Kerry County Council

Waste Licence Ref No. W0087-01

REPORT TITLE

Caherciveen Transfer Station
Annual Environmental Report

Reporting Period:

January 2011 – December 2011

Prepared By:
Environmental Service Section,
Kerry County Council,
Maine Street,
Tralee
Co. Kerry.

June 2011

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1.0 Introduction

Kerry County Council operates a waste transfer and recycling facility located in the townland of Inchamacteige, approximately 3 km south east of the town of Caherciveen, Co. Kerry. The site is accessed via a small access road branching off the county road L7006 which intersects with the N70 approximately 2 km to the north of the site.

The principal activity of the Transfer Station is the compaction of solid waste into 30 cubic metre closed containers for subsequent transfer and disposal at North Kerry Landfill in Muingnaminane, Tralee.

Other activities include the recycling or reclamation of inorganic materials including metals, glass, steel and aluminium cans, car batteries, dry cell batteries, fluorescent tubes, domestic hazardous waste, cardboard, plastic bottles and newspapers. Small quantities of organic waste are also collected for transfer to North Kerry Landfill for composting.

This Annual Environment Report is prepared in accordance with Condition 2.8 and Schedule B of Waste Licence W0087-01 issued by the Environmental Protection Agency (EPA).

2.0 Reporting Period

The reporting period for this Annual Environmental Report is 1st January 2011 – 31st December 2011.

3.0 Waste Activities Carried out at the Facility

Waste disposal activities carried out at Caherciveen Transfer Station are in accordance with Part 1 of Waste Licence W0087-01 which outlines the waste disposal

activities licensed in accordance with the Third Schedule of the Waste Management Act 1996. Licensed activities include:

Class 12 Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.

Class 13 Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.

Waste recovery activities carried out at Caherciveen Transfer Station are in accordance with Part 1 of Waste Licence W0087-01 which outlines the waste recovery activities licensed in accordance with the Fourth Schedule of the Waste Management Act 1996. Licensed activities include:

Class 1 Solvent reclamation or regeneration.

Class 2 Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).

Class 3 Recycling or reclamation of metals and metal compounds.

Class 4 Recycling or reclamation of other inorganic materials.

Class 13 Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.

4.0 Quantity and Composition of Waste Received, Disposed and Recovered: 1st Jan – 31st Dec 2011

Waste tonnage disposed of at Caherciveen Transfer Station during the reporting year (2011) decreased by 19% on the previous year (2010). This is primarily due to the downturn in the economy resulting in a significant change in the disposal habits of members of the public. The quantity of construction and demolition waste delivered directly to the facility has significantly reduced.

The weight of the waste accepted into Caherciveen Transfer Station Facility for disposal for the reporting period was 1,032.38 Tonnes. This comprises of the following breakdown:

Waste for Disposal	***Tonnes***		
	2009	***2010***	***2011***
Municipal waste collected by Local Authority & Private Contractors	664.98	459.70	370.06
Commercial & Industrial	102.72	195.85	149.89
Road Sweepings & Graveyard Waste	44.74	38.36	30.86
Flytipping	28.06	27.14	34.36
Public Domestic	714.08	558.45	447.21
Total for Disposal	**1554.58**	**1,279.50**	**1,032.38**

Table 1 Waste Stream Break down for reporting Period.

Overall the quantities of waste sent for recycling decreased by 12% in comparison to last year. Decreases were particularly noticeable for dry recyclables, glass, newspapers, batteries, metals, aluminium, cardboard, textiles and WEEE. Waste sent for recycling during the reporting period compared with previous years is outlined in Table 2 below.

Waste for Recycling & Recovery	***Tonnages 2008***	***Tonnages 2009***	***Tonnages 2010***	***Tonnages 2011***
Metals	0	28.70	43.78	31.53
Glass	17.8.	20.55	19.57	14.28
Aluminium	0.66	0.77	0.82	0.66
Batteries	1.7	5.46	1.61	0.59
Newspapers	67.0	66.9	54.16	49.20
Cardboard	0	4.82	7.42	3.06
Fluorescent Tubes	0	0	0	0.28
Domestic Hazardous Waste	0.13	0.6est	0	0
Plastic Bottles	4.57	4.81	5.4	5.56
Waste Engine Oil	0	1.88	0	1.33
WEEE	95.71	72.39	76.32	75.57
Dry Recyclables	4.8	243.2	161.68[1]	15.08[1]
Organics	0	0	0	0
Textiles	2.84	2.78	2.14	1.36
Total for Recycling/Recovery	**195.21**	**453.09**	**224.62**	**198.50**

[1] Dry recyclables collected in eco sense bags and from KCC kerbside collection trucks

Table 2 Waste collected on site and recovered/recycled off site during the reporting period.

Appendix I contains a breakdown of waste by classification collected on site and recovered/recycled off site during the reporting period.

5.0 Projections of the quantities to be accepted and percentages disposed and recycled/recovered for the coming year

It is expected that waste disposal rates and recycling/recovery rates at Caherciveen Transfer Station will continue to decrease in the next reporting period mainly due to the weak economic environment and the increasingly competitive waste industry.

6.0 Summary Report on Emissions for the Reporting Period

a) Foul Water Emissions

The foul water discharge is monitored quarterly. The results are sent to the EPA and are also available at the Caherciveen facility. No significant exceedances of limits were noted during this reporting period. A Puraflow Wastewater Treatment Unit is installed at the facility to treat all foul waters from the site.

b) Surface Water Emissions

Surface water runoff from site roads and uncontaminated surfaces discharges via silt traps to the surface water drains.

c) Waste from Silt Traps and Interceptors

A total of 30 Tonnes of silt/sludge and wastewater were removed from the silt trap and the foul water treatment unit during the reporting period and disposed of at Tralee Wastewater Treatment Plant.

7.0 Summary of Results and Interpretations of Environmental Monitoring

a) Dust monitoring

Dust Monitoring was carried out at the facility in July/August 2011. The dust monitoring results were within the emission limit value specified in the licence except for Station 2. However, the total inorganic particulates recorded at Station 2 were well below the emission limit value indicating high levels of organic matter which in all probability originated from the considerable number of trees and vegetation near this

monitoring station. I can confirm that no significant dust was created as a result of operations at the facility during 2011 and no complaints were received in relation to dust at the facility.

b) Noise monitoring.

Noise monitoring was carried out at the facility by Southern Scientific Services on the 7th December, 2011. The noise monitoring report is available at the facility and was forwarded separately to the EPA inspector. The noise report concludes that the noise limit prescribed in the Waste Licence is being complied with at all noise monitoring locations and that activities at the waste transfer station are not adversely impacting on the noise environment at the nearest noise sensitive location. The waste transfer station does not generate noise at night-time when the facility is closed.

There were no issues with noise during 2011 and no complaints were received in relation to noise at the facility. The results over the years have shown that the facility caused no noise nuisance to neighbours.

c) Monitoring of surface water.

The surface water monitoring results are attached in Appendix II. Visual inspections indicate some discolouration at SW5 and surface water monitoring indicates high levels of Ammonia signifying deterioration in status at SW5 in recent years which would appear to be due to legacy or old landfill activities.

As indicated in earlier reports the nearest point on Carhan downstream of landfill/transfer station still denotes a ***Q value*** *of* ***4*** which denotes a water of good quality. The point on the stream which is a tributary of Carhan Stream, just downstream of the transfer station also scores quiet highly on SSRS investigation. However, while the impact from old legacy landfill activities may not yet be evident on surface water quality, this does not eliminate the possibility of a future impact. Therefore, Kerry County Council proposes to carry out a survey of groundwater boreholes on and off site in 2012 (last surveyed in 2006).

d) Foul Water

The foul water emissions results are attached in Appendix II. The results of samples from the foul water emissions show an effluent of acceptable quality during the reporting period.

e) Landfill gas

The levels of methane gas and carbon dioxide recorded have reduced significantly (2011 average **CH_4** – 0.25 % v/v, & **CO_2 -** 0.1% v/v) compared to 2008 and 2009. The landfill gas monitoring results are attached in Appendix III.

8.0 Resource and Energy Consumption Summary

The following is the energy consumption for Caherciveen Transfer Station for the reporting period.

8.1 Diesel

The diesel usage for Caherciveen Transfer Station for the reporting period 2011 was 1,600 litres. The primary usage of diesel is for the rubber tyred excavator on site, waste compactor and the oil burner in the steam washer.

