Annual Environmental Report

CHURCHTOWN LANDFILL SITE
(Waste Licence Ref. W0062-1)

by
Donegal County Council
for
Environmental Protection Agency

Reporting Period: January 2012 to December 2012

April 2013

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1. INTRODUCTION

1.1 Donegal County Council holds Waste Licence ref. W0062-1 for Churchtown Landfill Site. The site closed on 31st August 2000. This report provides a review of environmental monitoring data collected for 2012.

1.2 The landfill facility at Churchtown occupies an area of approximately 9.7 hectares in the townland of Churchtown, near Lifford, Co. Donegal.

1.3 The site is located approximately 3km south west of Lifford and bordered to the northwest by the N15, the main Lifford to Ballybofey Rd. The ground to the northeast and southwest of the site is the low lying and gently undulating flood plain of the River Finn both areas being used for grazing. The southeastern boundary is formed by the River Finn. Site Location and Layout are shown on plans BL568640/100 and BL568640/106.

2. REPORTING PERIOD

The reporting period for this Annual Environmental Report (AER) is from January 2012 to December 2012.

3. WASTE ACTIVITIES CARRIED OUT AT THE FACILITY

3.1 In accordance with Condition 5.2 of the waste licence only 11,000 tonnes per annum of inert waste shall be disposed of or recovered at the facility for the purposes of restoration of the site.

3.2 The licensed waste disposal activities in accordance with the Third Schedule of the waste Management Act, 1996 are restricted to those listed as follows:

- **Class 1:** Deposit on, in or under land (including landfill).[Note 1]
- **Class 4:** Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons.
- **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.

Note 1: This activity is limited to the disposal of inert waste only at the facility.

4. QUANTITY AND COMPOSITION OF WASTE RECEIVED AND DISPOSED OF DURING THE REPORTING PERIOD AND EACH PREVIOUS YEAR.

4.1 Only household solid municipal waste, commercial waste of a similar character to solid municipal waste and non-hazardous construction and demolition waste was accepted at the site prior to closure in August 2000. Since closure, the only material to be accepted at the site was a quantity of topsoil stored inside the facility to be used for the impending restoration of the landfill. This material originated from the development of the Stranorlar Civic Amenity Site and was approved by the EPA.

4.2 Table 4.1 shows waste data figures for Churchtown Landfill site from 1998 until 2012.

Table 4.1 Waste quantities accepted (tonnes)

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total	17,900*	20,700*	13,800*	0	0	0	0	4.423#	0	0	0	0	0
Year	2011	2012											
Total	0	0											

*Figures are estimates

#Restoration materials stockpiled on site

4.3 Waste data figures where estimated by means of assessment based on the category of vehicle depositing waste at the site.

5. CALCULATED REMAINING CAPACITY OF THE FACILITY AND YEAR IN WHICH FINAL CAPACITY IS EXPECTED TO BE REACHED

5.1 The site ceased operation on 31st August 2000. The only available capacity is for inert, restoration materials (limited to 11,000 tonnes per annum).

6. METHODS OF DEPOSITION OF WASTE

6.1 Neither waste nor inert restoration materials were received at the Churchtown Landfill Site during the reporting period.

6.2 Donegal County Council shall obtain suitable inert material to facilitate the restoration of the landfill. This inert material shall, where possible, be obtained from large single point sources so that consistency of material can be maintained. It is envisaged that the main source of this material may be from large development sites or other construction activities.

6.3 On identification of inert material an inspection shall be carried out by Donegal County Council to assess its suitability as cover material (as specified in the Restoration and Aftercare Plan). Provided suitability is established initial acceptance shall be granted.

6.4 Materials will be initially stockpiled on the site, before being placed to form the capping system. Placement will be in accordance with the Restoration and Aftercare Plan.

7. SUMMARY REPORT ON EMISSIONS

7.1 Monitoring Regime

The location, frequency, sample type and required parameters for analysis are specified in Schedule F of the Waste Licence for the site. These are summarised in the tables contained in Appendix A. Monitoring locations are illustrated in drg. no. 5234.63/107. Results of the analysis for the reporting period are contained in Appendix B.

7.2 Groundwater

7.2.1 Groundwater flows in a southeasterly direction towards the River Finn. Groundwater quality monitoring was originally carried out at four locations, BH1, BH2, BH3 and BH4 as listed in Table F.4.2 in the waste licence. These original wells were installed in August 1998, however wells BH1, BH2 & BH3 ceased to be used for groundwater monitoring, as they are located within waste. They now serve as leachate wells (L1, L2 & L3).

7.2.2 Three additional boreholes were required by the Waste Licence (Condition 4.11) and the installation work was undertaken in July 2001. BH1 (downstream) and BH3 (upstream) were successfully relocated. Difficulty was encountered in the installation of a second down gradient borehole. Despite four additional pits being started along the length of the landfilled boundary each location encountered waste and therefore were deemed inappropriate to be used as a groundwater borehole. It was not possible to move further down gradient due to the fact that the river is in such close proximity to the landfill site. As a result there is only one down gradient groundwater monitoring point (BH1).

7.2.3 Groundwater monitoring is now undertaken at BH1 and BH3 which were installed in July 2001 and BH4 installed in August 1998. These are shown in Drawing No. BL568640/106 and given in Appendix A. BH3 and BH4 are representative of up gradient water quality and borehole BH1 is representative of down gradient water quality. BH4 has been damaged and is not accessible. This well is due to be replaced during 2013.

7.2.4 Results generally indicate that very little contamination of groundwater from the waste body is occurring. Ammonia and conductivity levels are below MAC, and generally comparable in the downstream borehole to those upstream of the waste, and are similar to those reported during the last period. Results are contained in Appendix B.

7.3 Surface Water

7.3.1 Churchtown Landfill Site is situated in the lower alluvial flood plain of the River Finn. The River forms the boundary to the south east of the site. Monitoring of surface water quality is carried out at seven locations (SW1 - SW7). SW7 (downstream) was added to surface water monitoring locations as required by Condition 4.13 of the Waste Licence. The land drains to

the each side of the waste are currently deemed to be surface water systems, however they mainly serve as leachate drains and the Council is currently investigating the viability of diverting upstream surface water to an alternative route to the River Finn and re-designating the monitoring points located in the land drains as leachate points. Work is currently underway on this.

7.3.2 Surface water results indicate that leachate is being released from the facility into the surrounding environment but there is massive dilution in the main receiving waters and as such there is minimal impact on the River Finn. Results are contained in Appendix B. Results are slightly lower than those detected during the last period but overall show a comparable pattern.

7.4 Leachate

7.4.1 Churchtown Landfill Site was designed on a dilute and disperse basis. However the boulder clay layer underlying the site functions as an aquitard preventing downward migration of leachate. No formal drainage system is provided on the site however the two land drains that run the length of the north-eastern and south-western sides of the landfill direct surface water, and any leachate emitting from the waste body, into the River Finn.

7.4.2 Monitoring of leachate is carried out at three locations on site at L1, L2 & L3 as shown on drg. no. 5234.63/107. Results remain within typical ranges for key leachate parameters.

7.5 Landfill Gas

7.5.1 Landfill gas is currently allowed to vent through the temporarily capped waste. It is proposed to introduce passive gas vents into the waste body as part of the restoration of this site, but a recent VOC survey has shown no emissions from the site. Landfill gas is monitored at nine locations, six of which are located within the site (in waste), one (LG4) is located just outside the waste body, and two (LG8 and LG9) are positioned in the road verge immediately to the northwest of the site. During the reporting period it was discovered that a number of the wells were covered over when areas of eroded cover were topped up and are now inaccessible. These wells are to be replaced during 2013.

7.5.2 A summary of monitoring results is contained in Section 8.4.2 .

8. SUMMARY OF RESULTS AND INTERPRETATIONS OF ENVIRONMENTAL MONITORING

8.1 Groundwater

8.1.1 As outlined in Section 7.2 groundwater monitoring is undertaken at three locations, BH3 & BH4 upstream and BH1 downstream of the landfill. Schedule F of the waste licence stipulates the parameters and frequencies of monitoring required, these are shown in Table A2 in Appendix A.

8.1.2 Results of this period's monitoring are presented graphically and in tabular format in Appendix B. In this section these results are assessed against the Maximum Admissible Concentrations (MAC) set out in the European Communities Quality of Water Intended for Human Consumption Regulations 1988 (EC Water Intended for Human Consumption Regulations), European communities (Drinking Water) Regulations, 2000 and the EPA Interim Report, Towards Setting Guidelines Values for the Protection of Groundwater in Ireland.

8.1.3 Parameters that are indicative of possible leachate contamination include Ammoniacal-N, Conductivity, Iron, Chloride and heavy metals. All of the results are within the limits referred to above.

8.1.4 There were no instances of ammoniacal-nitrogen or conductivity raised above MAC.

8.1.5 Annual analysis for list I and II substances and stipulated parameterS was carried out in October 2011. No substances were detected.

8.2 Surface Water

8.2.1 Surface water quality results are assessed against the Surface Water Quality Standards (SWQS) as laid out in the European Communities Quality of Surface Water Intended for the Abstraction of Drinking Water Regulations 1989, (EC Abstraction of Drinking Water Regulations) for surface water assessment. The parameters monitored and frequencies of monitoring are listed in Table A3 in Appendix A. Results in tabular and graphical format are presented in Appendix B.

8.2.2 Surface water is monitored at locations SW1 – SW7 inclusive as shown on Drg no 5234.63/107. SW1 is indicative of surface water inland and upstream of the landfill. The MAC for ammonia is slightly exceeded at this location. Instances of parameters indicative of leachate exceeding the MAC are apparent in the two land drains either side of the landfill (SW2 & SW4) which serve as leachate toe drains, draining to the River Finn. The massive dilution of the River Finn is also evident in the rapid tail off of these parameters further downstream. The levels of contamination in the two field drains rises seasonally peaking in drier summer months and falling again in autumn/winter. This pattern can be seen again this period.

8.2.3 The measured values of Electrical Conductivity (max. 1084us/cm), Ammoniacal nitrogen (max. 35mg/l), COD (max. 51mg/l) & Manganese (66.4ug/l) are seen to be raised above the MAC on occasions.

8.2.4 The surface water quality is erratic at some locations. This may be explained by the general drainage regime in operation at the site, as referred to in 8.2.2 above. The underlying geology of the site, which is relatively impermeable, prevents the downward movement of leachate from the landfill mass. This leachate percolates into the two land drains on either side of the landfill (as described above) and contaminates the flow therein. Sample locations SW2 and SW4 are at the River Finn end of these drains, which dry out significantly during dry periods, concentrating any leachate present. As mentioned above, where any contamination does emerge via this route it is quickly diluted in the large flow of the River Finn.

8.2.5 Annual analysis for list I and II substances was carried out in September 2011 and showed no detections for any parameters / substances measured.

8.3 Leachate

8.3.1 Leachate quality can vary during the lifetime of landfill sites depending on the phase of decomposition of the waste. Leachate results for the reporting period are presented in Appendix B and some of the characteristic parameters of the raw and treated leachate are listed in Table 8.1. In this table raw leachate results have been compared to "Typical Leachate Composition of 30 Samples from UK/Irish Landfills accepting mainly Domestic Waste" (EPA Manual: Landfill Operational Practices).

Table 8.1 Raw Leachate Concentrations 2012

	Churchtown Landfill Site		**From 30 samples from UK/Irish landfills accepting domestic waste**		
			Results in mg/l		
PARAMETER	**Min.Conc**	**Max.Conc**	**Min.Conc**	**Max.Conc**	**Mean**
Ammonia (mg/N)	0.25	100	<0.2	1700	491
BOD	0	12.8	4.5	>4800	>834
COD	0	297	<10	33,700	3078
Chloride (mg/l)	48	88	27	3410	1256
Iron (mg/l)	<0.019	2.45	0.4	664	54.4
Potassium (mg/l)	9.8	65	2.7	1480	491
Sodium (mg/l)	6.9	63	12	3000	904
TON (mg/l N)	<0.01	0.19	/	/	/
Conductivity (µS/cm)	172	3100	503	19,200	7789
pH (pH units)	6.57	7.3	6.4	8	7.2

8.3.2 All results are within the typical ranges presented.

8.4 Gas

8.4.1 All results are contained in Appendix B in tabular and graphical format.

8.4.2 Condition 9 and Schedule F of the licence requires the licensee to conduct monthly monitoring at the perimeter and in the waste of the landfill site. A summary of maximum and minimum results is presented in Tables 8.2, 8.3 & 8.4 as follows:

Table 8.2 Methane and CO_2 Max & Min for Perimeter Gas wells LG8 & LG9

	2011		2012	
Parameter	Max	Min	Max	Min
Methane	n/a	n/a	n/a	n/a
Carbon Dioxide	n/a	n/a	n/a	n/a

Table 8.3 Methane and CO_2 Max & Min for Perimeter Gas well LG4

	2011		2012	
Parameter	Max	Min	Max	Min
Methane	n/a	n/a	n/a	n/a
Carbon Dioxide	n/a	n/a	n/a	n/a

Table 8.4 Methane and CO_2 Max & Min for Gas wells in Waste

	2011		2012	
Parameter	Max	Min	Max	Min
Methane	70.8%	0.1%	74.5%	0%
Carbon Dioxide	37%	0.2%	37.7%	0%

8.5 Dust & Noise

There is currently no activity on site and as such no monitoring. However, when any operational activity commences requirements for dust and noise control and monitoring will be reviewed in line with the Licence and the Environmental Management System for the site.

9. PROPOSED DEVELOPMENT OF THE SITE & TIMESCALE OF SUCH DEVELOPMENT

9.1 The original Restoration and Aftercare Plan received approval from the EPA in March 2006, at which time the site was scheduled for restoration in 2008. During 2007 it became apparent that the NRA's proposed corridor for the realignment of the N15 (project then at Planning and Design Stage) passed though a portion of the landfill. Following meetings held between the EPA, the NRA and Donegal County Council it was decided that, since the realigned road does have to follow this route, the restoration of the landfill will take account of the proposed roadworks. A revised Restoration and Aftercare Plan was submitted to the EPA for approval in December 2007. This proposed that the waste in the section of the site to form the landtake for the NRA will be excavated and use to re-profile the balance of the site thus allowing the waste boundary to be reviewed after restoration. The Agency approved the revised plan in June 2008 and at that stage it was anticipated that the restoration project would proceed during 2009.

9.2 Work was carried out to agree a funding contribution from the NRA to cover the marginal cost attributable to the engineering work required to accommodate the proposed road alignment. In December 2008 it became apparent that funds would not be available from the NRA in the foreseeable future. At the time of reporting the N15 project is still not on a construction programme and a commencement date remains undetermined.

9.3 A request was made to the Agency in December 2008 for a reprioritisation of the restoration programme for closed sites in County Donegal and this was duly approved by the Agency. This reprioritisation rescheduled work on the Chruchtown site to commence in 2011.

9.4 This programme assumed progress with the restoration of another closed site (Balbane LS) during 2010, progress of the N15 project (or at least contribution of marginal cost by the NRA) and approval of grant funding by DECLG. During 2010, the overall programme for the restoration of the Council's remaining closed sites (Balbane LS and Chruchtown LS) was subject to reassessment in the light of the economic climate generally and the budget agreed for the Council at the end of 2009, and particularly with consideration of the removal of grant funding from the DEHLG. Progress with these restoration projects has been on hold since this time and remains under discussion with the Agency. At the end of the 2011 reporting period the Council was awaiting grant funding from the Department in order to proceed with restoration work as proposed. During 2012 the EPA wrote to Donegal County Council (ref. EPA letter re. Churchtown LS dated 28/06/12) directing it to request exceptional grant funding from the Department to allow the restoration to proceed. Meanwhile the emergence of bio-technologies as alternative or supplementary engineering solutions for restoring such sites may allow the scale of cost of such projects to reduce.

10. VOLUME OF LEACHATE PRODUCED AND VOLUME OF LEACHATE TRANSPORTED / DISCHARGED OFF SITE

10.1 A water balance calculation has been carried out, see Section 15 and Appendix C. Using this calculation the amount of leachate generated by the landfill has been estimated. The estimate for the year from the calculation is 24,125m^3. As there is no leachate collection infrastructure in place on the site, this quantity is all dispersed into the surrounding environment, in line with the original dilute and disperse design of the landfill. Proposals for leachate management infrastructure are included in the Restoration and Aftercare Plan.

11. REPORT ON THE RESTORATION OF COMPLETED CELLS / PHASES

11.1 At the time of closure intermediate capping of the site was undertaken with approximately 300mm of clay material placed using a tracked bulldozer and not rolled.

11.2 See Section 9 for information about restoration proposals and scheduling of the work.

12. SITE SURVEY SHOWING EXISTING LEVELS OF THE FACILITY AT THE END OF THE REPORTING PERIOD

12.1 A topographical survey of the site was carried out on 6th September 2000 following the closure of the site. This survey was submitted in the AER for 2003. A further survey was conducted in 2008 and submitted to the Agency in April 2008.

13. ESTIMATED ANNUAL AND CUMULATIVE QUANTITIES OF LANDFILL GAS EMITTED FROM THE SITE

13.1 Gas emissions from the landfill were remodelled using gassim in 2005. The revised model results are summarised in Appendix D.

13.2 The revised estimate for total bulk landfill gas produced in 2011 is 622,398m^3.

14. ESTIMATED ANNUAL AND CUMULATIVE QUANTITY OF INDIRECT EMISSIONS TO GROUNDWATER

14.1 The site operates on a dilute and disperse basis and as such any leachate generated disperses into the surrounding environment. A water balance calculation is included in Appendix C. This indicates that the estimated volume of leachate being produced at the site for 2012 is approximately 24,125m^3.

15. MONTHLY WATER BALANCE CALCULATION AND INTERPRETATION

15.1 The calculation for monthly water balance is as follows and is included in Appendix C. A summary of the results has been discussed in previous sections above.

$Lo = [ER (A) + LW + IRCA + ER (1)] – [aW]$

Where:

Lo = leachate produced (m^3)
ER = effective rainfall
A = area of cell (m^3)
LW = liquid waste
IRCA = infiltration through restored areas and capped areas (m)
a = absorptive capacity of waste (m^3/t)
W = weight of waste deposited
l = surface area of lagoons (m^2)

16. SCHEDULE OF ENVIRONMENTAL OBJECTIVES AND TARGETS FOR THE FORTHCOMING YEAR.

16.1 Please refer to Section 9.

17. REPORT ON THE PROGRESS TOWARDS ACHIEVEMENT OF THE ENVIRONMENTAL OBJECTIVES AND TARGETS CONTAINED IN THE PREVIOUS YEARS REPORT

17.1 Progress towards meeting targets and objectives set down for the reporting period is outlined in Section 9.

18. FULL TITLE AND A WRITTEN SUMMARY OF ANY PROCEDURES DEVELOPED BY THE LICENSEE IN THE YEAR, WHICH RELATES TO THE FACILITY OPERATION.

