ANNUAL ENVIRONMENTAL REPORT

For

BALBANE LANDFILL SITE
Co. Donegal

Waste Licence Reference: W0090-1

By
Donegal County Council
For
Environmental Protection Agency

Reporting Period:

January to December 2011

March 2012

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1 INTRODUCTION

1.1 This Annual Environmental Report (AER) has been prepared to meet the requirements of Condition 11.5 of Waste Licence 90-1 for Balbane Landfill Site, and includes the information listed in Schedule F of the Licence.

1.2 Balbane Landfill Site is located approximately 6.5 km north of Killybegs, in the townland of Balbane, County Donegal. The landfill covers an area of approximately 2.9 hectares. The landfill site was developed to operate on the dilute and disperse principle whereby leachate generated by rainfall was allowed to disperse into the surrounding environment.

1.3 Donegal County Council submitted an application to the Environmental Protection Agency for the continued operation of the landfill site, as required by the Waste Management (Licensing) Regulations 1997. On the 13th of November 2001 the Environmental Protection Agency granted the Council a Waste Licence (registration number 90-1) for the facility, in accordance with the Third Schedule of the Waste Management Act, 1996.

2 REPORT PERIOD

2.1 The report period for this Annual Environmental Report (AER) is from January to December 2011. The site closed in January 2004.

3 WASTE ACTIVITIES CARRIED OUT AT THE FACILITY

3.1 In accordance with Condition 1 of the waste licence only those waste types and quantities of waste listed in Schedule A shall be disposed of at the facility unless the prior agreement of the Agency has been obtained. The maximum annual tonnage of individual waste types for disposal is listed in Schedule A of the Waste Licence at 7,500 tonnes from the date of grant of licence for municipal waste and 70,000 tonnes of inert material of the purpose of restoration.

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).
  This activity is limited to deposition of municipal and inert waste.
- **Class 4:** Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons. This activity is limited to leachate collection and treatment.
- **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. This activity is limited to leachate collection and storage prior to treatment.

3.3 When operational, access to site was controlled by the Site Manager. All persons availing of the site had to report to the site office at the time of entering and leaving the landfill site. Access was restricted to those times when staff were on duty and the site is now secured to prevent unauthorised entry.

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

4.1 A temporary computerised weighbridge was installed at the site in 2002 and this was used to record waste data figures until the facility closed in January 2004. No waste has been received at the site since closure. Annual figures for the period 1998-2011 are shown in Table 4.1.

Table 4.1 Waste Quantities Accepted (tonnes)

Waste Types	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Municipal Waste (20 03 01)	3228	3716	4721	4107	5069	2790	187	0	0	0
Street Cleanings (20 03 03)						57	3	0	0	0
	2008	**2009**	**2010**	**2011**						
Municipal Waste (20 03 01)	0	0	0	0						
Street Cleanings (20 03 03)	0	0	0	0						

5 SUMMARY REPORT ON EMISSIONS, RESULTS AND INTERPRETATION OF ENVIRONMENTAL MONITORING

5.1 ENVIRONMENTAL MONITORING REQUIREMENTS

The locations, frequencies and parameters which are required to be monitored at Balbane Landfill Site are specified in Schedule F of the Waste Licence. Details of these are shown on Drawing Nos 5234.40 /107 and 5234.40/06 and are given in Appendix A.

5.2 MONITORING RESULTS

Results of monitoring for the period for surface water, groundwater, leachate and gas are contained in tabular and graphical format in Appendix B.

5.3 GROUNDWATER

5.3.1 Results are assessed against the Maximum Admissible Concentrations (MAC's) set out in the EC Quality of Water for Human Consumption Regulations 1988, the EC Drinking Water Regulations 2000 and the EPA Interim Report, Towards Setting Guideline Values for the Protection of Groundwater in Ireland. Groundwater locally flows in a south-easterly direction and GW1 reflects baseline conditions upstream of the site. GW4 & GW2 are downstream but in / adjacent to waste. It should be noted that BH2 is also located within waste and is considered to be a leachate well.

5.3.2 Results from this period indicate that leachate continues to be released from the waste body into the local groundwater environment although the proximity of the downstream wells should be taken into account. Levels are comparable to those detected in the last reporting period.

5.4 SURFACE WATER

5.4.1 Surface water results are assessed against the Surface Water Quality Standards (SWQS) as laid out in the EC Quality of Surface Water Intended for the Abstraction of Drinking Water Regulations 1989. S1 is upstream of the site, whilst S4 – S7 inclusive are downstream. S2 and S3 were relocated and relabelled at the request of the EPA.

5.4.2 Surface water results indicate that leachate continues to be released into the environment at levels comparable to those detected during the last period. Surface water levels improve rapidly downstream and appear to be dependent upon rainfall conditions (probably reflective of the size of the baseflow in the watercourse).

5.5 LEACHATE

5.5.1 Leachate quality varies during the lifetime of a landfill depending on the stage of decomposition of waste. Results from BH2, the leachate well are presented in Appendix B. Some characteristic parameters have been compared with those of 'typical' raw leachate in Table 5.1 below.

Table 5.1 Raw Leachate Concentrations 2011

	Balbane 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)	8.8	15.2	<0.2	1700	491
BOD	0.3	4.4	4.5	>4800	>834
COD	28	45	<10	33,700	3078
Chloride (mg/l)	95	276	27	3410	1256
Iron (mg/l)	<0.019	<0.019	0.4	664	54.4
Potassium (mg/l)	11.2	11.2	2.7	1480	491
Sodium (mg/l)	49.5	49.5	12	3000	904
TON (mg/l N)	<0.01	<0.01	/	/	/
Conductivity (µS/cm)	1103	1459	503	19,200	7789
pH (pH units)	6.2	7.4	6.4	8.0	7.2

5.5.2 Table 5.1 compares raw leachate concentrations detected at Balbane with 'typical leachate composition from 30 samples from UK/Irish Landfills accepting mainly domestic waste' (taken from EPA Manual for Landfill Operational Practices). Parameters measured all compare well with typical leachate ranges shown and with the results issued last period.

5.6 PERIMETER GAS MONITORING

The gas monitoring peizometers on the site at Balbane are located within waste, and are not perimeter wells. As such results (as contained in Apendix B) are indicative of methanogenic gas processes that would be occurring under anaerobic conditions.

5.7 DUST MONITORING

As previously agreed with the Agency, monitoring of dust ceased when the site closed. When any activity commences, such as restoration works for example, a dust-monitoring programme will be resumed.

5.8 METEOROLOGOCAL MONITORING

Meteorological data is contained in Appendix C.

6 VOLUME OF LEACHATE PRODUCED AND VOLUME OF LEACHATE TRANSPORTED DISCHARGED OFF SITE

6.1 A water balance calculation has been undertaken and is presented in Appendix C. It estimates that 9086m^3 of leachate will have been generated from this waste body during the period. Due to a lack of collection infrastructure there is not currently any leachate transported off site. Correspondingly it is assumed that all leachate generated disperses into the surrounding environment.

7 REPORT ON DEVELOPMENT WORK UNDERTAKEN DURING THE REPORTING PERIOD, AND A TIME SCALE FOR THOSE PROPOSED DURING THE COMING YEAR.

7.1 The restoration of this landfill has been delayed due to lack of funds available to Donegal County Council as a result of the removal of grant funding for such projects. The Council met with the Agency in November 2009 and discussed this issue. The Agency requested that the Council investigate the viability of carrying out some focused works to address leachate emissions, this being the significant environmental risk from the site. This was carried out and a proposal for leachate treatment submitted to the Agency for consideration in 1st June 2010. The Council received a response from the Agency in May 2011 citing Condition 6.4.1 of the Licence and requesting a demonstration that leachate discharges will have no significant impact on receiving waters. Donegal County Council is considering the feasibility of this request.

8 REPORT ON RESTORATION OF COMPLETED CELLS / PHASES

8.1 The Restoration and Aftercare Plan was submitted to the Agency in October 2004 and approved in November 2004.

8.2 Of Donegal County Council's five closed landfill sites Balbane is now scheduled for restoration fourth and next. See also Section 7 above.

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

9.1 A topographical survey of the site was last carried out in December 2002. This was included in the 2002 AER.

10 ANNUAL WATER BALANCE CALCULATION AND INTERPRETATION

A water balance calculation has been undertaken and is presented in Appendix C. The calculation for monthly water balance is as follows

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

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)

11 REPORTED INCIDENTS AND COMPLAINTS SUMMARIES.

11.1 Other than the reporting of on-going emissions exceedances detected in the routine monitoring programme, no incidents occurred during the monitoring period and no complaints were received.

12 REVIEW OF NUISANCE CONTROLS

12.1 As the facility is no longer operational, all areas formerly used for the placement of municipal waste have been covered by clay and topsoil. There has been a reduction in the incidence of nuisances resulting from this. However, precautionary measures are employed to ensure the detection and appropriate management of any nuisances that may arise. As part of the Environmental Management System for the site a procedure has been developed to provide for regular inspections of the site as part of the quarterly monitoring programme. Should this inspection reveal the incidence of any type of nuisance (vermin, litter, dust, birds or odours) then appropriate action is initiated.

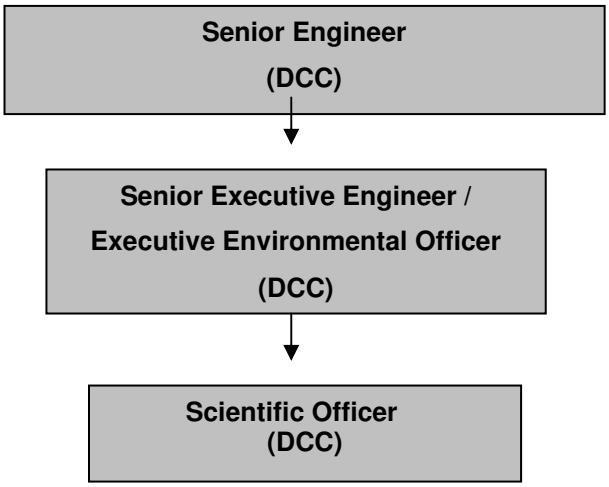
13 REPORT ON FINANCIAL PROVISIONS MADE UNDER THIS LICENSE, MANAGEMENT AND STAFFING STRUCTURE OF THE FACILITY AND A PROGRAMME FOR PUBLIC INFORMATION

13.1 Donegal County Council being a local authority is able to provide the necessary finances to ensure the proper management, development and restoration of Balbane Landfill Site.

13.2 Overall responsibility for the ongoing operations and development of the landfill site is held by the Senior Engineer. The Senior Engineer is assisted by a Senior Executive Engineer and an Executive Environmental Officer assigned to the Environment Section of Donegal County Council.

13.3 As part of the Environmental Management System (EMS) for the site, a communication programme (in accordance with Condition 2.8 of waste licence) is provided in Section 2 of the EMS to ensure that members of the public can obtain information concerning the environmental performance of the facility at all reasonable times.