8.2 Electricity

The electricity usage for the facility during the reporting period was 6,187 kilowatt hours.

Power is required for the office computer and lighting, weighbridge, waste compactor, storage heating, water pumping, cardboard baler and public lighting on the site.

8.3 Water

Water supply is from a groundwater borehole on site. Water usage for the facility during the reporting period was estimated to be 80,000 litres. Water is mainly used on site for power washing yards, transfer station apron and hopper and washing of trucks where required.

9 Report on Development Works Undertaken during the Reporting Period

No development works were undertaken at the facility during the reporting period.

10 Timescale for Proposed Development Works For Forthcoming Year

No development works are proposed at the facility for 2011.

11 Schedule of Environmental Objectives and Targets for the Forthcoming Year

Target Area	***Objective***	***Works Required***
Surface Water Emissions	Keep Surface Water Emissions within agreed limits	Regular inspection of surface water drains. Regular monitoring of results from Surface Water Monitoring Points.
Litter – On public roads to facility	Reduction in the number of bags of waste/litter lost from trailers on the way to the facility	Regular inspections and clean up of approach roads. Quick response to clean up any reported waste on the approach roads to the facility
Energy Resources	Reduce the quantity of diesel and electricity used on site	Avail of night rate tariffs for electricity
Waste Records		Introduction of new computer system on site to record waste transactions with connection to KCC network

12 Report on Progress towards achievement of the 2009 Environmental Objectives and Targets

Objective	***Target***	***Progress***
Keep Surface Water Emissions within limits	Regular monitoring & Inspections	Ongoing
Reduction in Litter on Public Roads to facility	Regular inspection & clean up of roads	Reducing & Ongoing
Reduction in use of Energy Resources	Reduce quantity of diesel and electricity used on site	Decreasing & Ongoing
Increase collection of Cardboard and Textiles	Increase promotion & marketing	Ongoing
Purchase lands to facilitate widening of access road to site	Reach agreement with landowner by December 2011	Ongoing

13 Summary of Procedures Developed by the Licensee

The following procedures were developed during the reporting period:

- Revised Operational Procedures for Facility Manager
- Revised Health & Safety Procedures

14 Reported Incidents and Complaints

No incidences or complaints were reported in relation to the operation of the facility during the reporting period.

15 Report on Financial Provision

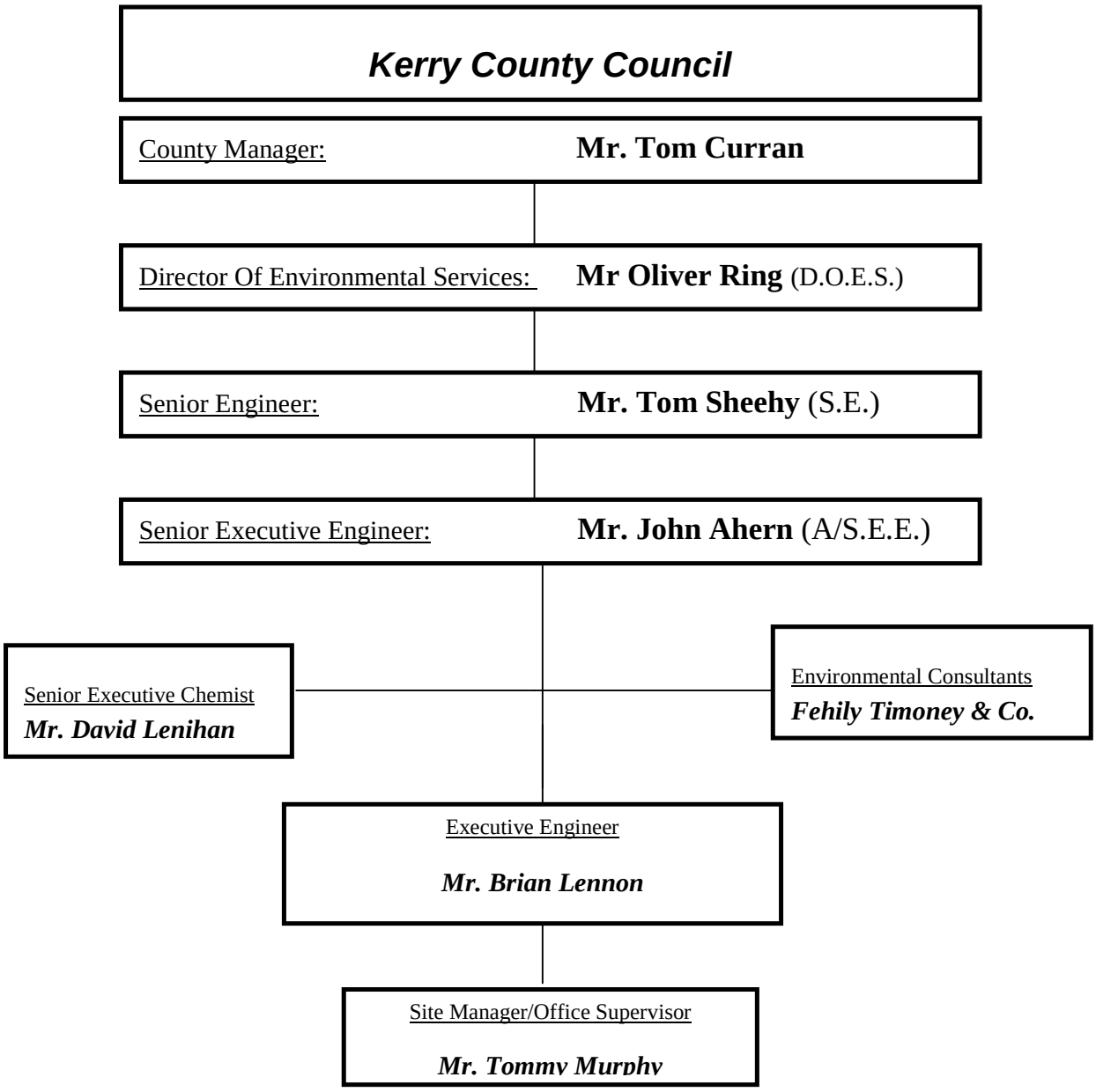
a) Statement of Costs for Waste Operations at Facility

Waste 2011		
Accelem	**Accelem(T)**	**Total Charge €**
60030	Wages	26,930.02
60040	Salaries	8,561.86
60100	ER PRSI	5,199.40
60200	Overtime	12,759.75
60300	Arrears	47.28
60500	Annual Leave	3,404.05
60510	Bank Holiday Leave	1,073.20
60600	Travel/Subsistence	2,865.39
61990	Other Allowances	1,635.93
65500	Minor Contracts- Trade Services & other works	30,158.53
69000	Hire (Ext) - Plant/Transport/Machinery & Equipment	1,265.50
69200	Repairs & Maint - Plant	286.60
69260	Repairs & Maint - Other Equip	8.26
69400	Transfers from Machinery Yard	2,233.50
69600	Other Vehicle Expenses	114.40
70000	Materials	431.61
70990	Issues from Stores	3,188.63
70991	Returns to Stores	-18.49
71000	Insurance	98.83
73400	Staff Travelling & Subsistence Expenses	1,926.85
75000	Computer Software and Maintenance Fees	6,314.00
76000	Communication Expenses	552.07
77100	Courier	25.00
77200	Security - Property	136.50
78000	Training	40.28
79900	Consultancy/Professional Fees and Expenses	610.75
80000	Advertising	1,998.44
81000	Printing & Office Consumables	324.49
82100	Statutory Contributions to Other Bodies	5,493.38
86000	Energy	2,560.16
	TOTAL	**120,226.17**

b) Statement of Costs for Recycling Operations at Facility

Recycling 2011		
Accelem	**Accelem(T)**	**Total Charge €**
60030	Wages	6,149.42
60040	Salaries	2,853.87
60100	ER PRSI	1,199.10
60200	Overtime	2,437.42
60300	Arrears	15.76
60500	Annual Leave	519.83
60510	Bank Holiday Leave	134.15
60600	Travel/Subsistence	616.95
61990	Other Allowances	351.09
66500	Non-Capital Equip Purchase - Fire Services	90.00
67500	Non-Capital Equip Purchase - Computers	992.00
68500	Non-Capital Equip Purchase - Other	14.01
69200	Repairs & Maint - Plant	56.99
70000	Materials	477.24
73400	Staff Travelling & Subsistence Expenses	777.48
76000	Communication Expenses	266.78
77200	Security - Property	58.50
78000	Training	10.07
79900	Consultancy/Professional Fees and Expenses	111.75
82100	Statutory Contributions to Other Bodies	2,354.30
86000	Energy	223.59
	TOTAL	**19,710.30**

16 Management and Staffing Structure at Facility 2011



17 Programme of Public Information

The following files are available for inspection on site by members of the public:

- AER of previous reporting years
- All correspondence with the Agency
- Surface Water Monitoring Results
- Incident/Complaints Register
- Tonnage of waste accepted on site
- Characterisation of waste accepted on site
- Operational Procedure Manual
- Waste Acceptance Procedure
- Information on Recycling Initiatives e.g. leaflets.
- Environmental Management System.

