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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	2014
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. One complaint was registered in 2014. 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 from the site. 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.

_____	27/03/2015
Signature	Date
 J. P. O'Neill Experienced Deputy	

AIR-summary template	Lic No: W0022-01	Year: 2014
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Answer all questions and complete all tables where relevant

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

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

Emission reference no:	Parameter/ Substance	Frequency of Monitoring	ELV in licence or any revision 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	562479	m3	yes	MAB	382486	Annual mass load refers to difference
Flare Stack	Carbon dioxide (CO2)	Continuous	N/A	SELECT	401906	m3	yes	ISO 12039:2001	751564	Annual mass load refers to difference
Flare Stack	Carbon monoxide (CO)	Continuous	<50mg/Nm3	No 30min mean can exceed the ELV	1.79	mg/Nm3	yes	ISO 12039:2001	6.2	
Flare Stack	Nitrogen oxides (NOx/NO2)	Annual	<150mg/Nm3	No 30min mean can exceed the ELV	182.71	mg/Nm3	yes	EN 14792:2005	632.5	
Flare Stack	Sulphur oxides (SOx/SO2)	Annual	N/A	SELECT	23.44	mg/Nm3	yes	EN 14792:2005	81.14	
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		

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

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Continuous Monitoring		

4 Does your site carry out continuous air emissions monitoring? If yes please review your continuous monitoring data and report the required fields below in Table A2 and compare it to its relevant Emission Limit Value (ELV)	Yes	
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
Flare Stack	PRTR	N/A	12 month	100 % of values < ELV	m3			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.
	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

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

Lic No:

W0022-01

Year

2014

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

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

SELECT

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	8.7	pH units	yes	Median vaule for 2014
sw1	upstream		Temperature	Quarterly	No ELV or trigger levels	N/A		degrees C	yes	Median vaule for 2014
sw1	upstream		Conductivity	Quarterly	No ELV or trigger levels	N/A	44.7	µS/cm @20oC	yes	Median vaule for 2014
sw1	upstream		Dissolved Oxygen	Quarterly	No ELV or trigger levels	N/A		mg/L	yes	Median vaule for 2014
sw1	upstream	Chlorides (as Cl)		Quarterly	No ELV or trigger levels	N/A	13873	mg/L	yes	Median vaule for 2014
sw1	upstream		BOD	Quarterly	No ELV or trigger levels	N/A	<1	mg/L	yes	Median vaule for 2014
sw1	upstream		COD	Quarterly	No ELV or trigger levels	N/A	320	mg/L	yes	Median vaule for 2014
sw1	upstream		Ammonia (as N)	Quarterly	No ELV or trigger levels	N/A	0.54	mg/L	yes	Median vaule for 2014
sw1	upstream		Suspended Solids	Quarterly	No ELV or trigger levels	N/A	187	mg/L	yes	Median vaule for 2014
sw1	upstream	Chromium and compounds (as Cr)		Annual	No ELV or trigger levels	N/A	3.000	µg/L	yes	Annual value for 2014
sw1	upstream	Copper and compounds (as Cu)		Annual	No ELV or trigger levels	N/A	8.000	µg/L	yes	Annual value for 2014
sw1	upstream	Cadmium and compounds (as Cd)		Annual	No ELV or trigger levels	N/A	<0.5	µg/L	yes	Annual value for 2014
	upstream		CALCIUM			N/A	610.000	mg/L	yes	Annual value for 2014
sw1	upstream		Iron	Annual	No ELV or trigger levels	N/A	259.000	µg/L	yes	Annual value for 2014
sw1	upstream	Lead and compounds (as Pb)		Annual	No ELV or trigger levels	N/A	45.000	mg/L	yes	Annual value for 2014
sw1	upstream		Magnesium	Annual	No ELV or trigger levels	N/A	1475.000	mg/L	yes	Annual value for 2014. Elevation due to geology of the site
sw1	upstream		Manganese (as Mn)	Annual	No ELV or trigger levels	N/A	49.000	µg/L	yes	Annual value for 2014
sw1	upstream	Mercury and compounds (as Hg)		Annual	No ELV or trigger levels	N/A	<0.05	µg/L	yes	Annual value for 2014
sw1	upstream		Potassium	Annual	No ELV or trigger levels	N/A	162.000	mg/L	yes	Annual value for 2014
sw1	upstream		Sulphate	Annual	No ELV or trigger levels	N/A	2617.000	mg/L	yes	Annual value for 2014. Sample site at estuary
sw1	upstream		Total Oxidised Nitrogen (TON)	Annual	No ELV or trigger levels	N/A	<0.1	mg/L	yes	Annual value for 2014
sw1	upstream	Zinc and compounds (as Zn)		Annual	No ELV or trigger levels	N/A	<5.0	µg/L	yes	Annual value for 2014
sw1	upstream	Total phosphorus		Annual	No ELV or trigger levels	N/A	0.090	mg/L	yes	Annual value for 2014
sw2	upstream		pH	Quarterly	No ELV or trigger levels	N/A	8.6	pH units	yes	Median vaule for 2014
sw2	upstream		Temperature	Quarterly	No ELV or trigger levels	N/A		degrees C	yes	Median vaule for 2014
sw2	upstream		Conductivity	Quarterly	No ELV or trigger levels	N/A	43.65	µS/cm @20oC	yes	Median vaule for 2014
sw2	upstream		Dissolved Oxygen	Quarterly	No ELV or trigger levels	N/A		mg/L	yes	Median vaule for 2014
sw2	upstream	Chlorides (as Cl)		Quarterly	No ELV or trigger levels	N/A	16703	mg/L	yes	Median vaule for 2014
sw2	upstream		BOD	Quarterly	No ELV or trigger levels	N/A	<1	mg/L	yes	Median vaule for 2014
sw2	upstream		COD	Quarterly	No ELV or trigger levels	N/A	40	mg/L	yes	Median vaule for 2014
sw2	upstream		Ammonia (as N)	Quarterly	No ELV or trigger levels	N/A	0.55	mg/L	yes	Median vaule for 2014
sw2	upstream		Suspended Solids	Quarterly	No ELV or trigger levels	N/A	244.5	mg/L	yes	Median vaule for 2014
sw2	upstream	Chromium and compounds (as Cr)		Annual	No ELV or trigger levels	N/A	2.000	µg/L	yes	Annual value for 2014
sw2	upstream	Copper and compounds (as Cu)		Annual	No ELV or trigger levels	N/A	6.000	µg/L	yes	Annual value for 2014
sw2	upstream	Cadmium and compounds (as Cd)		Annual	No ELV or trigger levels	N/A	<0.5	µg/L	yes	Annual value for 2014
sw2	upstream		CALCIUM			N/A	1336.000	mg/L	yes	Annual value for 2014

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER) Lic No: W0022-01 Year 2014

Location	Direction	Parameter	Frequency	Trigger Level	Value	Unit	Compliance	Notes
sw2	upstream	Iron	Annual	No ELV or trigger levels	N/A	379.000	µg/L	yes
sw2	upstream	Lead and compounds (as Pb)	Annual	No ELV or trigger levels	N/A	31.000	µg/L	yes
sw2	upstream	Magnesium	Annual	No ELV or trigger levels	N/A	2848.000	mg/L	yes
sw2	upstream	Manganese (as Mn)	Annual	No ELV or trigger levels	N/A	70.000	µg/L	yes
sw2	upstream	Mercury and compounds (as Hg)	Annual	No ELV or trigger levels	N/A	<0.05	mg/L	yes
sw2	upstream	Potassium	Annual	No ELV or trigger levels	N/A	179.000	mg/L	yes
sw2	upstream	Sulphate	Annual	No ELV or trigger levels	N/A	2556.000	mg/L	yes
sw2	upstream	Total Oxidised Nitrogen (TON)	Annual	No ELV or trigger levels	N/A	<0.1	mg/L	yes
sw2	upstream	Zinc and compounds (as Zn)	Annual	No ELV or trigger levels	N/A	5.000	µg/L	yes
sw2	upstream	Total phosphorus	Annual	No ELV or trigger levels	N/A	0.070	mg/L	yes
sw3	downstream	pH	Quarterly	No ELV or trigger levels	N/A	8.8	pH units	yes
sw3	downstream	Temperature	Quarterly	No ELV or trigger levels	N/A		degrees C	yes
sw3	downstream	Conductivity	Quarterly	No ELV or trigger levels	N/A	32.9	µS/cm @20oC	yes
sw3	downstream	Dissolved Oxygen	Quarterly	No ELV or trigger levels	N/A		mg/L	yes
sw3	downstream	Chlorides (as Cl)	Quarterly	No ELV or trigger levels	N/A	21650	mg/L	yes
sw3	downstream	BOD	Quarterly	No ELV or trigger levels	N/A	<1	mg/L	yes
sw3	downstream	COD	Quarterly	No ELV or trigger levels	N/A	55	mg/L	yes
sw3	downstream	Ammonia (as N)	Quarterly	No ELV or trigger levels	N/A	0.44	mg/L	yes
sw3	downstream	Suspended Solids	Quarterly	No ELV or trigger levels	N/A	117.5	mg/L	yes
sw3	downstream	Chromium and compounds (as Cr)	Annual	No ELV or trigger levels	N/A	2.000	µg/L	yes
sw3	downstream	Copper and compounds (as Cu)	Annual	No ELV or trigger levels	N/A	2.000	µg/L	yes
sw3	downstream	Cadmium and compounds (as Cd)	Annual	No ELV or trigger levels	N/A	<0.5	µg/L	yes
sw3	downstream	CALCIUM	Annual	No ELV or trigger levels	N/A	856.000	mg/L	yes
sw3	downstream	Iron	Annual	No ELV or trigger levels	N/A	446.000	µg/L	yes
sw3	downstream	Lead and compounds (as Pb)	Annual	No ELV or trigger levels	N/A	32.000	µg/L	yes
sw3	downstream	Magnesium	Annual	No ELV or trigger levels	N/A	52.000	mg/L	yes
sw3	downstream	Manganese (as Mn)	Annual	No ELV or trigger levels	N/A	41.000	µg/L	yes
sw3	downstream	Mercury and compounds (as Hg)	Annual	No ELV or trigger levels	N/A	<0.05	mg/L	yes
sw3	downstream	Potassium	Annual	No ELV or trigger levels	N/A	317.000	mg/L	yes
sw3	downstream	Sulphate	Annual	No ELV or trigger levels	N/A	1416.000	mg/L	yes
sw3	downstream	Total Oxidised Nitrogen (TON)	Annual	No ELV or trigger levels	N/A	<0.1	mg/L	yes
sw3	downstream	Zinc and compounds (as Zn)	Annual	No ELV or trigger levels	N/A	7.000	µg/L	yes
sw3	downstream	Total phosphorus	Annual	No ELV or trigger levels	N/A	0.100	mg/L	yes
	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT

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

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

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

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

3	Was there any result in breach of licence requirements? If yes please provide brief details in the comment section of Table W3 below	SELECT	Additional information
4	Was all monitoring carried out in accordance with EPA guidance and checklists for Quality of Aqueous Monitoring Data Reported to the EPA? If no please detail what areas require improvement in additional information box	SELECT	External/Internal Lab Quality Assessment of results checklist

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

Emission reference no:	Emission released to	Parameter/ Substance Note 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?

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	2015	
Surfacewater Lagoon	reinforced concrete		surfacewater	10000	7500	Structural assessment		Nov-08	Yes	Pass			2015	
Surfacewater Lagoon	reinforced concrete		surfacewater	2500	2000	Structural assessment		Nov-08	Yes	Pass		SELECT	2015	

Has integrity testing been carried out in accordance with licence requirements and are all structures tested in line with BS8007/EPA Guidance?

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

Yes	
SELECT	
Yes	

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	2014	
BH3	Manganese	Annual	1303	1303	ug/l	0.3mg/l	no
BH3	Mercury	Annual			ug/l	0.001mg/l	no
BH3	Potassium	Quarterly	631	631	mg/l	5mg/l	no
BH3	Sodium	Quarterly					no
BH3	Sulphate	Annual			mg/l		no
BH3	Total Alkalinity	Annual	<1.0	<1.0	mg/l		no
BH3	Total Phosphorus	Annual	<1.0	<1.0	mg/l		no
BH3	Arsenic	Annual	1	1	ug/l		
BH3	Barium, total	Annual	1087	1087	ug/l		
BH3	Boron, total	Annual	1.36	1.36	mg/l		
BH3	Selenium, total	Annual	2	2	ug/l		
BH3	Silver	Annual	0.0015	0.0015	mg/l		
BH3	Tellurium, total	Annual	<0.5	<0.5	ug/l		
BH3	Thallium, total	Annual	<0.5	<0.5	ug/l		
BH3	Vanadium, total	Annual	<0.5	<0.5	ug/l		
BH3	Phenols	Annual	<1.0	<1.0	ug/l	0.5ug/l	no
BH3	Acenaphthylene	Annual	<1.0	<1.0	ug/l		no
BH3	Acenaphthylene	Annual	<1.0	<1.0	ug/l		no
BH3	Anthracene	Annual	<1.0	<1.0	ug/l		no
BH3	Benzene	Annual	<1.0	<1.0	ug/l	10ug/l	no
BH3	Bromodichloromethane	Annual	<1.0	<1.0	ug/l		no
BH3	Bromoform	Annual	<1.0	<1.0	ug/l		no
BH3	Chloroform	Annual	<1.0	<1.0	ug/l	12ug/l	no
BH3	Chrysene	Annual	<1.0	<1.0	ug/l		no
BH3	Dibromochloromethane	Annual	<2.0	<2.0	ug/l		no
BH3	Fluoranthene	Annual	<1.0	<1.0	ug/l		no
BH3	Fluorene	Annual	<1.0	<1.0	ug/l		no
BH3	Naphthalene	Annual	<1.0	<1.0	ug/l		no
BH3	Dibromochloromethane	Annual	<1.0	<1.0	ug/l		no
BH3	Pentachlorophenol	Annual	<1.0	<1.0	ug/l	2.0ug/l	no
BH3	Phenanthrene	Annual	<1.0	<1.0	ug/l		no
BH3	Pyrene	Annual	<1.0	<1.0	ug/l		no
BH3	Tetrachloroethene	Annual	<1.0	<1.0	ug/l		no
BH3	Trichloroethene	Annual	<1.0	<1.0	ug/l		no
BH3	Hexachlorobenzene	Annual	<1.0	<1.0	ug/l	0.03ug/l	no
BH3	Hexachlorobutadiene	Annual	<1.0	<1.0	ug/l	0.10ug/l	no
BH3	2,4,6-Trichlorophenol	Annual	<1.0	<1.0	ug/l		no
BH3	2,4-Dichlorophenol	Annual	<1.0	<1.0	ug/l		no
BH3	2,4-Dimethylphenol	Annual	<1.0	<1.0	ug/l		no
BH3	2-Chlorophenol	Annual	<1.0	<1.0	ug/l		no

Groundwater/Soil monitoring template			Lic No:	W0022-01	Year	2014	
BH3	1,2,4-trichlorobenzene	Annual	<1.0	<1.0	ug/l	0.40ug/l	no
BH3	1,2-dichlorobenzene	Annual	<1.0	<1.0	ug/l		no
BH3	1,3-dichlorobenzene	Annual	<1.0	<1.0	ug/l		no
BH3	1,4-dichlorobenzene	Annual	<1.0	<1.0	ug/l		no
BH3	2,4,5-Trichlorophenol	Annual	<1.0	<1.0	ug/l		no
BH3	2,4-Dinitrotoluene	Annual	<1.0	<1.0	ug/l		no
BH3	2,6-Dinitrotoluene	Annual	<1.0	<1.0	ug/l		no
BH3	2-Chloronaphthalene	Annual	<1.0	<1.0	ug/l		no
BH3	2-Methylnaphthalene	Annual	<1.0	<1.0	ug/l		no
BH3	2-Methylphenol	Annual	<1.0	<1.0	ug/l		no
BH3	2-Nitrophenol	Annual	<1.0	<1.0	ug/l		no
BH3	4-Bromophenyl Phenyl Ether	Annual	<5.0	<5.0	ug/l		no
BH3	4-Chloro-3-methylphenol	Annual	<1.0	<1.0	ug/l		no
BH3	4-Chlorophenyl phenyl ether	Annual	<1.0	<1.0	ug/l		no
BH3	4-Nitrophenol	Annual	<1.0	<1.0	ug/l		no
BH3	Acenaphthene	Annual	<1.0	<1.0	ug/l		no
BH3	Benzo(a)anthracene	Annual	<1.0	<1.0	ug/l		no
BH3	Benzo(a)pyrene	Annual	<1.0	<1.0	ug/l		no
BH3	Benzo(b)fluoranthene	Annual	<1.0	<1.0	ug/l		no
BH3	Benzo(g,h,i)perylene	Annual	<1.0	<1.0	ug/l		no
BH3	Benzyl Butyl Phthalate	Annual	<1.0	<1.0	ug/l		no
BH3	Bis(2-chloroethoxy)methane	Annual	<5.0	<5.0	ug/l		no
BH3	Bis(2-chloroethyl)ether	Annual	<1.0	<1.0	ug/l		no
BH3	Bis(2-chloroisopropyl)ether	Annual	<1.0	<1.0	ug/l		no
BH3	Bis(2-ethylhexyl)phthalate	Annual	<1.0	<1.0	ug/l		no
BH3	Dibenz(a,h)anthracene	Annual	<1.0	<1.0	ug/l		no
BH3	Dibenzofuran	Annual	<1.0	<1.0	ug/l		no
BH3	Diethylphthalate	Annual	<1.0	<1.0	ug/l		no
BH3	di-n-Butylphthalate	Annual	<1.0	<1.0	ug/l		no