18.1 Environmental Management Procedures have been developed for the purpose of maintaining and assessing the Environmental Management System. Operational procedures ensure that the routine operational tasks related to the environmental management of the facility are undertaken in a satisfactory manner as required to maintain effective control of the environmental aspects of the facility.

18.2 An Environmental Management System (EMS) was submitted to the EPA during 2004 and approved. During 2006 the document was reviewed and there was not deemed to be any need to revision of addition of any procedures. This remains the situation.

19. REPORTED INCIDENTS AND COMPLAINTS SUMMARIES

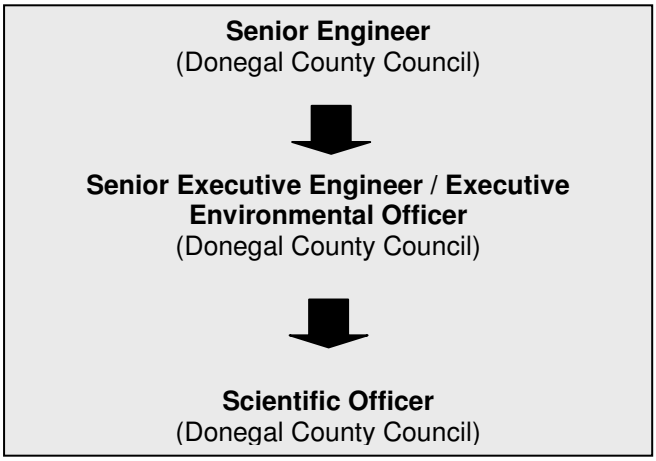
19.1 No complaints were received during the reporting period.

19.2 Donegal County Council reports on an on-going basis all occasions where either surface waters or groundwaters are found to contain in excess of 0.2mg/l ammonia, or where perimeter gas wells are found to contain greater than either 1% methane or 1.5% carbon dioxide. These are reported as incidents each quarter when the results become available.

19.3 Apart from the on-going monitoring exceedances reported explained above, there were no other incidents during the reporting period.

20. REPORT ON FINANCIAL PROVISIONS MADE UNDER THIS LICENCE, MANAGEMENT AND STAFFING STRUCTURE OF THE FACILITY AND A PROGRAMME FOR PUBLIC INFORMATION.

20.1 Management of the landfill site is as follows.



20.1.1 Senior Engineer**:** Overall responsibility for the management of the site and maintenance of the Waste Licence. Delegation of authority and responsibility to ensure the effective management of the facility.

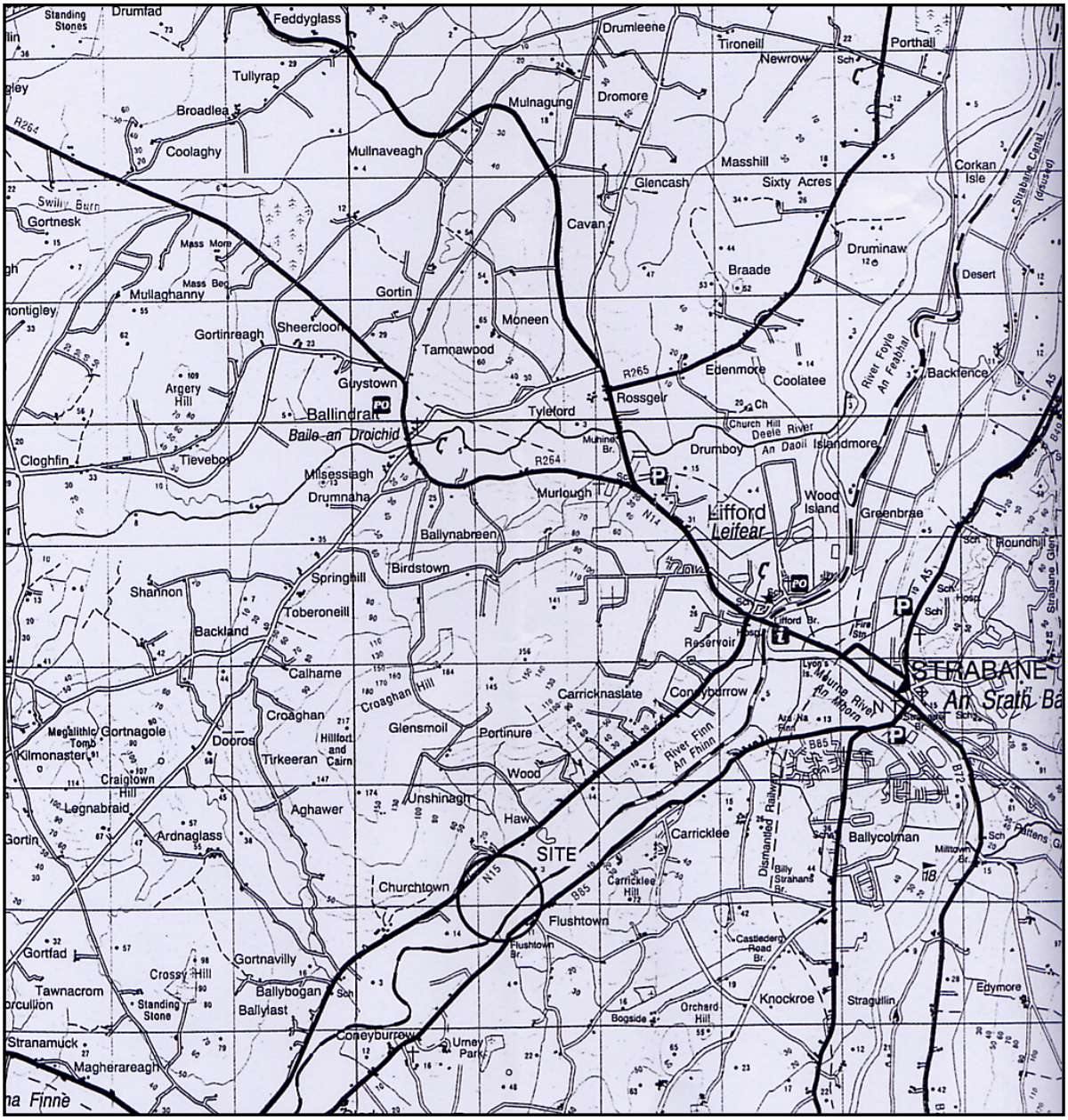
20.1.2 Senior Executive Engineer: Responsible for the operational management of the facility as directed by the Senior Engineer.

20.1.3 Executive Environmental Officer: Responsible for compliance with EPA Licence.

20.1.4 Scientific Officers**:** Carry out environmental inspections, monitoring and reporting in accordance with licence requirements to ensure compliance.

20.2 A public communication programme has been initiated in accordance with Condition 2 of the Waste Licence to ensure that information concerning the environmental performance is available at reasonable times. The public may view environmental records at the Donegal County Council Headquarters in Lifford. Details regarding this are contained in Section 2 of the Environmental Management System Manual.

20.3 As a Local Authority, Donegal County Council is fully committed to the on-going investment as required by this facility to ensure that it is properly managed environmentally.



TITLE

SITE LOCATION PLAN

PROJECT

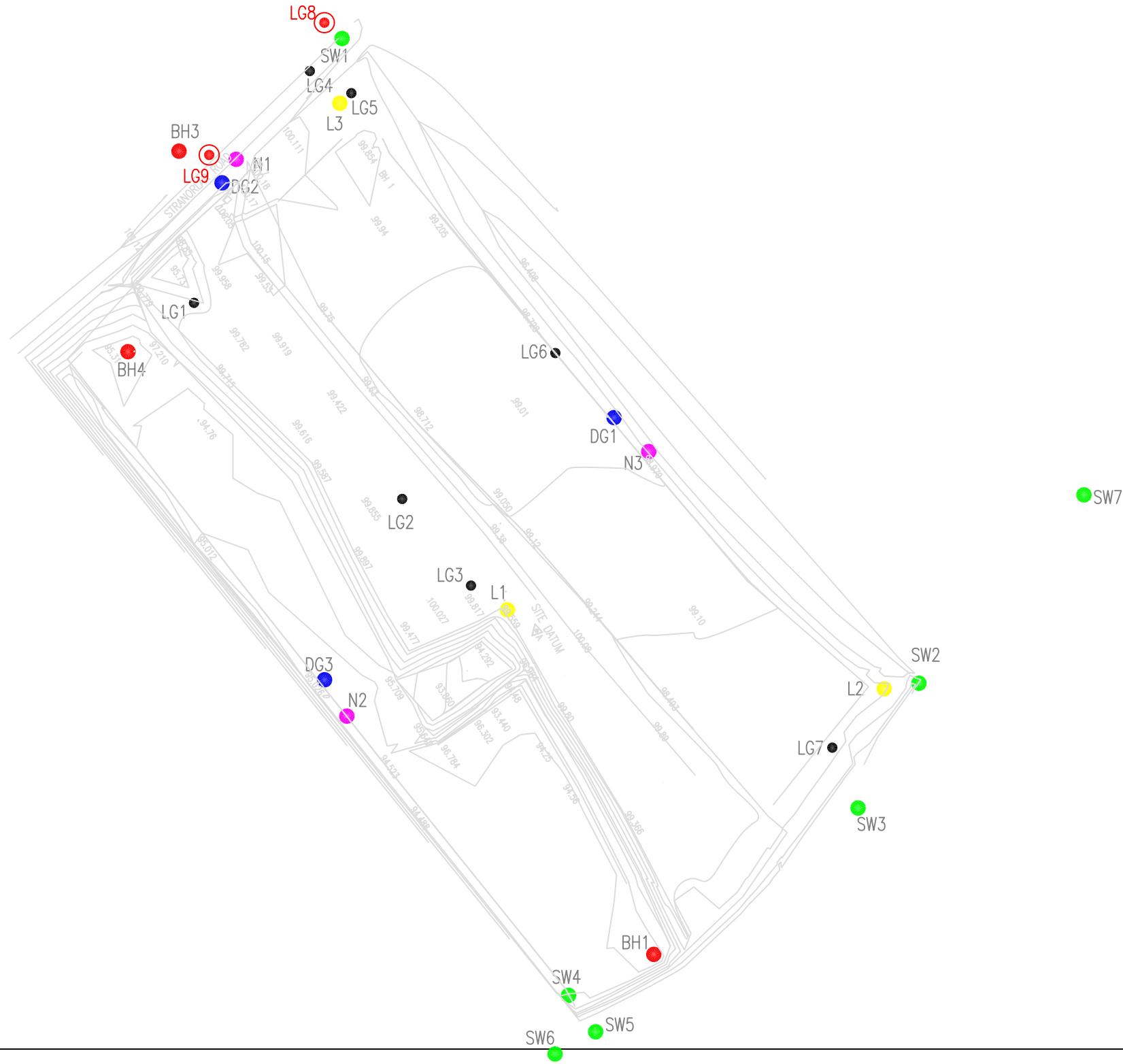
CHURCHTOWN LANDFILL SITE

CLIENT

DONEGAL COUNTY COUNCIL

RPS Kirk McClure Morton
CONSULTING ENGINEERS
ELMWOOD HOUSE 74
BOUCHER ROAD BELFAST
BT12 6RZ
TEL: 028 9066 7914
FAX: 028 9066 8286
www.kirkmccluremorton.com

PLOT SCALE	DRAWN / DATE	CHECKED / DATE	APPROVED / DATE	DWG No.
1:50,000	PMcM 21 OCT 2004	DJD 21 OCT 2004	DJD 21 OCT 2004	5234.63/100



NOTES

- SITE BOUNDARY
- LG GAS MONITORING POINTS
- L LEACHATE SAMPLING POINTS
- BH GROUNDWATER MONITORING POINT
- SW SURFACE WATER MONITORING
- DG DUST MONITORING POINTS
- N NOISE MONITORING POINTS
- LG NEW BOREHOLE LOCATION

REV	DESCRIPTION	BY DATE	CHECK DATE

DRAWN BY PMcM DATE AUG 04	CHECK BY AMcG DATE AUG 04	APPROVED DJD DATE OCT 04
PLOT SCALE 1:2500	SCHEDULES	SHEET SIZE A3

CLIENT
DONEGAL COUNTY COUNCIL

PROJECT
CHURCHTOWN LANDFILL SITE

TITLE
MONITORING POINTS

RPS Kirk McClure Morton
CONSULTING ENGINEERS
ELMWOOD HOUSE
74 BOUCHER ROAD
BELFAST BT12 6RZ
TEL: 028 9066 7914
FAX: 028 9066 8286
www.kirkmcclueremorton.com

ARCHITECT	
DRAWING No.	5234.63/107
REVISION	

DWG. STATUS	
PRELIM.	●
TENDER	
CONST.	
RECORD	

100mm

100mm

APPENDIX A

MONITORING LOCATIONS, FREQUENCIES and PARAMETERS

Table A1: Monitoring Locations (Grid Refs)		
	Eastings	Northings
BH1	231,072	395,752
BH3	230,840	396,127
BH4	230,818	296,041
L1	230,999	395,925
L2	231,169	395,887
L3	230,931	396,142
LG1	230,875	296,078
LG2	230,997	395,964
LG3	230,999	395,928
LG4	230,917	396,174
LG5	230,923	396,155
LG6	231,045	396,015
LG7	TBC	TBC
SW1	230,934	396,164
SW2	231,177	395,895
SW3	231,180	395,840
SW4	231,026	395,734
SW5	231,038	395,711
SW6	230.983	295,705
SW7	231,248	395,949

Table A2: Groundwater Parameters and Monitoring Frequencies	
Quarterly	**Annually**
Groundwater levels, Ammoniacal Nitrogen, Chloride, Dissolved Oxygen, Electrical Conductivity, pH, Temperature, Potassium Sodium, TON, TOC, Nitrate, Nitrite, Phenols. In addition a Visual Inspection/Odour will take place quarterly.	Boron, Cadmium, Calcium, Chromium, Copper, Cyanide, Fluoride, Iron, Lead, List I & II organic substances, Magnesium, Manganese, Mercury, Sulphate, Total Alkalinity, Total Phosphorous, Residue on evaporation, Zinc, Faecal Coliforms, Total Coliforms

Table A3: Surface Water Parameters and Monitoring Frequencies		
Monthly	**Quarterly**	**Annually**
Ammoniacal Nitrogen, BOD, Dissolved Oxygen, Electrical Conductivity, pH, Temperature, TSS Chlorine, Copper, Nitrate, Nitrite, Phenols, Zinc,	COD, Chloride.	Cadmium, Calcium, Chromium, Iron, Lead, List I & II organic substances, Magnesium, Manganese, Mercury, Potassium, Sulphate, Sodium, Total Alkalinity, Total Phosphorous, TON.

APPENDIX B

RESULTS OF MONITORING

Location		*Churchtown, Lifford, Co Donegal*											
Sample Type		Surface water											
Site No		SW1											
Date of Sample		JAN 12	FEB 12	MAR 12	APR 12	MAY 12	JUNE 12	JULY 12	AUGUST 12	SEPTEMBER 12	OCT 12	NOV 12	DEC 12
Lab No						2529			3867		5059	5489	
pH						7.44			6.60		7.1	7.19	
Temp	C					11.69			13		8.2	10.0	
Electrical Conductivity	uS/cm					189			207		211	165	
Ammonical Nitrogen	mg/l					0.04			<0.01		0.02	0.13	
COD	mg/l					27			20		3	4.0	
BOD	mg/l					1.32			1.47		0.13	0.8	
Dissolved Oxygen	mg/l					10.48			9.4		9.68	12.13	
SS	mg/l					0.2			1.0		3	3	
Residue on Evaporator	mg/l												
Calcium	mg/l										27		
Cadmium	mg/l										<0.1		
Chromium	mg/l										<3		
Chloride	mg/l					23			30		30	25	
Chlorine	mg/l										<0.01		
Copper	mg/l										<0.85		
Cyanide	mg/l												
Total Iron	mg/l										<0.019		
Lead	mg/l										0.053		
Magnesium	mg/l										4.04		
Manganese	mg/l										0.949		
Mercury	mg/l										<0.01		
Nickel	mg/l												
Potassium	mg/l										2.6		
Sodium	mg/l										11.8		
Sulphate	mg/l										10.5		
Zinc	ug/l										2		
Total Alkalinity as CaCO3	mg/l										90		
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l					1.80			4.92		0.07	0.25	
Arsenic	mg/l												
Barium	mg/l												
Boron	mg/l												
Flouride	mg/l												
Total Phenols	mg/l										<0.025		
Phosphorous	mg/l												
Selenium	mg/l												
Silver	mg/l												
Mircrotox	Toxic Units												
Microtox	Toxic Units												
Nitrite	mg/l												
Nitrate	mg/l												
Phosphate - ORTHO	mg/l								<0.01		0.05		
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m												

*** Insufficient Sample / No Access
--- Not Applicable

Location		*Churchtown, Lifford, Co Donegal*											
Sample Type		Surface water											
Site No		SW2											
Date of Sample		JAN 12	FEB 12	MAR 12	APR 12	MAY 12	JUNE 12	JULY 12	AUGUST 12	SEPTEMBER 12	OCT 12	NOV 12	DEC 12
Lab No			1477			2530			3868		5060	5490	
pH			7.38			7.24			7.12		7.09	6.96	
Temp	C		12.1			10.8			14.5		8	10.1	
Electrical Conductivity	uS/cm		162			1069			623		414	311	
Ammonical Nitrogen	mg/l		0.09			35.00			18		6.4	5.2	
COD	mg/l		34			39			48		12	37	
BOD	mg/l		1			0.8			1.6		1.6	0.7	
Dissolved Oxygen	mg/l		11.26			0.88			7.61		7.88	5.96	
SS	mg/l		0.2			2			3.0		4.0	103	
Residue on Evaporator	mg/l												
Calcium	mg/l										47		
Cadmium	mg/l										<0.1		
Chromium	mg/l										<3		
Chloride	mg/l		20						41		35	30	
Chlorine	mg/l										0.01		
Copper	mg/l										<0.85		
Cyanide	mg/l												
Total Iron	mg.l										0.84		
Lead	mg/l										0.04		
Magnesium	mg/l										9.36		
Manganese	mg/l										66.4		
Mercury	mg/l										<0.01		
Nickel	mg/l												
Potassium	mg/l										9.04		
Sodium	mg/l										18.1		
Sulphate	mg/l										9.50		
Zinc	mg/l										2		
Total Alkalinity as CaCO3	mg/l										162		
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l		2			0.30			0.79		0.47	0.27	
Arsenic	mg/l												
Barium	mg/l												
Boron	mg/l												
Flouride	mg/l												
Total Phenols	mg/l										<0.025		
Phosphorous	mg/l												
Selenium	mg/l												
Silver	mg/l												
Mircrotox	Toxic Units												
Microtox	Toxic Units												
Nitrite	mg/l		<0.03										
Nitrate	mg/l		1.72										
Phosphate - ORTHO	mg/l										<0.01		
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m												