Appendix I - Waste Collected at Caherciveen Transfer Station and Recovered/Recycled offsite during reporting period

		Caherciveen	
Material type	**Suggested EWC Codes**	**Household Waste**	**Non-Household Waste**
(If you must depart from this list, please provide details on a separate sheet)	**(overwrite as appropriate)**		
mixed residual waste	20 03 01		
organic waste (food and garden) Total	20 01 08; 20 02 01	-	-
if segregated, provide specific information on food and garden waste			
food	*20 01 08*	-	
garden	*20 02 01*	-	
mixed dry recyclables (eco-bags)	15 01 06; 20 03 01	12.20	2.88
cardboard, newspaper and other paper (Total)	15 01 01; 20 01 01	59.02	-
if segregated, provide the breakdown of cardboard and paper in the rows below			
**cardboard packaging*	*15 01 01*	*9.82*	
cardboard non-packaging	*20 01 01*	-	
paper packaging	*15 01 01*	-	
paper non-packaging	*20 01 01*	-	
**newspaper and magazines*	*20 01 01*	*49.20*	
glass (Total)	15 01 07; 20 01 02	14.28	-
if segregated, provide the breakdown of glass in the next two rows			
glass packaging(bottles)	*15 01 07*	*14.28*	

glass non-packaging(sheet)	*20 01 02*	-	
metals (Total)	15 01 04; 20 01 40	32.19	-
if segregated, provide the breakdown of metals in the next four rows			
aluminium cans (packaging)	*15 01 04*	*0.66*	
steel cans (packaging)	*15 01 04*	*1.86*	
other metal packaging	*15 01 04*	-	
other metals (non-packaging)(scrap)	*20 01 40*	*29.66*	
plastic (Total)	15 01 02; 20 01 39	5.56	-
if segregated, provide the breakdown of plastic waste in the next two rows			
plastic packaging(bottles)	*15 01 02*	*5.56*	
plastic non-packaging	*20 01 39*	-	
textiles (Total)	15 01 09; 20 01 11	1.36	-
if segregated, provide the breakdown of textiles in the next two rows			
textiles, packaging	15 01 09	-	
textiles, non-packaging	20 01 11	1.36	
wood (Total)	15 01 03; 20 01 38; 20 01 37*	-	-
if segregated, provide the breakdown of wood waste in the next four rows			
wood packaging	15 01 03	-	
wood non-packaging	20 01 38	-	
mixed, uncontaminated wood packaging and non-packaging	15 01 03; 20 01 38	-	
wood, treated, hazardous	20 01 37*	-	
miscellaneous hazardous waste (Total)		1.92	-
small batteries	*20 01 34; 20 01 33**	*0.59*	

lead acid batteries (Car Batteries)	*16 06 01**	-	
Ni-Cd batteries and Accumulators	*16 06 02**	-	
waste mineral oils (lubrication, vehicle, machine etc.)	*13 xx xx*	*1.33*	
oil filters (vehicles)		-	
oil containers (mineral oil) - plastic + metal		-	
waste cooking or vegetable oils	*20 01 25*	-	
aerosols	*20 03 99*	-	
waste paint and varnish (including containers)		-	
WEEE (Total)	various	75.574	-
if segregated, provide the breakdown of WEEE in the next five rows			
fridges and freezers	*20 01 35*; 20 01 36; 16 02 11*; 16 02 14*	*11.144*	
white goods (electrical and electronic)	*20 01 36; 16 02 14*	*35.963*	
televisions and PC monitors	*20 01 35*; 16 02 13*;*	*13.139*	
ICT- Information and Communications Technology Equipment, e.g Includes Computer Equipment	*16 02 14*	*2.673*	
other electrical and electronic equipment, eg. White Goods incl. Washing Machines, Dryersetc, TVs, PCs, Small Items incl. toasters Radios	*20 01 36; 20 01 35**	*12.655*	

Gas Cylinders			
C& D Rubble			
fluorescent tubes and lighting	*20 01 21**	*0.28*	-
Tyres	*16 01 03*		
Ink Cartridges	*08 01 11*		
bulky waste (provide summary below of waste types), e.g. Furniture, Mattresses, Mixed Bulky Waste	20 03 07		

Appendix II - Results of Foul and Surface Water Monitoring

Attn: Brian Lennon EE Waste Management **Tuesday, 01 May 2012**
Re: LABORATORY Results for Caherciveen Transfer stations: **Jan 2011 to Jan 2012**

Enclosed are results (2003 – date) of monitoring of designated Surface water points and Foul emission point sampled as set out in EPA licence conditions for ***CAHERCIVEEN Transfer station*** The latest results are for Jan 2011– Jan2012. Refer also to ***app 1: details of sample locations***

Significant deterioration in status at SW5 was noted in recent years by high level of Ammonia. This has been borne out by recent measurements An examination of discharge from transfer station since 2003 i.e. ***Se1*** shows ***an effluent of acceptable quality.***

The contamination at SW5 would therefore seem to indicate that elevated levels (***62 mg/L NH4***, on 27th July last) are due to legacy or old landfill activities

As indicated in earlier reports the nearest point on Carhan downstream of landfill/transfer station still denotes a ***Q value = 4*** which denotes a water of good quality.

The point on stream which is a tributary of Carhan stream, just downstream of transfer station also scores quiet highly on SSRS investigation. However the impact from transfer station or old legacy landfill activities while they may not yet be evident on surface water quality does not eliminate possibility of a future impact. We propose this year to do a survey of groundwater boreholes on and off site which were last surveyed in 2006
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David Lenihan MSc

Senior Executive Chemist

Appendix1: Details Sampling points referred to in report

Location	comments	old or alternative name	Location Easting	Location Northing
Surface water				
Off site sampling pts				
Sw1	Stream upstream of Landfill		50364.7	78554.9
SW6	Point on carhan river u/s of impact from landfill		50828.1	79458.5
SW7	Point on carhan river u/s of impact from landfill		49666	79781.7
On site sampling pts				
Sw3	Drain half way along northern perimeter fence		50057.4	78929.6
SW4	At Drain inside wirefence opposite weighbridge (u/s Landfill)		50061	78733
SW5	Drain downstream of l SW3 at corner of landfill		50055	79046
Leachate				
Outlet from treatment plant				
SE 1			50105	78767

Table 1 Foul Water Monitoring Results

Landfill	Location	Sample Reference	Sample Date	Sample Time	Ammonium (NH4)	pH	BOD (O2)	Conductivity @ 20 oC	Chemical Oxygen Demand (O2)	Suspended Solids	Temperature	Oils/Fats & Grease	Oils/Fats & Grease
					mg/l	*pH units*	*mg/l*	*µS/cm*	*mg/l*	*mg/l*	*Degrees C*	*mg/l*	*Descriptive*
Caherciveen	Se1	2003/0389	23-Jan-03	11:50	0.26	7.5	1	318	64	1.5		8	
Caherciveen	Se1	2003/2067	23-Apr-03	14:00	0.91	7.2	3	296	69	8		2	
Caherciveen	Se1	2003/3931	22-Jul-03	13:33	1.14	7	4.7	366	137	*70*	15.7	3	
Caherciveen	Se1	2003/5505	03-Oct-03	12:00	0.92	6.6	5.8	527	145	*28*	18.7	4.5	
Caherciveen	Se1	2004/0979	20-Feb-04	16:20			5		113	*70*		2	
Caherciveen	Se1	2004/1909	22-Apr-04	10:40	0.03	6.8	1.7	273	75	*32*		7.6	
Caherciveen	Se1	2004/3706	21-Jul-04	11:44	0.14	6.6	9.2	408	108	19	16.6	2.4	
Caherciveen	Se1	2004/5215	06-Oct-04	13:30	0.09	6.8	1.9	342	59	2	12.5	2	
Caherciveen	Se1	2005/0377	19-Jan-05	12:25	< 0.02	7	1.1	329	36	2	9.2	1	
Caherciveen	Se1	2005/1932	19-Apr-05	12:15	0.59	6.7	5.4	394	77		10	7.5	