Groundwater/Soil monitoring template			Lic No:	W0022-01	Year	2014		
BH3	Di-n-octylphthalate		Annual	<1.0	<1.0	ug/l		no
BH3	Diphenylamine		Annual	<1.0	<1.0	ug/l		no
BH3	Hexachloroethane		Annual	<1.0	<1.0	ug/l		no
BH3	Indeno(1,2,3-c,d)pyrene		Annual	<1.0	<1.0	ug/l		no
BH3	Isophorone		Annual	<1.0	<1.0	ug/l		no
BH3	Nitrobenzene		Annual	<1.0	<1.0	ug/l		no
BH3	n-Nitrosodi-n-propylamine		Annual	<1.0	<1.0	ug/l		no
BH3	Acetone		Annual	<1.0	<1.0	ug/l		no
BH3	Dichloromethane		Annual	<1.0	<1.0	ug/l	10ug/l	no
BH3	Tetrahydrofuran		Annual	<1.0	<1.0	ug/l		no
BH3	Toluene		Annual	<1.0	<1.0	ug/l	10ug/l	no
BH3	Xylene -o		Annual	<1.0	<1.0	ug/l	10ug/l	no
BH3	Dichlorodifluoromethane		Annual	<0.5	<0.5	ug/l		no
BH3	Chloromethane		Annual	<1.0	<1.0	ug/l		no
BH3	Ethyl Chloride/Chloroethane		Annual	<1.0	<1.0	ug/l		no
BH3	Vinyl Chloride		Annual	<1.0	<1.0	ug/l		no
BH3	Bromomethane		Annual	<1.0	<1.0	ug/l		no
BH3	Trichloromonofluoromethane		Annual	<1.0	<1.0	ug/l		no
BH3	Ethyl Ether/Diethyl Ether		Annual	<1.0	<1.0	ug/l		no
BH3	1,1 Dichloroethene		Annual	<1.0	<1.0	ug/l		no
BH3	Iodomethane/Methyl Iodide		Annual	<1.0	<1.0	ug/l		no
BH3	Carbon Disulphide		Annual	<1.0	<1.0	ug/l		no
BH3	Allyl Chloride		Annual	<1.0	<1.0	ug/l		no
BH3	Chloromethyl Cyanide/Chloroacetonitrile		Annual	<1.0	<1.0	ug/l		no
BH3	Propanenitrile		Annual	<1.0	<1.0	ug/l		no
BH3	Trans-1,2 Dichloroethene		Annual	<1.0	<1.0	ug/l		no
BH3	MtBE		Annual	<1.0	<1.0	ug/l		no
BH3	1,1-dichloroethane		Annual	<1.0	<1.0	ug/l		no
BH3	2,2-dichloropropane		Annual	<1.0	<1.0	ug/l		no
BH3	cis-1,2 Dichloroethene		Annual	<1.0	<1.0	ug/l		no
BH3	2-Butanone		Annual	<1.0	<1.0	ug/l		no
BH3	Methyl Acrylate		Annual	<1.0	<1.0	ug/l		no
BH3	Bromochloromethane		Annual	<1.0	<1.0	ug/l		no
BH3	Methacrylonitrile		Annual	<1.0	<1.0	ug/l		no
BH3	1,1,1-trichloroethane		Annual	<1.0	<1.0	ug/l	500ug/l	no

Groundwater/Soil monitoring template			Lic No:	W0022-01	Year	2014
BH3	1-Chlorobutane	Annual	<1.0	<1.0	ug/l	no
BH3	Carbon Tetrachloride	Annual	<1.0	<1.0	ug/l	no
BH3	11 Dichloropropene	Annual	<1.0	<1.0	ug/l	no
BH3	1,2 dichloroethane	Annual	<1.0	<1.0	ug/l	10ug/l
BH3	1,2-dichloropropane	Annual	<1.0	<1.0	ug/l	no
BH3	Dibromomethane	Annual	<1.0	<1.0	ug/l	no
BH3	Methyl Methacrylate	Annual	<1.0	<1.0	ug/l	no
BH3	13 Dichloropropene, cis	Annual	<1.0	<1.0	ug/l	no
BH3	MIBK/4 Methyl 2 Pentanone	Annual	<1.0	<1.0	ug/l	no
BH3	13 Dichloropropene, trans	Annual	<1.0	<1.0	ug/l	no
BH3	Ethyl Methacrylate	Annual	<1.0	<1.0	ug/l	no
BH3	112 Trichloroethane	Annual	<1.0	<1.0	ug/l	no
BH3	1,3-dichloropropane	Annual	<1.0	<1.0	ug/l	no
BH3	2-Hexanone	Annual	<1.0	<1.0	ug/l	no
BH3	1,2-dibromoethane	Annual	<1.0	<1.0	ug/l	no
BH3	Chlorobenzene	Annual	<1.0	<1.0	ug/l	1.0ug/l
BH3	1,1,1,2-tetrachloroethane	Annual	<1.0	<1.0	ug/l	no
BH3	Ethylbenzene	Annual	<1.0	<1.0	ug/l	10ug/l
BH3	Xylene P&M	Annual	<1.0	<1.0	ug/l	no
BH3	Styrene	Annual	<1.0	<1.0	ug/l	no
BH3	Isopropylbenzene	Annual	<1.0	<1.0	ug/l	no
BH3	Bromobenzene	Annual	<1.0	<1.0	ug/l	no
BH3	1,1,1,2-tetrachloroethane	Annual	<1.0	<1.0	ug/l	no
BH3	1,2,3-trichloropropane	Annual	<1.0	<1.0	ug/l	no
BH3	Trans 14 Dichloro 2 Butene, trans	Annual	<1.0	<1.0	ug/l	no
BH3	Propylbenzene	Annual	<1.0	<1.0	ug/l	no
BH3	2-chlorotoluene	Annual	<1.0	<1.0	ug/l	no
BH3	4-chlorotoluene	Annual	<1.0	<1.0	ug/l	no
BH3	1,3,5-trimethylbenzene	Annual	<1.0	<1.0	ug/l	no
BH3	Tert Butyl Benzene	Annual	<1.0	<1.0	ug/l	no

Groundwater/Soil monitoring template				Lic No:	W0022-01	Year	2014		
	BH3	1,2,4-trimethylbenzene		Annual	<1.0	<1.0	ug/l		no
	BH3	sec-butylbenzene		Annual	<1.0	<1.0	ug/l		no
	BH3	P Isopropyltoluene		Annual	<1.0	<1.0	ug/l		no
	BH3	N Butyl Benzene		Annual	<1.0	<1.0	ug/l		no
	BH3	1,2-dibromo-3-chloropropane		Annual	<1.0	<1.0	ug/l		no
	BH3	1,2,3-trichlorobenzene		Annual	<1.0	<1.0	ug/l		no
	BH3	VOC		Annual	1	1	ug/l		no
	BH3	SVOC		Annual	<2.0	<2.0	ug/l		no
	BH3	OPP		Annual	<0.005	<0.005	ug/l		no
	BH3	OCP		Annual	<10	<10	ng/l		
	BH3	Total pesticides		Annual	<0.05	<0.05	ug/l		
						7.9			
Quarterly	BH4	pH	meter	Quarterly			SELECT	9.5	no
	BH4	Temp	meter	Quarterly			SELECT		no
	BH4	Elec. Conductivity	meter	Quarterly		17.1	mS/cm	1000	no
	BH4	Chlorides	titration	Quarterly		7941		250	no
	BH4	Ammoniacal Nitrogen	ise meter	Quarterly		1.9	mg/l	0.02	no
	BH4	Iron		Annual		5.5	ug/l	1	no
	BH4	TON		Quarterly		<0.1	mg/l		no
	BH4	TOC	Hach	Quarterly		112	mg/l		no
Annual	BH4	Cadmium		Annual	0.9	3074	ug/l	0.005mg/l	no
	BH4	Chromium (total)		Annual	2	2	ug/l	0.03mg/l	no
	BH4	Copper		Annual	6	6	ug/l	0.03mg/l	no
	BH4	Cyanide (Total)		Annual			ug/l	0.01mg/l	no
	BH4	Lead		Annual	41	41	ug/l	0.01mg/l	no
	BH4	Magnesium		Annual	1388	1388	mg/l		no
	BH4	Manganese		Annual	1214	1214	ug/l	0.3mg/l	no
	BH4	Mercury		Annual			ug/l	0.001mg/l	no
	BH4	Potassium		Quarterly	1231	1231	mg/l	5mg/l	no
	BH4	Sodium		Quarterly					no
	BH4	Sulphate		Annual			mg/l	200mg/l	no
	BH4	Total Alkalinity		Annual	<1.0	<1.0	mg/l		no
	BH4	Total Phosphorus		Annual	<1.0	<1.0	mg/l		no
	BH4	Arsenic		Annual	4	4	ug/l		
	BH4	Barium, total		Annual	235	235	ug/l		
	BH4	Boron, total		Annual	2.69	2.69	mg/l		
	BH4	Selenium, total		Annual	1	1			
	BH4	Silver		Annual	0.004	0.004	mg/l		
	BH4	Tellurium, total		Annual	<0.5	<0.5	ug/l		
	BH4	Thallium, total		Annual	<0.5	<0.5	ug/l		
	BH4	Vanadium, total		Annual	<0.5	<0.5			