*** Insufficient Sample / No Access
--- Not Applicable

Location		*Churchtown, Lifford, Co Donegal*											
Sample Type		Surface water											
Site No		SW3											
Date of Sample		JAN 12	FEB 12	MAR 12	APR 12	MAY 12	JUNE 12	JULY 12	AUGUST 12	SEPTEMBER 12	OCT 12	NOV 12	DEC 12
Lab No			1478			2531			3869		5061	5491	
pH			7.21			7.69			7.03		7.16	7.23	
Temp	C		12.10			10.9			14.1		8.3	10.0	
Electrical Conductivity	uS/cm		62			102			86		114	65	
Ammonical Nitrogen	mg/l		0.10			0.070			<0.01		0.03	0.13	
COD	mg/l		34			24			27		30	29	
BOD	mg/l		1			0.95			1.35		0.5	1.1	
Dissolved Oxygen	mg/l		11.2			10.46			9.04		10.64	11.0	
SS	mg/l		2.5			1			2.0		2	5	
Residue on Evaporator	mg/l												
Calcium	mg/l										14		
Cadmium	mg/l										<0.1		
Chromium	mg/l										<3		
Chloride	mg/l		29			23			20		20	16	
Chlorine	mg/l										<0.01		
Copper	mg/l										1		
Cyanide	mg/l												
Total Iron	mg/l										0.43		
Lead	mg/l										0.102		
Magnesium	mg/l										2.13		
Manganese	mg/l										3.56		
Mercury	mg/l										<0.01		
Nickel	mg/l												
Potassium	mg/l										<2.34		
Sodium	mg/l										8.22		
Sulphate	mg/l										<2		
Zinc	mg/l										3		
Total Alkalinity as CaCO3	mg/l										36		
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l		0.03			0.21			0.31		0.25	<0.01	
Arsenic	mg/l												
Barium	mg/l												
Boron	mg/l												
Flouride	mg/l												
Total Phenols	mg/l										<0.025		
Phosphorous	mg/l												
Selenium	mg/l												
Silver	mg/l												
Mircrotox	Toxic Units												
Microtox	Toxic Units												
Nitrite	mg/l		<0.03										
Nitrate	mg/l		0.04										
Phosphate - ORTHO	mg/l								<0.01		<0.01	0.000	
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m												

*** Insufficient Sample / No Access
--- Not Applicable

Location		*Churchtown, Lifford, Co Donegal*											
Sample Type		Surface water											
Site No		SW4											
Date of Sample		JAN 12	FEB 12	MAR 12	APR 12	MAY 12	JUNE 12	JULY 12	AUGUST 12	SEPTEMBER 12	OCT 12	NOV 12	DEC 12
Lab No			1479			2532			***		5062	5492	
pH			7.22			7.02			***		7.12	7.07	
Temp	C		12.5			10.8			***		8.4	10.1	
Electrical Conductivity	uS/cm		57			1084			***		113	284	
Ammonical Nitrogen	mg/l		0.13			23.0			***		0.1	5.43	
COD	mg/l		22			51			***		23	30	
BOD	mg/l		1			2.84			***		1.5	1.49	
Dissolved Oxygen	mg/l		11.17			10.31			***		10.01	9.49	
SS	mg/l		1						***		3	9.0	
Residue on Evaporator	mg/l										0	0	
Calcium	mg/l										13		
Cadmium	mg/l										<0.1		
Chromium	mg/l										<3		
Chloride	mg/l		24						***		20	25	
Chlorine	mg/l										<0.01		
Copper	mg/l										1		
Cyanide	mg/l												
Total Iron	mg/l										0.43		
Lead	mg/l										0.1		
Magnesium	mg/l										2.17		
Manganese	mg/l										4.55		
Mercury	mg/l										<0.01		
Nickel	mg/l												
Potassium	mg/l										<2.34		
Sodium	mg/l										8.48		
Sulphate	mg/l										<2		
Zinc	mg/l										2		
Total Alkalinity as CaCO3	mg/l										36		
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l		2.0			7.480			***		0.03		
Arsenic	mg/l												
Barium	mg/l												
Boron	mg/l												
Flouride	mg/l												
Total Phenols	mg/l										<0.025		
Phosphorous	mg/l												
Selenium	mg/l												
Silver	mg/l												
Mircrotox	Toxic Units												
Microtox	Toxic Units												
Nitrite	mg/l		<0.03										
Nitrate	mg/l		0.0										
Phosphate - ORTHO	mg/l										<0.01		
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m												

*** Insufficient Sample / No Access
--- Not Applicable

Location		*Churchtown, Lifford, Co Donegal*											
Sample Type		Surface water											
Site No		SW5											
Date of Sample		JAN 12	FEB 12	MAR 12	APR 12	MAY 12	JUNE 12	JULY 12	AUGUST 12	SEPTEMBER 12	OCT 12	NOV 12	DEC 12
Lab No			1480			2533			3870		5063	5493	
pH			7.13			6.65			7.01		7.12	7.09	
Temp	C		12.70			10.6			14.1		8.3	10.1	
Electrical Conductivity	uS/cm		381			264			93		111	322	
Ammonical Nitrogen	mg/l		8.18			7.86			0.19		0.13	7.78	
COD	mg/l		41			30			32		18	31	
BOD	mg/l		0.66			3.25			1.6		1.0	1.8	
Dissolved Oxygen	mg/l		8.99			9.80			9		10.02	9.19	
SS	mg/l		2.6			0.6			2		2	9.0	
Residue on Evaporator	mg/l												
Calcium	mg/l										13		
Cadmium	mg/l										<0.1		
Chromium	mg/l										<3		
Chloride	mg/l		66			59			21		18	27	
Chlorine	mg/l										0.04		
Copper	mg/l										0.9		
Cyanide	mg/l												
Total Iron	mg/l										0.4		
Lead	mg/l										0.173		
Magnesium	mg/l										2.1		
Manganese	mg/l										4.62		
Mercury	mg/l										<0.01		
Nickel	mg/l												
Potassium	mg/l										<2.34		
Sodium	mg/l										8.17		
Sulphate	mg/l										<2		
Zinc	mg/l										3		
Total Alkalinity as CaCO3	mg/l										40		
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l		0.03			0.86			0.16		0.03	0.03	
Arsenic	mg/l												
Barium	mg/l												
Boron	mg/l												
Flouride	mg/l												
Total Phenols	mg/l										<0.025		
Phosphorous	mg/l												
Selenium	mg/l												
Silver	mg/l												
Mircrotox	Toxic Units												
Microtox	Toxic Units												
Nitrite	mg/l		<0.03										
Nitrate	mg/l		2.03										
Phosphate - ORTHO	mg/l								0.010		0.02		
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m												

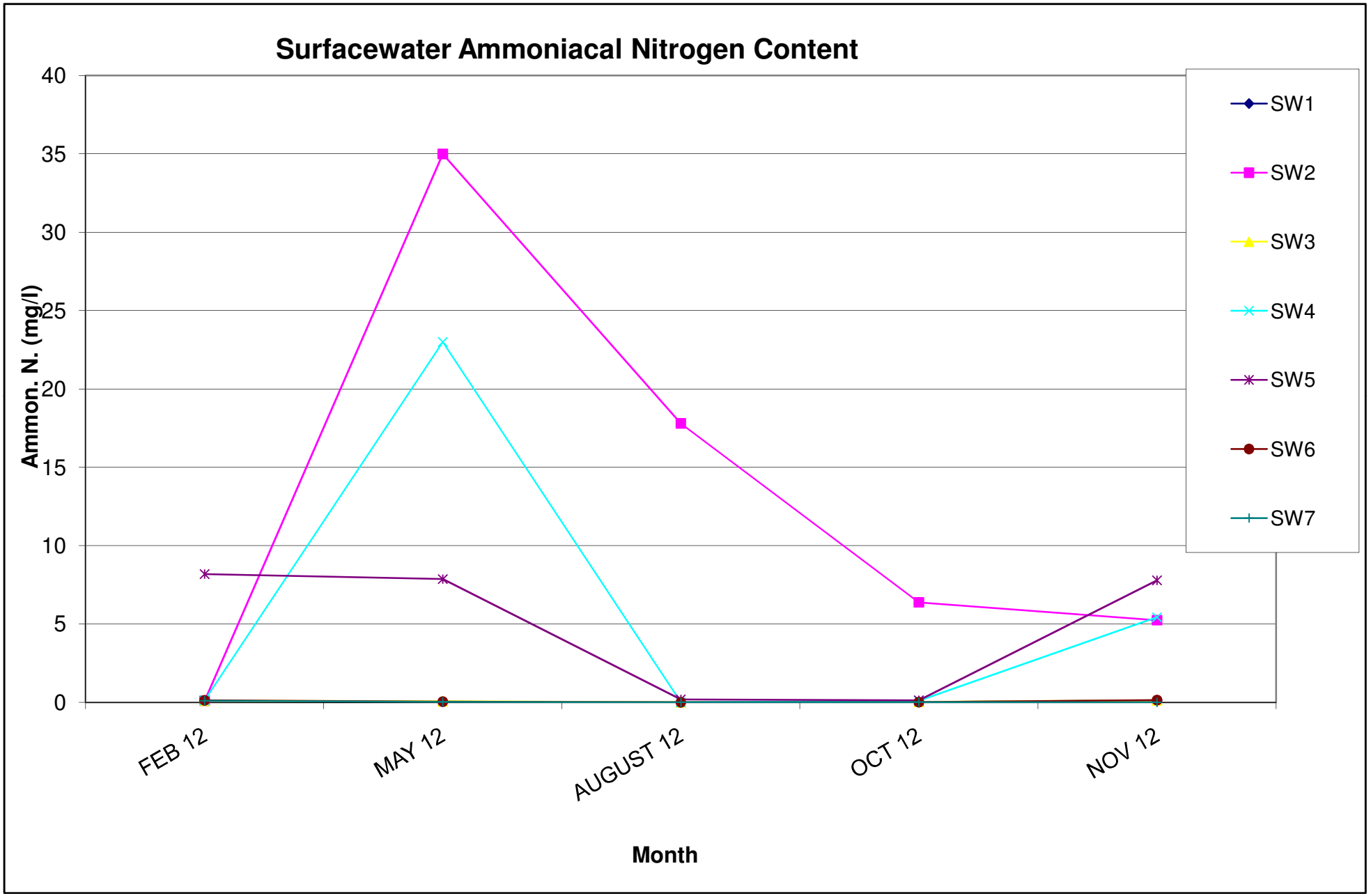
*** Insufficient Sample / No Access
--- Not Applicable

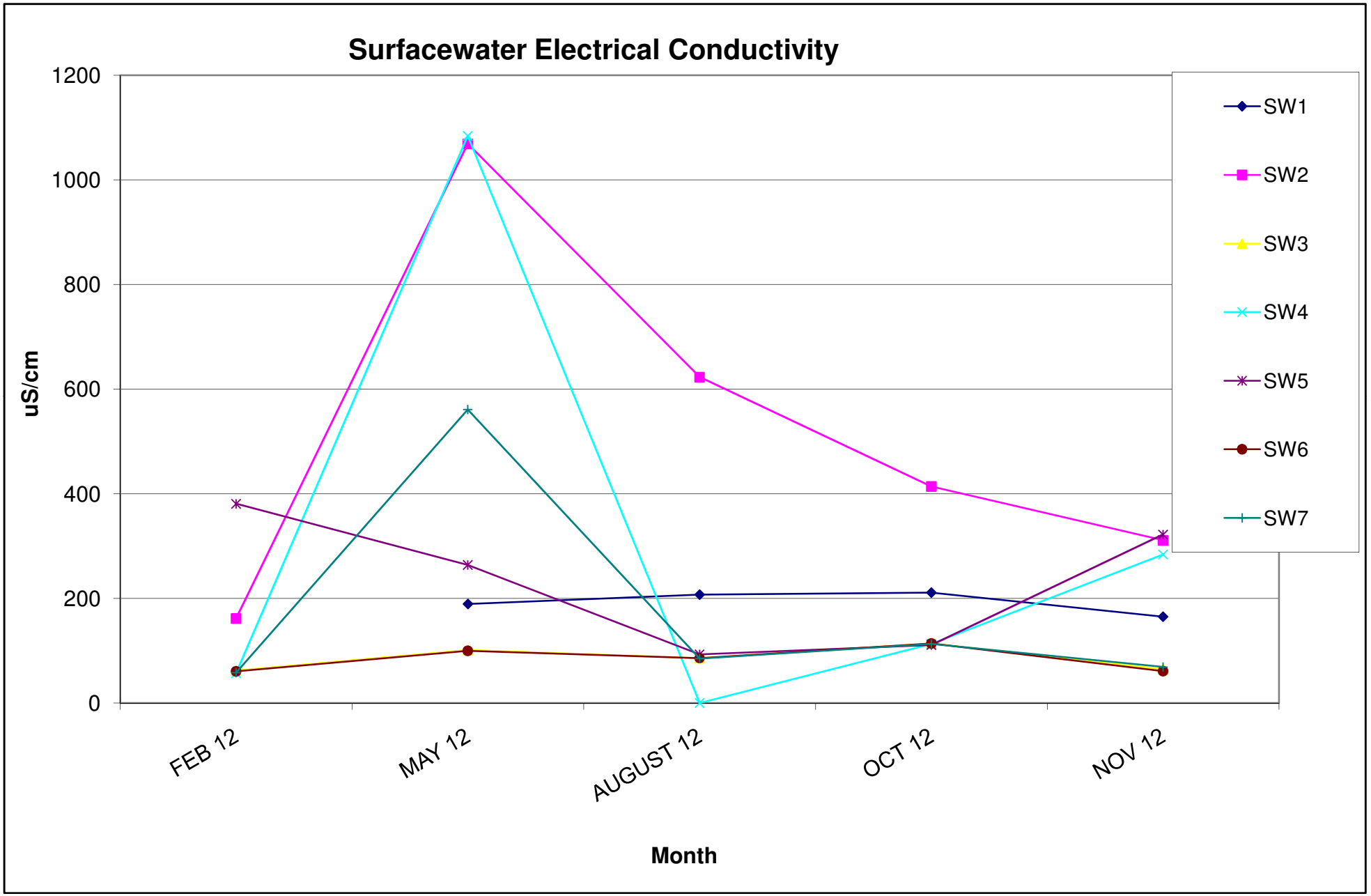
Location		*Churchtown, Lifford, Co Donegal*											
Sample Type		Surface water											
Site No		SW6											
Date of Sample		JAN 12	FEB 12	MAR 12	APR 12	MAY 12	JUNE 12	JULY 12	AUGUST 12	SEPTEMBER 12	OCT 12	NOV 12	DEC 12
Lab No			1481			2534			3871		5064	5494	
pH			7.31			6.98			6.94		7.10	7.2	
Temp	C		12			#REF!			14.1		8.3	9.8	
Electrical Conductivity	uS/cm		61			100			86		114	61	
Ammonical Nitrogen	mg/l		0.12			0.04			<0.01		0.01	0.14	
COD	mg/l		31			51			30		23	33	
BOD	mg/l		1			1.0			1.2		0.54	0.8	
Dissolved Oxygen	mg/l		11.3			10.5			8.95		10.6	11	
SS	mg/l		0.8			0.6			1.0		1.0	3.0	
Residue on Evaporator	mg/l												
Calcium	mg/l										13		
Cadmium	mg/l										<0.1		
Chromium	mg/l										<3		
Chloride	mg/l		42			59			16		19	15	
Chlorine	mg/l										0.02		
Copper	mg/l										0.9		
Cyanide	mg/l												
Total Iron	mg/l										0.42		
Lead	mg/l										0.12		
Magnesium	mg/l										2.14		
Manganese	mg/l										3.63		
Mercury	mg/l										<0.01		
Nickel	mg/l												
Potassium	mg/l										<2.34		
Sodium	mg/l										8.26		
Sulphate	mg/l										<2		
Zinc	mg/l										4		
Total Alkalinity as CaCO3	mg/l										36		
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l		0.02			0.20			0.14		0.08	0.01	
Arsenic	mg/l												
Barium	mg/l												
Boron	mg/l												
Flouride	mg/l												
Total Phenols	mg/l										<0.025		
Phosphorous	mg/l												
Selenium	mg/l												
Silver	mg/l												
Mircrotox	Toxic Units												
Microtox	Toxic Units												
Nitrite	mg/l		<0.03										
Nitrate	mg/l		0.02										
Phosphate - ORTHO	mg/l		0.03						<0.01		0.01		
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m												

*** Insufficient Sample / No Access
--- Not Applicable

Location		*Churchtown, Lifford, Co Donegal*											
Sample Type		surface water											
Site No		SW7											
Date of Sample		JAN 12	FEB 12	MAR 12	APR 12	MAY 12	JUNE 12	JULY 12	AUGUST 1	SEPTEMBER 12	OCT 12	NOV 12	DEC 12
Lab No			1482			2535			3872		5065	5495	
pH			7.26			6.99			6.90		7.10	7.06	
Temp	C		12.1			10.5			14.1		8.3	9.8	
Electrical Conductivity	uS/cm		58			561			85		113	69	
Ammonical Nitrogen	mg/l		0.10			0.03			<0.01		0.02	<0.01	
COD	mg/l		30			25			27		25	35	
BOD	mg/l		1			1.18			1.50		0.55	0.6	
Dissolved Oxygen	mg/l		11.3			10.2			8.86		10.63	11.2	
SS	mg/l		0.6			0.2			1.0		4.0	4.0	
Residue on Evaporator	mg/l												
Calcium	mg/l										13		
Cadmium	mg/l										<0.1		
Chromium	mg/l										<3		
Chloride	mg/l		19			39			19		19	15	
Chlorine	mg/l										<0.01		
Copper	mg/l										1.0		
Cyanide	mg/l												
Total Iron	mg/l										0.41		
Lead	mg/l										0.16		
Magnesium	mg/l										2.21		
Manganese	mg/l										3.68		
Mercury	mg/l										<0.01		
Nickel	mg/l												
Potassium	mg/l										<2.34		
Sodium	mg/l										8.53		
Sulphate	mg/l										<2		
Zinc	mg/l										3		
Total Alkalinity as CaCO3	mg/l										36		
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l		0.02			0.38			0.14		0.1	0.01	
Arsenic	mg/l												
Barium	mg/l												
Boron	mg/l												
Flouride	mg/l												
Total Phenols	mg/l										<0.025		
Phosphorous	mg/l												
Selenium	mg/l												
Silver	mg/l												
Mircrotox	Toxic Units												
Microtox	Toxic Units												
Nitrite	mg/l		<0.03										
Nitrate	mg/l		0.02										
Phosphate - ORTHO	mg/l								<0.01		0.01	<0.01	
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m												

