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Trans 14 Dichloro 2 Butene, tran	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	P Isopropyltoluene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	N Butyl Benzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	1,2-dibromo-3- chloropropane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	1,2,3- trichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH1	Mecoprop	GC-MS	Annual	<0.01	<0.01	ug/l	0.075 ug/l		no
15/8/2015	BH1	Bentazone	GC-MS	Annual	<0.01	<0.01	ug/l	0.075 ug/l		no
15/8/2015	BH1	Simazine		Annual	<0.01	<0.01	ug/l	0.075 ug/l		no
quarterly	BH2	pH	Meter	quarterly	7.1	6.9	UNIT		9.5	no
quarterly	BH2	Temp	Meter	quarterly			SELECT			no
quarterly	BH2	Elec.Conductivity	Meter	quarterly	494	238	uS/cm		1000	no
quarterly	BH2	Chlorides	titration	quarterly	2949	4747	mg/l		250	no
quarterly	BH2	Ammoniacal Nitorgen	ISE	quarterly	0.4	0.2	mg/l		0.02NH3	no
quarterly	BH2	Iron	ICP	quarterly			ug/l		1.0mg/l	no
quarterly	BH2	TON	HACH	quarterly	6.3	5.1	mg/l		no abnormal change	no
quarterly	BH2	TOC	TOC analyser	quarterly	4.4	1.8	mg/l		no abnormal change	no
15/8/2015	BH2	Cadmium	ICP	Annual	<1	<2	ug/l		0.005mg/l	no
15/8/2015	BH2	Chromium (total)	ICP	Annual	1.46	1.46	ug/l		0.03mg/l	no
15/8/2015	BH2	Copper	COLORIMETRY	Annual	3.62	3.62	ug/l		0.03mg/l	no

Groundwater/Soil monitoring template				Lic No:	W0022-01	Year	2015			
15/8/2015	BH2	Cyanide (Total)	ICP	Annual	<0.1	<0.2	ug/l		0.01mg/l	no
15/8/2015	BH2	Lead	ICP	Annual	<1	<2	ug/l		0.01mg/l	no
15/8/2015	BH2	Manganese	ICP	Annual			mg/l		50 mg/l	no
15/8/2015	BH2	Manganese	ICP	Annual	5.7	6.7	ug/l		0.03mg/l	no
15/8/2015	BH2	Mercury	ICP	Annual	<0.5	<0.6	ug/l		0.001mg/l	no
15/8/2015	BH2	Nickle	ICP	Annual	<1	<2	mg/l		0.02 mg/l	no
15/8/2015	BH2	Potassium	ICP	Annual	3.95	3.95			5 mg/l	no
15/8/2015	BH2	Sulphate	Aquakem auto analyser	Annual	4.23	4.23	mg/l		200 mg/l	no
15/8/2015	BH2	Total Alkalinity	icp	Annual	265	265	mg/l			no
15/8/2015	BH2	Total Phosphorus	spectrophotometry apha	Annual	<0.04	<0.05	mg/l			no
15/8/2015	BH2	Phenols	GC-MS	Annual	<0.01	<0.01	ug/l		0.5ug/l	no
15/8/2015	BH2	Naphthalene	GC-MS	Annual	<0.01	<0.01	ug/l		1.0 ug/l	no
15/8/2015	BH2	Acenaphthylene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Anthracene	GC-MS	Annual	<0.01	<0.01	ug/l		1000ug/l	no
15/8/2015	BH2	Chrysene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Fluoranthene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Fluorene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Pyrene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Phenanthrene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Bromodichloromethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Bromoform	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Chloroform	GC-MS	Annual	<1.0	<1.0	ug/l		12 ug/l	no
15/8/2015	BH2	Dibromochloromethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	Dibromochloromethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	Vinyl Chloride	GC-MS	Annual	<1.0	<1.0	ug/l	0.375 ug/l	0.375 ug/l	no
15/8/2015	BH2	Chloromethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	Trichloroethene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	Bromomethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	Trichloromonofluoromethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	1,1-Dichloroethene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	Chloromethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	1,1-dichloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	1,1-Dichloropropene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	1,2-dichloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	1,2-dichloropropane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	1,1,1-trichloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	1,1,2-Trichloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	1,3-dichloropropane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	2-Hexanone	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	1,2-dibromoethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	Chlorobenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	1,1,1,2-tetrachloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	Ethylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l	10 ug/l	10 ug/l	no
15/8/2015	BH2	Xylene P&M	GC-MS	Annual	<1.0	<1.0	ug/l			no