Caherciveen	Se1	2005/5579	26-Oct-05	12:00	0.04	7.3	1.7	356	113	12		10	
Caherciveen	Se1	2006/0523	31-Jan-06	14:05	1.33	6.4	2.3	353	67	5	7.5	3.6	
Caherciveen	Se1	2006/1665	20-Apr-06	11:36	0.61	6.3	3.3	264	61	8	10.7	1	
Caherciveen	Se1	2006/3969	21-Aug-06	11:25	0.08	7	1.8	328	97	6		3	
Caherciveen	Se1	2006/5073	16-Oct-06	11:50	0.28	6.7	1.7	468	42	2	16.3	6	
Caherciveen	Se1	2007/0926	19-Feb-07	13:20	< 0.02	6.6	1.3	497	40	< 1	10.5	< 0.5	no visual evidence
Caherciveen	Se1	2007/2366	03-May-07	14:50	0.68	7.3	1.2	548	72	19		4	
Caherciveen	Se1	2007/3907	19-Jul-07	15:10	0.93	6.8	8.4	526	81	6	15.8	6.8	
Caherciveen	Se1	2007/6153	13-Nov-07	15:20	0.96	7.1	3.3	618	83	*48*	15.5	17	
Caherciveen	Se1	2008/0285	14-Jan-08	15:45	< 0.02	6.9	< 1	263	44	*40*	11	2.5	
Caherciveen	Se1	2008/1979	21-Apr-08	11:40	0.52	7	1.4	396	43	8	10	3.4	
Caherciveen	Se1	2008/3927	28-Jul-08	12:56	1.59	7.1	10.2	667	107	16	88	5.3	
Caherciveen	Se1	2008/6411	02-Dec-08	12:00	0.06	6.8	2.4	457	47	19	9.5	< 2	no visual evidence
Caherciveen	Se1	2009/0506	27-Jan-09	15:20	< 0.02	7	1.4	346	49	17	7.5	< 2	no visual evidence
Caherciveen	Se1	2009/2098	20-Apr-09	11:00	0.57	7.1	2	522	37	7	10.5	< 2	no visual evidence
Caherciveen	Se1	2009/3927	27-Jul-09	12:30	0.75	7.2	13.4	381	225	***90***	15.5	4.9	
Caherciveen	Se1	2009/6129	01-Dec-09	11:15	0.76	6.5	9.5	295	518	***349***	10.5	4.1	
Caherciveen	Se1	2010/0207	20-Jan-10	12:50	0.08	6.7	1.9	584	35	7	7.1	< 2	no visual evidence
Caherciveen	Se1	2010/0350	27-Jan-10	10:00	< 0.02	6.7	1.4	457	39	12		3	
Caherciveen	Se1	2010/1733	22-Apr-10	12:22	0.26	7.7	1.3	267	36	5	8.5	< 2	no visual evidence
Caherciveen	Se1	2010/3206	19-Jul-10	11:25	< 0.02	7	< 1	333	54	3.5	18	< 2	no visual evidence
Caherciveen	Se1	2010/4821	18-Oct-10	15:30	0.31	7.5	2.5	497	45	4		5.3	
Caherciveen	Se1	2011/0384	25-Jan-11	12:30	0.1	6.5	< 1	371	16	1	7	< 2	No visual evidence
Caherciveen	Se1	2011/2533	30-May-11	11:45	0.16	7.1	7.8	534	121	44		< 2	No visual evidence

Caherciveen	Se1	2011/3519	08-Aug-11	15:00	3.26	7.1	12.4	1660	112	23		< 2	No visual evidence
Caherciveen	Se1	2011/4738	20-Oct-11	13:05	2.22	7.2	7.6	1154	60	12	13		No visual evidence
Caherciveen	Se1	2012/0458	25-Jan-12	13:10	4	6.7	12.6	505	161	***55***	9		No visual evidence

Table 2 Surface Water Monitoring Results

Landfill	Location	Eastings	Northings	Sample Reference	Sample Date	Sample Time	Ammonium (NH4)	pH	BOD (O2)	Conductivity @ 20 oC	Chemical Oxygen Demand (O2)	Chloride (Cl)	Dissolved Oxygen (O2)	Suspended Solids	Temperature
							mg/l	*pH units*	*mg/l*	*µS/cm*	*mg/l*	*mg/l*	*mg/l*	*mg/l*	*Degrees C*
Caherciveen	Sw1	50365	78555	2003/0348	21-Jan-03	13:15	0.03	6.4	< 1	104	< 10	27	10.9	< 1	7
Caherciveen	Sw1	50365	78555	2003/1919	16-Apr-03	14:45	< 0.02	6.7	< 1	109	17		9.5	11	14.4
Caherciveen	Sw1	50365	78555	2003/3920	22-Jul-03	15:10	< 0.02	6.9	< 1	110	42	26	9.1	8	14.5
Caherciveen	Sw1	50365	78555	2003/5451	01-Oct-03	12:40	0.04	6.7	< 1	137	11	26	9.7	1.5	11.5
Caherciveen	Sw1	50365	78555	2004/0531	28-Jan-04	12:55	< 0.02	6.7	1.2	116	< 10	31	11.8	< 1	7
Caherciveen	Sw1	50365	78555	2004/1702	14-Apr-04	13:42	< 0.02	6.9	1.7	115	19		10.9	< 1	11.6
Caherciveen	Sw1	50364.7	78554.9	2004/3704	21-Jul-04	12:43	0.06	6.7	< 1	123	29	28.5	9.7	3	14.4
Caherciveen	Sw1	50364.7	78554.9	2004/5211	06-Oct-04	13:12	< 0.02	6.6	< 1	106	35	26	10.3	2	11.8
Caherciveen	Sw1	50364.7	78554.9	2005/0374	19-Jan-05	12:08	< 0.02	6.4	1.1	145	14	39	11	1	9.6
Caherciveen	Sw1	50364.7	78554.9	2005/1923	19-Apr-05	12:30	< 0.02	6.8	< 1	111	33	30	11		9