Groundwater/Soil monitoring template			Lic No:	W0022-01	Year	2014	
BH4	Phenols	Annual	<1.0	<1.0	ug/l	0.5ug/l	no
BH4	Acenaphthylene	Annual	<1.0	<1.0	ug/l		no
BH4	Anthracene	Annual	<1.0	<1.0	ug/l		no
BH4	Benzene	Annual	<1.0	<1.0	ug/l	10ug/l	no
BH4	Bromodichlorome thane	Annual	<1.0	<1.0	ug/l		no
BH4	Bromoform	Annual	<1.0	<1.0	ug/l	12ug/l	no
BH4	Chloroform	Annual	<1.0	<1.0	ug/l	12ug/l	no
BH4	Chrysene	Annual	<1.0	<1.0	ug/l		no
BH4	Dibromochlorome thane	Annual	<1.0	<1.0	ug/l		no
BH4	Fluoranthene	Annual	<2.0	<2.0	ug/l		no
BH4	Fluorene	Annual	<1.0	<1.0	ug/l		no
BH4	Naphthalene	Annual	<1.0	<1.0	ug/l		no
BH4	Dibromochlorome thane	Annual	<1.0	<1.0	ug/l		no
BH4	Pentachloropheno l	Annual	<1.0	<1.0	ug/l	2.0ug/l	no
BH4	Phenanthrene	Annual	<1.0	<1.0	ug/l		no
BH4	Pyrene	Annual	<1.0	<1.0	ug/l		no
BH4	Tetrachloroethene	Annual	<1.0	<1.0	ug/l		no
BH4	Trichloroethene	Annual	<1.0	<1.0	ug/l		no
BH4	Hexachlorobenzen e	Annual	<1.0	<1.0	ug/l	0.03ug/l	no
BH4	Hexachlorobutadi ene	Annual	<1.0	<1.0	ug/l	0.10ug/l	no
BH4	2,4,6- Trichlorophenol	Annual	<1.0	<1.0	ug/l		no
BH4	2,4- Dichlorophenol	Annual	<1.0	<1.0	ug/l		no
BH4	2,4- Dimethylphenol	Annual	<1.0	<1.0	ug/l		no
BH4	2-Chlorophenol	Annual	<1.0	<1.0	ug/l		no
BH4	1,2,4- trichlorobenzene	Annual	<1.0	<1.0	ug/l		no
BH4	1,2- dichlorobenzene	Annual	<1.0	<1.0	ug/l		no
BH4	1,3- dichlorobenzene	Annual	<1.0	<1.0	ug/l		no
BH4	1,4- dichlorobenzene	Annual	<1.0	<1.0	ug/l		no
BH4	2,4,5- Trichlorophenol	Annual	<1.0	<1.0	ug/l		no
BH4	2,4-Dinitrotoluene	Annual	<1.0	<1.0	ug/l		no
BH4	2,6-Dinitrotoluene	Annual	<1.0	<1.0	ug/l		no
BH4	2- Chloronaphthalen e	Annual	<1.0	<1.0	ug/l		no

Groundwater/Soil monitoring template			Lic No:	W0022-01	Year	2014
BH4	2-Methylnaphthalene	Annual	<1.0	<1.0	ug/l	no
BH4	2-Methylphenol	Annual	<1.0	<1.0	ug/l	no
BH4	2-Nitrophenol	Annual	<1.0	<1.0	ug/l	no
BH4	4-Bromophenyl Phenyl Ether	Annual	<1.0	<1.0	ug/l	no
BH4	4-Chloro-3-methylphenol	Annual	<5.0	<5.0	ug/l	no
BH4	4-Chlorophenyl phenyl ether	Annual	<1.0	<1.0	ug/l	no
BH4	4-Nitrophenol	Annual	<1.0	<1.0	ug/l	no
BH4	Acenaphthene	Annual	<1.0	<1.0	ug/l	no
BH4	Benzo(a)anthracene	Annual	<1.0	<1.0	ug/l	no
BH4	Benzo(a)pyrene	Annual	<1.0	<1.0	ug/l	no
BH4	Benzo(b)fluoranthene	Annual	<1.0	<1.0	ug/l	no
BH4	Benzo(g,h,i)perylene	Annual	<1.0	<1.0	ug/l	no
BH4	Benzyl Butyl Phthalate	Annual	<1.0	<1.0	ug/l	no
BH4	Bis(2-chloroethoxy)methane	Annual	<1.0	<1.0	ug/l	no
BH4	Bis(2-chloroethyl)ether	Annual	<5.0	<5.0	ug/l	no
BH4	Bis(2-chloroisopropyl)ether	Annual	<1.0	<1.0	ug/l	no
BH4	Bis(2-ethylhexyl)phthalate	Annual	<1.0	<1.0	ug/l	no
BH4	Dibenz(a,h)anthracene	Annual	<1.0	<1.0	ug/l	no
BH4	Dibenzofuran	Annual	<1.0	<1.0	ug/l	no
BH4	Diethylphthalate	Annual	<1.0	<1.0	ug/l	no
BH4	di-n-Butylphthalate	Annual	<1.0	<1.0	ug/l	no
BH4	Di-n-octylphthalate	Annual	<1.0	<1.0	ug/l	no
BH4	Diphenylamine	Annual	<1.0	<1.0	ug/l	no
BH4	Hexachloroethane	Annual	<1.0	<1.0	ug/l	no
BH4	Indeno(1,2,3-c,d)pyrene	Annual	<1.0	<1.0	ug/l	no
BH4	Isophorone	Annual	<1.0	<1.0	ug/l	no
BH4	Nitrobenzene	Annual	<1.0	<1.0	ug/l	no
BH4	n-Nitrosodi-n-propylamine	Annual	<1.0	<1.0	ug/l	no
BH4	Acetone	Annual	<1.0	<1.0	ug/l	no
BH4	Dichloromethane	Annual	<1.0	<1.0	ug/l	10ug/l
BH4	Tetrahydrofuran	Annual	<1.0	<1.0	ug/l	no
BH4	Toluene	Annual	<1.0	<1.0	ug/l	no
BH4	Xylene -o	Annual	<1.0	<1.0	ug/l	10ug/l
BH4	Dichlorodifluoroethane	Annual	<1.0	<1.0	ug/l	no

Groundwater/Soil monitoring template			Lic No:	W0022-01	Year	2014			
BH4	Chloromethane		Annual	<0.5	<0.5	ug/l			no
BH4	Ethyl Chloride/Chloroethane		Annual	<1.0	<1.0	ug/l			no
BH4	Vinyl Chloride		Annual	<1.0	<1.0	ug/l			no
BH4	Bromomethane		Annual	<1.0	<1.0	ug/l			no
BH4	Trichloromonofluoromethane		Annual	<1.0	<1.0	ug/l			no
BH4	Ethyl Ether/Diethyl Ether		Annual	<1.0	<1.0	ug/l			no
BH4	1,1 Dichloroethene		Annual	<1.0	<1.0	ug/l			no
BH4	Iodomethane/Methyl Iodide		Annual	<1.0	<1.0	ug/l			no
BH4	Carbon Disulphide		Annual	<1.0	<1.0	ug/l			no
BH4	Allyl Chloride		Annual	<1.0	<1.0	ug/l			no
BH4	Chloromethyl Cyanide/Chloroacetonitrile		Annual	<1.0	<1.0	ug/l			no
BH4	Propanenitrile		Annual	<1.0	<1.0	ug/l			no
BH4	Trans-1,2 Dichloroethene		Annual	<1.0	<1.0	ug/l			no
BH4	MtBE		Annual	<1.0	<1.0	ug/l			no
BH4	1,1-dichloroethane		Annual	<1.0	<1.0	ug/l			no
BH4	2,2-dichloropropane		Annual	<1.0	<1.0	ug/l			no
BH4	cis-1,2 Dichloroethene		Annual	<1.0	<1.0	ug/l			no
BH4	2-Butanone		Annual	<1.0	<1.0	ug/l			no
BH4	Methyl Acrylate		Annual	<1.0	<1.0	ug/l			no
BH4	Bromochloromethane		Annual	<1.0	<1.0	ug/l			no
BH4	Methacrylonitrile		Annual	<1.0	<1.0	ug/l			no
BH4	1,1,1-trichloroethane		Annual	<1.0	<1.0	ug/l			no
BH4	1-Chlorobutane		Annual	<1.0	<1.0	ug/l			no
BH4	Carbon Tetrachloride		Annual	<1.0	<1.0	ug/l			no
BH4	1,1 Dichloropropene		Annual	<1.0	<1.0	ug/l			no
BH4	1,2 dichloroethane		Annual	<1.0	<1.0	ug/l			no
BH4	1,2-dichloropropane		Annual	<1.0	<1.0	ug/l		10ug/l	no
BH4	Dibromomethane		Annual	<1.0	<1.0	ug/l			no
BH4	Methyl Methacrylate		Annual	<1.0	<1.0	ug/l			no
BH4	1,3 Dichloropropene, cis		Annual	<1.0	<1.0	ug/l			no
BH4	MIBK/4 Methyl 2 Pentanone		Annual	<1.0	<1.0	ug/l			no