Groundwater/Soil monitoring template				Lic No:	W0022-01	Year	2015			
15/8/2015	BH2	Styrene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	Isopropylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	1,1,2,2-tetrachloroethane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	1,2,3-trichloropropane	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	Propylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	2-chlorotoluene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	4-chlorotoluene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	1,3,5-trimethylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	Tert Butyl Benzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	1,2,4-trimethylbenzene	GC-MS	Annual	<1.0	<1.0	ug/l			no
15/8/2015	BH2	sec-butylbenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Pentachlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l		2.0 ug/l	no
15/8/2015	BH2	Tetrachloroethene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Hexachlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l		0.03 ug/l	no
15/8/2015	BH2	Hexachlorobutadiene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	2,4,6-Trichlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l		200 ug/l	no
15/8/2015	BH2	2,4-Dichlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	2,4-Dimethylphenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	2-Chlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l		200 ug/l	no
15/8/2015	BH2	1,2,4-trichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	1,2-dichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	1,3-dichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	1,4-dichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	2,4,5-Trichlorophenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	2,4-Dinitrotoluene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	2,6-Dinitrotoluene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	2-Chloronaphthalene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	2-Methylnaphthalene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	2-Methylphenol	GC-MS	Annual	<0.01	<0.01	ug/l			no

Groundwater/Soil monitoring template				Lic No:	W0022-01	Year	2015			
15/8/2015	BH2	2-Nitrophenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	4-Bromophenyl Phenyl Ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	4-Chloro-3-methylphenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	4-Chlorophenyl phenyl ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	4-Nitrophenol	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Acenaphthene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Benzo(a)anthracene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Benzo(a)pyrene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Benzo(b)fluoranthene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Benzo(g,h,i)perylene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Benzyl Butyl Phthalate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Bis(2-chloroethoxy)methane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Bis(2-chloroethyl)ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Bis(2-chloroisopropyl)ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Bis(2-ethylhexyl)phthalate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Dibenz(a,h)anthracene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Dibenzofuran	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Diethylphthalate di-n-Butylphthalate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Di-n-octylphthalate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Diphenylamine	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Hexachloroethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Indeno(1,2,3-c,d)pyrene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Isophorone	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Nitrobenzene	GC-MS	Annual	<0.01	<0.01	ug/l		10 ug/l	no
15/8/2015	BH2	n-Nitrosodi-n-propylamine	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Acetone	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Dichloromethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Tetrahydrofuran	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Toluene	GC-MS	Annual	<0.01	<0.01	ug/l		10 ug/l	no
15/8/2015	BH2	Xylene -o	GC-MS	Annual	<0.01	<0.01	ug/l		10 ug/l	no
15/8/2015	BH2	Dichlorodifluoromethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Ethyl Chloride/Chloroethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Ethyl Ether/Diethyl Ether	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Iodomethane/Methyl Iodide	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Carbon Disulphide	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Allyl Chloride	GC-MS	Annual	<0.01	<0.01	ug/l			no