Caherciveen	Sw1	50364.7	78554.9	2005/3601	14-Jul-05	15:04	0.13	6.8	< 1	129	18	33	8.9	10	15.5
Caherciveen	Sw1	50364.7	78554.9	2005/5320	13-Oct-05	12:28	< 0.02	6.7	< 1	117	93	25	11.4	< 1	8.9
Caherciveen	Sw1	50364.7	78554.9	2006/0517	31-Jan-06	13:37	< 0.02	6.7	1.1	118	< 10	27	11.7	< 1	5.5
Caherciveen	Sw1	50364.7	78554.9	2006/1661	20-Apr-06	12:33	< 0.02	6.3	1.3	85	42	22	10.7	20	10.1
Caherciveen	Sw1	50364.7	78554.9	2006/3668	03-Aug-06	12:03	< 0.02	6.8	< 1	113	< 10	23.5	9.8	< 1	14
Caherciveen	Sw1	50364.7	78554.9	2006/4993	12-Oct-06	11:45	< 0.02	6	< 1	84	68	21.5	10	1	13.4
Caherciveen	Sw1	50364.7	78554.9	2007/0626	01-Feb-07	14:09	< 0.02	6.6	< 1	135	20	29	11.1	1	10.1
Caherciveen	Sw1	50364.7	78554.9	2007/1939	17-Apr-07	12:30	0.07	6.7	1.1	136	20	28	11.9	1	10.7
Caherciveen	Sw1	50364.7	78554.9	2007/3904	19-Jul-07	14:52	< 0.02	6.7	< 1	125	34	26	9.4	1	16.1
Caherciveen	Sw1	50364.7	78554.9	2007/5805	25-Oct-07	12:19	0.05	6.1	< 1	110	25	27.5	12.4	2	9.7
Caherciveen	Sw1	50364.7	78554.9	2008/0022	03-Jan-08	13:02	0.03	6.5	< 1	124	32	34	11.1	1	7.2
Caherciveen	Sw1	50364.7	78554.9	2008/1613	03-Apr-08	13:50	< 0.02	6.5	< 1	163	< 10	39	10.8	< 1	11.9
Caherciveen	Sw1	50364.7	78554.9	2008/3689	17-Jul-08	13:34	< 0.02	6.9	< 1	154	27	35	9.3	2	15.4
Caherciveen	Sw1	50364.7	78554.9	2008/5848	04-Nov-08	12:20	< 0.02	6.6	1.1	125	17	31	11.4	< 1	7.9
Caherciveen	Sw1	50364.7	78554.9	2009/0081	07-Jan-09	13:05	< 0.02	7	2.2	139	14	34	11.9	6	5.6
Caherciveen	Sw1	50364.7	78554.9	2009/1949	07-Apr-09	14:10	< 0.02	6.3	1	111	36	27.5	10.5	5	9.9
Caherciveen	Sw1	50364.7	78554.9	2009/3598	08-Jul-09	13:09	< 0.02	6.4	1.1	95	55	21.5	9.6	4	15.9
Caherciveen	Sw1	50364.7	78554.9	2009/5157	01-Oct-09	13:40	0.13	6.7	< 1	129	21	28	9.2	1	14.2
Caherciveen	Sw1	50364.7	78554.9	2010/0202	20-Jan-10	13:55	< 0.02	6.3	1	86	26	25	11.4	< 1	7.1
Caherciveen	Sw1	50364.7	78554.9	2010/1477	08-Apr-10	12:15	< 0.02	6.6	1	97	31	22.5	12.2	3	9.5
Caherciveen	Sw1	50364.7	78554.9	2010/3113	14-Jul-10	12:45	< 0.02	6.5	< 1	81	45	22	10	1	14.4
Caherciveen	Sw1	50364.7	78554.9	2010/4728	12-Oct-10	11:55	< 0.02	6.8	< 1	100	19.5	31	10.7	1	12.1
Caherciveen	Sw1	50364.7	78554.9	2011/0335	19-Jan-11	14:05	0.03	6.7	< 1	94	23	24	12	2	6
Caherciveen	Sw1	50364.7	78554.9	2011/2008	20-Apr-11	14:50	< 0.02	6.9	3.4	106	58	25	10.7	2	11.8

Caherciveen	Sw1	50364.7	78554.9	2011/3414	27-Jul-11	13:30	< 0.02	6.6	< 1	120	18	24.3	9.6	4	15.9
Caherciveen	Sw1	50364.7	78554.9	2011/4691	18-Oct-11	14:45	0.04	6.8	< 1	102	26	44	11.2	< 1	11.5
Caherciveen	Sw1	50364.7	78554.9	2012/0454	25-Jan-12	13:15	< 0.02	***5.5***	< 1	125	34	33	10.5	16	9.1
Caherciveen	SW3	50057	78930	2003/0349	21-Jan-03	11:20	0.54	7.3	1.4	190	22	22	11.2	5.5	6.5
Caherciveen	SW3	50057	78930	2003/1920	16-Apr-03	14:20	< 0.02	6.2	2.6	87	43		9.6	***29***	16.9
Caherciveen	SW3	50057	78930	2003/3921	22-Jul-03	12:46	0.21	7.3	3.2	223	55	25	7.7	***40***	16.2
Caherciveen	SW3	50057	78930	2003/5452	01-Oct-03	11:50	< 0.02	7.8	2.9	890	50	42	7.9	***59***	12.9
Caherciveen	SW3	50057	78930	2004/0532	28-Jan-04	12:05	***1.14***	7.2	1.5	289	21	28	10.6	4	7
Caherciveen	SW3	50057	78930	2004/1703	14-Apr-04	13:07	0.9	7.3	3.6	250	36		9.6	2	13.1
Caherciveen	SW3	50057.4	78929.6	2004/5212	06-Oct-04	13:48	0.19	7	1.6	143	165	26	10.1	***61***	11.9
Caherciveen	SW3	50057.4	78929.6	2005/1924	19-Apr-05	11:08	0.05	7.1	1.6	148	86	31	10.8	***93***	9.3
Caherciveen	SW3	50057.4	78929.6	2006/0518	31-Jan-06	12:05	0.09	6.9	1.3	153	73	24	11.4	***134***	6.2
Caherciveen	SW3	50057.4	78929.6	2006/1662	20-Apr-06	12:01	< 0.02	6.7	1.5	92	29	15	10.6	9	10.9
Caherciveen	SW3	50057.4	78929.6	2006/4994	12-Oct-06	11:15	< 0.02	6.9	< 1	121	38	15.5	10	2	14.2
Caherciveen	SW3	50057.4	78929.6	2008/0023	03-Jan-08	12:12	0.03	7.1	< 1	185	43	38.5	10.8	12	6.7
Caherciveen	SW3	50057.4	78929.6	2008/1614	03-Apr-08	13:07	< 0.02	6.9	< 1	230	29	46	10.7	< 1	11.9
Caherciveen	SW3	50057.4	78929.6	2008/5846	04-Nov-08	11:46	0.03	6.7	1.5	154	47	28	10.7	***70***	9.8
Caherciveen	SW3	50057.4	78929.6	2009/0082	07-Jan-09	12:40	0.03	6.5	2	162	40	29	9.9	***80***	7.2
Caherciveen	SW3	50057.4	78929.6	2009/1951	07-Apr-09	14:39	0.02	6.6	1.4	120	36	22	10.5	6	10.2
Caherciveen	SW3	50057.4	78929.6	2009/3600	08-Jul-09	11:49	< 0.02	7.2	< 1	125	41	19	9.2	17	16.5
Caherciveen	SW3	50057.4	78929.6	2010/0203	20-Jan-10	13:14	< 0.02	6.8	< 1	144	27	32	11.4	< 1	7.2
Caherciveen	SW3	50057.4	78929.6	2010/1478	08-Apr-10	11:35	< 0.02	6.9	< 1	58	46	20.5	11.6	6	9.7
Caherciveen	SW3	50057.4	78929.6	2010/3114	14-Jul-10	11:45	< 0.02	7	< 1	112	46	20	9.2	2	15.2

Caherciveen	SW3	50057.4	78929.6	2010/4726	12-Oct-10	11:20	< 0.02	6.9	1.7	118	117	14	9.2	***189***	14.3
Caherciveen	SW3	50057.4	78929.6	2011/0336	19-Jan-11	13:30	0.03	6.9	< 1	124	31	26	11.8	< 1	6.3
Caherciveen	SW3	50057.4	78929.6	2011/2009	20-Apr-11	15:15	< 0.02	7.2	< 1	148	32	31	10.5	19	11.6
Caherciveen	SW3	50057.4	78929.6	2011/3415	27-Jul-11	12:30	0.1	6.9	< 1	188	21	29	6.5	11	22.8
Caherciveen	SW3	50057.4	78929.6	2011/4692	18-Oct-11	14:11	0.04	7.2	< 1	156	35	34.9	10	2	11.2
Caherciveen	SW3	50057.4	78929.6	2012/0455	25-Jan-12	13:25	0.24	6.7	1.5	168	32	43	11.3	10	8.7
Caherciveen	Sw4	50061	78733	2003/0350	21-Jan-03	12:00	< 0.02	5.4	< 1	96	11	25	10	< 1	6
Caherciveen	Sw4	50061	78733	2003/1921	16-Apr-03	14:10	< 0.02	5.6	< 1	92	41		8.3	6	14.4
Caherciveen	Sw4	50061	78733	2003/3922	22-Jul-03	12:40	< 0.02	6.1	2.2	106	126	22	6.5	***224***	14.2
Caherciveen	Sw4	50061	78733	2003/5844	20-Oct-03	12:00	0.69	7.4	1.5	485	116	49	6.8	7	14
Caherciveen	Sw4	50061	78733	2004/0533	28-Jan-04	11:45	< 0.02	5.6	1.3	113	27	31	8.6	7	6.7
Caherciveen	Sw4	50061	78733	2004/1704	14-Apr-04	13:00	< 0.02	5.7	2	105	52		8.4	***23***	10.9
Caherciveen	Sw4	50061.3	78733.3	2004/5213	06-Oct-04	13:37	0.08	5.3	1.2	96	73	26	9.1	2	11.3
Caherciveen	Sw4	50061.3	78733.3	2005/0375	19-Jan-05	11:20	0.12	5.4	1.6	193	81	52	10.6	***160***	10.2
Caherciveen	Sw4	50061.3	78733.3	2005/1925	19-Apr-05	11:00	< 0.02	6	2.4	171	61	38	10.9	14	7.1
Caherciveen	Sw4	50061.3	78733.3	2005/3602	14-Jul-05	14:28	0.04	6	3	137	33	27	8.5	10	20
Caherciveen	Sw4	50061.3	78733.3	2005/5322	13-Oct-05	11:50	0.17	4.9	< 1	156	107	25	11.3	10	6.8
Caherciveen	Sw4	50061.3	78733.3	2006/0519	31-Jan-06	11:51	0.71	5.8	1.3	148	< 10	27	11	16	3.5
Caherciveen	Sw4	50061.3	78733.3	2006/1663	20-Apr-06	11:51	0.02	5.5	1.3	64	28	13	10.7	6	11.9
Caherciveen	Sw4	50061.3	78733.3	2006/3669	03-Aug-06	12:29	0.07	***4.7***	1.7	149	25	22	9.4	***86***	17.9
Caherciveen	Sw4	50061.3	78733.3	2006/4995	12-Oct-06	11:30	< 0.02	***4.8***	< 1	118	160	19.5	9.9	6	13
Caherciveen	Sw4	50061.3	78733.3	2007/0627	01-Feb-07	13:16	0.1	***4.9***	< 1	195	24	41	10.8	6	10.3