*** Insufficient Sample / No Access
--- Not Applicable


Surfacewater Ammoniacal Nitrogen Content
Ammon. N. (mg/l)
40
35
30
25
20
15
10
5
0
FEB 12
MAY 12
AUGUST 12
OCT 12
NOV 12
Month
SW1
SW2
SW3
SW4
SW5
SW6
SW7


Surfacewater Electrical Conductivity
1200
1000
800
600
400
200
0
uS/cm
FEB 12
MAY 12
AUGUST 12
OCT 12
NOV 12
Month
SW1
SW2
SW3
SW4
SW5
SW6
SW7

VOLATILE ORGANIC COMPOUNDS		*Chuurchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**SW1**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
Dichlorodifluoromethane	N.D	11 Dichloropropene	N.D
Chloromethane	N.D	Benzene	N.D
Ethyl Chloride/Chloroethane	N.D	12 Dichloroethane	N.D
Vinyl Chloride/Chloroethene	N.D	Trichloroethylene/ Trichloroethene	N.D
Bromomethane	N.D	12 Dichloropropane	N.D
Trichloromonofluoromethane	N.D	Dibromomethane	N.D
Ethyl Ether/Diethyl Ether	N.D	Methyl Methacrylate	N.D
11 Dichloroethene	N.D	Bromodichloromethane	N.D
Acetone	N.D	13 Dichloropropene,cis	N.D
Iodomethane/Methyl Iodide	N.D	MIBK/4 Methyl 2 Pentanone	N.D
Carbon Disulphide	N.D	Toluene	N.D
Allyl Chloride	N.D	13 Dichloropropene,trans	N.D
Methylene Chloride/DCM	N.D	Ethyl Methacrylate	N.D
2-Propenenitrile/Acrylonitrile	N.D	112 Trichloroethane	N.D
Chlormethyl Cyanide/Chloroacetonitrile	N.D	Tetrachloroethylene/ Tetrachloroethene	N.D
Nitrobenzene	N.D	13 Dichloropropane	N.D
Propanenitrile	N.D	2-Hexanone	N.D
Hexachlorobutadiene	N.D	Dibromochloromethane	N.D
Trans-1,2 Dichloroethene	N.D	12 Dibromoethane	N.D
MtBE	N.D	Chlorobenzene	N.D
11 Dichloroethane	N.D	1112 Tetrachloroethane	N.D
22 Dichloropropane	N.D	Ethyl Benzene	N.D
cis-12 Dichloroethene	N.D	m & p Xylene	N.D
2-Butanone	N.D	o Xylene	N.D
Methyl Acrylate	N.D	Styrene	N.D
Bromochloromethane	N.D	Bromoform	N.D
Methacrylonitrile	N.D	Isopropyl Benzene	N.D
Tetrahydrofuran	N.D	Bromobenzene	N.D
Trichloromethane/ Chloroform*	N.D	1122 Tetrachloroethane	N.D
111 Trichloroethane	N.D	123 Trichloropropane	N.D
1-Chlorobutane	N.D	Trans 14 Dichloro 2 Butene, tran	N.D
Carbon Tetrachloride	N.D	Propyl Benzene	N.D
2-Chlorotoluene	N.D	P Isopropyltoluene	N.D
4 Chlorotoluene	N.D	14 Dichlorobenzene	N.D
135 Trimethylbenzene	N.D	12 Dichlorobenzene	N.D
Tert Butyl Benzene	N.D	N Butyl Benzene	N.D
124 Trimethylbenzene	N.D	Hexachloroethane	N.D
Sec Butyl Benzene	N.D	12 Dibromo 3 Chloropropane	N.D
13 Dichlorobenzene	N.D	124 Trichlorobenzene	N.D
		123 Trichlorobenzene	N.D

VOLATILE ORGANIC COMPOUNDS		*Chuurchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**SW2**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
Dichlorodifluoromethane	N.D	11 Dichloropropene	N.D
Chloromethane	N.D	Benzene	N.D
Ethyl Chloride/Chloroethane	N.D	12 Dichloroethane	N.D
Vinyl Chloride/Chloroethene	N.D	Trichloroethylene/ Trichloroethene	N.D
Bromomethane	N.D	12 Dichloropropane	N.D
Trichloromonofluoromethane	N.D	Dibromomethane	N.D
Ethyl Ether/Diethyl Ether	N.D	Methyl Methacrylate	N.D
11 Dichloroethene	N.D	Bromodichloromethane	N.D
Acetone	N.D	13 Dichloropropene,cis	N.D
Iodomethane/Methyl Iodide	N.D	MIBK/4 Methyl 2 Pentanone	N.D
Carbon Disulphide	N.D	Toluene	N.D
Allyl Chloride	N.D	13 Dichloropropene,trans	N.D
Methylene Chloride/DCM	N.D	Ethyl Methacrylate	N.D
2-Propenenitrile/Acrylonitrile	N.D	112 Trichloroethane	N.D
Chlormethyl Cyanide/Chloroacetonitrile	N.D	Tetrachloroethylene/ Tetrachloroethene	N.D
Nitrobenzene	N.D	13 Dichloropropane	N.D
Propanenitrile	N.D	2-Hexanone	N.D
Hexachlorobutadiene	N.D	Dibromochloromethane	N.D
Trans-1,2 Dichloroethene	N.D	12 Dibromoethane	N.D
MtBE	N.D	Chlorobenzene	N.D
11 Dichloroethane	N.D	1112 Tetrachloroethane	N.D
22 Dichloropropane	N.D	Ethyl Benzene	N.D
cis-12 Dichloroethene	N.D	m & p Xylene	N.D
2-Butanone	N.D	o Xylene	N.D
Methyl Acrylate	N.D	Styrene	N.D
Bromochloromethane	N.D	Bromoform	N.D
Methacrylonitrile	N.D	Isopropyl Benzene	N.D
Tetrahydrofuran	N.D	Bromobenzene	N.D
Trichloromethane/ Chloroform*	N.D	1122 Tetrachloroethane	N.D
111 Trichloroethane	N.D	123 Trichloropropane	N.D
1-Chlorobutane	N.D	Trans 14 Dichloro 2 Butene, tran	N.D
Carbon Tetrachloride	N.D	Propyl Benzene	N.D
2-Chlorotoluene	N.D	P Isopropyltoluene	N.D
4 Chlorotoluene	N.D	14 Dichlorobenzene	N.D
135 Trimethylbenzene	N.D	12 Dichlorobenzene	N.D
Tert Butyl Benzene	N.D	N Butyl Benzene	N.D
124 Trimethylbenzene	N.D	Hexachloroethane	N.D
Sec Butyl Benzene	N.D	12 Dibromo 3 Chloropropane	N.D
13 Dichlorobenzene	N.D	124 Trichlorobenzene	N.D
		123 Trichlorobenzene	N.D

VOLATILE ORGANIC COMPOUNDS		*Chuurchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**SW3**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
Dichlorodifluoromethane	N.D	11 Dichloropropene	N.D
Chloromethane	N.D	Benzene	N.D
Ethyl Chloride/Chloroethane	N.D	12 Dichloroethane	N.D
Vinyl Chloride/Chloroethene	N.D	Trichloroethylene/ Trichloroethene	N.D
Bromomethane	N.D	12 Dichloropropane	N.D
Trichloromonofluoromethane	N.D	Dibromomethane	N.D
Ethyl Ether/Diethyl Ether	N.D	Methyl Methacrylate	N.D
11 Dichloroethene	N.D	Bromodichloromethane	N.D
Acetone	N.D	13 Dichloropropene,cis	N.D
Iodomethane/Methyl Iodide	N.D	MIBK/4 Methyl 2 Pentanone	N.D
Carbon Disulphide	N.D	Toluene	N.D
Allyl Chloride	N.D	13 Dichloropropene,trans	N.D
Methylene Chloride/DCM	N.D	Ethyl Methacrylate	N.D
2-Propenenitrile/Acrylonitrile	N.D	112 Trichloroethane	N.D
Chlormethyl Cyanide/Chloroacetonitrile	N.D	Tetrachloroethylene/ Tetrachloroethene	N.D
Nitrobenzene	N.D	13 Dichloropropane	N.D
Propanenitrile	N.D	2-Hexanone	N.D
Hexachlorobutadiene	N.D	Dibromochloromethane	N.D
Trans-1,2 Dichloroethene	N.D	12 Dibromoethane	N.D
MtBE	N.D	Chlorobenzene	N.D
11 Dichloroethane	N.D	1112 Tetrachloroethane	N.D
22 Dichloropropane	N.D	Ethyl Benzene	N.D
cis-12 Dichloroethene	N.D	m & p Xylene	N.D
2-Butanone	N.D	o Xylene	N.D
Methyl Acrylate	N.D	Styrene	N.D
Bromochloromethane	N.D	Bromoform	N.D
Methacrylonitrile	N.D	Isopropyl Benzene	N.D
Tetrahydrofuran	N.D	Bromobenzene	N.D
Trichloromethane/ Chloroform*	N.D	1122 Tetrachloroethane	N.D
111 Trichloroethane	N.D	123 Trichloropropane	N.D
1-Chlorobutane	N.D	Trans 14 Dichloro 2 Butene, tran	N.D

VOLATILE ORGANIC COMPOUNDS		*Chuurchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**SW4**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
Dichlorodifluoromethane	N.D	11 Dichloropropene	N.D
Chloromethane	N.D	Benzene	N.D
Ethyl Chloride/Chloroethane	N.D	12 Dichloroethane	N.D
Vinyl Chloride/Chloroethene	N.D	Trichloroethylene/ Trichloroethene	N.D
Bromomethane	N.D	12 Dichloropropane	N.D
Trichloromonofluoromethane	N.D	Dibromomethane	N.D
Ethyl Ether/Diethyl Ether	N.D	Methyl Methacrylate	N.D
11 Dichloroethene	N.D	Bromodichloromethane	N.D
Acetone	N.D	13 Dichloropropene,cis	N.D
Iodomethane/Methyl Iodide	N.D	MIBK/4 Methyl 2 Pentanone	N.D
Carbon Disulphide	N.D	Toluene	N.D
Allyl Chloride	N.D	13 Dichloropropene,trans	N.D
Methylene Chloride/DCM	N.D	Ethyl Methacrylate	N.D
2-Propenenitrile/Acrylonitrile	N.D	112 Trichloroethane	N.D
Chlormethyl Cyanide/Chloroacetonitrile	N.D	Tetrachloroethylene/ Tetrachloroethene	N.D
Nitrobenzene	N.D	13 Dichloropropane	N.D
Propanenitrile	N.D	2-Hexanone	N.D
Hexachlorobutadiene	N.D	Dibromochloromethane	N.D
Trans-1,2 Dichloroethene	N.D	12 Dibromoethane	N.D
MtBE	N.D	Chlorobenzene	N.D
11 Dichloroethane	N.D	1112 Tetrachloroethane	N.D
22 Dichloropropane	N.D	Ethyl Benzene	N.D
cis-12 Dichloroethene	N.D	m & p Xylene	N.D
2-Butanone	N.D	o Xylene	N.D
Methyl Acrylate	N.D	Styrene	N.D
Bromochloromethane	N.D	Bromoform	N.D
Methacrylonitrile	N.D	Isopropyl Benzene	N.D
Tetrahydrofuran	N.D	Bromobenzene	N.D
Trichloromethane/ Chloroform*	N.D	1122 Tetrachloroethane	N.D
111 Trichloroethane	N.D	123 Trichloropropane	N.D
1-Chlorobutane	N.D	Trans 14 Dichloro 2 Butene, tran	N.D
Carbon Tetrachloride	N.D	Propyl Benzene	N.D
2-Chlorotoluene	N.D	P Isopropyltoluene	N.D
4 Chlorotoluene	N.D	14 Dichlorobenzene	N.D
135 Trimethylbenzene	N.D	12 Dichlorobenzene	N.D
Tert Butyl Benzene	N.D	N Butyl Benzene	N.D
124 Trimethylbenzene	N.D	Hexachloroethane	N.D
Sec Butyl Benzene	N.D	12 Dibromo 3 Chloropropane	N.D
13 Dichlorobenzene	N.D	124 Trichlorobenzene	N.D
		123 Trichlorobenzene	N.D

VOLATILE ORGANIC COMPOUNDS		*Chuurchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**SW5**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
Dichlorodifluoromethane	N.D	11 Dichloropropene	N.D
Chloromethane	N.D	Benzene	N.D
Ethyl Chloride/Chloroethane	N.D	12 Dichloroethane	N.D
Vinyl Chloride/Chloroethene	N.D	Trichloroethylene/ Trichloroethene	N.D
Bromomethane	N.D	12 Dichloropropane	N.D
Trichloromonofluoromethane	N.D	Dibromomethane	N.D
Ethyl Ether/Diethyl Ether	N.D	Methyl Methacrylate	N.D
11 Dichloroethene	N.D	Bromodichloromethane	N.D
Acetone	N.D	13 Dichloropropene,cis	N.D
Iodomethane/Methyl Iodide	N.D	MIBK/4 Methyl 2 Pentanone	N.D
Carbon Disulphide	N.D	Toluene	N.D
Allyl Chloride	N.D	13 Dichloropropene,trans	N.D
Methylene Chloride/DCM	N.D	Ethyl Methacrylate	N.D
2-Propenenitrile/Acrylonitrile	N.D	112 Trichloroethane	N.D
Chlormethyl Cyanide/Chloroacetonitrile	N.D	Tetrachloroethylene/ Tetrachloroethene	N.D
Nitrobenzene	N.D	13 Dichloropropane	N.D
Propanenitrile	N.D	2-Hexanone	N.D
Hexachlorobutadiene	N.D	Dibromochloromethane	N.D
Trans-1,2 Dichloroethene	N.D	12 Dibromoethane	N.D
MtBE	N.D	Chlorobenzene	N.D
11 Dichloroethane	N.D	1112 Tetrachloroethane	N.D
22 Dichloropropane	N.D	Ethyl Benzene	N.D
cis-12 Dichloroethene	N.D	m & p Xylene	N.D
2-Butanone	N.D	o Xylene	N.D
Methyl Acrylate	N.D	Styrene	N.D
Bromochloromethane	N.D	Bromoform	N.D
Methacrylonitrile	N.D	Isopropyl Benzene	N.D
Tetrahydrofuran	N.D	Bromobenzene	N.D
Trichloromethane/ Chloroform*	N.D	1122 Tetrachloroethane	N.D
111 Trichloroethane	N.D	123 Trichloropropane	N.D
1-Chlorobutane	N.D	Trans 14 Dichloro 2 Butene, tran	N.D
Carbon Tetrachloride	N.D	Propyl Benzene	N.D
2-Chlorotoluene	N.D	P Isopropyltoluene	N.D
4 Chlorotoluene	N.D	14 Dichlorobenzene	N.D
135 Trimethylbenzene	N.D	12 Dichlorobenzene	N.D
Tert Butyl Benzene	N.D	N Butyl Benzene	N.D
124 Trimethylbenzene	N.D	Hexachloroethane	N.D
Sec Butyl Benzene	N.D	12 Dibromo 3 Chloropropane	N.D
13 Dichlorobenzene	N.D	124 Trichlorobenzene	N.D

VOLATILE ORGANIC COMPOUNDS		*Chuurchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**SW6**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
Dichlorodifluoromethane	N.D	11 Dichloropropene	N.D
Chloromethane	N.D	Benzene	N.D
Ethyl Chloride/Chloroethane	N.D	12 Dichloroethane	N.D
Vinyl Chloride/Chloroethene	N.D	Trichloroethylene/ Trichloroethene	N.D
Bromomethane	N.D	12 Dichloropropane	N.D
Trichloromonofluoromethane	N.D	Dibromomethane	N.D
Ethyl Ether/Diethyl Ether	N.D	Methyl Methacrylate	N.D
11 Dichloroethene	N.D	Bromodichloromethane	N.D
Acetone	N.D	13 Dichloropropene,cis	N.D
Iodomethane/Methyl Iodide	N.D	MIBK/4 Methyl 2 Pentanone	N.D
Carbon Disulphide	N.D	Toluene	N.D
Allyl Chloride	N.D	13 Dichloropropene,trans	N.D
Methylene Chloride/DCM	N.D	Ethyl Methacrylate	N.D
2-Propenenitrile/Acrylonitrile	N.D	112 Trichloroethane	N.D
Chlormethyl Cyanide/Chloroacetonitrile	N.D	Tetrachloroethylene/ Tetrachloroethene	N.D
Nitrobenzene	N.D	13 Dichloropropane	N.D
Propanenitrile	N.D	2-Hexanone	N.D
Hexachlorobutadiene	N.D	Dibromochloromethane	N.D
Trans-1,2 Dichloroethene	N.D	12 Dibromoethane	N.D
MtBE	N.D	Chlorobenzene	N.D
11 Dichloroethane	N.D	1112 Tetrachloroethane	N.D
22 Dichloropropane	N.D	Ethyl Benzene	N.D
cis-12 Dichloroethene	N.D	m & p Xylene	N.D
2-Butanone	N.D	o Xylene	N.D
Methyl Acrylate	N.D	Styrene	N.D
Bromochloromethane	N.D	Bromoform	N.D
Methacrylonitrile	N.D	Isopropyl Benzene	N.D
Tetrahydrofuran	N.D	Bromobenzene	N.D
Trichloromethane/ Chloroform*	N.D	1122 Tetrachloroethane	N.D
111 Trichloroethane	N.D	123 Trichloropropane	N.D
1-Chlorobutane	N.D	Trans 14 Dichloro 2 Butene, tran	N.D
Carbon Tetrachloride	N.D	Propyl Benzene	N.D
2-Chlorotoluene	N.D	P Isopropyltoluene	N.D
4 Chlorotoluene	N.D	14 Dichlorobenzene	N.D
135 Trimethylbenzene	N.D	12 Dichlorobenzene	N.D
Tert Butyl Benzene	N.D	N Butyl Benzene	N.D
124 Trimethylbenzene	N.D	Hexachloroethane	N.D
Sec Butyl Benzene	N.D	12 Dibromo 3 Chloropropane	N.D
13 Dichlorobenzene	N.D	124 Trichlorobenzene	N.D