Groundwater/Soil monitoring template			Lic No:	W0022-01	Year	2014
BH4	13 Dichloropropene,trans	Annual	<1.0	<1.0	ug/l	no
BH4	Ethyl Methacrylate	Annual	<1.0	<1.0	ug/l	no
BH4	112 Trichloroethane	Annual	<1.0	<1.0	ug/l	no
BH4	1,3- dichloropropane	Annual	<1.0	<1.0	ug/l	no
BH4	2-Hexanone	Annual	<1.0	<1.0	ug/l	no
BH4	1,2- dibromoethane	Annual	<1.0	<1.0	ug/l	no
BH4	Chlorobenzene	Annual	<1.0	<1.0	ug/l	1.0ug/l no
BH4	1,1,1,2- tetrachloroethane	Annual	<1.0	<1.0	ug/l	no
BH4	Ethylbenzene	Annual	<1.0	<1.0	ug/l	10ug/l no
BH4	Xylene P&M	Annual	<1.0	<1.0	ug/l	no
BH4	Styrene	Annual	<1.0	<1.0	ug/l	no
BH4	Isopropylbenzene	Annual	<1.0	<1.0	ug/l	no
BH4	Bromobenzene	Annual	<1.0	<1.0	ug/l	no
BH4	1,1,1,2- tetrachloroethane	Annual	<1.0	<1.0	ug/l	no
BH4	1,2,3- trichloropropane	Annual	<1.0	<1.0	ug/l	no
BH4	Trans 1,4 Dichloro 2 Butene, trans	Annual	<1.0	<1.0	ug/l	no
BH4	Propylbenzene	Annual	<1.0	<1.0	ug/l	no
BH4	2-chlorotoluene	Annual	<1.0	<1.0	ug/l	no
BH4	4-chlorotoluene	Annual	<1.0	<1.0	ug/l	no
BH4	1,3,5- trimethylbenzene	Annual	<1.0	<1.0	ug/l	no
BH4	Tert Butyl Benzene	Annual	<1.0	<1.0	ug/l	no
BH4	1,2,4- trimethylbenzene	Annual	<1.0	<1.0	ug/l	no
BH4	sec-butylbenzene	Annual	<1.0	<1.0	ug/l	no
BH4	p Isopropyltoluene	Annual	<1.0	<1.0	ug/l	no
BH4	N Butyl Benzene	Annual	<1.0	<1.0	ug/l	no
BH4	1,2-dibromo-3- chloropropane	Annual	<1.0	<1.0	ug/l	no
BH4	1,2,3- trichlorobenzene	Annual	<1.0	<1.0	ug/l	no
BH4	VOC	Annual	<2.0		ug/l	no
BH4	SVOC	Annual	<5.0		ug/l	no
	OPP	Annual	<0.005		ug/l	
	OCP	Annual	<10		ng/l	

Groundwater/Soil monitoring template				Lic No:	W0022-01	Year	2014
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.+ where average indicates arithmetic mean

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

Table 2: Downgradient Groundwater monitoring results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit	GTV's*	IGV	Upward trend in yearly average pollutant concentration over last 5 years of monitoring data
Quarterly	BH1	pH	METER	Quarterly			SELECT		9.5	no
	BH1	Temp	METER	Quarterly		7	SELECT			no
	BH1	Elec.Conductivity	METER	Quarterly		6.7	mS/um		1000	no
	BH1	Chlorides	TITRATION	Quarterly		1948.8	mg/l		250	no
	BH1	Ammoniacal Nitrogen	ISE METER	Quarterly		3.3	mg/l		0.02	no
	BH1	TON		Quarterly		3	mg/l			no
	BH1	TOC	HACH	Quarterly		<0.1	mg/l			no
	BH1	Potassium		Quarterly		57.7	mg/l		5mg/l	
	BH1	Sodium		Quarterly		1014.8				
Annual	BH1	Iron		Annual			ug/l			
	BH1	Cadmium		Annual	<0.5		ug/l		0.005mg/l	no
	BH1	Chromium (total)		Annual	1		ug/l		0.03mg/l	no
	BH1	Copper		Annual	3		ug/l		0.03mg/l	no
	BH1	Cyanide (Total)		Annual	<0.0009		ug/l		0.01mg/l	no
	BH1	Lead		Annual	80		ug/l		0.01mg/l	no
	BH1	Manganese		Annual	983		mg/l			no
	BH1	Manganese		Annual	6392		ug/l		0.3mg/l	no
	BH1	Mercury		Annual	<0.05		ug/l		0.001mg/l	no
	BH1	Sulphate		Annual	806		mg/l		200mg/l	no
	BH1	Total Alkalinity		Annual			mg/l			no
	BH1	Total Phosphorus		Annual			mg/l			no
	BH1	Arsenic		Annual	2		ug/l			
	BH1	Barium, total		Annual	1654		ug/l			
	BH1	Boron, total		Annual	1.54		mg/l			
	BH1	Selenium, total		Annual	<0.5		ug/l			
	BH1	Silver		Annual	0.0024		mg/l			
	BH1	Tellurium, total		Annual	<0.5		ug/l			
	BH1	Thallium, total		Annual	<0.5		ug/l			
	BH1	Vanadium, total		Annual	<0.5		ug/l			
	BH1	Phenols		Annual	<1.0		ug/l		0.5ug/l	no
	BH1	Acenaphthylene		Annual	<1.0		ug/l			no
	BH1	Anthracene		Annual	<1.0		ug/l			no
	BH1	Benzene		Annual	<1.0		ug/l		10ug/l	no
	BH1	Bromodichloromethane		Annual	<1.0		ug/l			no
	BH1	Bromoform		Annual	<1.0		ug/l		12ug/l	no

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BH1	Chloroform		Annual	<1.0	ug/l	12ug/l	no
BH1	Chrysene		Annual	<1.0	ug/l		no
BH1	Dibromochlorome thane		Annual	<1.0	ug/l		no
BH1	Fluoranthene		Annual	<1.0	ug/l		no
BH1	Fluorene		Annual	<1.0	ug/l		no
BH1	Naphthalene		Annual	<2.0	ug/l		no
BH1	Dibromochlorome thane		Annual	<1.0	ug/l		no
BH1	Pentachloropheno l		Annual	<1.0	ug/l	2.0ug/l	no
BH1	Phenanthrene		Annual	<1.0	ug/l		no
BH1	Pyrene		Annual	<1.0	ug/l		no
BH1	Tetrachloroethene		Annual	<1.0	ug/l		no
BH1	Trichloroethene		Annual	<1.0	ug/l		no
BH1	Hexachlorobenzen e		Annual	<1.0	ug/l	0.03ug/l	no
BH1	Hexachlorobutadi ene		Annual	<1.0	ug/l	0.10ug/l	no
BH1	2,4,6- Trichlorophenol		Annual	<1.0	ug/l		no
BH1	2,4- Dichlorophenol		Annual	<1.0	ug/l		no
BH1	2,4- Dimethylphenol		Annual	<1.0	ug/l		no
BH1	2-Chlorophenol		Annual	<1.0	ug/l		no
BH1	1,2,4- trichlorobenzene		Annual	<1.0	ug/l		no
BH1	1,2- dichlorobenzene		Annual	<1.0	ug/l		no
BH1	1,3- dichlorobenzene		Annual	<1.0	ug/l		no
BH1	1,4- dichlorobenzene		Annual	<1.0	ug/l		no
BH1	2,4,5- Trichlorophenol		Annual	<1.0	ug/l		no
BH1	2,4-Dinitrotoluene		Annual	<1.0	ug/l		no
BH1	2,6-Dinitrotoluene		Annual	<1.0	ug/l		no
BH1	2- Chloronaphthalen e		Annual	<1.0	ug/l		no
BH1	2- Methylnaphthalen e		Annual	<1.0	ug/l		no
BH1	2-Methylphenol		Annual	<1.0	ug/l		no
BH1	2-Nitrophenol		Annual	<1.0	ug/l		no
BH1	4-Bromophenyl Phenyl Ether		Annual	<1.0	ug/l		no
BH1	4-Chloro-3- methylphenol		Annual	<1.0	ug/l		no