13.4 The Management Structure at Balbane Landfill site is set out below.



14 REPORT ON STAFF TRAINING

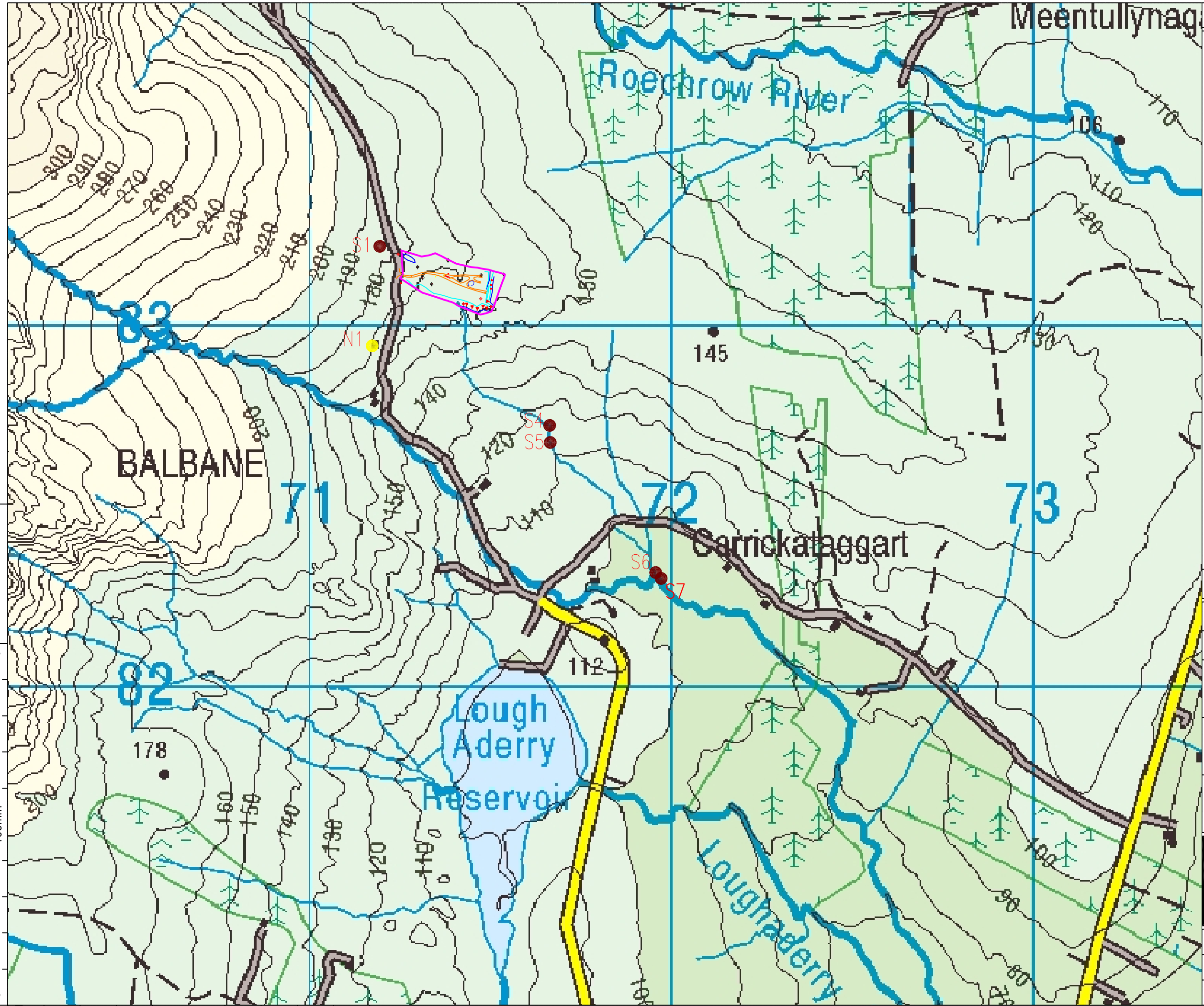
14.1 No training has been undertaken as the facility is now closed and there are no operational personnel on the site.

15 RESOURCES AND ENERGY CONSUMPTION SUMMARY

15.1 No energy was consumed on the site during the reporting period.

16 REPORT ON ENVIRONMENTAL MANAGEMENT PROGRAMME

16.1 An Environmental Management Programme (EMP) was revised in 2004 to take into consideration the closure of the site and was submitted in to the Agency in December 2004 for its agreement. 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. Details regarding this are contained in Section 2 of the Environmental Management System Manual.



NOTES

SITE BOUNDARY

S1 SURFACE WATER MONITORING POINT

N1 NOISE MONITORING POINT

MONITORING TYPE	REF NO	GRID REFERENCE
SURFACE WATER	SW1	171187 363215
	SW4	171657 382720
	SW5	171658 382673
	SW6	171949 382314
	SW7	171965 382297
NOISE	N1	171166 382940

REV	DESCRIPTION	BY DATE	CHECK DATE
A	UPDATED GRID COORDINATES	JD JULY 05	AMcG JULY 05

DRAWN BY AMcG DATE SEPT 2004	CHECK BY AMcG DATE SEPT 2004	APPROVED DD DATE SEPT 2004
PLOT SCALE 1:10,000	SCHEDULES	SHEET SIZE A3

CLIENT

DONEGAL COUNTY COUNCIL

PROJECT

BALBANE LANDFILL SITE

TITLE

SURFACE WATER MANAGEMENT

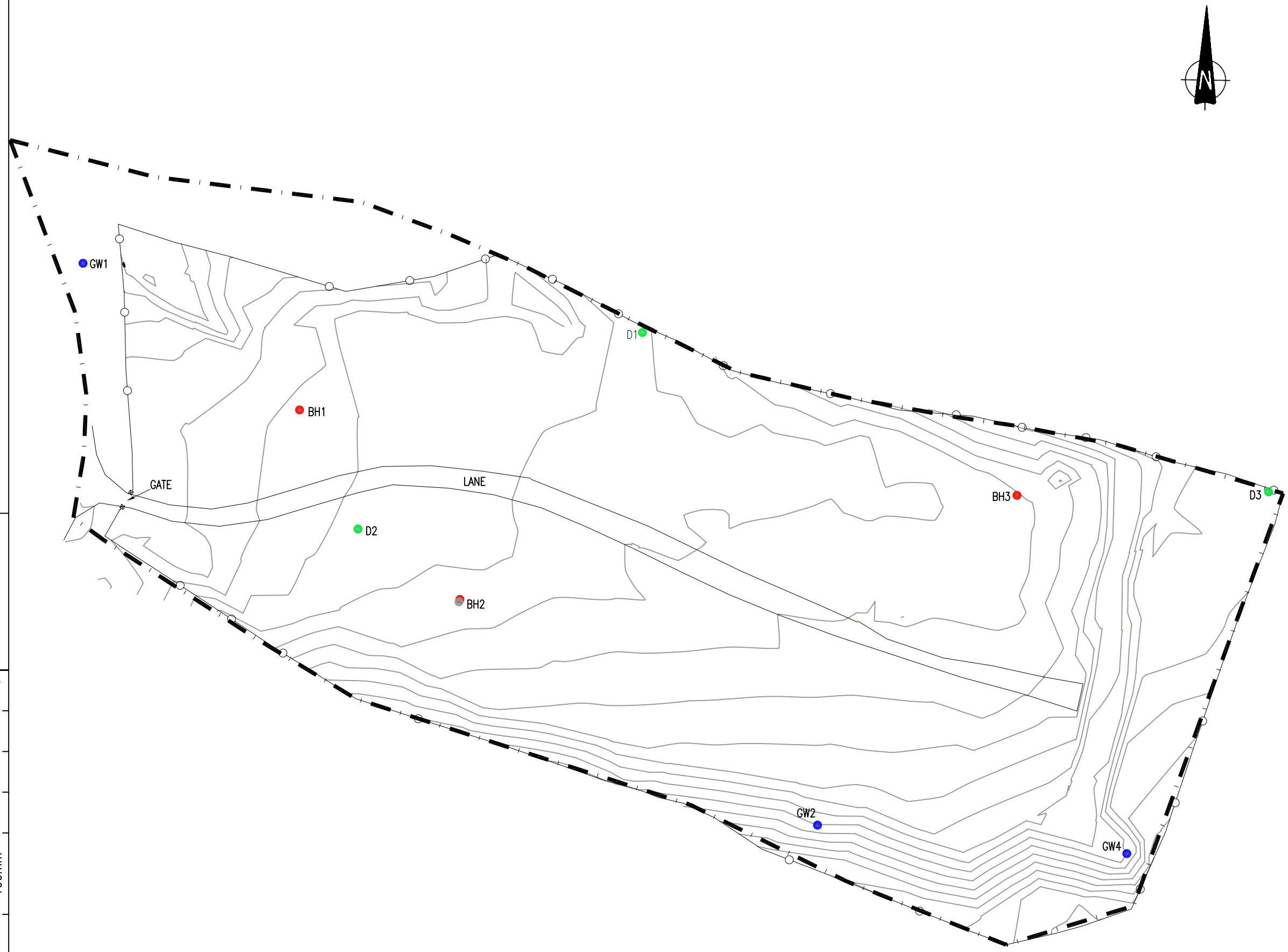
RPS Kirk McClure Morton
CONSULTING ENGINEERS
TEL: 074 91 61927 Email: info@kmm.eu.com FAX: 074 91 61928
THE ENTERPRISE FUND BUSINESS CENTRE BALLYRAINE LETTERKENNY CO.DONEGAL

ARCHITECT

DRAWING No. 5234.40/107

REVISION A

DWG. STATUS	
PRELIM.	●
TENDER	
CONST.	
RECORD	



NOTES

KEY

- SITE BOUNDARY
- GW GROUNDWATER MONITORING POINT
- BH LEACHATE MONITORING POINT
- D DUST MONITORING POINT
- BH LANDFILL GAS MONITORING POINT

MONITORING TYPE	REF NO	GRID REFERENCE
LEACHATE & GAS	BH1	171300 383157
	BH2	171339 383110
	BH3	171476 383136
GROUNDWATER	GW1	171246 383193
	GW2	171427 383055
	GW4	171503 383048
DUST	D1	171384 383176
	D2	171314 383128
	D3	171538 383137

GRID COORDINATES DETERMINIED FROM SITE SURVEY

REV	DESCRIPTION	BY DATE	CHECK DATE
A	UPDATED GRID COORDINATES SITE BOUNDARY ADDED	JD JULY 05	AMcG JULY 05

DRAWN BY JD DATE AUG 2003	CHECK BY KAD DATE AUG 2003	APPROVED DD DATE AUG 2003
PLOT SCALE 1:1000	SCHEDULES	SHEET SIZE A3

CLIENT

DONEGAL COUNTY COUNCIL

PROJECT

BALBANE LANDFILL SITE

TITLE

MONITORING LOCATIONS

RPS Kirk McClure Morton
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THE ENTERPRISE FUND BUSINESS CENTRE BALLYRAINE LETTERKENNY CO.DONEGAL

ARCHITECT	
DRAWING No.	5234.40/06
REVISION	A

DWG. STATUS	
PRELIM.	●
TENDER	
CONST.	
RECORD	

100mm

100mm

APPENDIX A

MONITORING LOCATIONS, FREQUENCIES AND PARAMETERS

Table A1 Grid References of Monitoring Points

Monitoring Points	Easting	Northing
Boreholes		
GW1	171246.5649	383193.1516
GW2	171427.2239	383055.9240
GW4 Note 1	171503.0898	383048.6637
Surface Water Monitoring		
S1	171187	363215
S4	171657	382720
S5	171658	382673
S6 Note 2	171949	382314
S7 Note 2	171965	382297
Gas Piezometers		
BH1	171300.3033	383157.7656
BH2	171339.4609	383110.6149
BH3	171475.8577	383135.7863
Dust		
D1	171384.5481	383176.7779
D2	171314.6629	383128.5125
D3	171538.3837	383137.6433
Leachate		
BH2	171339.4609	383110.6149