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15/8/2015	BH2	Chlormethyl Cyanide/Chloroac etonitrile	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Propanenitrile	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Trans-1,2 Dichloroethene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	MTBE	GC-MS	Annual	<0.01	<0.01	ug/l		30 ug/l	no
15/8/2015	BH2	2,2- dichloropropane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	cis-12 Dichloroethene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	2-Butanone	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Methyl Acrylate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Bromochlorometh ane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Methacrylonitrile	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	1-Chlorobutane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Carbon Tetrachloride	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Dibromomethane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Methyl Methacrylate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	1,3 Dichloropropene,c is	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	MIBK/4 Methyl 2 Pentanone	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	1,3 Dichloropropene,t rans	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Ethyl Methacrylate	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Bromobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Trans 14 Dichloro 2 Butene, tran	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	P Isopropyltoluene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	N Butyl Benzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	1,2-dibromo-3- chloropropane	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	1,2,3- trichlorobenzene	GC-MS	Annual	<0.01	<0.01	ug/l			no
15/8/2015	BH2	Mecoprop	GC-MS	Annual	<0.01	<0.01	ug/l	0.075 ug/l		no
15/8/2015	BH2	Bentazone	GC-MS	Annual	<0.01	<0.01	ug/l	0.075 ug/l		no
15/8/2015	BH2	Simazine	GC-MS	Annual	<0.01	<0.01	ug/l	0.075 ug/l		no
<p>*please note exceedance of generic assessment criteria (GAC) such as a Groundwater Threshold Value (GTV) or an Interim Guideline Value (IGV) or an upward trend in results for a substance indicates that further interpretation of monitoring results is required. In addition to completing the above table, please complete the Groundwater Monitoring Guideline Template Report at the link provided and submit separately through ALDER as a licensee return or as otherwise instructed by the EPA. Groundwater monitoring template</p>										
<p>More information on the use of soil and groundwater standards/ generic assessment criteria (GAC) and risk assessment tools is available in the EPA published guidance (see the link in G31). Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (EPA 2013).</p>										
<p>**Depending on location of the site and proximity to other sensitive receptors alternative Receptor based Water Quality standards should be used in addition to the GTV e.g. if the site is close to surface water compare to Surface Water Environmental Quality Standards (SWEQS), if the site is close to a drinking water supply compare results to the Drinking Water Standards (DWS). Surface water EQS Groundwater regulations GTV's Drinking water (private supply) standards Drinking water (public supply) standards Interim Guideline Values (IGV)</p>										

Table 3: Soil results

Groundwater/Soil monitoring template			Lic No: W0022-01		Year: 2015		
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Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit
							SELECT
							SELECT

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

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

		Commentary	
1	ELRA initial agreement status	Submitted and 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	

Environmental Management Programme/Continuous Improvement Programme template	Lic No:	W0022-01	Year	2015
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	Highlighted cells contain dropdown menu click to view	Additional Information
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional information	Yes 2008. It includes sections on use of manual, site location and description, types of waste accepted and procedures,
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	Yes
3	Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance with the licence requirements	Yes
4	Do you maintain an environmental documentation/communication system to inform the public on environmental performance of the facility, as required by the licence	Yes

Environmental Management Programme (EMP) report

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	Maintain low complaint numbers against the facility	100	Improvement of gas extraction system and operation	Site Staff & Management	Reduced emissions
Gas extraction system	Improved gas intake to flare unit and more efficient burning of gas	75	Improvement of site practice to ensure increased gas capture	Site Staff	Increased compliance with licence conditions
Materials Handling/Storage/Bunding	Improve annual recycling rate by 5%	80	Improvement of Civic Amenity Site layout and improved maintenance of existing infrastructure	Site Staff & Management	Installation of infrastructure and improved housekeeping
Additional improvements	Improve Site security	95	Liasing with Security Company and An Gardaí Síochana to deter would-be intruders. Infrastructure positioned to deter would-be intruders	Site Staff & Management	Improved Environmental Management Practices & cleaner site
Additional improvements	To control environmental nuisances at the facility	75	Reduction of waste intake, improved litter capture and improved site practices	Site Staff	Increased compliance with licence conditions
Additional improvements	Review the closure modifications of the Waste Licence following the closure of landfill in Feb 2007	50	Testing regime inspected to make workload more efficient for site staff	Site management	Increased compliance with licence conditions

Noise monitoring summary report

Lic No: W0022-01

Year

2015

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

Yes

If yes please fill in table N1 noise summary below

2 Was noise monitoring carried out using the EPA Guidance note, including completion of the "Checklist for noise measurement report" included in the guidance note as table 6?