Groundwater/Soil monitoring template			Lic No:	W0022-01	Year	2014
	BH1	4-Chlorophenyl phenyl ether	Annual	<1.0	ug/l	no
	BH1	4-Nitrophenol	Annual	<5.0	ug/l	no
	BH1	Acenaphthene	Annual	<1.0	ug/l	no
	BH1	Benzo(a)anthracene	Annual	<1.0	ug/l	no
	BH1	Benzo(a)pyrene	Annual	<1.0	ug/l	no
	BH1	Benzo(b)fluoranthene	Annual	<1.0	ug/l	no
	BH1	Benzo(g,h,i)perylene	Annual	<1.0	ug/l	no
	BH1	Benzyl Butyl Phthalate	Annual	<1.0	ug/l	no
	BH1	Bis(2-chloroethoxy)methane	Annual	<1.0	ug/l	no
	BH1	Bis(2-chloroethyl)ether	Annual	<1.0	ug/l	no
	BH1	Bis(2-chloroisopropyl)ether	Annual	<1.0	ug/l	no
	BH1	Bis(2-ethylhexyl)phthalate	Annual	<5.0	ug/l	no
	BH1	Dibenz(a,h)anthracene	Annual	<1.0	ug/l	no
	BH1	Dibenzofuran	Annual	<1.0	ug/l	no
	BH1	Diethylphthalate	Annual	<1.0	ug/l	no
	BH1	di-n-Butylphthalate	Annual	<1.0	ug/l	no
	BH1	Di-n-octylphthalate	Annual	<1.0	ug/l	no
	BH1	Diphenylamine	Annual	<1.0	ug/l	no
	BH1	Hexachloroethane	Annual	<1.0	ug/l	no
	BH1	Indeno(1,2,3-c,d)pyrene	Annual	<1.0	ug/l	no
	BH1	Isophorone	Annual	<1.0	ug/l	no
	BH1	Nitrobenzene	Annual	<1.0	ug/l	no
	BH1	n-Nitrosodi-n-propylamine	Annual	<1.0	ug/l	no
	BH1	Acetone	Annual	<1.0	ug/l	no
	BH1	Dichloromethane	Annual	<1.0	ug/l	10ug/l
	BH1	Tetrahydrofuran	Annual	<1.0	ug/l	no
	BH1	Toluene	Annual	<1.0	ug/l	no
	BH1	Xylene -o	Annual	<1.0	ug/l	10ug/l
	BH1	Dichlorodifluoromethane	Annual	<1.0	ug/l	no
	BH1	Chloromethane	Annual	<1.0	ug/l	no
	BH1	Ethyl Chloride/Chloroethane	Annual	<1.0	ug/l	no
	BH1	Vinyl Chloride	Annual	<0.5	ug/l	no
	BH1	Bromomethane	Annual	<1.0	ug/l	no
	BH1	Trichloromonofluoromethane	Annual	<1.0	ug/l	no

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BH1	Ethyl Ether/Diethyl Ether	Annual	<1.0	ug/l		no
BH1	1,1 Dichloroethene	Annual	<1.0	ug/l		no
BH1	Iodomethane/Methyl Iodide	Annual	<1.0	ug/l		no
BH1	Carbon Disulphide	Annual	<1.0	ug/l		no
BH1	Allyl Chloride	Annual	<1.0	ug/l		no
BH1	Chlormethyl Cyanide/Chloroacetonitrile	Annual	<1.0	ug/l		no
BH1	Propanenitrile	Annual	<1.0	ug/l		no
BH1	Trans-1,2 Dichloroethene	Annual	<1.0	ug/l		no
BH1	MtBE	Annual	<1.0	ug/l		no
BH1	1,1-dichloroethane	Annual	<1.0	ug/l		no
BH1	2,2-dichloropropane	Annual	<1.0	ug/l		no
BH1	cis-1,2 Dichloroethene	Annual	<1.0	ug/l		no
BH1	2-Butanone	Annual	<1.0	ug/l		no
BH1	Methyl Acrylate	Annual	<1.0	ug/l		no
BH1	Bromochloromethane	Annual	<1.0	ug/l		no
BH1	Methacrylonitrile	Annual	<1.0	ug/l		no
BH1	1,1,1-trichloroethane	Annual	<1.0	ug/l		no
BH1	1-Chlorobutane	Annual	<1.0	ug/l		no
BH1	Carbon Tetrachloride	Annual	<1.0	ug/l		no
BH1	1,1 Dichloropropene	Annual	<1.0	ug/l		no
BH1	1,2 dicloroethane	Annual	<1.0	ug/l		no
BH1	1,2-dichloropropane	Annual	<1.0	ug/l	10ug/l	no
BH1	Dibromomethane	Annual	<1.0	ug/l		no
BH1	Methyl Methacrylate	Annual	<1.0	ug/l		no
BH1	1,3 Dichloropropene, cis	Annual	<1.0	ug/l		no
BH1	MIBK/4 Methyl 2 Pentanone	Annual	<1.0	ug/l		no
BH1	1,3 Dichloropropene, trans	Annual	<1.0	ug/l		no
BH1	Ethyl Methacrylate	Annual	<1.0	ug/l		no
BH1	1,1,2 Trichloroethane	Annual	<1.0	ug/l		no
BH1	1,3-dichloropropane	Annual	<1.0	ug/l		no

Groundwater/Soil monitoring template				Lic No:	W0022-01	Year	2014	
	BH1	2-Hexanone		Annual	<1.0	ug/l		no
	BH1	1,2-dibromoethane		Annual	<1.0	ug/l		no
	BH1	Chlorobenzene		Annual	<1.0	ug/l	1.0ug/l	no
	BH1	1,1,1,2-tetrachloroethane		Annual	<1.0	ug/l		no
	BH1	Ethylbenzene		Annual	<1.0	ug/l	10ug/l	no
	BH1	Xylene P&M		Annual	<1.0	ug/l		no
	BH1	Styrene		Annual	<1.0	ug/l		no
	BH1	Isopropylbenzene		Annual	<1.0	ug/l		no
	BH1	Bromobenzene		Annual	<1.0	ug/l		no
	BH1	1,1,2,2-tetrachloroethane		Annual	<1.0	ug/l		no
	BH1	1,2,3-trichloropropane		Annual	<1.0	ug/l		no
	BH1	Trans 1,4 Dichloro 2 Butene, tran		Annual	<1.0	ug/l		no
	BH1	Propylbenzene		Annual	<1.0	ug/l		no
	BH1	2-chlorotoluene		Annual	<1.0	ug/l		no
	BH1	4-chlorotoluene		Annual	<1.0	ug/l		no
	BH1	1,3,5-trimethylbenzene		Annual	<1.0	ug/l		no
	BH1	Tert Butyl Benzene		Annual	<1.0	ug/l		no
	BH1	1,2,4-trimethylbenzene		Annual	<1.0	ug/l		no
	BH1	sec-butylbenzene		Annual	<1.0	ug/l		no
	BH1	P Isopropyltoluene		Annual	<1.0	ug/l		no
	BH1	N Butyl Benzene		Annual	<1.0	ug/l		no
	BH1	1,2-dibromo-3-chloropropane		Annual	<1.0	ug/l		no
	BH1	1,2,3-trichlorobenzene		Annual	<1.0	ug/l		no
	BH1	VOC		Annual	<2.0	ug/l		no
	BH1	SVOC		Annual	<5.0	ug/l		no
	BH1	OPP		Annual	<0.005	ug/l		no
	BH1	OCP		Annual	<10	ng/l		
	BH1	Total pesticides		Annual	<0.05	ug/l		
						7.4		
Quarterly	BH2	pH	METER	Quarterly		SELECT		9.5 no
	BH2	Temp	METER	Quarterly		SELECT		no
	BH2	Elec. Conductivity	METER	Quarterly		574	uS/cm	1000 no
	BH2	Chlorides	TITRATION	Quarterly		19.9		250 no
	BH2	Ammoniacal Nitrogen	ISE METER	Quarterly		<0.1	mg/l	0.02 no