VOLATILE ORGANIC COMPOUNDS		*Chuurchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**SW7**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
Dichlorodifluoromethane	N.D	11 Dichloropropene	N.D
Chloromethane	N.D	Benzene	N.D
Ethyl Chloride/Chloroethane	N.D	12 Dichloroethane	N.D
Vinyl Chloride/Chloroethene	N.D	Trichloroethylene/ Trichloroethene	N.D
Bromomethane	N.D	12 Dichloropropane	N.D
Trichloromonofluoromethane	N.D	Dibromomethane	N.D
Ethyl Ether/Diethyl Ether	N.D	Methyl Methacrylate	N.D
11 Dichloroethene	N.D	Bromodichloromethane	N.D
Acetone	N.D	13 Dichloropropene,cis	N.D
Iodomethane/Methyl Iodide	N.D	MIBK/4 Methyl 2 Pentanone	N.D
Carbon Disulphide	N.D	Toluene	N.D
Allyl Chloride	N.D	13 Dichloropropene,trans	N.D
Methylene Chloride/DCM	N.D	Ethyl Methacrylate	N.D
2-Propenenitrile/Acrylonitrile	N.D	112 Trichloroethane	N.D
Chlormethyl Cyanide/Chloroacetonitrile	N.D	Tetrachloroethylene/ Tetrachloroethene	N.D
Nitrobenzene	N.D	13 Dichloropropane	N.D
Propanenitrile	N.D	2-Hexanone	N.D
Hexachlorobutadiene	N.D	Dibromochloromethane	N.D
Trans-1,2 Dichloroethene	N.D	12 Dibromoethane	N.D
MtBE	N.D	Chlorobenzene	N.D
11 Dichloroethane	N.D	1112 Tetrachloroethane	N.D
22 Dichloropropane	N.D	Ethyl Benzene	N.D
cis-12 Dichloroethene	N.D	m & p Xylene	N.D
2-Butanone	N.D	o Xylene	N.D
Methyl Acrylate	N.D	Styrene	N.D
Bromochloromethane	N.D	Bromoform	N.D
Methacrylonitrile	N.D	Isopropyl Benzene	N.D
Tetrahydrofuran	N.D	Bromobenzene	N.D
Trichloromethane/ Chloroform*	N.D	1122 Tetrachloroethane	N.D
111 Trichloroethane	N.D	123 Trichloropropane	N.D
1-Chlorobutane	N.D	Trans 14 Dichloro 2 Butene, tran	N.D
Carbon Tetrachloride	N.D	Propyl Benzene	N.D
2-Chlorotoluene	N.D	P Isopropyltoluene	N.D
4 Chlorotoluene	N.D	14 Dichlorobenzene	N.D
135 Trimethylbenzene	N.D	12 Dichlorobenzene	N.D
Tert Butyl Benzene	N.D	N Butyl Benzene	N.D
124 Trimethylbenzene	N.D	Hexachloroethane	N.D
Sec Butyl Benzene	N.D	12 Dibromo 3 Chloropropane	N.D
13 Dichlorobenzene	N.D	124 Trichlorobenzene	N.D

SEMIVOLATILE ORGANIC COMPOUNDS		*Churchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**SW1**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
1,2,4-Trichlorobenzene	<1	Bis(2-ethylhexyl)phthalate	<5
1,2-Dichlorobenzene	<1	Chrysene	<1
1,3-Dichlorobenzene	<1	Dibenz(a,h)anthracene	<1
1,4-Dichlorobenzene	<1	Dibenzofuran	<1
2,4,5-Trichlorophenol	<1	Diethylphthalate	<1
2,4,6-Trichlorophenol	<1	Dimethylphthalate	<1
2,4-Dichlorophenol	<1	di-n-Butylphthalate	<1
2,4-Dimethylphenol	<1	Di-n-octylphthalate	<1
2,4-Dinitrotoluene	<1	4-Chloroanaline	<1
2,6-Dinitrotoluene	<1	Fluoranthene	<1
2-Chloronaphthalene	<1	Fluorene	<1
2-Chlorophenol	<1	Hexachlorobenzene	<1
2-Methylnaphthalene	<1	Hexachlorobutadiene	<1
2-Methylphenol	<1	Hexachloroethane	<1
2-Nitrophenol	<1	Indeno(1,2,3-c,d)pyrene	<1
2-Nitroanaline	<1	Isophorone	<1
4-Bromophenyl Phenyl Ether	<1	Naphthalene	<2
4-Chloro-3-methylphenol	<1	Nitrobenzene	<1
4-Chlorophenyl phenyl ether	<1	n-Nitrosodi-n-propylamine	<1
4-Nitrophenol	<5	Pentachlorophenol	<1
Acenaphthene	<1	Phenanthrene	<1
Acenaphthylene	<1	Phenol	<1
Anthracene	<1	Pyrene	<1
Benzo(a)anthracene	<1		
Benzo(a)pyrene	<1		
Benzo(b)fluoranthene	<1		
Benzo(g,h,i)perylene	<1		
Benzo(k)fluoranthene	<1		
Benzyl Butyl Phthalate	<1		
Bis(2-chloroethoxy)methane	<1		
Bis(2-chloroethyl)ether	<1		
3-Nitroanaline	<1		

SEMIVOLATILE ORGANIC COMPOUNDS		*Churchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**SW2**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
1,2,4-Trichlorobenzene	<1	Bis(2-ethylhexyl)phthalate	<5
1,2-Dichlorobenzene	<1	Chrysene	<1
1,3-Dichlorobenzene	<1	Dibenz(a,h)anthracene	<1
1,4-Dichlorobenzene	<1	Dibenzofuran	<1
2,4,5-Trichlorophenol	<1	Diethylphthalate	<1
2,4,6-Trichlorophenol	<1	Dimethylphthalate	<1
2,4-Dichlorophenol	<1	di-n-Butylphthalate	<1
2,4-Dimethylphenol	<1	Di-n-octylphthalate	<1
2,4-Dinitrotoluene	<1	4-Chloroanaline	<1
2,6-Dinitrotoluene	<1	Fluoranthene	<1
2-Chloronaphthalene	<1	Fluorene	<1
2-Chlorophenol	<1	Hexachlorobenzene	<1
2-Methylnaphthalene	<1	Hexachlorobutadiene	<1
2-Methylphenol	<1	Hexachloroethane	<1
2-Nitrophenol	<1	Indeno(1,2,3-c,d)pyrene	<1
2-Nitroanaline	<1	Isophorone	<1
4-Bromophenyl Phenyl Ether	<1	Naphthalene	<2
4-Chloro-3-methylphenol	<1	Nitrobenzene	<1
4-Chlorophenyl phenyl ether	<1	n-Nitrosodi-n-propylamine	<1
4-Nitrophenol	<5	Pentachlorophenol	<1
Acenaphthene	<1	Phenanthrene	<1
Acenaphthylene	<1	Phenol	<1
Anthracene	<1	Pyrene	<1
Benzo(a)anthracene	<1		
Benzo(a)pyrene	<1		
Benzo(b)fluoranthene	<1		
Benzo(g,h,i)perylene	<1		
Benzo(k)fluoranthene	<1		
Benzyl Butyl Phthalate	<1		
Bis(2-chloroethoxy)methane	<1		

SEMIVOLATILE ORGANIC COMPOUNDS		*Churchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**SW3**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
1,2,4-Trichlorobenzene	<1	Bis(2-ethylhexyl)phthalate	<5
1,2-Dichlorobenzene	<1	Chrysene	<1
1,3-Dichlorobenzene	<1	Dibenz(a,h)anthracene	<1
1,4-Dichlorobenzene	<1	Dibenzofuran	<1
2,4,5-Trichlorophenol	<1	Diethylphthalate	<1
2,4,6-Trichlorophenol	<1	Dimethylphthalate	<1
2,4-Dichlorophenol	<1	di-n-Butylphthalate	<1
2,4-Dimethylphenol	<1	Di-n-octylphthalate	<1
2,4-Dinitrotoluene	<1	4-Chloroanaline	<1
2,6-Dinitrotoluene	<1	Fluoranthene	<1
2-Chloronaphthalene	<1	Fluorene	<1
2-Chlorophenol	<1	Hexachlorobenzene	<1
2-Methylnaphthalene	<1	Hexachlorobutadiene	<1
2-Methylphenol	<1	Hexachloroethane	<1
2-Nitrophenol	<1	Indeno(1,2,3-c,d)pyrene	<1
2-Nitroanaline	<1	Isophorone	<1
4-Bromophenyl Phenyl Ether	<1	Naphthalene	<2
4-Chloro-3-methylphenol	<1	Nitrobenzene	<1
4-Chlorophenyl phenyl ether	<1	n-Nitrosodi-n-propylamine	<1
4-Nitrophenol	<5	Pentachlorophenol	<1
Acenaphthene	<1	Phenanthrene	<1
Acenaphthylene	<1	Phenol	<1
Anthracene	<1	Pyrene	<1
Benzo(a)anthracene	<1		
Benzo(a)pyrene	<1		
Benzo(b)fluoranthene	<1		
Benzo(g,h,i)perylene	<1		
Benzo(k)fluoranthene	<1		
Benzyl Butyl Phthalate	<1		
Bis(2-chloroethoxy)methane	<1		
Bis(2-chloroethyl)ether	<1		
3-Nitroanaline	<1		

SEMIVOLATILE ORGANIC COMPOUNDS		*Churchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**SW4**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
1,2,4-Trichlorobenzene	<1	Bis(2-ethylhexyl)phthalate	<5
1,2-Dichlorobenzene	<1	Chrysene	<1
1,3-Dichlorobenzene	<1	Dibenz(a,h)anthracene	<1
1,4-Dichlorobenzene	<1	Dibenzofuran	<1
2,4,5-Trichlorophenol	<1	Diethylphthalate	<1
2,4,6-Trichlorophenol	<1	Dimethylphthalate	<1
2,4-Dichlorophenol	<1	di-n-Butylphthalate	<1
2,4-Dimethylphenol	<1	Di-n-octylphthalate	<1
2,4-Dinitrotoluene	<1	4-Chloroanaline	<1
2,6-Dinitrotoluene	<1	Fluoranthene	<1
2-Chloronaphthalene	<1	Fluorene	<1
2-Chlorophenol	<1	Hexachlorobenzene	<1
2-Methylnaphthalene	<1	Hexachlorobutadiene	<1
2-Methylphenol	<1	Hexachloroethane	<1
2-Nitrophenol	<1	Indeno(1,2,3-c,d)pyrene	<1
2-Nitroanaline	<1	Isophorone	<1
4-Bromophenyl Phenyl Ether	<1	Naphthalene	<2
4-Chloro-3-methylphenol	<1	Nitrobenzene	<1
4-Chlorophenyl phenyl ether	<1	n-Nitrosodi-n-propylamine	<1
4-Nitrophenol	<5	Pentachlorophenol	<1
Acenaphthene	<1	Phenanthrene	<1
Acenaphthylene	<1	Phenol	<1
Anthracene	<1	Pyrene	<1
Benzo(a)anthracene	<1		
Benzo(a)pyrene	<1		
Benzo(b)fluoranthene	<1		
Benzo(g,h,i)perylene	<1		
Benzo(k)fluoranthene	<1		
Benzyl Butyl Phthalate	<1		
Bis(2-chloroethoxy)methane	<1		
Bis(2-chloroethyl)ether	<1		
3-Nitroanaline	<1		

SEMIVOLATILE ORGANIC COMPOUNDS		*Churchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**SW5**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
1,2,4-Trichlorobenzene	<1	Bis(2-ethylhexyl)phthalate	<5
1,2-Dichlorobenzene	<1	Chrysene	<1
1,3-Dichlorobenzene	<1	Dibenz(a,h)anthracene	<1
1,4-Dichlorobenzene	<1	Dibenzofuran	<1
2,4,5-Trichlorophenol	<1	Diethylphthalate	<1
2,4,6-Trichlorophenol	<1	Dimethylphthalate	<1
2,4-Dichlorophenol	<1	di-n-Butylphthalate	<1
2,4-Dimethylphenol	<1	Di-n-octylphthalate	<1
2,4-Dinitrotoluene	<1	4-Chloroanaline	<1
2,6-Dinitrotoluene	<1	Fluoranthene	<1
2-Chloronaphthalene	<1	Fluorene	<1
2-Chlorophenol	<1	Hexachlorobenzene	<1
2-Methylnaphthalene	<1	Hexachlorobutadiene	<1
2-Methylphenol	<1	Hexachloroethane	<1
2-Nitrophenol	<1	Indeno(1,2,3-c,d)pyrene	<1
2-Nitroanaline	<1	Isophorone	<1
4-Bromophenyl Phenyl Ether	<1	Naphthalene	<2
4-Chloro-3-methylphenol	<1	Nitrobenzene	<1
4-Chlorophenyl phenyl ether	<1	n-Nitrosodi-n-propylamine	<1
4-Nitrophenol	<5	Pentachlorophenol	<1
Acenaphthene	<1	Phenanthrene	<1
Acenaphthylene	<1	Phenol	<1
Anthracene	<1	Pyrene	<1
Benzo(a)anthracene	<1		
Benzo(a)pyrene	<1		
Benzo(b)fluoranthene	<1		
Benzo(g,h,i)perylene	<1		
Benzo(k)fluoranthene	<1		
Benzyl Butyl Phthalate	<1		
Bis(2-chloroethoxy)methane	<1		
Bis(2-chloroethyl)ether	<1		
3-Nitroanaline	<1		

SEMIVOLATILE ORGANIC COMPOUNDS		*Churchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**SW6**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
1,2,4-Trichlorobenzene	<1	Bis(2-ethylhexyl)phthalate	<5
1,2-Dichlorobenzene	<1	Chrysene	<1
1,3-Dichlorobenzene	<1	Dibenz(a,h)anthracene	<1
1,4-Dichlorobenzene	<1	Dibenzofuran	<1
2,4,5-Trichlorophenol	<1	Diethylphthalate	<1
2,4,6-Trichlorophenol	<1	Dimethylphthalate	<1
2,4-Dichlorophenol	<1	di-n-Butylphthalate	<1
2,4-Dimethylphenol	<1	Di-n-octylphthalate	<1
2,4-Dinitrotoluene	<1	4-Chloroanaline	<1
2,6-Dinitrotoluene	<1	Fluoranthene	<1
2-Chloronaphthalene	<1	Fluorene	<1
2-Chlorophenol	<1	Hexachlorobenzene	<1
2-Methylnaphthalene	<1	Hexachlorobutadiene	<1
2-Methylphenol	<1	Hexachloroethane	<1
2-Nitrophenol	<1	Indeno(1,2,3-c,d)pyrene	<1
2-Nitroanaline	<1	Isophorone	<1
4-Bromophenyl Phenyl Ether	<1	Naphthalene	<2
4-Chloro-3-methylphenol	<1	Nitrobenzene	<1
4-Chlorophenyl phenyl ether	<1	n-Nitrosodi-n-propylamine	<1
4-Nitrophenol	<5	Pentachlorophenol	<1
Acenaphthene	<1	Phenanthrene	<1
Acenaphthylene	<1	Phenol	<1
Anthracene	<1	Pyrene	<1
Benzo(a)anthracene	<1		
Benzo(a)pyrene	<1		
Benzo(b)fluoranthene	<1		
Benzo(g,h,i)perylene	<1		
Benzo(k)fluoranthene	<1		
Benzyl Butyl Phthalate	<1		
Bis(2-chloroethoxy)methane	<1		
Bis(2-chloroethyl)ether	<1		
3-Nitroanaline	<1		

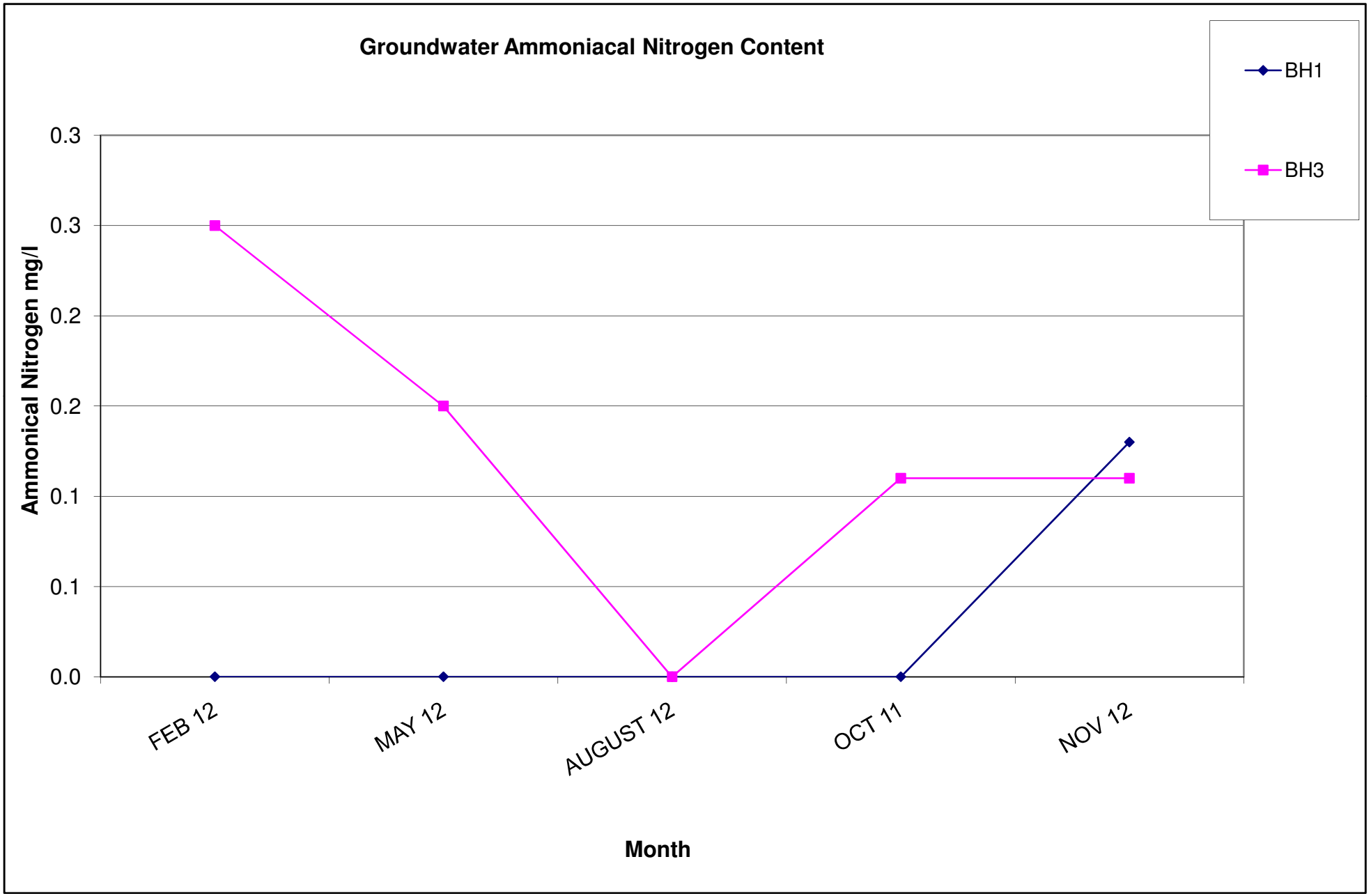
SEMIVOLATILE ORGANIC COMPOUNDS		*Churchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**SW7**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
1,2,4-Trichlorobenzene	<1	Bis(2-ethylhexyl)phthalate	<5
1,2-Dichlorobenzene	<1	Chrysene	<1
1,3-Dichlorobenzene	<1	Dibenz(a,h)anthracene	<1
1,4-Dichlorobenzene	<1	Dibenzofuran	<1
2,4,5-Trichlorophenol	<1	Diethylphthalate	<1
2,4,6-Trichlorophenol	<1	Dimethylphthalate	<1
2,4-Dichlorophenol	<1	di-n-Butylphthalate	<1
2,4-Dimethylphenol	<1	Di-n-octylphthalate	<1
2,4-Dinitrotoluene	<1	4-Chloroanaline	<1
2,6-Dinitrotoluene	<1	Fluoranthene	<1
2-Chloronaphthalene	<1	Fluorene	<1
2-Chlorophenol	<1	Hexachlorobenzene	<1
2-Methylnaphthalene	<1	Hexachlorobutadiene	<1
2-Methylphenol	<1	Hexachloroethane	<1
2-Nitrophenol	<1	Indeno(1,2,3-c,d)pyrene	<1
2-Nitroanaline	<1	Isophorone	<1
4-Bromophenyl Phenyl Ether	<1	Naphthalene	<2
4-Chloro-3-methylphenol	<1	Nitrobenzene	<1
4-Chlorophenyl phenyl ether	<1	n-Nitrosodi-n-propylamine	<1
4-Nitrophenol	<5	Pentachlorophenol	<1
Acenaphthene	<1	Phenanthrene	<1
Acenaphthylene	<1	Phenol	<1
Anthracene	<1	Pyrene	<1
Benzo(a)anthracene	<1		
Benzo(a)pyrene	<1		
Benzo(b)fluoranthene	<1		
Benzo(g,h,i)perylene	<1		
Benzo(k)fluoranthene	<1		
Benzyl Butyl Phthalate	<1		
Bis(2-chloroethoxy)methane	<1		
Bis(2-chloroethyl)ether	<1		
3-Nitroanaline	<1		