NOTE 1 – GW3 WAS REPLACED BY GW4 WHEN THELANDFILL MASS EXTENDED PAST THE LOCATION OF GW3

NOTE 2 – SW2 AND SW3 WERE REPLACED BY SW6 AND SW7

Table A2 Groundwater Parameters and Monitoring Frequencies

Quarterly		Annually	
Temperature	Chloride	Boron	Magnesium
Groundwater Level	Dissolved Oxygen	Cadmium	Manganese
	Sodium	Calcium	Mercury
	TON	Chromium	Orthophosphate
	TOC	Copper	Zinc
	Phenols	Cyanide	
	Ammoniacal Nitrogen	Fluoride	
	Electrical Conductivity	Lead	
	pH	List I/II substances	
	Iron	Sulphate	
	Potassium		

Table A3 Surface Water Parameters Monitoring Frequencies

Quarterly		Annually	
Temperature	Chloride	Iron	Magnesium
pH	Dissolved Oxygen	Cadmium	Manganese
Ammoniacal Nitrogen	COD	Calcium	Mercury
BOD		Chromium	Orthophosphate
Electrical Conductivity		Copper	Zinc
TSS		Sodium	Potassium
		Fluoride	TON
		Lead	Sulphate
		List I/II substances	

APPENDIX B

RESULTS OF MONITORING

Location		*Balbane, Killybegs, Co. Donegal*											
Sample Type		surface water											
Site No		SW1											
Date of Sample		Jan 11	FEB 11	MAR 11	APR 11	MAY 11	JUN 11	JUL 11	AUG 11	SEPT 11	OCT 11	NOV 11	DEC 11
Lab No		1141	1431	2066	2358	2961	3286	7	4728	4919	5677	6239	6600
pH		7.6	6.8	6.7	6.7	6.6	6.9	7.3	6.8	6.6	6.8	7.1	6.4
Temp	C	6.60	7.10	7	8.50	9.7	10.9	12.00	13.6	14.2	10.2	9.8	3.2
Electrical Conductivity	uS/cm	91	52	93	49	48	55	56	76	39	32	40	249
Ammonical Nitrogen	mg/l	0.05	0.02	0.06	0.06	0.10	0.10	0.04	0.05	0.05	0.04	<0.01	0.07
COD	mg/l	11	15	11	15	20	15	16	21	27	22	31	26
BOD	mg/l	1.8	0.5	0.9	0.2	0.8	0.7	0.5	0.5	1.7	0.8	1.0	0.7
Dissolved Oxygen	mg/l	12.55	11.32	11.30	10.13	9.56	10.58	9.55	10.04	9.76	10.88	11.25	13.12
SS	mg/l	1.0	1.0	4.0	1.0	2.0	2.0	1.0	4.0	2.0	1.0	6.0	1.0
Residue on Evaporator	mg/l												
Calcium	ug/l					2							
Cadmium	ug/l					<0.1							
Chromium	ug/l					<3							
Chloride	mg/l	17	16	26	16	14	20	20	24	18	16	13	70
Chlorine	mg/l												
Copper	ug/l					<0.85							
Cyanide	mg/l												
Iron	ug/l					<0.019							
Lead	ug/l					0.05							
Magnesium	ug/l					0.35							
Manganese	ug/l					28							
Mercury	ug/l					<0.01							
Nickel	mg/l												
Potassium	mg/l					<2.34							
Sodium	mg/l					6.32							
Sulphate	mg/l					<2							
Zinc	ug/l					3.19							
Total Alkalinity as CaCO3	mg/l					22							
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l	<0.01				<0.01						<0.01	<0.01
Arsenic	mg/l												
Barium	mg/l												
Boron	ug/l												
Flouride	mg/l												
Total Phenols	mg/l												
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					<0.1							
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m												

*** Insufficient Sample / No Access

--- Not Applicable

Location		*Balbane, Killybegs, Co. Donegal*											
Sample Type		surface water											
Site No		SW4											
Date of Sample		Jan 11	FEB 11	MAR 11	APR 11	MAY 11	JUN 11	JUL 11	AUG 11	SEPT 11	OCT 11	NOV 11	DEC 11
Lab No		1142	1432	2067	2359	2962	3287	7	4729	4920	5678	6240	6601
pH		7.7	7.4	6.8	7.0	6.6	7.0	13	6.7	6.4	6.8	6.8	6.4
Temp	C	5.40	7.00	6.60	8.5	9.8	11.5	12.50	13.20	14.80	10.40	10.1	3.4
Electrical Conductivity	uS/cm	509	225	350	250	141	109	135	246	95	68	108	270
Ammonical Nitrogen	mg/l	13.02	6.02	6.18	4.14	0.90	0.60	6.35	1.78	0.51	1.23	0.40	1.24
COD	mg/l	13	20	19	25	22	22	24	27	27	22	34	23
BOD	mg/l	2.8	1.4	2.4	1.3	1.1	4.8	1.1	0.8	1.9	1.3	0.9	1.2
Dissolved Oxygen	mg/l	12.9	11.5	11.6	10.4	9.8	10.7	9.8	10.2	9.9	11.2	11.3	13.3
SS	mg/l	1.0	1.0	6.0	1.0	4.0	1.0	3.0	2.0	3.0	2.0	6.0	1.0
Residue on Evaporator	mg/l					0							
Calcium	ug/l					12							
Cadmium	ug/l					<0.1							
Chromium	ug/l					<3							
Chloride	mg/l	51	26	65	28	20	24	28	48	19	18	16	65
Chlorine	mg/l												
Copper	ug/l					<0.85							
Cyanide	mg/l												
Iron	ug/l					<0.019							
Lead	ug/l					0.05							
Magnesium	ug/l					2.19							
Manganese	ug/l					25							
Mercury	ug/l					<0.01							
Nickel	mg/l												
Potassium	mg/l					<2.34							
Sodium	mg/l					10.4							
Sulphate	mg/l					20.4							
Zinc	ug/l					9.44							
Total Alkalinity as CaCO3	mg/l					40							
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l	<0.01	0.00	0.00	0.00	0.40	0.00	0.00	1.59	0.0	0.00	0.52	0.24
Arsenic	mg/l												
Barium	mg/l												
Boron	ug/l												
Flouride	mg/l												
Total Phenols	mg/l												
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					<0.1							
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m												

*** Insufficient Sampl / No Access

--- Not Applicable

Location		*Balbane, Killybegs, Co. Donegal*											
Sample Type		surface water											
Site No		SW5											
Date of Sample		Jan 11	FEB 11	MAR 11	APR 11	MAY 11	JUN 11	JUL 11	AUG 11	SEPT 11	OCT 11	NOV 11	DEC 11
Lab No		1143	1433	2068	2360	2963	3288	7	4730	4921	5679	6241	6602
pH		7.8	7.4	7.0	7.1	6.7	6.9	12	6.8	6.3	6.8	6.8	6.5
Temp	C	5.20	7.00	6.60	8.40	9.6	11.3	12.40	12.90	15.00	10.40	10.1	3.5
Electrical Conductivity	uS/cm	477	216	325	230	143	105	132	221	94	59	108	265
Ammonical Nitrogen	mg/l	14.66	3.59	5.73	3.28	1.00	0.50	6.04	1.57	0.76	1.20	0.55	0.86
COD	mg/l	13	30	18	16	22	22	22	28	31	24	33	25
BOD	mg/l	1.6	2.8	2.0	1.2	0.8	1.0	0.6	0.9	1.7	1.1	0.8	<1
Dissolved Oxygen	mg/l	12.5	11.6	11.7	10.7	9.8	10.6	9.8	10.2	9.9	11.1	11.3	13.3
SS	mg/l	1.0	19.0	6.0	2.0	3.0	1.0	3.0	4.0	3.0	5.0	4.0	2.0
Residue on Evaporator	mg/l												
Calcium	ug/l					11							
Cadmium	ug/l					<0.1							
Chromium	ug/l					<3							
Chloride	mg/l	42	24	50	28	19	24	26	47	19	15	15	65
Chlorine	mg/l												
Copper	ug/l					<0.85							
Cyanide	mg/l												
Iron	ug/l					<0.019							
Lead	ug/l					0.09							
Magnesium	ug/l					2.32							
Manganese	ug/l					10							
Mercury	ug/l					<0.01							
Nickel	mg/l												
Potassium	mg/l					<2.34							
Sodium	mg/l					11.2							
Sulphate	mg/l					<2							
Zinc	ug/l					3.32							
Total Alkalinity as CaCO3	mg/l					40							
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l	0.21				0.50			1.40			0.48	0.20
Arsenic	mg/l												
Barium	mg/l												
Boron	ug/l												
Flouride	mg/l												
Total Phenols	mg/l												
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					<0.1							
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m												

*** Insufficient Sample / No Access

--- Not Applicable

Location		*Balbane, Killybegs, Co. Donegal*											
Sample Type		surface water											
Site No		SW6											
Date of Sample		Jan 11	FEB 11	MAR 11	APR 11	MAY 11	JUN 11	JUL 11	AUG 11	SEPT 11	OCT 11	NOV 11	DEC 11
Lab No		1144	1434	2069	2361	2964	3289	7	4731	4922	5680	6242	6603
pH		7.66	7.40	7.03	7.19	6.72	6.83	12	6.91	6.33	6.81	6.81	6.50
Temp	C	6.30	7.00	6.50	8.50	9.6	11.5	12.4	13.00	15.00	10.50	10.2	3.5
Electrical Conductivity	uS/cm	337	141	223	157	124	90	104	178	94	60	85	256
Ammonical Nitrogen	mg/l	7.62	1.89	2.51	1.52	0.60	0.30	2.1	0.89	0.27	0.71	0.27	0.5
COD	mg/l	14	16	20	16	20	20	22	28	35	31	32	23
BOD	mg/l	1.24	0.39	1.45	0.68	0.28	0.85	0.56	0.39	1.69	1.85	0.84	1.30
Dissolved Oxygen	mg/l	12.75	11.74	11.80	10.83	10.0	10.70	9.75	10.17	9.80	11.16	11.23	13.22
SS	mg/l	1.0	3.0	5.0	1.00	2.0	1.0	2.0	1	2.0	4.00	2.0	1.0
Residue on Evaporator	mg/l					0							
Calcium	ug/l					9							
Cadmium	ug/l					<0.1							
Chromium	ug/l					<3							
Chloride	mg/l	34	21	48	24	19	21	24	40	18	14	15	64
Chlorine	mg/l												
Copper	ug/l					<0.85							
Cyanide	mg/l												
Iron	ug/l					0.03							
Lead	ug/l					0.06							
Magnesium	ug/l					1.9							
Manganese	ug/l					12							
Mercury	ug/l					<0.01							
Nickel	mg/l												
Potassium	mg/l					<2.34							
Sodium	mg/l					10.4							
Sulphate	mg/l					<2							
Zinc	ug/l					2.33							
Total Alkalinity as CaCO3	mg/l					30							
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l	<0.01				0.40			1.25			0.34	0.07
Arsenic	mg/l												
Barium	mg/l												
Boron	ug/l												
Flouride	mg/l												
Total Phenols	mg/l												
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					<0.1							
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m												