[Noise Guidance note NG4](#)

Yes

3 Does your site have a noise reduction plan

No

4 When was the noise reduction plan last updated?

Enter date

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

SELECT

Table N1: Noise monitoring summary

Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is site compliant with noise limits (day/evening/night)?
28/8/2015	30 Minutes	N1		46.2	37.5	50.4	61.3	No	SELECT	COUNTYR SIDE NOISE	Yes
		N1		51.6	45.7	54.7	74.5	No		BIRD SONGS AND WIND	Yes
		N1		52.1	45.1	55.1	74.7	No			Yes
		N3		40.3	33.8	42.5	60.2	No		Low noise attributed to nearby quarry	Yes
		N3		44.3	33.8	43.7	71.4	No			Yes
		N3		47.5	33.2	43.9	72.3	No			Yes
		N4		56	45.2	57.2	85	No		Traffic entering the site	Yes
		N4		53.3	45.5	56.7	70.5	No		and people dumping itmes in recycling bins	Yes
		N4		53.5	44.3	56.9	74.2	No		Quarry noises	Yes

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

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

SELECT

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

Any additional comments? (less than 200 words)

Resource Usage/Energy efficiency summary

Lic No:

W0022-01

Year

2015

Additional information

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

	2015	
No		
SELECT		

Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	67.102	66.988	0%	
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (MWHrs)				
Electricity Consumption (MWHrs)	67.102	66.988	0%	
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)	0.9	0.9	0%	
Light Fuel Oil (m3)	96	98	2%	
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

Water use	Water extracted Previous year m3/yr.	Water extracted Current year m3/yr.	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*	Water Emissions		Water Consumption	
					Volume Discharged back to environment(m ³ /yr):	Volume used i.e not discharged to environment e.g. released as steam m3/yr	Unaccounted for Water:	
Groundwater								
Surface water								
Public supply	212	178	-16%	Non applicable	178	0	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.

** where site production information is available please enter percentage increase or decrease compared to previous year

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

Resource Usage/Energy efficiency summary	Lic No: W0022-01	Year	2015
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Table R4: Energy Audit finding recommendations							
Date of audit	Recommendations	Description of Measures proposed	Origin of measures	Predicted energy savings %	Implementation date	Responsibility	Status and comments
Jun-15	Replacement of lighting	Replace units when fa	energy audit	10%	Jan-16	Site management	Energy Audit find
			SELECT				
			SELECT				

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

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

WASTE SUMMARY	Lic No: W0022-01	Year: 2015
SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES		PRTR facility logon
dropdown list click to see options		

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

POLLUTANT		RELEASES TO AIR			Please enter all quantities in this section in KGs			
No. Annex II	Name	M/C/E	METHOD		Emission Point 1	QUANTITY		
			Method Code	Designation or Description		T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
01	Methane (CH4)	C	OTH	Measured through analysis of flare flue gas emissions monitoring	0.0	392091.0	0.0	392091.0
02	Carbon monoxide (CO)	M	ISO 12039:2001	Measured through analysis of flare flue gas emissions monitoring	0.0	8.54	0.0	8.54
03	Carbon dioxide (CO2)	C	ISO 12039:2001	Measured through analysis of flare flue gas emissions monitoring	0.0	1577615.0	0.0	1577615.0
07	Non-methane volatile organic compounds	M	EN 13649:2001	Measured through analysis of flare flue gas emissions monitoring	0.0	11.84	0.0	11.84
08	Nitrogen oxides (NOx/NO2)	M	EN 14792:2005	Measured through analysis of flare flue gas emissions monitoring	0.0	360.42	0.0	360.42
11	Sulphur oxides (SOx/SO2)	M	EN 14791:2005	Measured through analysis of flare flue gas emissions monitoring	0.0	66.84	0.0	66.84
					0.0	0.0	0.0	0.0

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

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

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

Additional Data Requested from Landfill operators

operators 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	T (Total) kg/Year	M/C/E	Method Used		Facility Total Capacity m3 per hour	
			Method Code	Designation or Description		
	Total estimated methane generation (as per site model)	896496.0	C	OTH	Gas Sim model	N/A
	Methane flared	504405.0	M	OTH	Measured through analysis of flare flue gas emissions monitoring	880.0 (Total Flaring Capacity)
	Methane utilised in engine/s	0.0			Gas Sim model and measured through analysis of flare flue gas emissions monitoring	0.0 (Total Utilising Capacity)
Net methane emission (as reported in Section A above)	392091.0	C	OTH	Gas Sim model and measured through analysis of flare flue gas emissions monitoring	N/A	