Caherciveen	Sw4	50061.3	78733.3	2007/1940	17-Apr-07	12:10	0.03	***5.2***	7.4	148	50	29	11.1	***36***	12.5
Caherciveen	Sw4	50061.3	78733.3	2007/3905	19-Jul-07	14:02	< 0.02	***4.5***	1.1	150	18	37	9.4	6	18.8
Caherciveen	Sw4	50061.3	78733.3	2007/5806	25-Oct-07	12:00	0.04	***4.5***	< 1	136	24	28	12.6	6	9.6
Caherciveen	Sw4	50061.3	78733.3	2008/0024	03-Jan-08	11:55	0.02	***4.7***	< 1	176	26	43	10.4	2	6.8
Caherciveen	Sw4	50061.3	78733.3	2008/1615	03-Apr-08	12:52	< 0.02	***4.7***	3.6	208	15	41	10.5	12	12.8
Caherciveen	Sw4	50061.3	78733.3	2008/3690	17-Jul-08	12:33	0.08	***4.7***	< 1	154	19	36.5	6.3	***22***	15.8
Caherciveen	Sw4	50061.3	78733.3	2008/5845	04-Nov-08	11:35	< 0.02	***4.9***	1.5	168	20	39	10.6	16	8.9
Caherciveen	Sw4	50061.3	78733.3	2009/0083	07-Jan-09	12:30	< 0.02	***5.1***	1.6	161	10	35	10	11	5
Caherciveen	Sw4	50061.3	78733.3	2009/1950	07-Apr-09	14:30	0.03	***5.3***	1.1	131	32	30	10.2	5	10.6
Caherciveen	Sw4	50061.3	78733.3	2009/3601	08-Jul-09	11:11	0.04	***5.7***	3.2	102	103	20.5	5.4	***275***	15.6
Caherciveen	Sw4	50061.3	78733.3	2009/3602	08-Jul-09	11:11	0.04	***5.6***	2.9	103	117	20.5	5.5	***286***	15.7
Caherciveen	Sw4	50061.3	78733.3	2009/5158	01-Oct-09	13:00	0.16	***5.5***	2.3	133	70	31	5	***29***	15.1
Caherciveen	Sw4	50061.3	78733.3	2010/0204	20-Jan-10	13:00	< 0.02	***5.3***	< 1	118	24	29	10.9	< 1	6.1
Caherciveen	Sw4	50061.3	78733.3	2010/0206	20-Jan-10	13:00	< 0.02	***5.2***	< 1	114	25	27	10.9	< 1	6.1
Caherciveen	Sw4	50061.3	78733.3	2010/1479	08-Apr-10	11:25	< 0.02	***5.3***	1.8	119	56	22	11.3	***36***	9.4
Caherciveen	Sw4	50061.3	78733.3	2010/3115	14-Jul-10	12:20	0.05	***5.5***	< 1	90	60	23	6.4	11	16.3
Caherciveen	Sw4	50061.3	78733.3	2010/4725	12-Oct-10	11:10	0.06	***5.9***	2.3	104	50	19.5	7.7	***68***	9
Caherciveen	Sw4	50061.3	78733.3	2011/0337	19-Jan-11	13:20	0.06	***5.1***	< 1	131	25	30	10.8	< 1	5.1
Caherciveen	Sw4	50061.3	78733.3	2011/2010	20-Apr-11	14:10	< 0.02	***5.3***	< 1	130	41	29	9.5	21	14.4
Caherciveen	Sw4	50061.3	78733.3	2011/3416	27-Jul-11	12:15	0.31	***5.6***	1.3	150	33	34.3	***4.8***	***26***	16.6
Caherciveen	Sw4	50061.3	78733.3	2011/4693	18-Oct-11	13:47	< 0.02	***5.4***	< 1	122	34	32.1	10.3	< 1	11.1
Caherciveen	Sw4	50061.3	78733.3	2012/0456	25-Jan-12	14:20	0.03	6.1	1.4	98	80	25	11.3	26	8.5

Caherciveen	Sw5	50055	79046	2003/0351	21-Jan-03	11:35	***3.3***	7	< 1	284	30	26	8.4	17	6.5
Caherciveen	Sw5	50055	79046	2003/1922	16-Apr-03	14:30	< 0.02	5.8	1.5	87	44		9.9	11	15.6
Caherciveen	Sw5	50055	79046	2003/3923	22-Jul-03	13:02	***14***	6.9	> 104	551	70	42	<1	***5100***	15.4
Caherciveen	Sw5	50055	79046	2003/5453	01-Oct-03	12:20	***34.5***	7.3	3.4	1188	64	70	3.7	***24.5***	12.2
Caherciveen	Sw5	50055	79046	2004/0534	28-Jan-04	12:25	***2.86***	7.2	1	483	22	34	3.8	< 1	7
Caherciveen	Sw5	50055	79046	2004/1705	14-Apr-04	13:15	***1.07***	7.4	5.3	503	43		5.6	14	12.5
Caherciveen	Sw5	50054.6	79046.1	2004/3705	21-Jul-04	12:02	***30.3***	7.9	4.5	1011	115	57.5	8.9	***124***	16.5
Caherciveen	Sw5	50054.6	79046.1	2004/5214	06-Oct-04	14:02	***2.56***	7.2	1.6	212	85	28	8.9	***28***	11.4
Caherciveen	Sw5	50054.6	79046.1	2005/0376	19-Jan-05	11:52	***5.59***	7.1	1.2	400	48	60.5	9.8	***22***	9.6
Caherciveen	Sw5	50054.6	79046.1	2005/1926	19-Apr-05	11:15	***11.5***	7.7	7.3	513	187	45	9.4		9.4
Caherciveen	Sw5	50054.6	79046.1	2005/3603	14-Jul-05	14:07	***44.99***	7.5	6.9	1499	101	83	4.4	10	18
Caherciveen	Sw5	50054.6	79046.1	2005/5321	13-Oct-05	11:26	***14.2***	7	1.4	596	44	34.5	7.4	5	11.7
Caherciveen	Sw5	50054.6	79046.1	2006/0520	31-Jan-06	12:40	***30***	7.2	1.4	841	24	42	8	***22***	6.9
Caherciveen	Sw5	50054.6	79046.1	2006/1664	20-Apr-06	12:09	0.79	6.8	1.4	134	37	18	10.1	17	10.8
Caherciveen	Sw5	50054.6	79046.1	2006/3670	03-Aug-06	12:45	***4.76***	7	7.3	367	51	23	7	***59***	15.8
Caherciveen	Sw5	50054.6	79046.1	2006/4996	12-Oct-06	11:20	0.16	6.9	< 1	131	152	19	9.7	2	13.9
Caherciveen	Sw5	50054.6	79046.1	2007/0628	01-Feb-07	13:42	***51***	6.7	1.2	1056	59	28	7.7	***52***	9.7
Caherciveen	Sw5	50054.6	79046.1	2007/1941	17-Apr-07	12:00	***171***	6.8	6.8	2410	120	95	***4.1***	***113***	12.6
Caherciveen	Sw5	50054.6	79046.1	2007/3906	19-Jul-07	14:20	***16.1***	6.8	9.2	503	33	53	***4.8***	18	16
Caherciveen	Sw5	50054.6	79046.1	2007/5807	25-Oct-07	11:50	***31***	6.7	2.6	643	40	42	5.7	***45***	11.9
Caherciveen	Sw5	50054.6	79046.1	2008/0025	03-Jan-08	12:22	***6.26***	6.8	1.4	297	37	42.5	9.4	2	7.1
Caherciveen	small st. d/s SW5	50158.6	79160	2008/0028	03-Jan-08	12:40	0.06	***5.8***	< 1	131	30	38	11.2	< 1	6.2
Caherciveen	Sw5	50054.6	79046.1	2008/1616	03-Apr-08	13:15	***4.18***	6.7	1.8	308	33	49	10	< 1	11.8
Caherciveen	Sw5	50054.6	79046.1	2008/3691	17-Jul-08	12:51	***2.58***	6.7	1.7	259	32	35.5	5.3	14	15.9