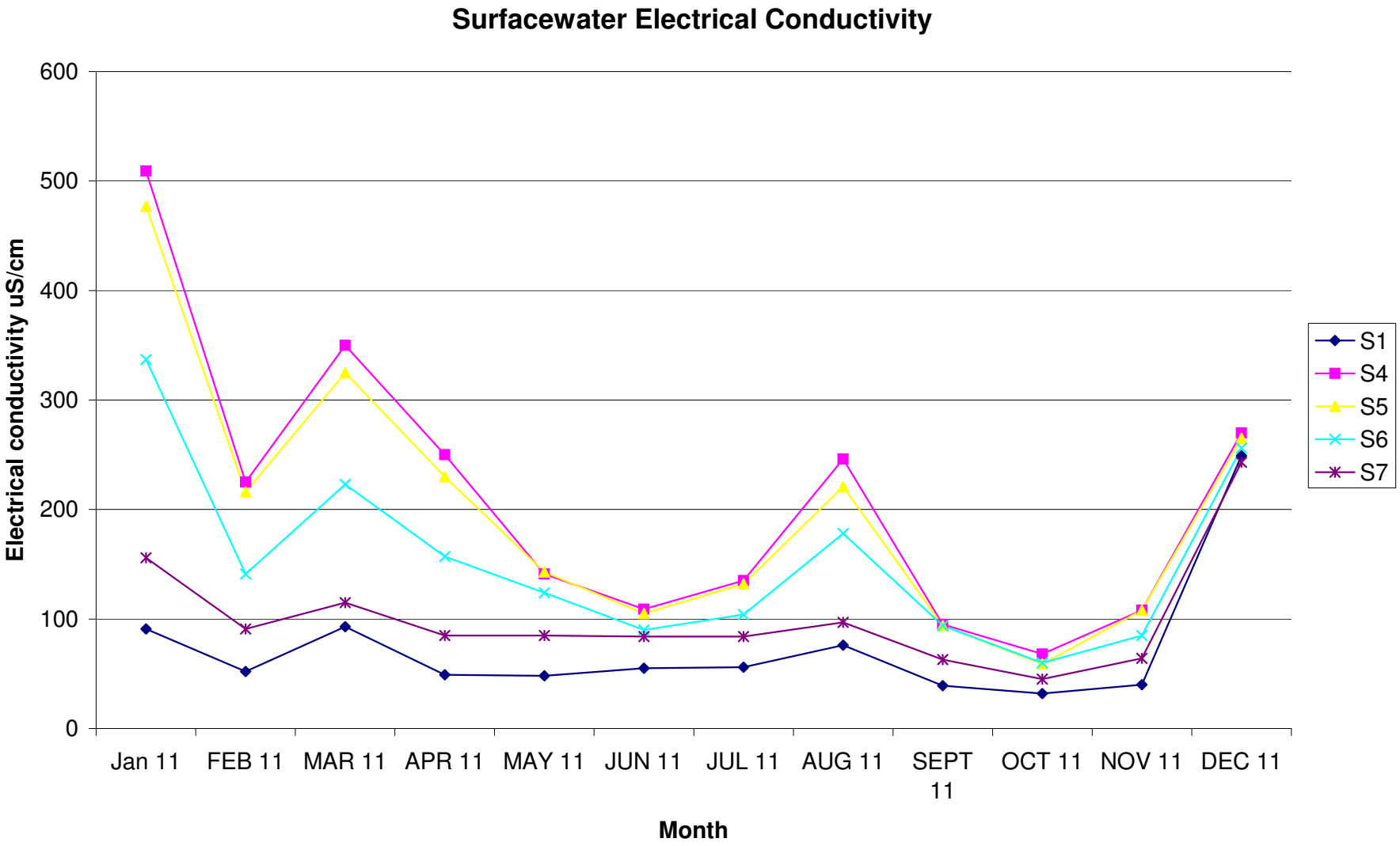
*** Insufficient Sample / No Access

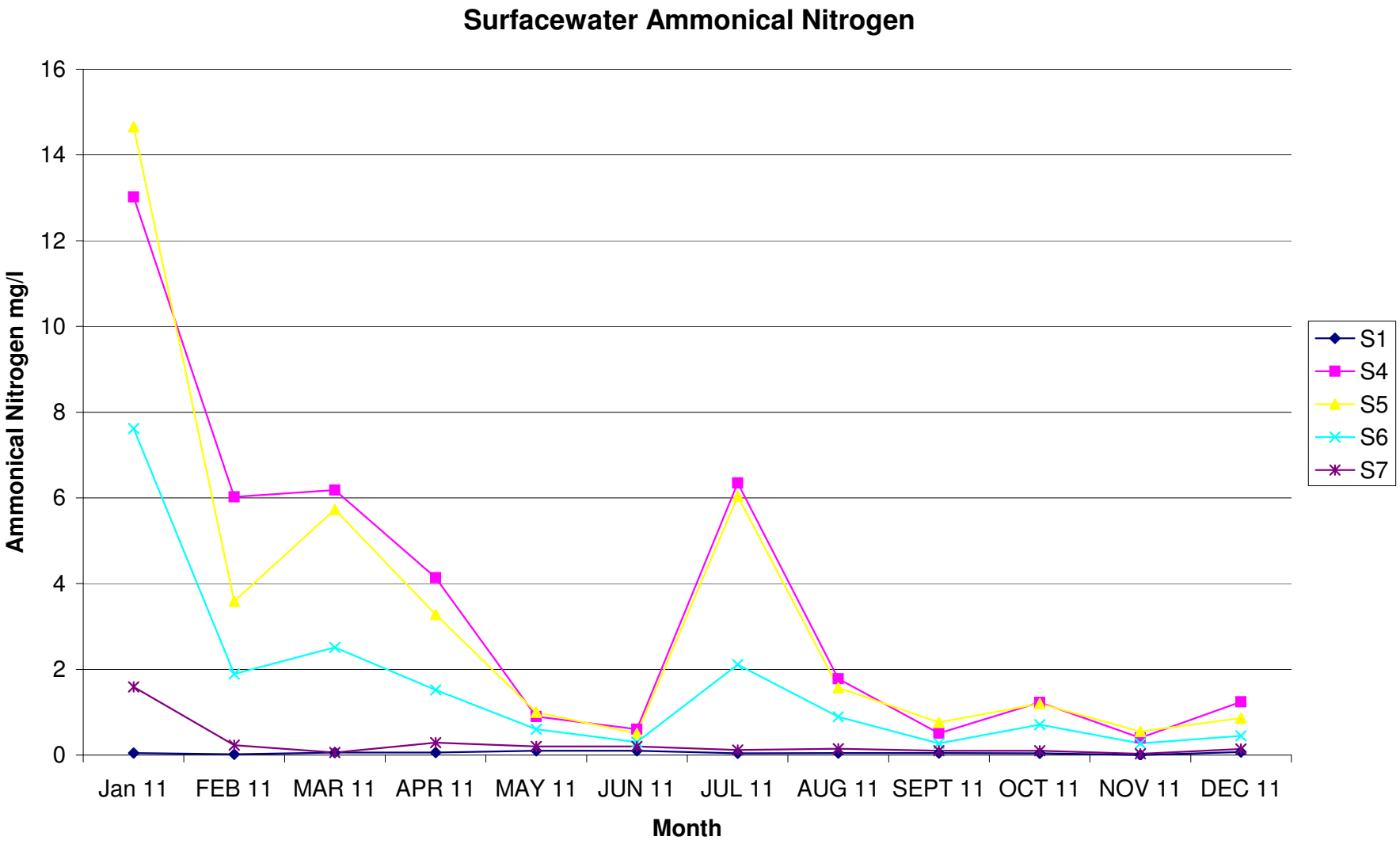
--- Not Applicable

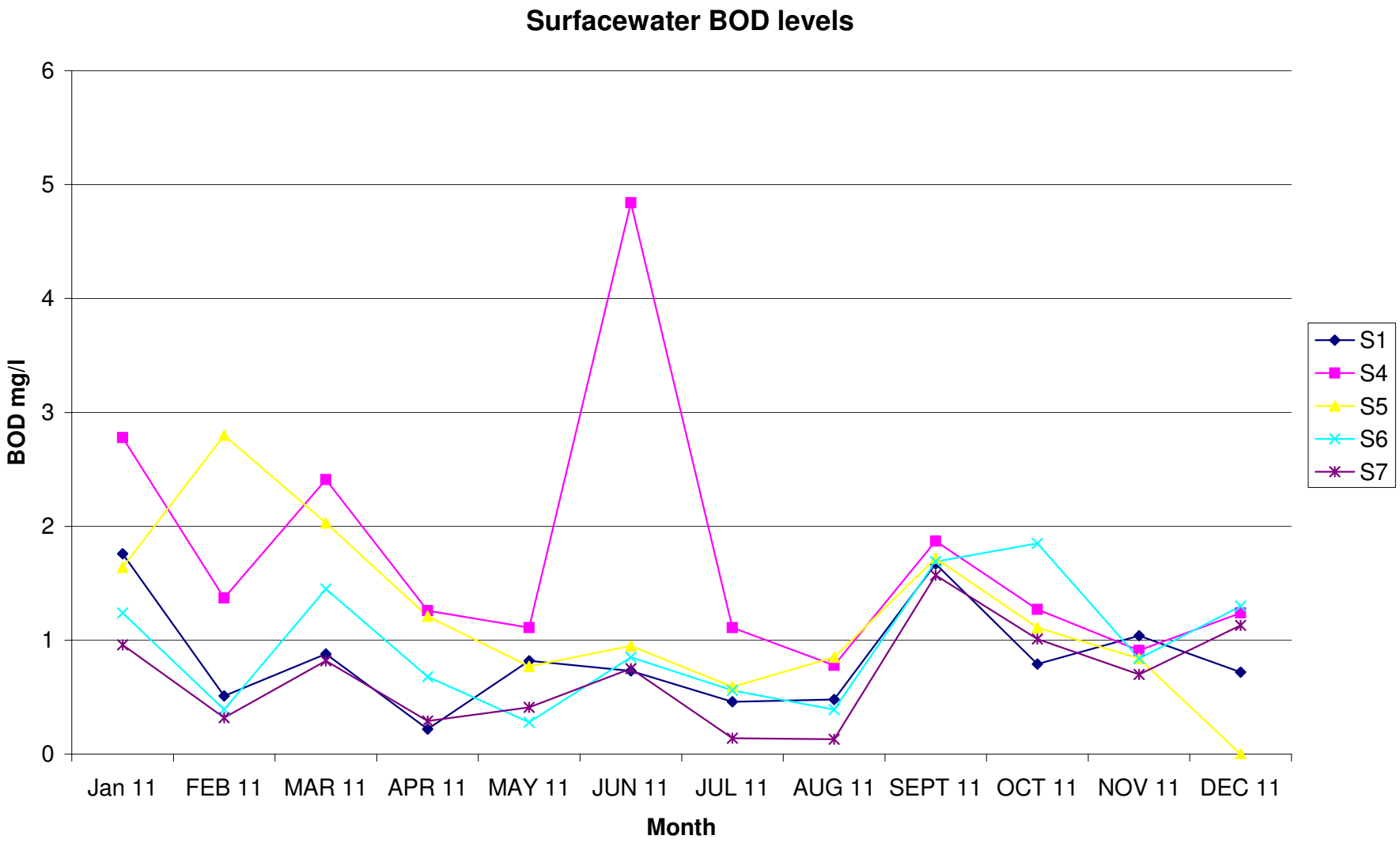
Location		*Balbane, Killybegs, Co. Donegal*											
Sample Type		surface water											
Site No		SW7											
Date of Sample		Jan 11	FEB 11	MAR 11	APR 11	MAY 11	JUN 11	JUL 11	AUG 11	SEPT 11	OCT 11	NOV 11	DEC 11
Lab No		1145	1435	2070	2362	2965	3290	7	4732	4923	5681	6243	6604
pH		7.57	7.3	7.1	7.2	6.8	6.8	12	7.0	6.4	7	6.8	6.5
Temp	C	5.90	7.00	6.20	8.40	9.8	11	12	12.70	14.80	10.40	10.1	3.5
Electrical Conductivity	uS/cm	156	91	115	85	85	84	84	97	63	45	64	243
Ammonical Nitrogen	mg/l	1.59	0.23	0.06	0.290	0.20	0.20	0	0.2	0.1	0.10	0.03	0.14
COD	mg/l	8	12	16	15	23	18	20	32	26	19	31	20
BOD	mg/l	0.96	0.32	0.82	0.29	0.41	0.75	0.1	0.13	1.57	1.01	0.70	1.1
Dissolved Oxygen	mg/l	12.79	11.96	12.02	11.05	10.17	10.72	10.1	10.38	9.82	11.06	11.18	13.22
SS	mg/l	1.0	1.0	4.0	2.0	2.0	0.0	2.0	4.0	2.0	2.0	1.0	1.0
Residue on Evaporator	mg/l												
Calcium	ug/l					6							
Cadmium	ug/l					<0.1							
Chromium	ug/l					<3							
Chloride	mg/l	21	18	26	18	18	21	20	27	16	14	15	65
Chlorine	mg/l												
Copper	ug/l					<0.85							
Cyanide	mg/l												
Iron	ug/l					<0.019							
Lead	ug/l					0.06							
Magnesium	ug/l					1.2							
Manganese	ug/l					25							
Mercury	ug/l					<0.01							
Nickel	mg/l												
Potassium	mg/l					<2.34							
Sodium	mg/l					7.9							
Sulphate	mg/l					<2							
Zinc	ug/l					1.67							
Total Alkalinity as CaCO3	mg/l					22.0							
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l	<0.01				0.10			0.16			0.24	<0.01
Arsenic	mg/l												
Barium	mg/l												
Boron	ug/l												
Flouride	mg/l												
Total Phenols	mg/l												
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					<0.1							
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m												