WASTE SUMMARY

Lic No:

W0022-01

Year

2015

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR#: W0022 | Facility Name : East Cork Landfill Site | Filename : AER summary East Cork 2015.xtsm | Return Year : 2015 |

24/03/2016 09:13

Please enter all quantities on this sheet in Tonnes

3

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility Non Haz Waste: Name and Licence/Permit No of Recoverer/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recoverer/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	13 02 08	Yes	4.03	other engine, gear and lubricating oils	R9	M	Weighed	Offsite in Ireland	Enva Ltd,W184-01	Clonminam Industrial Estate, " ,Portlaoise,Co Laois,Ireland	Enva Ltd,W184-01	Clonminam Industrial Estate, " ,Portlaoise,Co Laois,Ireland
Within the Country	15 01 01	No	59.92	paper and cardboard packaging	R3	M	Weighed	Offsite in Ireland	greenstar Ltd,W136-02	Corbally North,Srasfields Court,Glanmire, Co Cork,Ireland		
Within the Country	15 01 02	No	18.32	plastic packaging	R5	M	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	4.03	metallic packaging	R4	M	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	21.17	glass packaging	R5	M	Weighed	Offsite in Ireland	Mr Binman,W0061-01	Luddenmore,Grange,Kilmallock,Co Limerick,Ireland		
Within the Country	16 06 01	Yes	2.77	lead batteries	R6	M	Weighed	Offsite in Ireland	KMK Metals Ltd,W0133-03	Cappincur Industrail Estate,Daingean Rd,Tullamore,Co Offaly,Ireland	KMK Metals Ltd,W0133-03	Cappincur Industrail Estate,Daingean Rd,Tullamore,Co Offaly,Ireland
Within the Country	16 06 04	No	0.0	alkaline batteries (except 16 06 03) mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17	R13	M	Weighed	Offsite in Ireland	KMK Metals Ltd,W0133-03	Cappincur Industrail Estate,Daingean Rd,Tullamore,Co Offaly,Ireland		
Within the Country	17 01 07	No	416.19	01 06	R5	M	Weighed	Offsite in Ireland	Ballineen Skip Hire,WCP-CK-09-0608-04	Connagh,Ballineen ,Co Cork,,Ireland		
Within the Country	19 07 03	No	3906.2	landfill leachate other than those mentioned in 19 07 02	D8	M	Weighed	Offsite in Ireland	Carrigtwohill Wastewater Treatment Plant,D0044-01	Wastewater Treatment Plant,Co Cork,Ireland		
Within the Country	20 01 01	No	55.7	paper and cardboard	R3	M	Weighed	Offsite in Ireland	greenstar Ltd,W136-02	Corbally North,Srasfields Court,Glanmire, Co Cork,Ireland		