Caherciveen	Sw5	50054.6	79046.1	2008/5847	04-Nov-08	11:52	***22.4***	6.8	4.4	530	42	40	7.5	12	10
Caherciveen	Sw5	50054.6	79046.1	2009/0084	07-Jan-09	12:50	***13.2***	7	2.6	468	26	40	7.3	16	7.3
Caherciveen	Sw5	50054.6	79046.1	2009/1952	07-Apr-09	14:45	***7.35***	6.6	2.2	248	38	26	9.6	7	10.2
Caherciveen	Sw5	50054.6	79046.1	2009/3599	08-Jul-09	12:32	***1.15***	6.9	3.2	175	70	19	8.4	***38***	15.9
Caherciveen	Sw5	50054.6	79046.1	2009/5159	01-Oct-09	13:15	***27.6***	7	3.7	683	46	43	***3.6***	***40***	13.5
Caherciveen	Sw5	50054.6	79046.1	2010/0205	20-Jan-10	13:25	0.08	6.4	2.4	152	48	26	***4***	16	6.1
Caherciveen	Sw5	50054.6	79046.1	2010/1480	08-Apr-10	11:40	0.16	6.7	1.1	119	51	22	11.2	***21***	9
Caherciveen	Sw5	50054.6	79046.1	2010/3116	14-Jul-10	12:00	0.11	6.8	1	116	44	18	8.2	< 1	15.1
Caherciveen	Sw5	50054.6	79046.1	2010/4727	12-Oct-10	11:30	***2.21***	7.1	5.7	203	54	14	7.4	***24***	13.7
Caherciveen	Sw5	50054.6	79046.1	2011/0338	19-Jan-11	13:40	***7.57***	6.8	1.9	280	50	29	9.2	< 1	6.5
Caherciveen	Sw5	50054.6	79046.1	2011/2011	20-Apr-11	15:30	***32***	6.9	4.6	704	57	41	7.1	***50***	11.5
Caherciveen	Sw5	50054.6	79046.1	2011/3417	27-Jul-11	12:40	***62***	6.9	4.1	1189	53	56.8	***3.9***	***28***	19
Caherciveen	Sw5	50054.6	79046.1	2011/4694	18-Oct-11	14:20	***9.22***	6.7	1.8	308	41	37.9	9.7	4	11.6
Caherciveen	Sw5	50054.6	79046.1	2012/0457	25-Jan-12	13:35	0.93	6.7	4.5	144	45	32	11.2	***32***	8.8
Caherciveen	M.H.@N.E. corner opp SW5	50052	79043	2011/2012	20-Apr-11	15:35	0.51	7.2	3.1	171	56	29	10.3	70	11.8
Caherciveen	Sw6	50828	79459	2003/0352	21-Jan-03	14:55	0.04	6.8	< 1	98	< 10	23	11.2	< 1	7
Caherciveen	Sw6	50828	79459	2003/3924	22-Jul-03	15:50	< 0.02	7.3	< 1	99	23	25	9.5	9	16.3
Caherciveen	Sw6	50828	79459	2004/0535	28-Jan-04	13:55	< 0.02	7.2	1.1	140	< 10	28	12.1		7.5
Caherciveen	Sw6	50828.1	79458.5	2005/1927	19-Apr-05	13:45	< 0.02	7.3	< 1	106	21	27	11.8		8.6
Caherciveen	Sw6	50828.1	79458.5	2006/0521	31-Jan-06	15:10	0.03	7.3	1	116	< 10	22	12.3	< 1	5.1
Caherciveen	Sw6	50828.1	79458.5	2008/0026	03-Jan-08	14:10	0.03	6.7	< 1	118	18	32	11.8	3	6.7
Caherciveen	Sw6	50828.1	79458.5	2009/1946	07-Apr-09	13:23	0.02	6.9	< 1	97	23	22	11.5	< 1	10

Caherciveen	Sw6	50828.1	79458.5	2010/1481	08-Apr-10	13:10	< 0.02	6.8	< 1	84	31	16.5	12.4	1	10.4
Caherciveen	Sw6	50828.1	79458.5	2010/3117	14-Jul-10	13:30	< 0.02	6.8	< 1	66	36	18	10.1	1	15.1
Caherciveen	Sw6	50828.1	79458.5	2010/4730	12-Oct-10	12:40	< 0.02	7	< 1	91	26	15	11	< 1	11.9
Caherciveen	Sw6	50828.1	79458.5	2011/0339	19-Jan-11	15:10	0.05	6.9	< 1	87	22	19	12.4	< 1	5.7
Caherciveen	Sw7	49666	79782	2003/0353	21-Jan-03	14:15	0.1	6.7	< 1	105	10	24	11.2	4.5	7
Caherciveen	Sw7	49666	79782	2003/3925	22-Jul-03	15:35	< 0.02	7.3	< 1	147	24	25	9.6	10	16.4
Caherciveen	Sw7	49666	79782	2004/0536	28-Jan-04	13:25	< 0.02	7.2	1.2	109	< 10	28	12.3		7
Caherciveen	Sw7	49666	79781.7	2005/1934	19-Apr-05	13:20	< 0.02	7.1	< 1	133	22	27	11.8	< 1	8.6
Caherciveen	Sw7	49666	79781.7	2006/0522	31-Jan-06	13:20	0.03	7.3	1	170	< 10	25	12.3	< 1	4.8
Caherciveen	Sw7	49666	79781.7	2008/0027	03-Jan-08	13:40	< 0.02	6.8	< 1	140	16	32.5	11.6	< 1	6.8
Caherciveen	Sw7	49666	79781.7	2009/1948	07-Apr-09	13:52	0.02	6.9	< 1	125	43	25	11.3	< 1	10.1
Caherciveen	Sw7	49666	79781.7	2010/1482	08-Apr-10	12:40	< 0.02	6.9	< 1	103	31	17.5	12.6	< 1	10.3
Caherciveen	Sw7	49666	79781.7	2010/3118	14-Jul-10	13:00	< 0.02	7	< 1	87	36	18	10.2	2	15
Caherciveen	Sw7	49666	79781.7	2010/4731	12-Oct-10	12:10	< 0.02	7.1	< 1	123	27	16.5	11	1	10.8
Caherciveen	Sw7	49666	79781.7	2011/0340	19-Jan-11	14:35	0.04	7	< 1	113	23	22	12.3	< 1	5.5

Appendix III - Landfill Gas Summary

Caherciveen Waste Transfer Station

Monitoring of Landfill Gas Levels

Date	Ref.	CH_4 % v/v	CO_2 % v/v	O_2 % v/v	Atm. Pressure Mbar	Temperature Degrees Celsius
6/10/08	L1a	6.8	2.5	20.1	1008	15
13/5/09	L1a	5.4	3.3	21.4	1010	16
3/12/09	L1a	6.9	3.4	20.9	1005	8
20/4/10	L1a	1.0	0.3	20.1	1017	15
20/7/11	L1a	0.1	0.0	20.8	1011	14
1/11/11	L1a	0.4	0.2	20.5	997	12

Appendix IV - AER/PRTR Return 2011

Sheet : Facility ID Activities AER Returns Workbook 29/6/2012 14:44

| PRTR# : W0087 | Facility Name : Caherciveen Transfer Station | Filename : W0087 AER PRTR 2011 V1.xls | Return Year : 2011 |

Guidance to completing the PRTR workbook

AER Returns Workbook

Version 1.1.13

REFERENCE YEAR	2011

1. FACILITY IDENTIFICATION

Parent Company Name	Kerry County Council
Facility Name	Caherciveen Transfer Station
PRTR Identification Number	W0087
Licence Number	W0087-01

Waste or IPPC Classes of Activity

No.	class_name
3.12	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.13	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.
4.1	Solvent reclamation or regeneration.
4.13	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.
4.2	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
4.3	Recycling or reclamation of metals and metal compounds.
4.4	Recycling or reclamation of other inorganic materials.