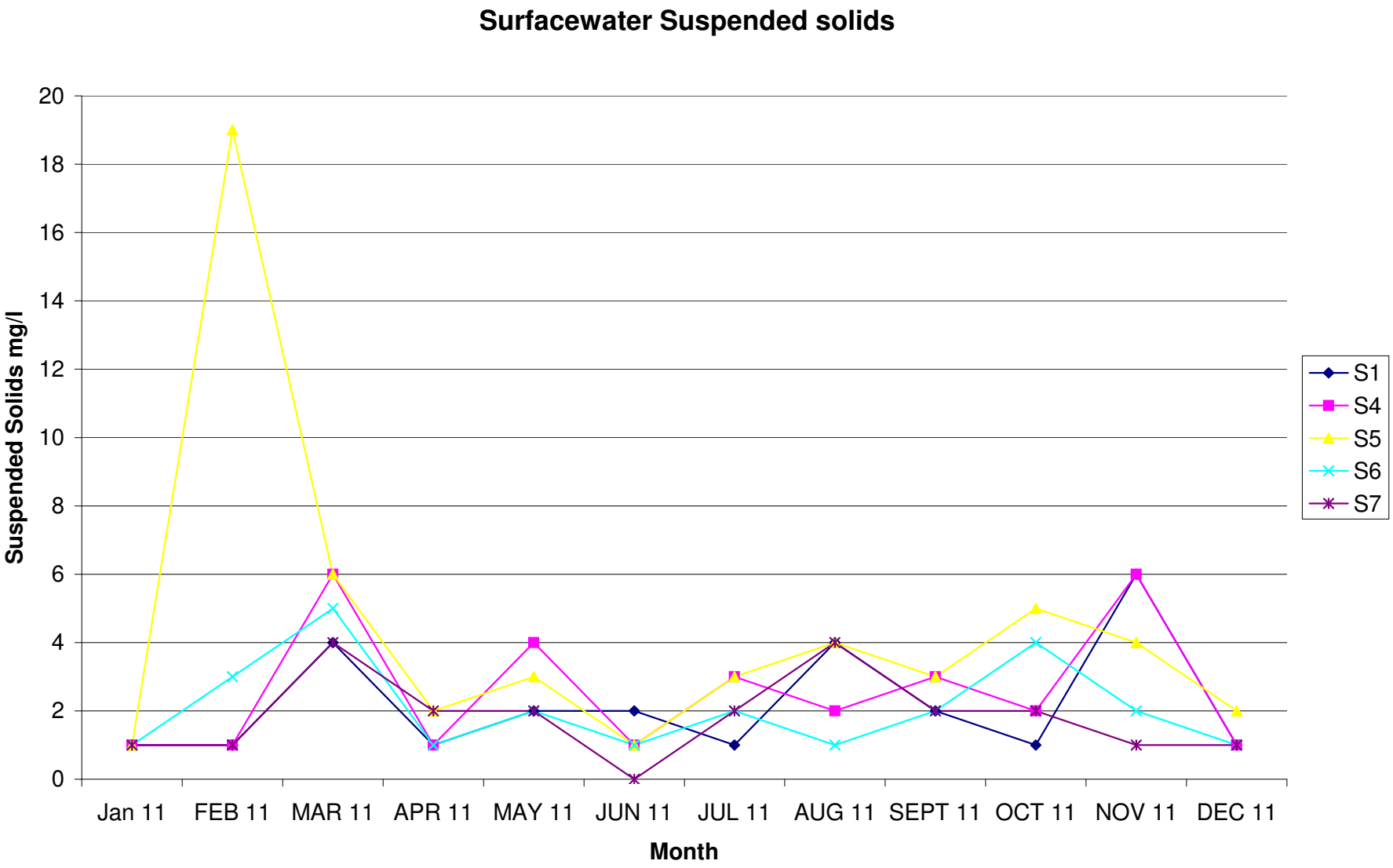
*** Insufficient Sample / No Access

--- Not Applicable


Surfacewater Electrical Conductivity
Electrical conductivity uS/cm
600
500
400
300
200
100
0
Jan 11
FEB 11
MAR 11
APR 11
MAY 11
JUN 11
JUL 11
AUG 11
SEPT 11
OCT 11
NOV 11
DEC 11
Month
S1
S4
S5
S6
S7


Surfacewater Ammonical Nitrogen
Ammonical Nitrogen mg/l
16
14
12
10
8
6
4
2
0
Jan 11
FEB 11
MAR 11
APR 11
MAY 11
JUN 11
JUL 11
AUG 11
SEPT 11
OCT 11
NOV 11
DEC 11
Month
S1
S4
S5
S6
S7


Surfacewater BOD levels
BOD mg/l
0
1
2
3
4
5
6
Jan 11
FEB 11
MAR 11
APR 11
MAY 11
JUN 11
JUL 11
AUG 11
SEPT 11
OCT 11
NOV 11
DEC 11
Month
S1
S4
S5
S6
S7


Surfacewater Suspended solids
Suspended Solids mg/l
20
18
16
14
12
10
8
6
4
2
0
Jan 11
FEB 11
MAR 11
APR 11
MAY 11
JUN 11
JUL 11
AUG 11
SEPT 11
OCT 11
NOV 11
DEC 11
Month
S1
S4
S5
S6
S7

Location		*Balbane, Killybegs, Co. Donegal*											
Sample Type		groundwater											
Site No		GW1											
Date of Sample		Jan 11	FEB 11	MAR 11	APR 11	MAY 11	JUN 11	JUL 11	AUG 11	SEPT 11	OCT 11	NOV 11	DEC 11
Lab No			1436			2966	3512		4733				6605
pH			6.80			6.48	6.21		6.56				6.31
Temp	C		7.20			9.80	10.8		12.50				5.80
Electrical Conductivity	uS/cm		397			466	564		550				391
Ammonical Nitrogen	mg/l		0.05			0.10	0.1		<0.01				0.14
COD	mg/l												
BOD	mg/l												
Dissolved Oxygen	mg/l		7.51			5.48	2.59		5.31				5.50
SS	mg/l												
Residue on Evaporator	mg/l					259							
Calcium	ug/l					56.0							
Cadmium	ug/l					<0.1							
Chromium	ug/l					<3							
Chloride	mg/l		16			15			30				15
Chlorine	mg/l												
Copper	ug/l					<0.85							
Cyanide	mg/l					<0.05							
Iron	ug/l		<0.01			<0.019			<0.019				<0019
Lead	ug/l					<0.02							
Magnesium	ug/l					5.1							
Manganese	ug/l					5010							
Mercury	ug/l					<0.01							
Nickel	mg/l												
Potassium	mg/l		<2.34			<2.34			<2.34				<2.34
Sodium	mg/l		23			24			31.7				24
Sulphate	mg/l					2.7							
Zinc	ug/l					1.47							
Total Alkalinity as CaCO3	mg/l												
Total Organic Carbon	mg/l		10			10			6.7				8
Total Oxidised Nitrogen	mg/l					<0.01	<0.01		0.13				0.33
Arsenic	mg/l												
Barium	mg/l												
Boron	ug/l					<9.4							
Flouride	mg/l					<0.5							
Total Phenols	mg/l		<0.015			<0.002			<0.016				<0.016
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					<0.1							
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m		0.8			0.4	0.6		0.6				0.5