Groundwater/Soil monitoring template				Lic No:	W0022-01	Year	2014			
	BH2	TON		Quarterly		2.5	mg/l			no
	BH2	TOC	HACH	Quarterly		1.1	mg/l			no
	BH2	Potassium		Quarterly		6.8	mg/l		5mg/l	
	BH2	Sodium		Quarterly		20.5				
Annual	BH2	Iron		Annual			ug/l			
	BH2	Cadmium		Annual	<0.5		ug/l		0.005mg/l	no
	BH2	Chromium (total)		Annual	0.6		ug/l		0.03mg/l	no
	BH2	Copper		Annual	2		ug/l		0.03mg/l	no
	BH2	Cyanide (Total)		Annual			ug/l		0.01mg/l	no
	BH2	Lead		Annual	12		ug/l		0.01mg/l	no
	BH2	Manganese		Annual	65		mg/l			no
	BH2	Manganese		Annual	14		ug/l		0.3mg/l	no
	BH2	Mercury		Annual			ug/l		0.001mg/l	no
	BH2	Sulphate		Annual	10.8		mg/l		200mg/l	no
	BH2	Total Alkalinity		Annual			mg/l			no
	BH2	Total Phosphorus		Annual			mg/l			no
	BH2	Arsenic		Annual	<0.5	<0.5	ug/l			
	BH2	Barium, total		Annual	1542		ug/l			
	BH2	Boron, total		Annual	0.306		mg/l			
	BH2	Selenium, total		Annual	<0.5					
	BH2	Silver		Annual	<0.0007		mg/l			
	BH2	Tellurium, total		Annual	<0.5	<0.5	ug/l			
	BH2	Thallium, total		Annual	<0.5	<0.5	ug/l			
	BH2	Vanadium, total		Annual	<0.5	<0.5				
	BH2	Phenols		Annual	<1.0		ug/l		0.5ug/l	no
	BH2	Acenaphthylene		Annual	<1.0		ug/l			no
	BH2	Anthracene		Annual	<1.0		ug/l			no
	BH2	Benzene		Annual	<1.0		ug/l		10ug/l	no
	BH2	Bromodichloromethane		Annual	<1.0		ug/l			no
	BH2	Bromoform		Annual	<1.0		ug/l		12ug/l	no
	BH2	Chloroform		Annual	<1.0		ug/l		12ug/l	no
	BH2	Chrysene		Annual	<1.0		ug/l			no
	BH2	Dibromochloromethane		Annual	<1.0		ug/l			no
	BH2	Fluoranthene		Annual	<1.0		ug/l			no
	BH2	Fluorene		Annual	<1.0		ug/l			no
	BH2	Naphthalene		Annual	<2.0		ug/l			no
	BH2	Dibromochloromethane		Annual	<1.0		ug/l			no
	BH2	Pentachlorophenol		Annual	<1.0		ug/l		2.0ug/l	no
	BH2	Phenanthrene		Annual	<1.0		ug/l			no
	BH2	Pyrene		Annual	<1.0		ug/l			no
	BH2	Tetrachloroethene		Annual	<1.0		ug/l			no
	BH2	Trichloroethene		Annual	<1.0		ug/l			no
	BH2	Hexachlorobenzene		Annual	<1.0		ug/l		0.03ug/l	no
	BH2	Hexachlorobutadiene		Annual	<1.0		ug/l		0.10ug/l	no

Groundwater/Soil monitoring template			Lic No:	W0022-01	Year	2014				
	BH2	2,4,6-Trichlorophenol		Annual	<1.0	ug/l				no
	BH2	2,4-Dichlorophenol		Annual	<1.0	ug/l				no
	BH2	2,4-Dimethylphenol		Annual	<1.0	ug/l				no
	BH2	2-Chlorophenol		Annual	<1.0	ug/l				no
	BH2	1,2,4-trichlorobenzene		Annual	<1.0	ug/l				no
	BH2	1,2-dichlorobenzene		Annual	<1.0	ug/l				no
	BH2	1,3-dichlorobenzene		Annual	<1.0	ug/l				no
	BH2	1,4-dichlorobenzene		Annual	<1.0	ug/l				no
	BH2	2,4,5-Trichlorophenol		Annual	<1.0	ug/l				no
	BH2	2,4-Dinitrotoluene		Annual	<1.0	ug/l				no
	BH2	2,6-Dinitrotoluene		Annual	<1.0	ug/l				no
	BH2	2-Chloronaphthalene		Annual	<1.0	ug/l				no
	BH2	2-Methylnaphthalene		Annual	<1.0	ug/l				no
	BH2	2-Methylphenol		Annual	<1.0	ug/l				no
	BH2	2-Nitrophenol		Annual	<1.0	ug/l				no
	BH2	4-Bromophenyl Phenyl Ether		Annual	<1.0	ug/l				no
	BH2	4-Chloro-3-methylphenol		Annual	<1.0	ug/l				no
	BH2	4-Chlorophenyl phenyl ether		Annual	<1.0	ug/l				no
	BH2	4-Nitrophenol		Annual	<5.0	ug/l				no
	BH2	Acenaphthene		Annual	<1.0	ug/l				no
	BH2	Benzo(a)anthracene		Annual	<1.0	ug/l				no
	BH2	Benzo(a)pyrene		Annual	<1.0	ug/l				no
	BH2	Benzo(b)fluoranthene		Annual	<1.0	ug/l				no
	BH2	Benzo(g,h,i)perylene		Annual	<1.0	ug/l				no
	BH2	Benzyl Butyl Phthalate		Annual	<1.0	ug/l				no
	BH2	Bis(2-chloroethoxy)methane		Annual	<1.0	ug/l				no
	BH2	Bis(2-chloroethyl)ether		Annual	<1.0	ug/l				no
	BH2	Bis(2-chloroisopropyl)ether		Annual	<1.0	ug/l				no

Groundwater/Soil monitoring template			Lic No:	W0022-01	Year	2014
BH2	Bis(2-ethylhexyl)phthalate	Annual	<5.0	ug/l		no
BH2	Dibenz(a,h)anthracene	Annual	<1.0	ug/l		no
BH2	Dibenzofuran	Annual	<1.0	ug/l		no
BH2	Diethylphthalate	Annual	<1.0	ug/l		no
BH2	di-n-Butylphthalate	Annual	<1.0	ug/l		no
BH2	Di-n-octylphthalate	Annual	<1.0	ug/l		no
BH2	Diphenylamine	Annual	<1.0	ug/l		no
BH2	Hexachloroethane	Annual	<1.0	ug/l		no
BH2	Indeno(1,2,3-c,d)pyrene	Annual	<1.0	ug/l		no
BH2	Isophorone	Annual	<1.0	ug/l		no
BH2	Nitrobenzene	Annual	<1.0	ug/l		no
BH2	n-Nitrosodi-n-propylamine	Annual	<1.0	ug/l		no
BH2	Acetone	Annual	<1.0	ug/l		no
BH2	Dichloromethane	Annual	<1.0	ug/l	10ug/l	no
BH2	Tetrahydrofuran	Annual	<1.0	ug/l		no
BH2	Toluene	Annual	<1.0	ug/l		no
BH2	Xylene -o	Annual	<1.0	ug/l	10ug/l	no
BH2	Dichlorodifluoromethane	Annual	<1.0	ug/l		no
BH2	Chloromethane	Annual	<1.0	ug/l		no
BH2	Ethyl Chloride/Chloroethane	Annual	<1.0	ug/l		no
BH2	Vinyl Chloride	Annual	<0.5	ug/l		no
BH2	Bromomethane	Annual	<1.0	ug/l		no
BH2	Trichloromonofluoromethane	Annual	<1.0	ug/l		no
BH2	Ethyl Ether/Diethyl Ether	Annual	<1.0	ug/l		no
BH2	1,1 Dichloroethene	Annual	<1.0	ug/l		no
BH2	Iodomethane/Methyl iodide	Annual	<1.0	ug/l		no
BH2	Carbon Disulphide	Annual	<1.0	ug/l		no
BH2	Allyl Chloride	Annual	<1.0	ug/l		no
BH2	Chlormethyl Cyanide/Chloroacetonitrile	Annual	<1.0	ug/l		no
BH2	Propanenitrile	Annual	<1.0	ug/l		no
BH2	Trans-1,2 Dichloroethene	Annual	<1.0	ug/l		no
BH2	MtBE	Annual	<1.0	ug/l		no
BH2	1,1-dichloroethane	Annual	<1.0	ug/l		no
BH2	2,2-dichloropropane	Annual	<1.0	ug/l		no
BH2	cis-1,2 Dichloroethene	Annual	<1.0	ug/l		no