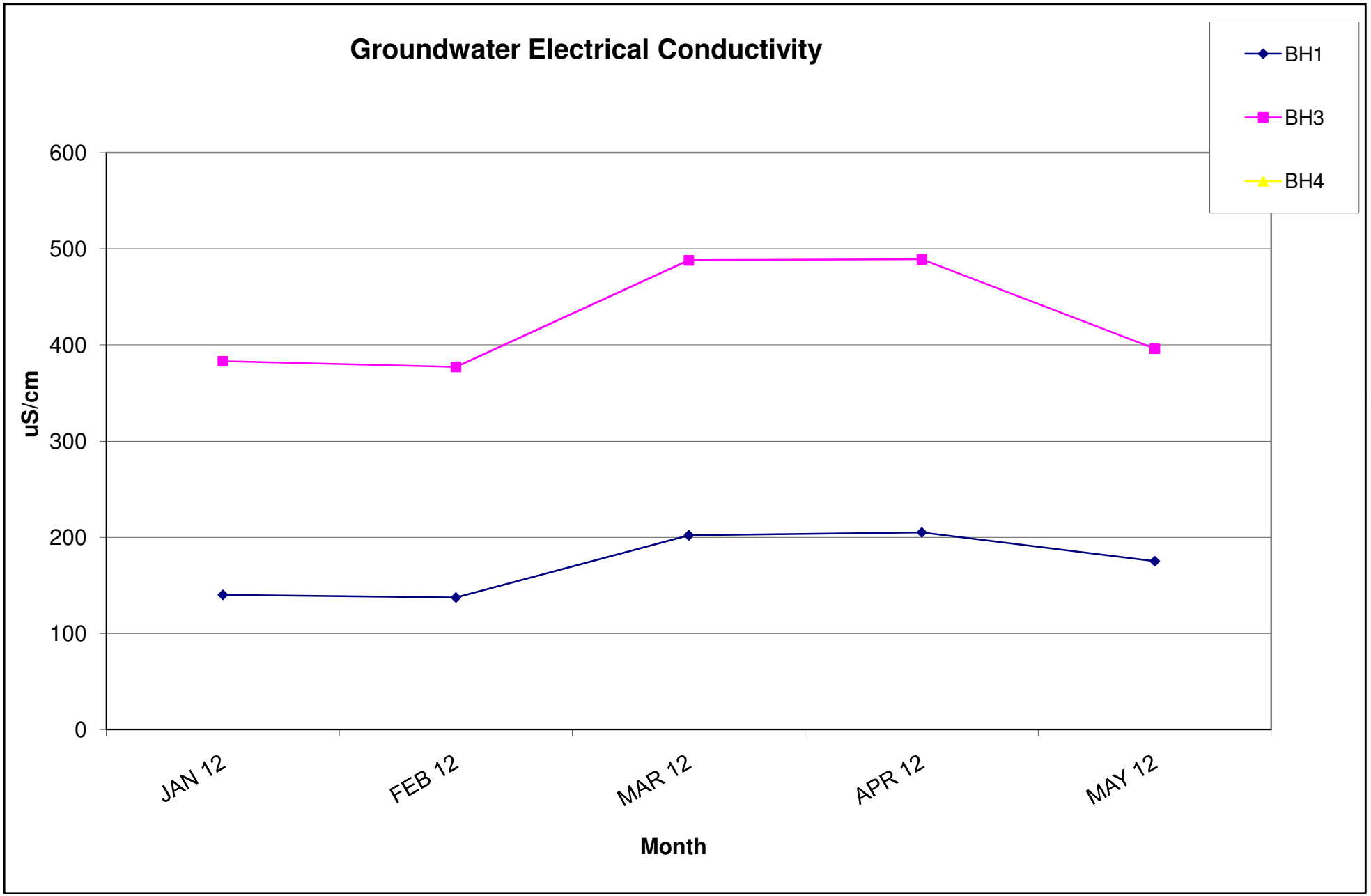
Location		*Churchtown, Lifford, Co Donegal*											
Sample Type		Groundwater											
Site No		BH1											
Date of Sample		JAN 12	FEB 12	MAR 12	APR 12	MAY 12	JUNE 12	JULY 12	AUGUST 12	SEPTEMBER 12	OCT 12	NOV 12	DEC 12
Lab No			1572			2432			3873		5159	5506	
pH			7.08			7.02			6.93		6.86	7.02	
Temp	C		10.70			11.8			14.00		13	10.60	
Electrical Conductivity	uS/cm		140			137			202		205	175	
Ammonical Nitrogen	mg/l		<0.03			<0.03			<0.01		<0.01	0.13	
COD	mg/l												
BOD	mg/l												
Dissolved Oxygen	mg/l		8.43			8.39			7.3		7		
SS	mg/l												
Residue on Evaporator	mg/l										134		
Calcium	mg/l										19.1		
Cadmium	mg/l										<0.1		
Chromium	mg/l										<3		
Chloride	mg/l		21			22			40		41	38	
Chlorine	mg/l												
Copper	mg/l										1.17		
Cyanide	mg/l										<0.05		
Total Iron	mg/l										<0.019		
Lead	mg/l										0.03		
Magnesium	mg/l										4.47		
Manganese	mg/l										0.532		
Mercury	mg/l										<0.01		
Nickel	mg/l												
Potassium	mg/l					<2.34			<2.34		4.0	3.0700	
Sodium	mg/l					14.4			14.3		15.5	15.6	
Sulphate	mg/l										18		
Zinc	mg/l										3.7		
Total Alkalinity as CaCO3	mg/l										44		
Total Organic Carbon	mg/l		<3			<3			<3		<3	<3	
Total Oxidised Nitrogen	mg/l		0.32			<0.01			<0.01		0.07	0.1	
Arsenic	mg/l												
Barium	mg/l												
Boron	mg/l										25.6		
Flouride	mg/l										<0.5		
Total Phenols	mg/l		<0.002			<0.002			<0.02		<0.025	<0.025	
Phosphorous	mg/l												
Selenium	mg/l												
Silver	mg/l												
Mircrotox	Toxic Units												
Microtox	Toxic Units												
Nitrite	mg/l		<0.03										
Nitrate	mg/l		0.02										
Phosphate - ORTHO	mg/l										0.01	0.02	
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m												

*** Insufficient Sample / No Access
--- Not Applicable

Location		*Churchtown, Lifford, Co Donegal*											
Sample Type		Groundwater											
Site No		BH3											
Date of Sample		JAN 12	FEB 12	MAR 12	APR 12	MAY 12	JUNE 12	JULY 12	AUGUST 1	SEPTEMBER 12	OCT 11	NOV 12	DEC 12
Lab No			1573			2433			3874		5125	5507	
pH			7.6			7.41			7.42		7.42	7.46	
Temp	C		10.8			11.9			14.0		13.5	11.20	
Electrical Conductivity	uS/cm		383			377			488		489	396	
Ammonical Nitrogen	mg/l		0.25			0.15			<0.01		0.11	0.11	
COD	mg/l												
BOD	mg/l												
Dissolved Oxygen	mg/l		8.1			8.08			7.1		6.5		
SS	mg/l												
Residue on Evaporator	mg/l										338		
Calcium	mg/l										86.4		
Cadmium	mg/l										<0.1		
Chromium	mg/l										<3		
Chloride	mg/l		30			18			35		32	30	
Chlorine	mg/l												
Copper	mg/l										<0.85		
Cyanide	mg/l										<0.05		
Total Iron	mg/l										<0.019		
Lead	mg/l										0.054		
Magnesium	mg/l										11.3		
Manganese	mg/l										13.3		
Mercury	mg/l										<0.01		
Nickel	mg/l										0.0000		
Potassium	mg/l		<2.34			<2.34			<2.34		<2.34	<2.34	
Sodium	mg/l		17.3			14			14		15.0	14.2	
Sulphate	mg/l										57.9		
Zinc	mg/l										1.64		
Total Alkalinity as CaCO3	mg/l										202		
Total Organic Carbon	mg/l		<3			<3			<3		<3	<3	
Total Oxidised Nitrogen	mg/l		0.32			0.38			<0.01		<0.01		
Arsenic	mg/l												
Barium	mg/l												
Boron	mg/l										21		
Flouride	mg/l										<0.5		
Total Phenols	mg/l		<0.002			<0.02			<0.02		<0.025	<0.025	
Phosphorous	mg/l												
Selenium	mg/l												
Silver	mg/l												
Mircrotox	Toxic Units												
Microtox	Toxic Units												
Nitrite	mg/l												
Nitrate	mg/l												
Phosphate - ORTHO	mg/l										0.01		
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m												

*** Insufficient Sample / No Access
--- Not Applicable


Groundwater Ammoniacal Nitrogen Content
BH1
BH3
0.3
0.3
0.2
0.2
0.1
0.1
0.0
Ammonical Nitrogen mg/l
FEB 12
MAY 12
AUGUST 12
OCT 11
NOV 12
Month


Groundwater Electrical Conductivity
BH1
BH3
BH4
600
500
400
300
200
100
0
uS/cm
JAN 12
FEB 12
MAR 12
APR 12
MAY 12
Month

VOLATILE ORGANIC COMPOUNDS		*Chuurchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**BH1**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
Dichlorodifluoromethane	N.D	Dibromomethane	N.D
Chloromethane	N.D	Methyl Methacrylate	N.D
Ethyl Chloride/Chloroethane	N.D	Bromodichloromethane	N.D
Vinyl Chloride/Chloroethene	N.D	13 Dichloropropene,cis	N.D
Bromomethane	N.D	MIBK/4 Methyl 2 Pentanone	N.D
Trichloromonofluoromethane	N.D	Toluene	N.D
Ethyl Ether/Diethyl Ether	N.D	13 Dichloropropene,trans	N.D
11 Dichloroethene	N.D	Ethyl Methacrylate	N.D
Acetone	N.D	112 Trichloroethane	N.D
Iodomethane/Methyl Iodide	N.D	Tetrachloroethylene/ Tetrachloroethene	N.D
Carbon Disulphide	N.D	13 Dichloropropane	N.D
Allyl Chloride	N.D	2-Hexanone	N.D
Methylene Chloride/DCM	N.D	Dibromochloromethane	N.D
2-Propenenitrile/Acrylonitrile	N.D	12 Dibromoethane	N.D
Chlormethyl Cyanide/Chloroacetonitrile	N.D	Chlorobenzene	N.D
Nitrobenzene	N.D	1112 Tetrachloroethane	N.D
Propanenitrile	N.D	Ethyl Benzene	N.D
Hexachlorobutadiene	N.D	m & p Xylene	N.D
Trans-1,2 Dichloroethene	N.D	o Xylene	N.D
MtBE	N.D	Styrene	N.D
11 Dichloroethane	N.D	Bromoform	N.D
22 Dichloropropane	N.D	Isopropyl Benzene	N.D
cis-12 Dichloroethene	N.D	Bromobenzene	N.D
2-Butanone	N.D	1122 Tetrachloroethane	N.D
Methyl Acrylate	N.D	123 Trichloropropane	N.D
Bromochloromethane	N.D	Trans 14 Dichloro 2 Butene, tran	N.D
Methacrylonitrile	N.D	Propyl Benzene	N.D
Tetrahydrofuran	N.D	2-Chlorotoluene	N.D
Trichloromethane/ Chloroform*	N.D	4 Chlorotoluene	N.D
111 Trichloroethane	N.D	135 Trimethylbenzene	N.D
1-Chlorobutane	N.D	Tert Butyl Benzene	N.D
Carbon Tetrachloride	N.D	124 Trimethylbenzene	N.D
11 Dichloropropene	N.D	Sec Butyl Benzene	N.D
Benzene	N.D	13 Dichlorobenzene	N.D
12 Dichloroethane	N.D	P Isopropyltoluene	N.D
Trichloroethylene/ Trichloroethene	N.D	14 Dichlorobenzene	N.D
12 Dichloropropane	N.D	12 Dichlorobenzene	N.D
N Butyl Benzene	N.D	124 Trichlorobenzene	N.D
Hexachloroethane	N.D	123 Trichlorobenzene	N.D
12 Dibromo 3 Chloropropane	N.D		

SEMIVOLATILE ORGANIC COMPOUNDS		*Churchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**BH1**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
1,2,4-Trichlorobenzene	<1	Bis(2-ethylhexyl)phthalate	<5
1,2-Dichlorobenzene	<1	Chrysene	<1
1,3-Dichlorobenzene	<1	Dibenz(a,h)anthracene	<1
1,4-Dichlorobenzene	<1	Dibenzofuran	<1
2,4,5-Trichlorophenol	<1	Diethylphthalate	<1
2,4,6-Trichlorophenol	<1	Dimethylphthalate	<1
2,4-Dichlorophenol	<1	di-n-Butylphthalate	<1
2,4-Dimethylphenol	<1	Di-n-octylphthalate	<1
2,4-Dinitrotoluene	<1	4-Chloroanaline	<1
2,6-Dinitrotoluene	<1	Fluoranthene	<1
2-Chloronaphthalene	<1	Fluorene	<1
2-Chlorophenol	<1	Hexachlorobenzene	<1
2-Methylnaphthalene	<1	Hexachlorobutadiene	<1
2-Methylphenol	<1	Hexachloroethane	<1
2-Nitrophenol	<1	Indeno(1,2,3-c,d)pyrene	<1
2-Nitroanaline	<1	Isophorone	<1
4-Bromophenyl Phenyl Ether	<1	Naphthalene	<2
4-Chloro-3-methylphenol	<1	Nitrobenzene	<1
4-Chlorophenyl phenyl ether	<1	n-Nitrosodi-n-propylamine	<1
4-Nitrophenol	<5	Pentachlorophenol	<1
Acenaphthene	<1	Phenanthrene	<1
Acenaphthylene	<1	Phenol	<1
Anthracene	<1	Pyrene	<1
Benzo(a)anthracene	<1		
Benzo(a)pyrene	<1		
Benzo(b)fluoranthene	<1		
Benzo(g,h,i)perylene	<1		
Benzo(k)fluoranthene	<1		
Benzyl Butyl Phthalate	<1		
Bis(2-chloroethoxy)methane	<1		

VOLATILE ORGANIC COMPOUNDS		*Chuurchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**BH3**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
Dichlorodifluoromethane	N.D	11 Dichloropropene	N.D
Chloromethane	N.D	Benzene	N.D
Ethyl Chloride/Chloroethane	N.D	12 Dichloroethane	N.D
Vinyl Chloride/Chloroethene	N.D	Trichloroethylene/ Trichloroethene	N.D
Bromomethane	N.D	12 Dichloropropane	N.D
Trichloromonofluoromethane	N.D	Dibromomethane	N.D
Ethyl Ether/Diethyl Ether	N.D	Methyl Methacrylate	N.D
11 Dichloroethene	N.D	Bromodichloromethane	N.D
Acetone	N.D	13 Dichloropropene,cis	N.D
Iodomethane/Methyl Iodide	N.D	MIBK/4 Methyl 2 Pentanone	N.D
Carbon Disulphide	N.D	Toluene	N.D
Allyl Chloride	N.D	13 Dichloropropene,trans	N.D
Methylene Chloride/DCM	N.D	Ethyl Methacrylate	N.D
2-Propenenitrile/Acrylonitrile	N.D	112 Trichloroethane	N.D
Chlormethyl Cyanide/Chloroacetonitrile	N.D	Tetrachloroethylene/ Tetrachloroethene	N.D
Nitrobenzene	N.D	13 Dichloropropane	N.D
Propanenitrile	N.D	2-Hexanone	N.D
Hexachlorobutadiene	N.D	Dibromochloromethane	N.D
Trans-1,2 Dichloroethene	N.D	12 Dibromoethane	N.D
MtBE	N.D	Chlorobenzene	N.D
11 Dichloroethane	N.D	1112 Tetrachloroethane	N.D
22 Dichloropropane	N.D	Ethyl Benzene	N.D
cis-12 Dichloroethene	N.D	m & p Xylene	N.D
2-Butanone	N.D	o Xylene	N.D
Methyl Acrylate	N.D	Styrene	N.D
Bromochloromethane	N.D	Bromoform	N.D
Methacrylonitrile	N.D	Isopropyl Benzene	N.D
Tetrahydrofuran	N.D	Bromobenzene	N.D
Trichloromethane/ Chloroform*	N.D	1122 Tetrachloroethane	N.D
111 Trichloroethane	N.D	123 Trichloropropane	N.D
1-Chlorobutane	N.D	Trans 14 Dichloro 2 Butene, tran	N.D
Carbon Tetrachloride	N.D	Propyl Benzene	N.D
2-Chlorotoluene	N.D	12 Dichlorobenzene	N.D
4 Chlorotoluene	N.D	N Butyl Benzene	N.D
135 Trimethylbenzene	N.D	Hexachloroethane	N.D
Tert Butyl Benzene	N.D	12 Dibromo 3 Chloropropane	N.D
124 Trimethylbenzene	N.D	124 Trichlorobenzene	N.D
Sec Butyl Benzene	N.D	123 Trichlorobenzene	N.D
13 Dichlorobenzene	N.D	14 Dichlorobenzene	N.D
P Isopropyltoluene	N.D		