WASTE SUMMARY		Lic No:	W0022-01	Year	2015					
Within the Country	20 01 02	No	0.0 glass	R5	M	Weighed	Offsite in Ireland	MSM Recycling Ltd,W0079-01	41-42 Cookstown Industrial Estate,Tallaght,Dublin,D24,Ireland	
Within the Country	20 01 11	No	3.05 textiles	R5	M	Weighed	Offsite in Ireland	Textile Recycling Ltd,WCP-DC-08-1225-01	Glen Abbey Business Park,Tallaght,Dublin,D24,Ireland	
Within the Country	20 01 23	Yes	discarded equipment containing chlorofluorocarbons	R4	M	Weighed	Offsite in Ireland	KMK Metals Ltd,W0133-03	Cappincur Industriail Estate,Daingean Rd,Tullamore,Co Offaly,Ireland	Cappincur Industriail Estate,Daingean Rd,Tullamore,Co Offaly,Ireland
Within the Country	20 01 28	No	paint, inks, adhesives and resins other than those mentioned in 20 01 27	R1	M	Weighed	Offsite in Ireland	Enva Ltd,W184-01	Clonminam Industrial Estate,"",Portlaoise,Co Laois,Ireland	
Within the Country	20 01 35	Yes	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components	R4	M	Weighed	Offsite in Ireland	KMK Metals Ltd,W0133-03	Cappincur Industriail Estate,Daingean Rd,Tullamore,Co Offaly,Ireland	Cappincur Industriail Estate,Daingean Rd,Tullamore,Co Offaly,Ireland
Within the Country	20 01 36	No	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	R4	M	Weighed	Offsite in Ireland	KMK Metals Ltd,W0133-03	Cappincur Industriail Estate,Daingean Rd,Tullamore,Co Offaly,Ireland	
Within the Country	20 01 36	No	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	R4	M	Weighed	Offsite in Ireland	KMK Metals Ltd,W0133-03	Cappincur Industriail Estate,Daingean Rd,Tullamore,Co Offaly,Ireland	
Within the Country	20 01 38	No	wood other than that mentioned in 20 01 37	R13	M	Weighed	Offsite in Ireland	CTO Environmental Solutions Ltd,CK/09/0018/02	Tait's Farm,Rostellan, Middleton,Co Cork,Ireland	
Within the Country	20 01 40	No	161.38 metals	R4	M	Weighed	Offsite in Ireland	Pouladuff Dismantlers Ltd,CK/0584/01	Pouladuff Rd,Togher,Cork,Co Cork,Ireland	
Within the Country	20 02 01	No	311.69 biodegradable waste	R3	M	Weighed	Offsite in Ireland	greenstar Ltd,W136-02	Corbally North,Srasfields Court,Glanmire, Co Cork,Ireland	
Within the Country	20 03 01	No	315.78 mixed municipal waste	D1	M	Weighed	Offsite in Ireland	Country Clean Recycling Ltd,W0257	Chuchfield Industrial Estate,John F Connolly Road,Cork,Co Cork,Ireland	
Within the Country	20 03 07	No	950.91 bulky waste	D5	M	Weighed	Offsite in Ireland	greenstar Ltd,W136-02	Corbally North,Srasfields Court,Glanmire, Co Cork,Ireland	

WASTE SUMMARY	Lic No:	W0022-01	Year	2015
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Table 4 Environmental monitoring-landfill only [Landfill Manual-Monitoring Standards](#)

Was meteorological monitoring in compliance with Landfill Directive (LD) standard in reporting year +	Was leachate monitored in compliance with LD standard in reporting year	Was Landfill Gas monitored in compliance with LD standard in reporting year	Was SW monitored in compliance with LD standard in reporting year	Have GW trigger levels been established	Were emission limit values agreed with the Agency (ELVs)	Was topography of the site surveyed in reporting year	Has the statement under S53(A)(5) of WMA been submitted in reporting year	Comments
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	All license conditions being met under current monitoring regime

-> please refer to Landfill Manual linked above for relevant Landfill Directive monitoring standards

Table 5 Capping-Landfill only

Area uncapped*	Area with temporary cap	Area with final cap to LD Standard m2 ha, a	Area capped other	Area with waste that should be permanently capped to date under licence	What materials are used in the cap	Comments
SELECT UNIT	SELECT UNIT					
0	0	65760m2		0	65760m2	1mm HDPE welded liner, geotextile drainage layer and protection barrier covered with 1m of suitable, screened soil.

*please note this includes daily cover area

Table 6 Leachate-Landfill only

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

Yes
No

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

Volume of leachate in reporting year(m3)	Leachate (BOD) mass load (kg/annum)	Leachate (COD) mass load (kg/annum)	Leachate (NH4) mass load (kg/annum)	Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	Specify type of leachate treatment	Comments
3906.2	595.2	2572.2	1116.2	4340.8	No	Wastewater Treatment Plant with Mixing tank, Oxidation ditch & Settlement tanks	

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

Table 7 Landfill Gas-Landfill only

Gas Captured&Treated by LFG System m3	Power generated (MW / KWh)	Used on-site or to national grid	Was surface emissions monitoring performed during the reporting year?	Comments
741772 kg CH4/annum	0	0	Yes	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 staff.

Comments on
liner type