Groundwater/Soil monitoring template			Lic No:	W0022-01	Year	2014
BH2	2-Butanone		Annual	<1.0	ug/l	no
BH2	Methyl Acrylate		Annual	<1.0	ug/l	no
BH2	Bromochloromethane		Annual	<1.0	ug/l	no
BH2	Methacrylonitrile		Annual	<1.0	ug/l	no
BH2	1,1,1-trichloroethane		Annual	<1.0	ug/l	no
BH2	1-Chlorobutane		Annual	<1.0	ug/l	no
BH2	Carbon Tetrachloride		Annual	<1.0	ug/l	no
BH2	1,1-Dichloropropene		Annual	<1.0	ug/l	no
BH2	1,2-dichloroethane		Annual	<1.0	ug/l	no
BH2	1,2-dichloropropane		Annual	<1.0	ug/l	10ug/l
BH2	Dibromomethane		Annual	<1.0	ug/l	no
BH2	Methyl Methacrylate		Annual	<1.0	ug/l	no
BH2	1,3-Dichloropropene, cis		Annual	<1.0	ug/l	no
BH2	MIBK/4 Methyl 2 Pentanone		Annual	<1.0	ug/l	no
BH2	1,3-Dichloropropene, trans		Annual	<1.0	ug/l	no
BH2	Ethyl Methacrylate		Annual	<1.0	ug/l	no
BH2	1,1,2-Trichloroethane		Annual	<1.0	ug/l	no
BH2	1,3-dichloropropane		Annual	<1.0	ug/l	no
BH2	2-Hexanone		Annual	<1.0	ug/l	no
BH2	1,2-dibromoethane		Annual	<1.0	ug/l	no
BH2	Chlorobenzene		Annual	<1.0	ug/l	1.0ug/l
BH2	1,1,1,2-tetrachloroethane		Annual	<1.0	ug/l	no
BH2	Ethylbenzene		Annual	<1.0	ug/l	10ug/l
BH2	Xylene P&M		Annual	<1.0	ug/l	no
BH2	Styrene		Annual	<1.0	ug/l	no
BH2	Isopropylbenzene		Annual	<1.0	ug/l	no
BH2	Bromobenzene		Annual	<1.0	ug/l	no
BH2	1,1,2,2-tetrachloroethane		Annual	<1.0	ug/l	no
BH2	1,2,3-trichloropropane		Annual	<1.0	ug/l	no
BH2	Trans 1,2-Dichloro Butene, trans		Annual	<1.0	ug/l	no
BH2	Propylbenzene		Annual	<1.0	ug/l	no

Groundwater/Soil monitoring template				Lic No:	W0022-01	Year	2014
	BH2	2-chlorotoluene		Annual	<1.0	ug/l	no
	BH2	4-chlorotoluene		Annual	<1.0	ug/l	no
	BH2	1,3,5-trimethylbenzene		Annual	<1.0	ug/l	no
	BH2	Tert Butyl Benzene		Annual	<1.0	ug/l	no
	BH2	1,2,4-trimethylbenzene		Annual	<1.0	ug/l	no
	BH2	sec-butylbenzene		Annual	<1.0	ug/l	no
	BH2	P Isopropyltoluene		Annual	<1.0	ug/l	no
	BH2	N Butyl Benzene		Annual	<1.0	ug/l	no
	BH2	1,2-dibromo-3-chloropropane		Annual	<1.0	ug/l	no
	BH2	1,2,3-trichlorobenzene		Annual	<1.0	ug/l	no
	BH2	VOC		Annual	<2.0	ug/l	no
	BH2	SVOC		Annual	<5.0	ug/l	no
	BH2	OPP		Annual	<0.005	ug/l	no
	BH2	OCP		Annual	<10	ng/l	
	BH2	Total pesticides		Annual	<0.05	ug/l	SELECT
<p>*please note exceedance of generic assessment criteria (GAC) such as a Groundwater Threshold Value (GTV) or an Interim Guideline Value (IGV) or an upward trend in results for a substance indicates that further interpretation of monitoring results is required. In addition to completing the above table, please complete the Groundwater Monitoring Guideline Template Report at the link provided and submit separately through ALDER as a licensee return or as otherwise instructed by the EPA. 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 Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (EPA 2013). (see the link in G31)</p>							
<p>**Depending on location of the site and proximity to other sensitive receptors alternative Receptor based Water Quality standards should be used in addition to the GTV e.g. if the site is close to surface water compare to Surface Water Environmental Quality Standards (SWEQS), if the site is close to a drinking water supply compare results to the Drinking Water Standards (DWS)</p>						<p>Groundwater regulations Drinking water (private supply) standards Surface water EQS Drinking water (public supply) standards Interim Guideline Values (IGV)</p>	

Groundwater/Soil monitoring template

Lic No:

W0022-01

Year

2014

Table 3: Soil results

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

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

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

			Commentary
1	ELRA initial agreement status	Submitted and not agreed by EPA;	Closed Feb 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	2014
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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
Materials Handling/Storage/Bunding	Improve annual recycling rate by 5%	95	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	90	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	90	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

2014

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?

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

No

Table N1: Noise monitoring summary

Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is site compliant with noise limits (day/evening/night)?
10/10/2014	30min	N1		40.6	32	42.7	62.6	No	No	No noise from landfill site. Birdsongs, countryside noises and a lawnmower from a nearby house.	Yes
10/10/2014	30min	N3		38.8	32.5	40.9	60	No	No	No noise from landfill site. External noise from road, nature and adjacent quarry	Yes
10/10/2014	30min	N4		52.7	42.1	56.1	74.9	No	No	No noise from landfill site. Civic Amenity Site noises were attributed to cars stopping taking off from the kiosk and waste being dumped. External noise from road, nature and adjacent quarry.	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?

Site fully compliant with Waste Licence Noise Regulations

Resource Usage/Energy efficiency summary

Lic No:

W0022-01

Year

2014

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

Enter date of audit	
No	
SELECT	

Table R1 Energy usage on site				
Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	68.251	67.102	-2%	
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (MWHrs)				
Electricity Consumption (MWHrs)	68.251	67.102	-2%	
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)	0.9	0.9	0%	
Light Fuel Oil (m3)	110	96	-13%	
Natural gas (m3)				
Coal/Solid fuel (metric tonnes)				
Peat (metric tonnes)				
Renewable Biomass				
Renewable energy generated on site				

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

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

Table R2 Water usage on site					Water Emissions	Water Consumption	
Water use	Water extracted Previous year m3/yr.	Water extracted Current year m3/yr.	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*	Volume Discharged back to environment(m 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	224	212	-5%	N/A	212	N/A	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

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

2014

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

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

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

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	T (Total) KG/Year	QUANTITY	
			Method Code	Designation or Description			A (Accidental) KG/Year	F (Fugitive) KG/Year
01	Methane (CH4)	C	OTH	Measured through analysis of flue gas emissions monitoring and GasSim model	0.0	794509.0	0.0	794509.0
02	Carbon monoxide (CO)	M	ISO 12039:2001	Measured through analysis of flue gas emissions monitoring	0.0	6.2	0.0	6.2
03	Carbon dioxide (CO2)	C	ISO 12039:2001	Measured through analysis of flue gas emissions monitoring and GasSim model	0.0	2485171.0	0.0	2485171.0
07	Non-methane volatile organic compounds	M	EN 13649:2001	Measured through analysis of flue gas emissions monitoring	0.0	19.77	0.0	19.77
08	Nitrogen oxides (NOx/NO2)	M	EN 14792:2005	Measured through analysis of flue gas emissions monitoring	0.0	632.5	0.0	632.5
11	Sulphur oxides (SOx/SO2)	M	EN 14791:2005	Measured through analysis of flue gas emissions monitoring	0.0	81.14	0.0	81.14

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	T (Total) KG/Year	QUANTITY	
			Method Code	Designation or Description			A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

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	T (Total) KG/Year	QUANTITY	
			Method Code	Designation or Description			A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

Additional Data Requested from Landfill operators

requested to provide summary data on landfill gas (Methane) flared or utilised on their

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
	Total estimated methane generation (as per site model)	1176994.0	C	OTH Gas Sim model	N/A
	Methane flared	382486.0	M	OTH Measured through analysis of flare flue gas emissions monitoring	880.0 (Total Flaring Capacity)
	Methane utilised in engine/s	0.0			0.0 (Total Utilising Capacity)
Net methane emission (as reported in Section A above)	794509.0	C	OTH	Gas Sim model and measured through analysis of flare flue gas emissions monitoring	N/A

WASTE SUMMARY	Lic No: W0022-01	Year: 2014
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

WASTE SUMMARY										Lic No:	W0022-01	Year	2014
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 Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)	
						M/C/E	Method Used						
Within the Country	13 02 08	Yes	5.56	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	63.24	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	17.36	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	0.78	metallic packaging	R4	M	Weighed	Offsite in Ireland	Mr Binman,W0061-01	Luddenmore,Grange,Kilmallock,Co Limerick,Ireland			
Within the Country	15 01 07	No	26.59	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	3.51	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	0.51	alkaline batteries (except 16 06 03)	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	566.48	mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17 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	7347.93	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,Tullagreen, Carrigtwohill Wastewater Treatment Plant,Co Cork,Ireland			
Within the Country	20 01 01	No	62.7	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	2014					
Within the Country	20 01 02	No	19.86 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	2.43 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 Industrail Estate,Daingean Rd,Tullamore,Co Offaly,Ireland	Cappincur Industrail 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	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 Industrail Estate,Daingean Rd,Tullamore,Co Offaly,Ireland	Cappincur Industrail 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 Industrail 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 Industrail 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	130.95 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	332.08 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	796.75 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	937.82 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: 2014
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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
7347.93	1093	2454.2	372	3651.7	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
562479 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