NOTES
1. ND=Concentration was below the limit of detection

SEMIVOLATILE ORGANIC COMPOUNDS		*Churchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**BH3**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
1,2,4-Trichlorobenzene	<1	Bis(2-ethylhexyl)phthalate	<5
1,2-Dichlorobenzene	<1	Chrysene	<1
1,3-Dichlorobenzene	<1	Dibenz(a,h)anthracene	<1
1,4-Dichlorobenzene	<1	Dibenzofuran	<1
2,4,5-Trichlorophenol	<1	Diethylphthalate	<1
2,4,6-Trichlorophenol	<1	Dimethylphthalate	<1
2,4-Dichlorophenol	<1	di-n-Butylphthalate	<1
2,4-Dimethylphenol	<1	Di-n-octylphthalate	<1
2,4-Dinitrotoluene	<1	4-Chloroanaline	<1
2,6-Dinitrotoluene	<1	Fluoranthene	<1
2-Chloronaphthalene	<1	Fluorene	<1
2-Chlorophenol	<1	Hexachlorobenzene	<1
2-Methylnaphthalene	<1	Hexachlorobutadiene	<1
2-Methylphenol	<1	Hexachloroethane	<1
2-Nitrophenol	<1	Indeno(1,2,3-c,d)pyrene	<1
2-Nitroanaline	<1	Isophorone	<1
4-Bromophenyl Phenyl Ether	<1	Naphthalene	<2
4-Chloro-3-methylphenol	<1	Nitrobenzene	<1
4-Chlorophenyl phenyl ether	<1	n-Nitrosodi-n-propylamine	<1
4-Nitrophenol	<5	Pentachlorophenol	<1
Acenaphthene	<1	Phenanthrene	<1
Acenaphthylene	<1	Phenol	<1
Anthracene	<1	Pyrene	<1
Benzo(a)anthracene	<1		
Benzo(a)pyrene	<1		
Benzo(b)fluoranthene	<1		
Benzo(g,h,i)perylene	<1		
Benzo(k)fluoranthene	<1		
Benzyl Butyl Phthalate	<1		
Bis(2-chloroethoxy)methane	<1		

Location		*Churchtown, Lifford, Co Donegal*											
Sample Type		Leachate											
Site No		L2											
Date of Sample		JAN 12	FEB 12	MAR 12	APR 12	MAY 12	JUNE 12	JULY 12	AUGUST 12	SEPTEMBER 12	OCT 11	NOV 12	DEC 12
Lab No			1237			2593			3875		5126	5508	
pH			7			6.6			6.78		7.3	7.08	
Temp	C		14			16.0			15.7		14.5	11.50	
Electrical Conductivity	uS/cm		172			1712			1544		1397	1189	
Ammonical Nitrogen	mg/l		50			100			98		65	68	
COD	mg/l		0						185		179	129	
BOD	mg/l		3			11			4.2		2.1	3.53	
Dissolved Oxygen	mg/l		1.26			1.71							
SS	mg/l												
Residue on Evaporator	mg/l												
Calcium	mg/l										135		
Cadmium	mg/l										<0.1		
Chromium	mg/l										8.840		
Chloride	mg/l		81			82			88		55	80	
Chlorine	mg/l												
Copper	mg/l										1.10		
Cyanide	mg/l										<0.05		
Total Iron	mg/l		<0.019			0.03			0.04		0.15		
Lead	mg/l										0.166		
Magnesium	mg/l										37.8		
Manganese	mg/l										1130		
Mercury	mg/l										<0.01		
Nickel	mg/l												
Potassium	mg/l		58.0			65			57		52		
Sodium	mg/l		50.0			55			63		40		
Sulphate	mg/l										<2		
Zinc	mg/l										36.3		
Total Alkalinity as CaCO3	mg/l										580		
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l		<0.01			<0.01			<0.01		0.18		
Arsenic	mg/l												
Barium	mg/l												
Boron	mg/l										665		
Flouride	mg/l										<0.5		
Total Phenols	mg/l										<0.025		
Phosphorous	mg/l												
Selenium	mg/l												
Silver	mg/l												
Mircrotox	Toxic Units												
Microtox	Toxic Units												
Nitrite	mg/l		<0.01										
Nitrate	mg/l		<0.01										
Phosphate - ORTHO	mg/l					0.04					0.11		
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m								2.5		2.3	2	

*** Insufficient Sample / No Access

--- Not Applicable

Location		*Churchtown, Lifford, Co Donegal*											
Sample Type		Leachate											
Site No		L3											
Date of Sample		JAN 12	FEB 12	MAR 12	APR 12	MAY 12	JUNE 12	JULY 12	AUGUST 12	SEPTEMBER 12	OCT 11	NOV 12	DEC 12
Lab No			1238			2594			3876		5127	5509	
pH			6.57			6.80			6.91		7.10	6.73	
Temp	C		12.7			16.7			15.60		15.4	11.20	
Electrical Conductivity	uS/cm		3100			191			542		525	431	
Ammonical Nitrogen	mg/l		1.0			0.25			10.3		26.7	24.00	
COD	mg/l		201			220			230		208	297	
BOD	mg/l		<1			<1			12.8		10.4	11.57	
Dissolved Oxygen	mg/l		3.55			2.70			2.56		3.41	3.78	
SS	mg/l												
Residue on Evaporator	mg/l												
Calcium	mg/l										37		
Cadmium	mg/l										<0.1		
Chromium	mg/l										<3		
Chloride	mg/l								64		48	75	
Chlorine	mg/l												
Copper	mg/l										3.36		
Cyanide	mg/l										<0.05		
Total Iron	mg/l		0.27			2.01			2.12		2	2.45	
Lead	mg/l										0.328		
Magnesium	mg/l										5.4400		
Manganese	mg/l										593		
Mercury	mg/l										<0.01		
Nickel	mg/l												
Potassium	mg/l		9.7			22			42		37		
Sodium	mg/l		6.9			12			15		14		
Sulphate	mg/l										<2		
Zinc	mg/l										5.87		
Total Alkalinity as CaCO3	mg/l												
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l		<0.01			0.19			<0.01		<0.01	<0.01	
Arsenic	mg/l												
Barium	mg/l												
Boron	mg/l										17.5		
Flouride	mg/l										0.633		
Total Phenols	mg/l										<0.025		
Phosphorous	mg/l												
Selenium	mg/l												
Silver	mg/l												
Mircrotox	Toxic Units												
Microtox	Toxic Units												
Nitrite	mg/l												
Nitrate	mg/l												
Phosphate - ORTHO	mg/l										1.6		
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m		2.7			3.1			2.8		2.6	2.6	

*** Insufficient Samle / No Access

--- Not Applicable

VOLATILE ORGANIC COMPOUNDS		*Chuurchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**L1**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
Dichlorodifluoromethane	N.D	Carbon Tetrachloride	N.D
Chloromethane	N.D	11 Dichloropropene	N.D
Ethyl Chloride/Chloroethane	N.D	Benzene	N.D
Vinyl Chloride/Chloroethene	N.D	12 Dichloroethane	N.D
Bromomethane	N.D	Trichloroethylene/ Trichloroethene	N.D
Trichloromonofluoromethane	N.D	12 Dichloropropane	N.D
Ethyl Ether/Diethyl Ether	N.D	Dibromomethane	N.D
11 Dichloroethene	N.D	Methyl Methacrylate	N.D
Acetone	N.D	Bromodichloromethane	N.D
Iodomethane/Methyl Iodide	N.D	13 Dichloropropene,cis	N.D
Carbon Disulphide	N.D	MIBK/4 Methyl 2 Pentanone	N.D
Allyl Chloride	N.D	Toluene	N.D
Methylene Chloride/DCM	N.D	13 Dichloropropene,trans	N.D
2-Propenenitrile/Acrylonitrile	N.D	Ethyl Methacrylate	N.D
Chlormethyl Cyanide/Chloroacetonitrile	N.D	112 Trichloroethane	N.D
Nitrobenzene	N.D	Tetrachloroethylene/ Tetrachloroethene	N.D
Propanenitrile	N.D	13 Dichloropropane	N.D
Hexachlorobutadiene	N.D	2-Hexanone	N.D
Trans-1,2 Dichloroethene	N.D	Dibromochloromethane	N.D
MtBE	N.D	12 Dibromoethane	N.D
11 Dichloroethane	N.D	Chlorobenzene	N.D
22 Dichloropropane	N.D	1112 Tetrachloroethane	N.D
cis-12 Dichloroethene	N.D	Ethyl Benzene	N.D
2-Butanone	N.D	m & p Xylene	N.D
Methyl Acrylate	N.D	o Xylene	N.D
Bromochloromethane	N.D	Styrene	N.D
Methacrylonitrile	N.D	Bromoform	N.D
Tetrahydrofuran	N.D	Isopropyl Benzene	N.D
Trichloromethane/ Chloroform*	N.D	Bromobenzene	N.D
111 Trichloroethane	N.D	1122 Tetrachloroethane	N.D
1-Chlorobutane	N.D	123 Trichloropropane	N.D
Trans 14 Dichloro 2 Butene, tran	N.D	13 Dichlorobenzene	N.D
Propyl Benzene	N.D	P Isopropyltoluene	N.D
2-Chlorotoluene	N.D	14 Dichlorobenzene	N.D
4 Chlorotoluene	N.D	12 Dichlorobenzene	N.D
135 Trimethylbenzene	N.D	N Butyl Benzene	N.D
Tert Butyl Benzene	N.D	Hexachloroethane	N.D
124 Trimethylbenzene	N.D	12 Dibromo 3 Chloropropane	N.D
Sec Butyl Benzene	N.D	124 Trichlorobenzene	N.D
		123 Trichlorobenzene	N.D

NOTES
1. ND=Concentration was below the limit of detection

VOLATILE ORGANIC COMPOUNDS		*Chuurchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**L2**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
Dichlorodifluoromethane	N.D	Carbon Tetrachloride	N.D
Chloromethane	N.D	11 Dichloropropene	N.D
Ethyl Chloride/Chloroethane	N.D	Benzene	N.D
Vinyl Chloride/Chloroethene	N.D	12 Dichloroethane	N.D
Bromomethane	N.D	Trichloroethylene/ Trichloroethene	N.D
Trichloromonofluoromethane	N.D	12 Dichloropropane	N.D
Ethyl Ether/Diethyl Ether	N.D	Dibromomethane	N.D
11 Dichloroethene	N.D	Methyl Methacrylate	N.D
Acetone	N.D	Bromodichloromethane	N.D
Iodomethane/Methyl Iodide	N.D	13 Dichloropropene,cis	N.D
Carbon Disulphide	N.D	MIBK/4 Methyl 2 Pentanone	N.D
Allyl Chloride	N.D	Toluene	N.D
Methylene Chloride/DCM	N.D	13 Dichloropropene,trans	N.D
2-Propenenitrile/Acrylonitrile	N.D	Ethyl Methacrylate	N.D
Chlormethyl Cyanide/Chloroacetonitrile	N.D	112 Trichloroethane	N.D
Nitrobenzene	N.D	Tetrachloroethylene/ Tetrachloroethene	N.D
Propanenitrile	N.D	13 Dichloropropane	N.D
Hexachlorobutadiene	N.D	2-Hexanone	N.D
Trans-1,2 Dichloroethene	N.D	Dibromochloromethane	N.D
MtBE	N.D	12 Dibromoethane	N.D
11 Dichloroethane	N.D	Chlorobenzene	N.D
22 Dichloropropane	N.D	1112 Tetrachloroethane	N.D
cis-12 Dichloroethene	N.D	Ethyl Benzene	N.D
2-Butanone	N.D	m & p Xylene	N.D
Methyl Acrylate	N.D	o Xylene	N.D
Bromochloromethane	N.D	Styrene	N.D
Methacrylonitrile	N.D	Bromoform	N.D
Tetrahydrofuran	N.D	Isopropyl Benzene	N.D
Trichloromethane/ Chloroform*	N.D	Bromobenzene	N.D
111 Trichloroethane	N.D	1122 Tetrachloroethane	N.D
1-Chlorobutane	N.D	123 Trichloropropane	N.D

VOLATILE ORGANIC COMPOUNDS		*Chuurchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**L3**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
Dichlorodifluoromethane	N.D	Carbon Tetrachloride	N.D
Chloromethane	N.D	11 Dichloropropene	N.D
Ethyl Chloride/Chloroethane	N.D	Benzene	N.D
Vinyl Chloride/Chloroethene	N.D	12 Dichloroethane	N.D
Bromomethane	N.D	Trichloroethylene/ Trichloroethene	N.D
Trichloromonofluoromethane	N.D	12 Dichloropropane	N.D
Ethyl Ether/Diethyl Ether	N.D	Dibromomethane	N.D
11 Dichloroethene	N.D	Methyl Methacrylate	N.D
Acetone	N.D	Bromodichloromethane	N.D
Iodomethane/Methyl Iodide	N.D	13 Dichloropropene,cis	N.D
Carbon Disulphide	N.D	MIBK/4 Methyl 2 Pentanone	N.D
Allyl Chloride	N.D	Toluene	36.2
Methylene Chloride/DCM	N.D	13 Dichloropropene,trans	N.D
2-Propenenitrile/Acrylonitrile	N.D	Ethyl Methacrylate	N.D
Chlormethyl Cyanide/Chloroacetonitrile	N.D	112 Trichloroethane	N.D
Nitrobenzene	N.D	Tetrachloroethylene/ Tetrachloroethene	N.D
Propanenitrile	N.D	13 Dichloropropane	N.D
Hexachlorobutadiene	N.D	2-Hexanone	N.D
Trans-1,2 Dichloroethene	N.D	Dibromochloromethane	N.D
MtBE	N.D	12 Dibromoethane	N.D
11 Dichloroethane	N.D	Chlorobenzene	N.D
22 Dichloropropane	N.D	1112 Tetrachloroethane	N.D
cis-12 Dichloroethene	N.D	Ethyl Benzene	N.D
2-Butanone	N.D	m & p Xylene	N.D
Methyl Acrylate	N.D	o Xylene	2.7
Bromochloromethane	N.D	Styrene	N.D
Methacrylonitrile	N.D	Bromoform	N.D
Tetrahydrofuran	N.D	Isopropyl Benzene	N.D
Trichloromethane/ Chloroform*	N.D	Bromobenzene	N.D
111 Trichloroethane	N.D	1122 Tetrachloroethane	N.D
1-Chlorobutane	N.D	123 Trichloropropane	N.D
Trans 14 Dichloro 2 Butene, tran	N.D	13 Dichlorobenzene	N.D
Propyl Benzene	N.D	P Isopropyltoluene	N.D
2-Chlorotoluene	N.D	14 Dichlorobenzene	N.D
4 Chlorotoluene	N.D	12 Dichlorobenzene	N.D
135 Trimethylbenzene	N.D	N Butyl Benzene	N.D
Tert Butyl Benzene	N.D	Hexachloroethane	N.D
124 Trimethylbenzene	N.D	12 Dibromo 3 Chloropropane	N.D
Sec Butyl Benzene	N.D	124 Trichlorobenzene	N.D
		123 Trichlorobenzene	N.D

NOTES

1. ND=Concentration was below the limit of detection

SEMI-VOLATILE ORGANIC COMPOUNDS		*Chuurchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**L1**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
1,2,4-Trichlorobenzene	<2	Hexachlorobutadiene	<2
1,2-Dichlorobenzene	<2	Hexachloroethane	<2
1,3-Dichlorobenzene	<2	Indeno(1,2,3-c,d)pyrene	<2
1,4-Dichlorobenzene	<2	Isophorone	<2
2,4,5-Trichlorophenol	<2	Naphthalene	<4
2,4,6-Trichlorophenol	<2	Nitrobenzene	<2
2,4-Dichlorophenol	<2	n-Nitrosodi-n-propylamine	<2
2,4-Dimethylphenol	<2	Pentachlorophenol	<2
2,4-Dinitrotoluene	<2	Phenanthrene	<2
2,6-Dinitrotoluene	<2	Phenol	<2
2-Chloronaphthalene	<2	Pyrene	<2
2-Chlorophenol	<2		
2-Methylnaphthalene	<2		
2-Methylphenol	<2		
2-Nitrophenol	<2		
3&4-Methylphenol	<2		
4-Bromophenyl Phenyl Ether	<2		
4-Chloro-3-methylphenol	<2		
4-Chlorophenyl phenyl ether	<2		
4-Nitrophenol	<10		
Acenaphthene	<2		
Acenaphthylene	<2		
Anthracene	<2		
Benzo(a)anthracene	<2		
Benzo(a)pyrene	<2		
Benzo(b)fluoranthene	<2		
Benzo(g,h,i)perylene	<2		
Benzo(k)fluoranthene	<2		
Benzyl Butyl Phthalate	<2		
Bis(2-chloroethoxy)methane	<2		
Bis(2-chloroethyl)ether	<2		
Bis(2-chloroisopropyl)ether	<2		
Bis(2-ethylhexyl)phthalate	<10		
Chrysene	<2		
Dibenz(a,h)anthracene	<2		
Dibenzofuran	<2		
Diethylphthalate	<2		
Dimethylphthalate	<2		
di-n-Butylphthalate	<2		
Di-n-octylphthalate	<2		
Diphenylamine	<2		
Fluoranthene	<2		
Fluorene	<2		
Hexachlorobenzene	<2		

SEMI-VOLATILE ORGANIC COMPOUNDS		*Chuurchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**L2**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
1,2,4-Trichlorobenzene	<1	Hexachlorobutadiene	<1
1,2-Dichlorobenzene	<1	Hexachloroethane	<1
1,3-Dichlorobenzene	<1	Indeno(1,2,3-c,d)pyrene	<1
1,4-Dichlorobenzene	<1	Isophorone	<1
2,4,5-Trichlorophenol	<1	Naphthalene	<2
2,4,6-Trichlorophenol	<1	Nitrobenzene	<1
2,4-Dichlorophenol	<1	n-Nitrosodi-n-propylamine	<1
2,4-Dimethylphenol	<1	Pentachlorophenol	<1
2,4-Dinitrotoluene	<1	Phenanthrene	<1
2,6-Dinitrotoluene	<1	Phenol	<1
2-Chloronaphthalene	<1	Pyrene	<1
2-Chlorophenol	<1		
2-Methylnaphthalene	<1		
2-Methylphenol	<1		
2-Nitrophenol	<1		
3&4-Methylphenol	<1		
4-Bromophenyl Phenyl Ether	<1		
4-Chloro-3-methylphenol	<1		
4-Chlorophenyl phenyl ether	<1		
4-Nitrophenol	<5		
Acenaphthene	<1		
Acenaphthylene	<1		
Anthracene	<1		
Benzo(a)anthracene	<1		
Benzo(a)pyrene	<1		
Benzo(b)fluoranthene	<1		
Benzo(g,h,i)perylene	<1		
Benzo(k)fluoranthene	<1		
Benzyl Butyl Phthalate	<1		
Bis(2-chloroethoxy)methane	<1		
Bis(2-chloroethyl)ether	<1		
Bis(2-chloroisopropyl)ether	<1		
Bis(2-ethylhexyl)phthalate	<5		
Chrysene	<1		
Dibenz(a,h)anthracene	<1		
Dibenzofuran	<1		
Diethylphthalate	<1		
Dimethylphthalate	<1		
di-n-Butylphthalate	<1		
Di-n-octylphthalate	<1		
Diphenylamine	<1		
Fluoranthene	<1		
Fluorene	<1		
Hexachlorobenzene	<1		