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

VOLATILE ORGANIC COMPOUNDS		*Balbane Landfill Site Killybegs, Co.Donegal*	
Month:	**June**		
Location:	**GW1**		
Lab No:	**3053**		
PARAMETERS	**ug/l**	**PARAMETERS**	**ug/l**
Dichlorodifluoromethane	<7	**1,2-Dibromoethane**	<2.3
Chloromethane	<9	**Tetrachloroethene**	<1.5
Vinyl Chloride	<1.2	**1,1,1,2-Tetrachloroethane**	<1.3
Bromomethane	<2	**Chlorobenzene**	<3.5
Chloroethane	<2.5	**Ethylbenzene**	<2.5
Trichlorofluoromethane	<1.3	**p/m-Xylene**	<2.5
trans-1,2-Dichloroethene	<1.9	**Bromoform**	<3
Dichloromethane	<3.7	**Styrene**	<1.2
Carbon disulphide	<1.3	**1,1,2,2-Tetrachloroethane**	<5.2
1,1-Dichloroethene	<1.2	**o-Xylene**	<1.7
1,1-Dichloroethane	<1.2	**1,2,3-Trichloropropane**	<7.8
tert-butyl methyl ether	<1.6	**Isopropylbenzene**	<1.4
cis-1,2-Dichloroethene	<2.3	**Bromobenzene**	<2
Bromochloromethane	<1.9	**2-Chlorotoluene**	<1.9
Chloroform	<1.8	**Propylbenzene**	<2.6
2,2-Dichloropropane	<3.8	**4-Chlorotoluene**	<1.9
1,2-Dichloroethane	<3.3	**1,2,4-Trimethylbenzene**	<1.7
1,1,1-Trichloroethane	<1.3	**4-Isopropyltoluene**	<2.6
1,1-Dichloropropene	<1.3	**1,3,5-Trimethylbenzene**	<1.8
Benzene	<1.3	**1,3-Dichlorobenzene**	<2.2
Carbontetrachloride	<1.4	**1,4-Dichlorobenzene**	<2.7
Dibromomethane	<2.7	**sec-Butylbenzene**	<1.7
1,2-Dichloropropane	<3	**tert-Butylbenzene**	<2
Bromodichloromethane	<0.9	**1,2-Dichlorobenzene**	<3.7
Trichloroethene	<2.5	**n-Butylbenzene**	<2
cis-1,3-Dichloropropene	<1.9	**1,2-Dibromo-3-chloropropane**	<9.8
trans-1,3-Dichloropropene	<3.5	**1,2,4-Trichlorobenzene**	<2.3
1,1,2-Trichloroethane	<2.2	**Naphthalene**	<3.
Toluene	<1.4	**1,2,3-Trichlorobenzene**	<3.1
1,3-Dichloropropane	<2.2	**Hexachlorobutadiene**	<2.5
Dibromochloromethane	<1.7	**tert-Amyl methyl ether**	<3.5
		1,3,5-Trichlorobenzene	<10

SEMIVOLATILE ORGANIC COMPOUNDS		*Balbane Landfill Site Killybegs, Co.Donegal*	
Month:	**June**		
Location:	**GW1**		
Lab No:	**3053**		
PARAMETERS	**ug/l**	**PARAMETERS**	**ug/l**
Phenol	<0.1	**Bis(2-ethylhexyl)phthalate**	<2.0
2-Chlorophenol	<1.0	**Dimethyl phthalate**	<1.0
2-Methylphenol	<1.0	**Di-n-butylphthalate**	<1.0
4-Methylphenol	<1.0	**Di-n-octylphthalate**	<1.0
2-Nitrophenol	<1.0	**Hexachlorobutadiene**	<1.0
4-Nitrophenol	<1.0	**Indeno(1,2,3-cd)pyrene**	<1.0
2,4-Dichlorophenol	<1.0	**2-Methylnaphthalene**	<1.0
2,4-Dimethylphenol	<1.0	**2-Nitroanaline**	<1.0
4-Chloro-3-methylphenol	<1.0	**3-Nitroaniline**	<1.0
2,4,6-Trichlorophenol	<1.0	**4-Nitroaniline**	<1.0
2,4,5-Trichlorophenol	<1.0	**2,4-Dinitrotoluene**	<1.0
Pentachlorophenol	<1.0	**2,6-Dinitrotoluene**	<1.0
1,3-Dichlorobenzene	<1.0	**N-nitrosodi-n-propylamine**	<1.0
1,4-Dichlorobenzene	<1.0	**Acenaphthylene**	<1.0
1,2-Dichlorobenzene	<1.0	**Acenaphtene**	<1.0
1,2,4-Trichlorobenzene	<1.0	**Anthracene**	<1.0
Nitrobenzene	<1.0	**Benzo(a)anthracene**	<1.0
Azobenzene	<1.0	**Benzo(b)fluoranthene**	<1.0
Hexachlorobenzene	<1.0	**Benzo(a)pyrene**	<1.0
Naphthalene	<1.0	**Benzo(g,h,i)perylene**	<1.0
Benzo(k)fluoranthrene	<1.0	**Chrysene**	<1.0
Carbazole	<1.0	**Dibenzo(a,h)anthracene**	<1.0
Bis(2-chloroethyl)ether	<1.0	**Fluroanthene**	<1.0
Butylbenzylphthalate	<1.0	**Fluorene**	<1.0
Bis(2-chloroethoxy)methane	<1.0	**Hexachloroethane**	<1.0
2-Chloronaphthalene	<1.0	**Isophorone**	<1.0
4-Chloroaniline	<1.0	**Hexachlorocyclopentadien**	<1.0
4-Chlorophenylphenylether	<1.0	**Phenanthrene**	<1.0
Dibenzofuran	<1.0	**Indole(1,2,3-cd)pyrene**	<1.0
Diethyl phthalate	<1.0	**Pyrene**	<1.0

Location		*Balbane, Killybegs, Co. Donegal*											
Sample Type		groundwater											
Site No		GW2											
Date of Sample		Jan 11	FEB 11	MAR 11	APR 11	MAY 11	JUN 11	JUL 11	AUG 11	SEPT 11	OCT 11	NOV 11	DEC 11
Lab No			1437			2967	3513		***				6606
pH			6.77			6.48	6.25		***				6.11
Temp	C		7.20			10.00	11.2		***				8.40
Electrical Conductivity	uS/cm		118			91	92		***				86
Ammonical Nitrogen	mg/l		0.02			<0.01	0.10		***				0.07
COD	mg/l												
BOD	mg/l												
Dissolved Oxygen	mg/l		6.55			5.42	3.02		***				1.7
SS	mg/l												
Residue on Evaporator	mg/l					51							
Calcium	ug/l					9.79							
Cadmium	ug/l					<0.1							
Chromium	ug/l					<3							
Chloride	mg/l		14			13			***				16.0
Chlorine	mg/l												
Copper	ug/l					<0.85							
Cyanide	mg/l					<0.05							
Iron	ug/l		<0.01			<0.019			***				<0.019
Lead	ug/l					<0.02							
Magnesium	ug/l					<0.036							
Manganese	ug/l					4.61							
Mercury	ug/l					<0.01							
Nickel	mg/l												
Potassium	mg/l		<2.34			<2.34			***				<2.34
Sodium	mg/l		7.68			8.0			***				8.0
Sulphate	mg/l					<2							
Zinc	ug/l					5.05							
Total Alkalinity as CaCO3	mg/l												
Total Organic Carbon	mg/l		1.0			2			***				2
Total Oxidised Nitrogen	mg/l					<0.01	<0.01		***				0.08
Arsenic	mg/l												
Barium	mg/l												
Boron	ug/l					<9.4							
Flouride	mg/l					<0.5							
Total Phenols	mg/l		<0.015			<0.002			***				<0.016
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					0.1							
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m		3.0			3.2	3.0		***				3.1

*** Insufficient Sample / No Access

--- Not Applicable

VOLATILE ORGANIC COMPOUNDS		*Balbane Landfill Site Killybegs, Co.Donegal*	
Month:	**June**		
Location:	**GW2**		
Lab No:	**3054**		
PARAMETERS	**ug/l**	**PARAMETERS**	**ug/l**
Dichlorodifluoromethane	<7	**1,2-Dibromoethane**	<2.3
Chloromethane	<9	**Tetrachloroethene**	<1.5
Vinyl Chloride	<1.2	**1,1,1,2-Tetrachloroethane**	<1.3
Bromomethane	<2	**Chlorobenzene**	<3.5
Chloroethane	<2.5	**Ethylbenzene**	<2.5
Trichlorofluoromethane	<1.3	**p/m-Xylene**	<2.5
trans-1,2-Dichloroethene	<1.9	**Bromoform**	<3
Dichloromethane	<3.7	**Styrene**	<1.2
Carbon disulphide	<1.3	**1,1,2,2-Tetrachloroethane**	<5.2
1,1-Dichloroethene	<1.2	**o-Xylene**	<1.7
1,1-Dichloroethane	<1.2	**1,2,3-Trichloropropane**	<7.8
tert-butyl methyl ether	<1.6	**Isopropylbenzene**	<1.4
cis-1,2-Dichloroethene	<2.3	**Bromobenzene**	<2
Bromochloromethane	<1.9	**2-Chlorotoluene**	<1.9
Chloroform	<1.8	**Propylbenzene**	<2.6
2,2-Dichloropropane	<3.8	**4-Chlorotoluene**	<1.9
1,2-Dichloroethane	<3.3	**1,2,4-Trimethylbenzene**	<1.7
1,1,1-Trichloroethane	<1.3	**4-Isopropyltoluene**	<2.6
1,1-Dichloropropene	<1.3	**1,3,5-Trimethylbenzene**	<1.8
Benzene	<1.3	**1,3-Dichlorobenzene**	<2.2
Carbontetrachloride	<1.4	**1,4-Dichlorobenzene**	<2.7
Dibromomethane	<2.7	**sec-Butylbenzene**	<1.7
1,2-Dichloropropane	<3	**tert-Butylbenzene**	<2
Bromodichloromethane	<0.9	**1,2-Dichlorobenzene**	<3.7
Trichloroethene	<2.5	**n-Butylbenzene**	<2
cis-1,3-Dichloropropene	<1.9	**1,2-Dibromo-3-chloropropane**	<9.8
trans-1,3-Dichloropropene	<3.5	**1,2,4-Trichlorobenzene**	<2.3
1,1,2-Trichloroethane	<2.2	**Naphthalene**	<3.
Toluene	<1.4	**1,2,3-Trichlorobenzene**	<3.1
1,3-Dichloropropane	<2.2	**Hexachlorobutadiene**	<2.5
Dibromochloromethane	<1.7	**tert-Amyl methyl ether**	<3.5
		1,3,5-Trichlorobenzene	<10