Address 1	Inchamacteige
Address 2	Caherciveen
Address 3	Co Kerry
Address 4	
	Kerry
Country	Ireland
Coordinates of Location	-10.182 51.9418
River Basin District	IESW
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Brian Lennon
AER Returns Contact Email Address	blennon@kerrycoco.ie
AER Returns Contact Position	Brian Lennon
AER Returns Contact Telephone Number	066-7162000
AER Returns Contact Mobile Phone Number	087-8173683
AER Returns Contact Fax Number	066-7162001
Production Volume	0.0
Production Volume Units	
Number of Installations	0

Sheet : Facility ID Activities AER Returns Workbook 29/6/2012 14:44

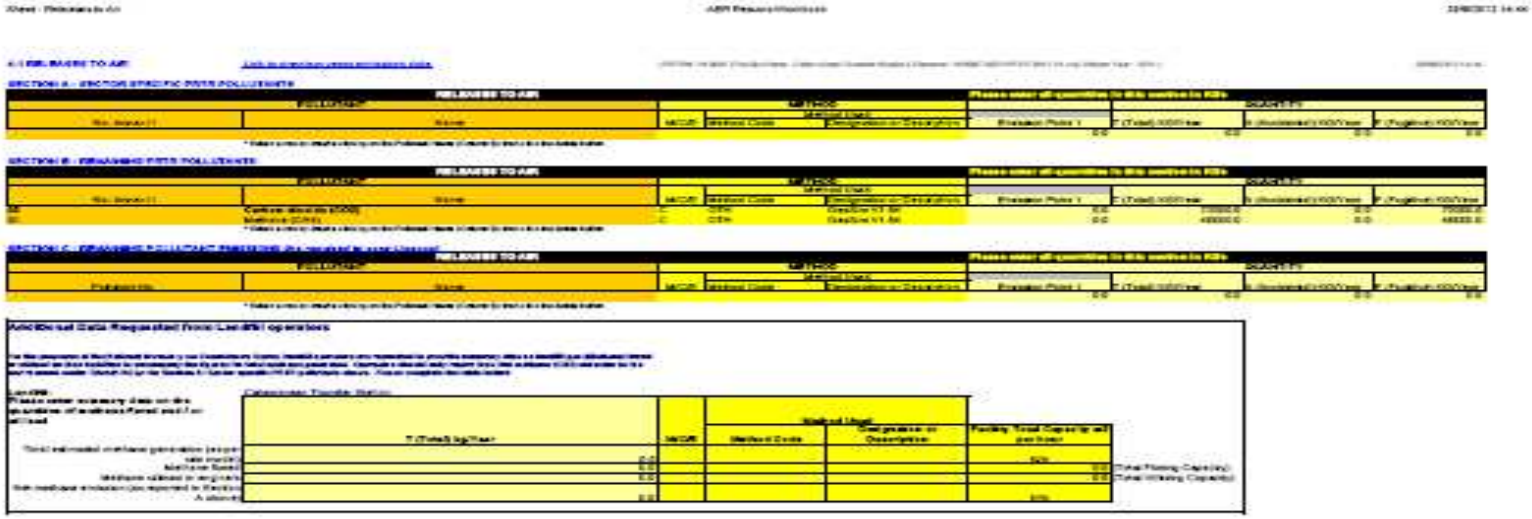
Number of Operating Hours in Year	0
Number of Employees	0
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
50.1	General
50.1	General

3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002)

Is it applicable?	No
Have you been granted an exemption ?	No
If applicable which activity class applies (as per Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being used ?	



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Sheet : Releases to Land AER Returns Workbook 29/6/2012 14:45

4.4 RELEASES TO LAND

SECTION A : PRTR POLLUTANTS

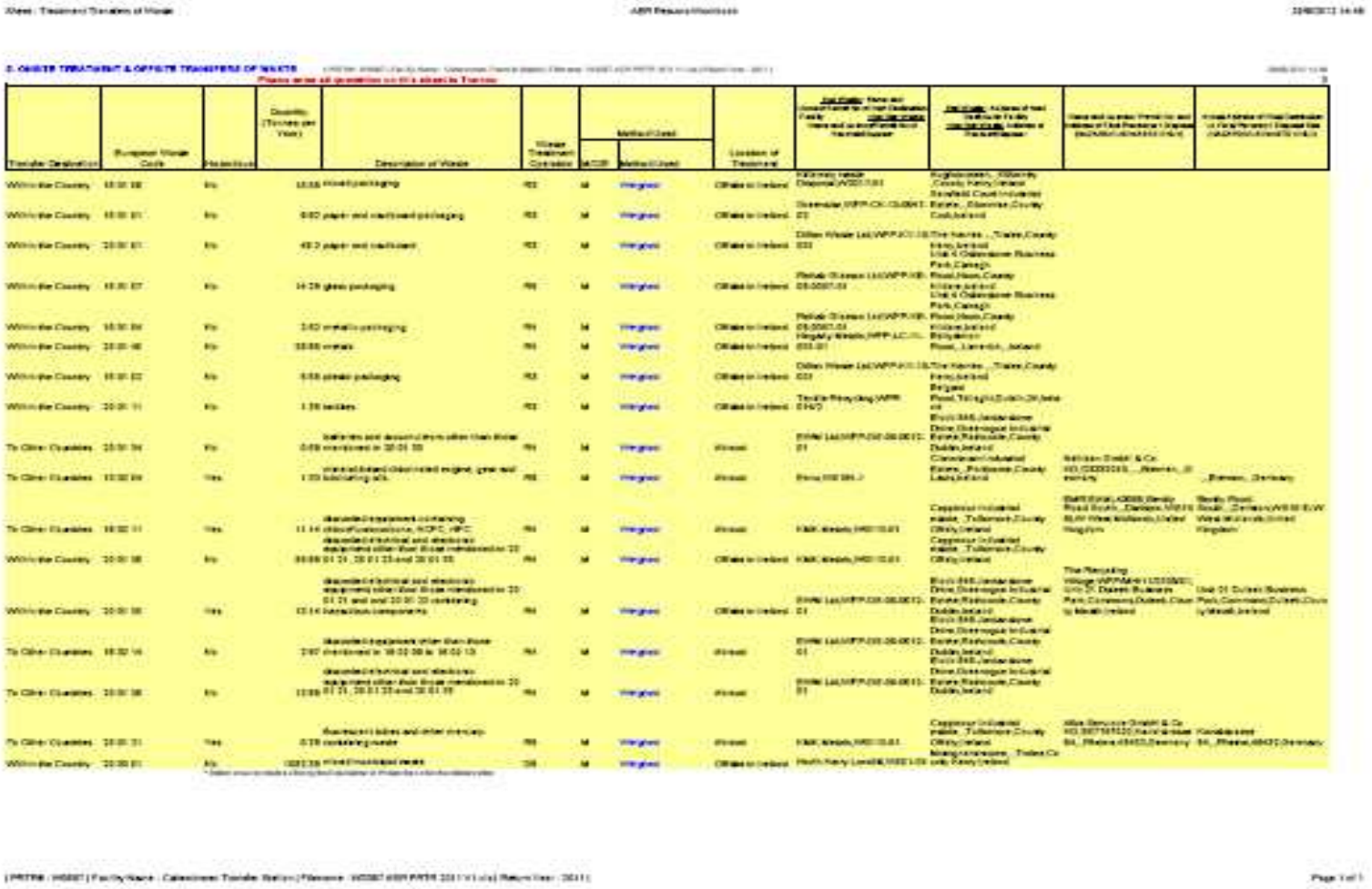
RELEASES TO LAND					Please enter all quantities in this section in KGs		
POLLUTANT		METHOD			QUANTITY		
		Method Used					
No. Annex II	Name	M/C/E	Method Code	Description or Calculation	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
					0.0	0.0	0.0

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

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

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

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



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