SEMI-VOLATILE ORGANIC COMPOUNDS		*Chuurchtown Landfill Site Lifford, Co.Donegal*	
Month:			
Location:	**L3**		
Lab No:			
PARAMETERS	**UNITS**	**PARAMETERS**	**UNITS**
1,2,4-Trichlorobenzene	<1	Hexachlorobutadiene	<1
1,2-Dichlorobenzene	<1	Hexachloroethane	<1
1,3-Dichlorobenzene	<1	Indeno(1,2,3-c,d)pyrene	<1
1,4-Dichlorobenzene	<1	Isophorone	<1
2,4,5-Trichlorophenol	<1	Naphthalene	<2
2,4,6-Trichlorophenol	<1	Nitrobenzene	<1
2,4-Dichlorophenol	<1	n-Nitrosodi-n-propylamine	<1
2,4-Dimethylphenol	<1	Pentachlorophenol	<1
2,4-Dinitrotoluene	<1	Phenanthrene	<1
2,6-Dinitrotoluene	<1	Phenol	<1
2-Chloronaphthalene	<1	Pyrene	<1
2-Chlorophenol	<1		
2-Methylnaphthalene	<1		
2-Methylphenol	<1		
2-Nitrophenol	<1		
3&4-Methylphenol	<1		
4-Bromophenyl Phenyl Ether	<1		
4-Chloro-3-methylphenol	<1		
4-Chlorophenyl phenyl ether	<1		
4-Nitrophenol	<5		
Acenaphthene	<1		
Acenaphthylene	<1		
Anthracene	<1		
Benzo(a)anthracene	<1		
Benzo(a)pyrene	<1		
Benzo(b)fluoranthene	<1		
Benzo(g,h,i)perylene	<1		
Benzo(k)fluoranthene	<1		
Benzyl Butyl Phthalate	<1		
Bis(2-chloroethoxy)methane	<1		
Bis(2-chloroethyl)ether	<1		
Bis(2-chloroisopropyl)ether	<1		
Bis(2-ethylhexyl)phthalate	15.6		
Chrysene	<1		
Dibenz(a,h)anthracene	<1		
Dibenzofuran	<1		
Diethylphthalate	<1		
Dimethylphthalate	<1		
di-n-Butylphthalate	<1		
Di-n-octylphthalate	<1		
Diphenylamine	<1		
Fluoranthene	<1		
Fluorene	<1		
Hexachlorobenzene	<1		

		Churchtown Landfill, Lifford, Co. Donegal											
		Gas Levels											
		LG2											
PARAMETERS	**UNITS**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**DATE**	**DATE**
		JAN 12	FEB 12	MAR 12	APR 12	MAY 12	JUNE 12	JULY 12	AUGUST 12	EPTEMBER	OCT 12	NOV 12	DEC 12
Methane	**%**		65.5			56.2		64.4		61.3	64.1		
Carbon Dioxide	**%**		31.5			10.6		35.3		37.7	35.2		
Oxygen	**%**		1.1			20.1		0.2		1.0	0.2		
Atmo. Pressure	**mBar**		1008			995		1006		1005	987		

		Churchtown Landfill, Lifford, Co. Donegal											
		Gas Levels											
		LG5											
PARAMETERS	**UNITS**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**
		JAN 12	FEB 12	MAR 12	APR 12	MAY 12	JUNE 12	JULY 12	AUGUST 12	EPTEMBER	OCT 12	NOV 12	DEC 12
Methane	**%**		0.3			0.4		0.9		1.2	0.0		
Carbon Dioxide	**%**		0.7			0.6		12.4		1.4	0.3		
Oxygen	**%**		19.8			21.5		13.3		19.5	20.9		
Atm. Pressure	**mBar**		1008			995		1006		1005	987		

		Churchtown Landfill, Lifford, Co. Donegal											
		Gas Levels											
		LG6											
PARAMETERS	**UNITS**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**DATE**	**DATE**
		JAN 12	FEB 12	MAR 12	APR 12	MAY 12	JUNE 12	JULY 12	AUGUST 12	EPTEMBER	OCT 12	NOV 12	DEC 12
Methane	**%**		0.3			0.8		0.5		21.2	26.7		
Carbon Dioxide	**%**		0.0			0.4		0.3		25.4	23.5		
Oxygen	**%**		20.0			20.2		20.1		0.4	0.3		
Atmo. Pressure	**mBar**		1008			995		1006		1005	987		

		Churchtown Landfill, Lifford, Co. Donegal											
		Gas Levels											
		LG7											
PARAMETERS	**UNITS**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**
		JAN 12	FEB 12	MAR 12	APR 12	MAY 12	JUNE 12	JULY 12	AUGUST 12	EPTEMBER	OCT 12	NOV 12	DEC 12
Methane	**%**		74.5			72.2		70.1		64.1	63.9		
Carbon Dioxide	**%**		32.4			3.4		29.8		35.2	33.4		
Oxygen	**%**		1.1			10.6		0.1		0.2	0.5		
Atmo. Pressure	**mBar**		1008			995		1006		997	987		

APPENDIX C

WATER BALANCE CALCULATION

CHURCHSTOWN WATER BALANCE CALCULATION

Year	Status	Rainfall (mm)	Restored area	Temp Restored area RCA(m^2)	Temp Restored area infiltration IRCA(m3)	Total Water	Leachate produced Lo(m3)
2012	Closed	1,149		70,000	24,125	24,125	24,125
Total		1,149					24,125

Assumptions

IRCA=	Temp restored area infiltration of rainfall estimated % (25-30% of annual rainfall,EPA Manual)	30%	%
Temporary restored area	Area of landfill site temporary restored.	70,000	m2
Rainfall Data	Data taken from Met Eireann Station Malin Head, Total Rainfall us	1,149	mm

APPENDIX D

REVISED GAS MODEL RESULTS

Figure D.1 – Total Bulk Landfill Gas Produced 1987-2087

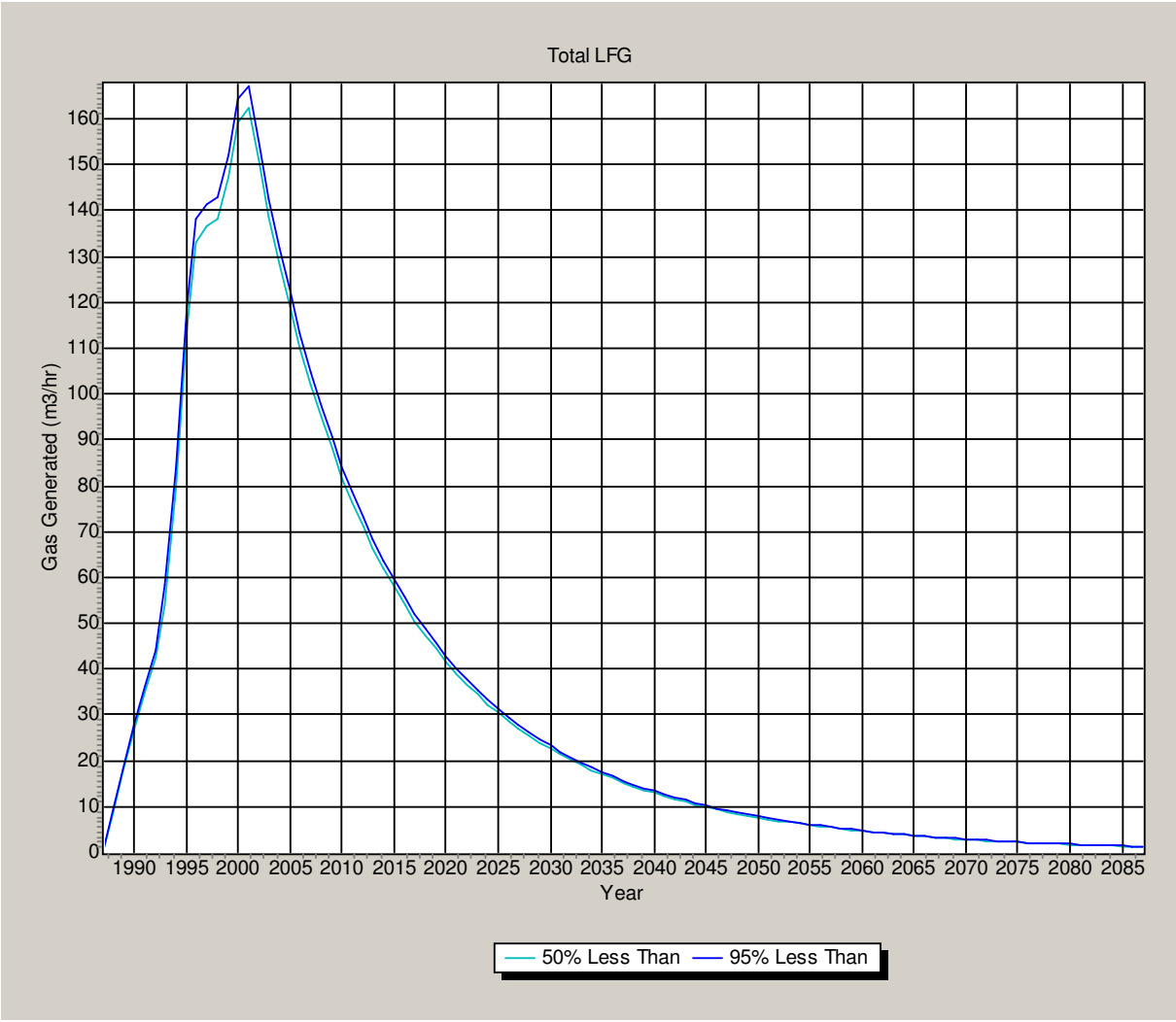
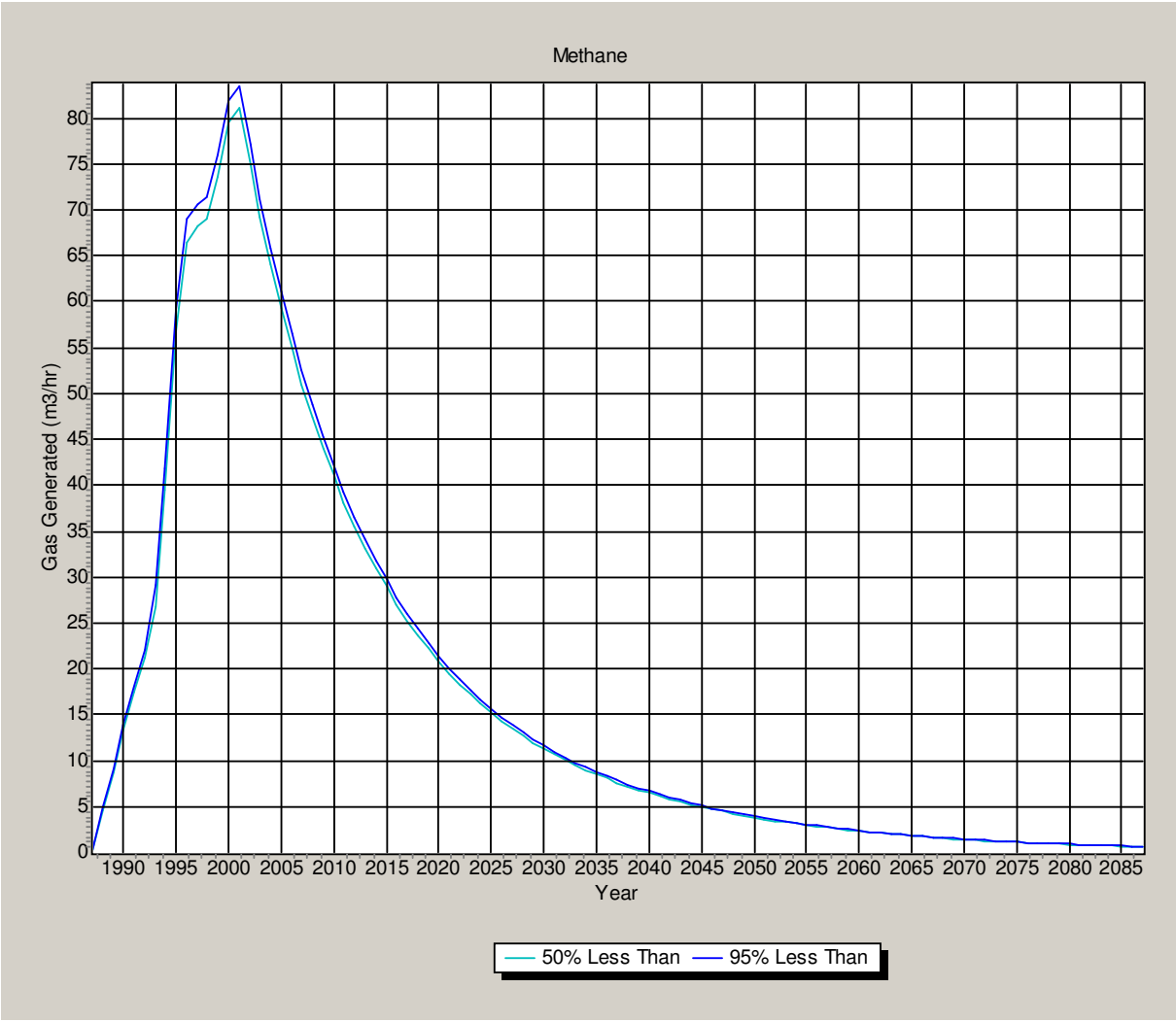


Table D1 – Total Bulk Landfill Gas 1988-2026

Year	M3/hr	Year	M3/hr	Year	M3/hr
1988	9.2	2001	162.43	2014	61.84
1989	17.7	2002	149.97	2015	57.77
1990	26.69	2003	138.59	2016	54.00
1991	35.13	2004	128.20	2017	50.52
1992	42.63	2005	118.70	2018	47.30
1993	53.85	2006	110.01	2019	44.32
1994	79.32	2007	102.05	2020	41.56
1995	113.84	2008	94.75	2021	39.00
1996	133.15	2009	88.05	2022	36.62
1997	136.69	2010	81.91	2023	34.41
1998	138.12	2011	76.26	2024	32.35
1999	147.38	2012	71.05	2025	30.43
2000	159.09	2013	66.26	2026	28.64

Figure D2 - Total Methane Produced 1987-2087



APPENDIX E

E-PRTR Regulations
(AER Electronic Reporting System)

Environmental Protection Agency

Guidance to completing the PRTR workbook

AER Returns Workbook

Version 1.1.16

REFERENCE YEAR	2012

1. FACILITY IDENTIFICATION

Parent Company Name	Donegal County Council
Facility Name	Churchtown Landfill
PRTR Identification Number	W0062
Licence Number	W0062-01

Waste or IPPC Classes of Activity

No.	class_name
3.1	The initial melting or production of iron and steel
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.
3.4	Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons.
Address 1	Churchtown
Address 2	Lifford
Address 3	Co. Donegal
Address 4	
	Donegal
Country	Ireland
Coordinates of Location	-7.51908 54.8105
River Basin District	GBNIIENW
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Don Smith
AER Returns Contact Email Address	don.smith@donegalcoco.ie
AER Returns Contact Position	Enviromental Technician
AER Returns Contact Telephone Number	0749122787
AER Returns Contact Mobile Phone Number	0876860295
AER Returns Contact Fax Number	0749161304
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	1
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?	
Have you been granted an exemption ?	
If applicable which activity class applies (as per Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being used ?	

4. WASTE IMPORTED/ACCEPTED ONTO SITE Guidance on waste imported/accepted onto site

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

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

4.1 RELEASES TO AIR Link to previous years emissions data

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

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

SECTION B : REMAINING PRTR POLLUTANTS

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0
01	Methane (CH4)	C	OTH	GasSim v1.54	0.0	200000.0	0.0	200000.0
03	Carbon dioxide (CO2)	C	OTH	GasSim v1.54	0.0	672000.0	0.0	672000.0
07	Non-methane volatile organic compounds (NMVOC)	C	OTH	GasSim v1.54	0.0	0.181	0.0	0.181
14	Hydrochlorofluorocarbons (HCFCs)	C	OTH	GasSim v1.54	0.0	0.506	0.0	0.506
15	Chlorofluorocarbons (CFCs)	C	OTH	GasSim v1.54	0.0	1.16	0.0	1.16
35	Dichloromethane (DCM)	C	OTH	GasSim v1.54	0.0	0.00437	0.0	0.00437
52	Tetrachloroethylene (PER)	C	OTH	GasSim v1.54	0.0	0.00287	0.0	0.00287
54	Trichlorobenzenes (TCBs)(all isomers)	C	OTH	GasSim v1.54	0.0	0.00083	0.0	0.00083
55	1,1,1-trichloroethane	C	OTH	GasSim v1.54	0.0	0.245	0.0	0.245
56	1,1,2,2-tetrachloroethane	C	OTH	GasSim v1.54	0.0	0.0126	0.0	0.0126
60	Vinyl chloride	C	OTH	GasSim v1.54	0.0	0.00501	0.0	0.00501
62	Benzene	C	OTH	GasSim v1.54	0.0	0.00605	0.0	0.00605
73	Toluene	C	OTH	GasSim v1.54	0.0	0.0137	0.0	0.0137
78	**Xylenes**	C	OTH	GasSim v1.54	0.0	0.00307	0.0	0.00307

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

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

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

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

Additional Data Requested from Landfill operators

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

Landfill: Churchtown Landfill

Please enter summary data on the quantities of methane flared and / or utilised			Method Used			
	T (Total) kg/Year	**M/C/E**	**Method Code**	**Designation or Description**	**Facility Total Capacity m3 per hour**	
Total estimated methane generation (as per site model)	200000.0	C	OTH	GasSim v1.54	N/A	
Methane flared	0.0				0.0	(Total Flaring Capacity)
Methane utilised in engine/s	0.0				0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section A above)	200000.0	C	OTH	GasSim v1.54	N/A	

4.2 RELEASES TO WATERS

Link to previous years emissions data

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

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

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

4.3 RELEASES TO WASTEWATER OR SEWER

Link to previous years emissions data

SECTION A : PRTR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

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

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

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

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

4.4 RELEASES TO LAND

Link to previous years emissions data

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	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
					0.0	0.0	0.0

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

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

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

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

Please enter all quantities on this sheet in Tonnes

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					

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

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