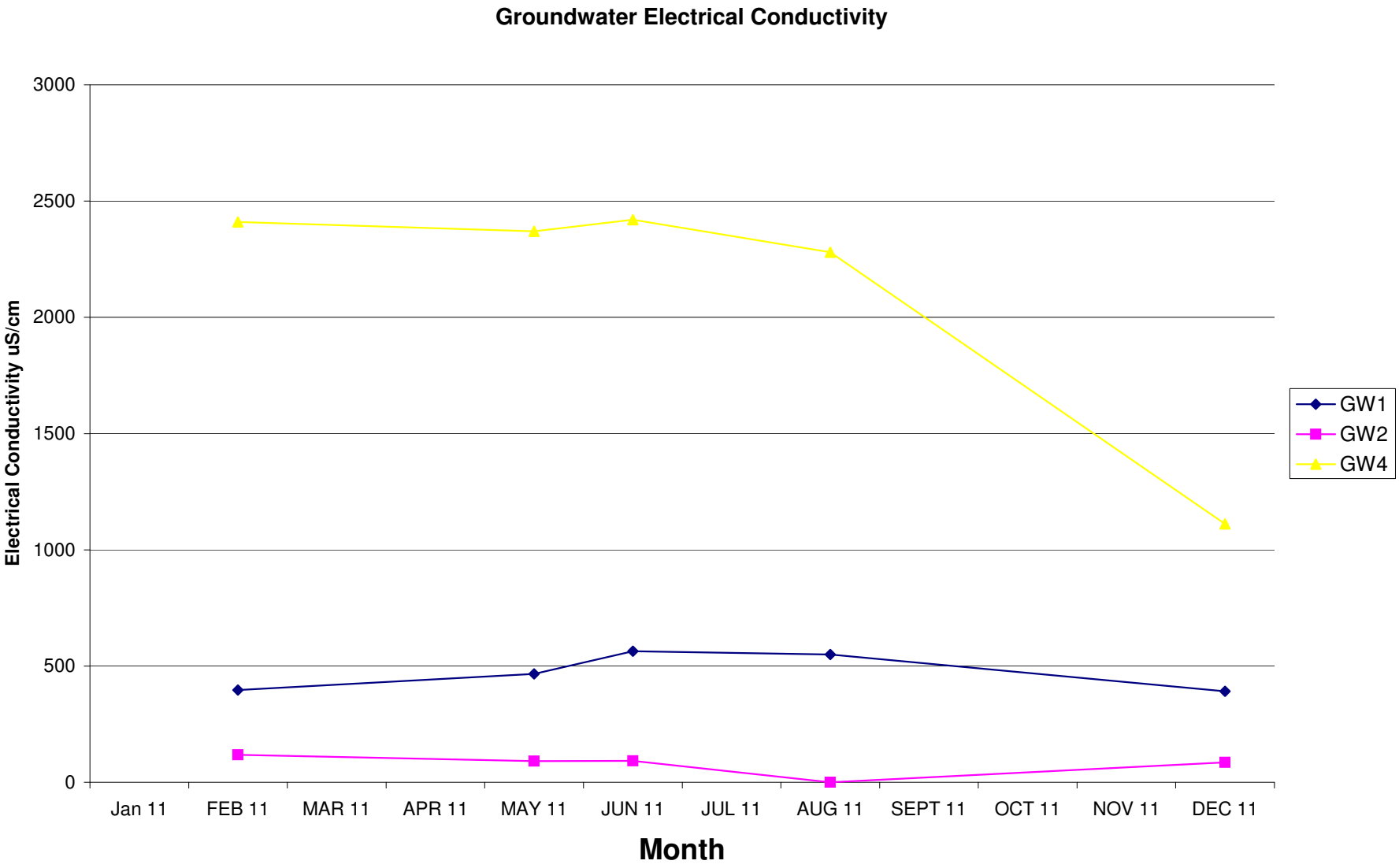
SEMIVOLATILE ORGANIC COMPOUNDS		*Balbane Landfill Site Killybegs, Co.Donegal*	
Month:	**June**		
Location:	**GW2**		
Lab No:	**3054**		
PARAMETERS	**ug/l**	**PARAMETERS**	**ug/l**
Phenol	<0.1	**Bis(2-ethylhexyl)phthalate**	<2.0
2-Chlorophenol	<1.0	**Dimethyl phthalate**	<1.0
2-Methylphenol	<1.0	**Di-n-butylphthalate**	<1.0
4-Methylphenol	<1.0	**Di-n-octylphthalate**	<1.0
2-Nitrophenol	<1.0	**Hexachlorobutadiene**	<1.0
4-Nitrophenol	<1.0	**Indeno(1,2,3-cd)pyrene**	<1.0
2,4-Dichlorophenol	<1.0	**2-Methylnaphthalene**	<1.0
2,4-Dimethylphenol	<1.0	**2-Nitroanaline**	<1.0
4-Chloro-3-methylphenol	<1.0	**3-Nitroaniline**	<1.0
2,4,6-Trichlorophenol	<1.0	**4-Nitroaniline**	<1.0
2,4,5-Trichlorophenol	<1.0	**2,4-Dinitrotoluene**	<1.0
Pentachlorophenol	<1.0	**2,6-Dinitrotoluene**	<1.0
1,3-Dichlorobenzene	<1.0	**N-nitrosodi-n-propylamine**	<1.0
1,4-Dichlorobenzene	<1.0	**Acenaphthylene**	<1.0
1,2-Dichlorobenzene	<1.0	**Acenaphtene**	<1.0
1,2,4-Trichlorobenzene	<1.0	**Anthracene**	<1.0
Nitrobenzene	<1.0	**Benzo(a)anthracene**	<1.0
Azobenzene	<1.0	**Benzo(b)fluoranthene**	<1.0
Hexachlorobenzene	<1.0	**Benzo(a)pyrene**	<1.0
Naphthalene	<1.0	**Benzo(g,h,i)perylene**	<1.0
Benzo(k)fluoranthrene	<1.0	**Chrysene**	<1.0
Carbazole	<1.0	**Dibenzo(a,h)anthracene**	<1.0
Bis(2-chloroethyl)ether	<1.0	**Fluroanthene**	<1.0
Butylbenzylphthalate	<1.0	**Fluorene**	<1.0
Bis(2-chloroethoxy)methane	<1.0	**Hexachloroethane**	<1.0
2-Chloronaphthalene	<1.0	**Isophorone**	<1.0
4-Chloroaniline	<1.0	**Hexachlorocyclopentadien**	<1.0
4-Chlorophenylphenylether	<1.0	**Phenanthrene**	<1.0
Dibenzofuran	<1.0	**Indole(1,2,3-cd)pyrene**	<1.0
Diethyl phthalate	<1.0	**Pyrene**	<1.0

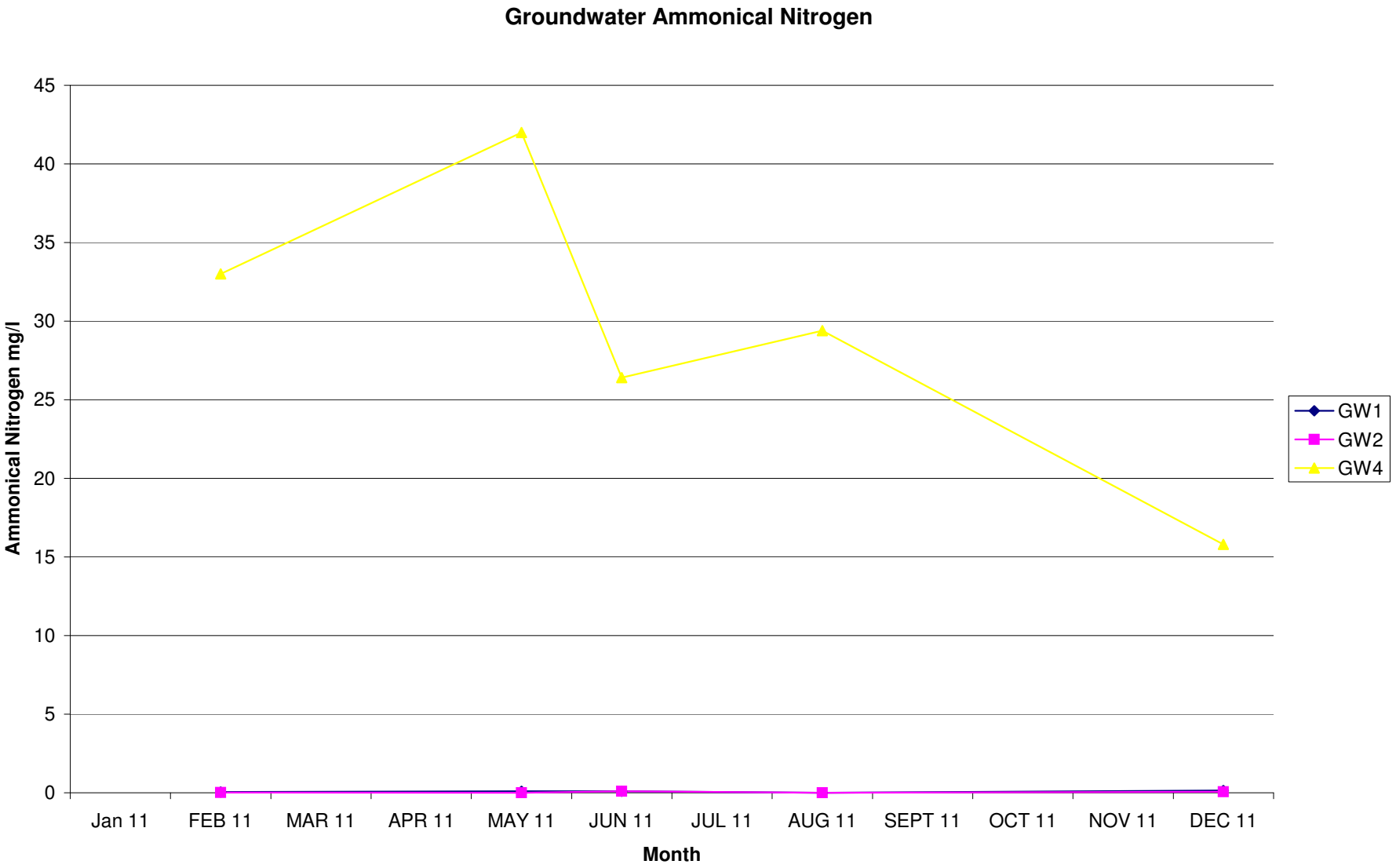
Location		*Balbane, Killybegs, Co. Donegal*											
Sample Type		groundwater											
Site No		GW4											
Date of Sample		Jan 11	FEB 11	MAR 11	APR 11	MAY 11	JUN 11	JUL 11	AUG 11	SEPT 11	OCT 11	NOV 11	DEC 11
Lab No			1438			2968	3514		4734				6607
pH			6.54			6.44	6.38		6.57				6.46
Temp	C		10.40			10.90	11.2		13.40				7.70
Electrical Conductivity	uS/cm		2410			2370	2420		2280				1111
Ammonical Nitrogen	mg/l		33.00			42.00	26.40		29.40				15.80
COD	mg/l												
BOD	mg/l												
Dissolved Oxygen	mg/l		5.35			4.01	2.51		4.59				5.60
SS	mg/l												
Residue on Evaporator	mg/l					1350							
Calcium	ug/l					245							
Cadmium	ug/l					<0.1							
Chromium	ug/l					<3							
Chloride	mg/l		325			315			315				155
Chlorine	mg/l												
Copper	ug/l					1.44							
Cyanide	mg/l					<0.05							
Iron	ug/l		<0.01			<0.019			<0.019				<0.019
Lead	ug/l					0.06							
Magnesium	ug/l					22.8							
Manganese	ug/l					5310							
Mercury	ug/l					<0.01							
Nickel	mg/l												
Potassium	mg/l		<2.34			20.9			26.6				23.0
Sodium	mg/l		134			135			154				136
Sulphate	mg/l					38							
Zinc	ug/l					3.53							
Total Alkalinity as CaCO3	mg/l												
Total Organic Carbon	mg/l		18			21			38				28
Total Oxidised Nitrogen	mg/l		0.10			0.10	0.10		0.5				1.72
Arsenic	mg/l												
Barium	mg/l												
Boron	ug/l					94							
Flouride	mg/l					<0.5							
Total Phenols	mg/l		<0.015			<0.002			<0.016				<0.016
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					<0.1							
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m		3.4			3.1	2.8		3.0				2.8

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

VOLATILE ORGANIC COMPOUNDS		*Balbane Landfill Site Killybegs, Co.Donegal*	
Month:	**June**		
Location:	**GW4**		
Lab No:	**3055**		
PARAMETERS	**ug/l**	**PARAMETERS**	**ug/l**
Dichlorodifluoromethane	<7	**1,2-Dibromoethane**	<2.3
Chloromethane	<9	**Tetrachloroethene**	<1.5
Vinyl Chloride	<1.2	**1,1,1,2-Tetrachloroethane**	<1.3
Bromomethane	<2	**Chlorobenzene**	<3.5
Chloroethane	<2.5	**Ethylbenzene**	<2.5
Trichlorofluoromethane	<1.3	**p/m-Xylene**	<2.5
trans-1,2-Dichloroethene	<1.9	**Bromoform**	<3
Dichloromethane	<3.7	**Styrene**	<1.2
Carbon disulphide	<1.3	**1,1,2,2-Tetrachloroethane**	<5.2
1,1-Dichloroethene	<1.2	**o-Xylene**	<1.7
1,1-Dichloroethane	<1.2	**1,2,3-Trichloropropane**	<7.8
tert-butyl methyl ether	<1.6	**Isopropylbenzene**	<1.4
cis-1,2-Dichloroethene	<2.3	**Bromobenzene**	<2
Bromochloromethane	<1.9	**2-Chlorotoluene**	<1.9
Chloroform	<1.8	**Propylbenzene**	<2.6
2,2-Dichloropropane	<3.8	**4-Chlorotoluene**	<1.9
1,2-Dichloroethane	<3.3	**1,2,4-Trimethylbenzene**	<1.7
1,1,1-Trichloroethane	<1.3	**4-Isopropyltoluene**	<2.6
1,1-Dichloropropene	<1.3	**1,3,5-Trimethylbenzene**	<1.8
Benzene	<1.3	**1,3-Dichlorobenzene**	<2.2
Carbontetrachloride	<1.4	**1,4-Dichlorobenzene**	<2.7
Dibromomethane	<2.7	**sec-Butylbenzene**	<1.7
1,2-Dichloropropane	<3	**tert-Butylbenzene**	<2
Bromodichloromethane	<0.9	**1,2-Dichlorobenzene**	<3.7
Trichloroethene	<2.5	**n-Butylbenzene**	<2
cis-1,3-Dichloropropene	<1.9	**1,2-Dibromo-3-chloropropane**	<9.8
trans-1,3-Dichloropropene	<3.5	**1,2,4-Trichlorobenzene**	<2.3
1,1,2-Trichloroethane	<2.2	**Naphthalene**	<3.
Toluene	<1.4	**1,2,3-Trichlorobenzene**	<3.1
1,3-Dichloropropane	<2.2	**Hexachlorobutadiene**	<2.5
Dibromochloromethane	<1.7	**tert-Amyl methyl ether**	<3.5
		1,3,5-Trichlorobenzene	<10

SEMIVOLATILE ORGANIC COMPOUNDS		*Balbane Landfill Site Killybegs, Co.Donegal*	
Month:	**June**		
Location:	**GW4**		
Lab No:	**3055**		
PARAMETERS	**ug/l**	**PARAMETERS**	**ug/l**
Phenol	<0.1	**Bis(2-ethylhexyl)phthalate**	<2.0
2-Chlorophenol	<1.0	**Dimethyl phthalate**	<1.0
2-Methylphenol	<1.0	**Di-n-butylphthalate**	<1.0
4-Methylphenol	<1.0	**Di-n-octylphthalate**	<1.0
2-Nitrophenol	<1.0	**Hexachlorobutadiene**	<1.0
4-Nitrophenol	<1.0	**Indeno(1,2,3-cd)pyrene**	<1.0
2,4-Dichlorophenol	<1.0	**2-Methylnaphthalene**	<1.0
2,4-Dimethylphenol	<1.0	**2-Nitroanaline**	<1.0
4-Chloro-3-methylphenol	<1.0	**3-Nitroaniline**	<1.0
2,4,6-Trichlorophenol	<1.0	**4-Nitroaniline**	<1.0
2,4,5-Trichlorophenol	<1.0	**2,4-Dinitrotoluene**	<1.0
Pentachlorophenol	<1.0	**2,6-Dinitrotoluene**	<1.0
1,3-Dichlorobenzene	<1.0	**N-nitrosodi-n-propylamine**	<1.0
1,4-Dichlorobenzene	<1.0	**Acenaphthylene**	<1.0
1,2-Dichlorobenzene	<1.0	**Acenaphtene**	<1.0
1,2,4-Trichlorobenzene	<1.0	**Anthracene**	<1.0
Nitrobenzene	<1.0	**Benzo(a)anthracene**	<1.0
Azobenzene	<1.0	**Benzo(b)fluoranthene**	<1.0
Hexachlorobenzene	<1.0	**Benzo(a)pyrene**	<1.0
Naphthalene	<1.0	**Benzo(g,h,i)perylene**	<1.0
Benzo(k)fluoranthrene	<1.0	**Chrysene**	<1.0
Carbazole	<1.0	**Dibenzo(a,h)anthracene**	<1.0
Bis(2-chloroethyl)ether	<1.0	**Fluroanthene**	<1.0
Butylbenzylphthalate	<1.0	**Fluorene**	<1.0
Bis(2-chloroethoxy)methane	<1.0	**Hexachloroethane**	<1.0
2-Chloronaphthalene	<1.0	**Isophorone**	<1.0
4-Chloroaniline	<1.0	**Hexachlorocyclopentadien**	<1.0
4-Chlorophenylphenylether	<1.0	**Phenanthrene**	<1.0
Dibenzofuran	<1.0	**Indole(1,2,3-cd)pyrene**	<1.0
Diethyl phthalate	<1.0	**Pyrene**	<1.0


Groundwater Electrical Conductivity
Electrical Conductivity uS/cm
3000
2500
2000
1500
1000
500
0
Jan 11
FEB 11
MAR 11
APR 11
MAY 11
JUN 11
JUL 11
AUG 11
SEPT 11
OCT 11
NOV 11
DEC 11
Month
GW1
GW2
GW4


Groundwater Ammonical Nitrogen
Ammonical Nitrogen mg/l
45
40
35
30
25
20
15
10
5
0
Jan 11
FEB 11
MAR 11
APR 11
MAY 11
JUN 11
JUL 11
AUG 11
SEPT 11
OCT 11
NOV 11
DEC 11
Month
GW1
GW2
GW4

Location		*Balbane, Killybegs, Co. Donegal*											
Sample Type		leachate											
Site No		BH2											
Date of Sample		Jan 11	FEB 11	MAR 11	APR 11	MAY 11	JUN 11	JUL 11	AUG 11	SEPT 11	OCT 11	NOV 11	DEC 11
Lab No			1439			2969	3515		4735			6244	
pH			6.5			6.6	6.2		6.3			7.4	
Temp	C		8.90			10.90	10.7		12.90			10.20	
Electrical Conductivity	uS/cm		1424			1103	1289		1459			1117	
Ammonical Nitrogen	mg/l		14.50			8.80	15.20		12.70			12.50	
COD	mg/l		41			28	31		45			31	
BOD	mg/l		0.6			0.3	4.4		2.2			3.7	
Dissolved Oxygen	mg/l												
SS	mg/l												
Residue on Evaporator	mg/l												
Calcium	ug/l					134							
Cadmium	ug/l					<0.1							
Chromium	ug/l					<3							
Chloride	mg/l		276			95			240			195	
Chlorine	mg/l												
Copper	ug/l					<0.85							
Cyanide	mg/l					<0.05							
Iron	ug/l					<0.019							
Lead	ug/l					0.064							
Magnesium	ug/l					23.9							
Manganese	ug/l					1590							
Mercury	ug/l					<0.01							
Nickel	mg/l												
Potassium	mg/l					11.2							
Sodium	mg/l					49.5							
Sulphate	mg/l					<2							
Zinc	ug/l					4.48							
Total Alkalinity as CaCO3	mg/l					500							
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l		<0.01			<0.01	<0.01		<0.01			<0.01	
Arsenic	mg/l												
Barium	mg/l												
Boron	ug/l					257							
Flouride	mg/l					<0.5							
Total Phenols	mg/l												
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					<0.1							
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m		4.4			4.0	4.1		4.4			5.6	2.8

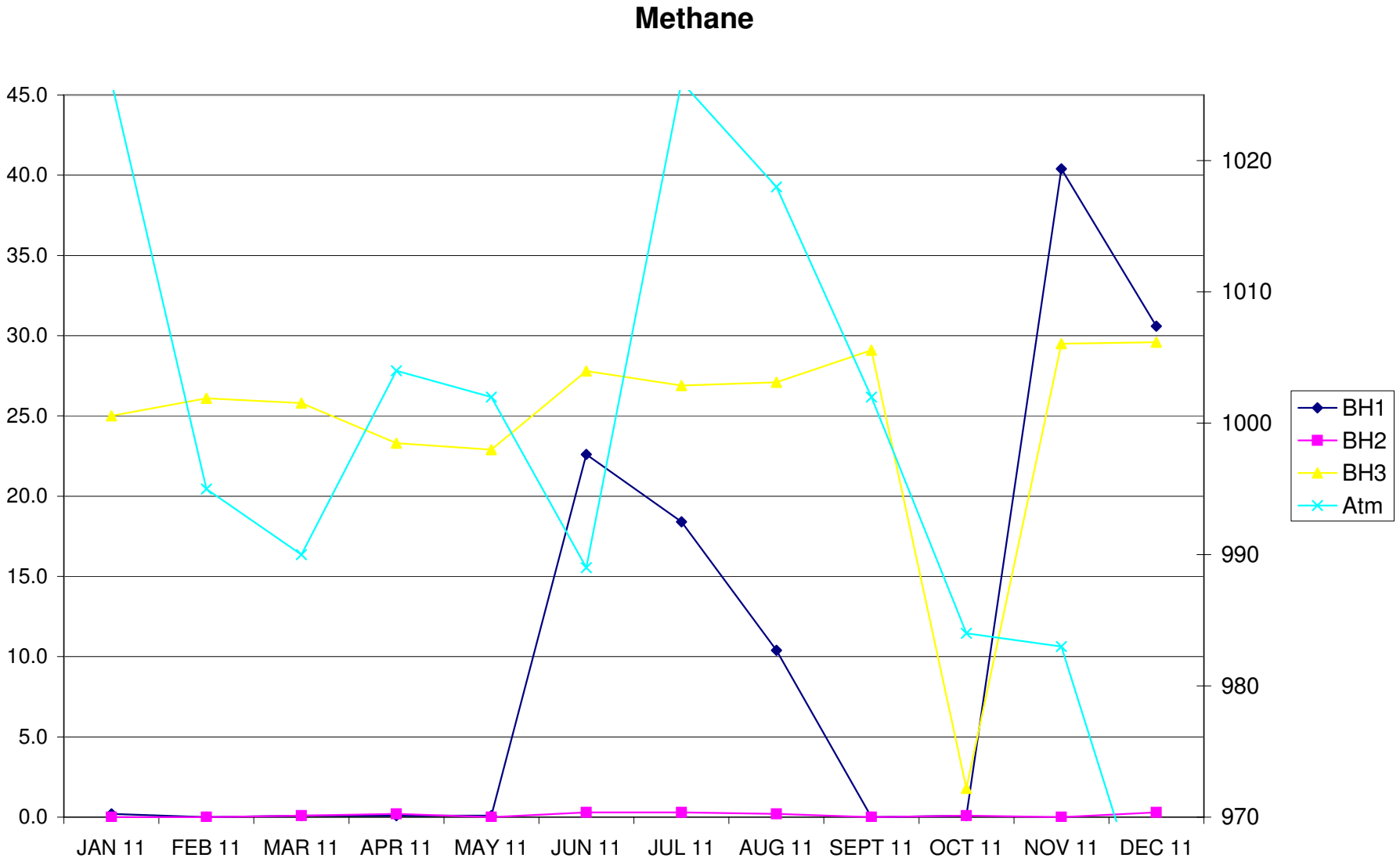
*** Insufficient Sample / No Access

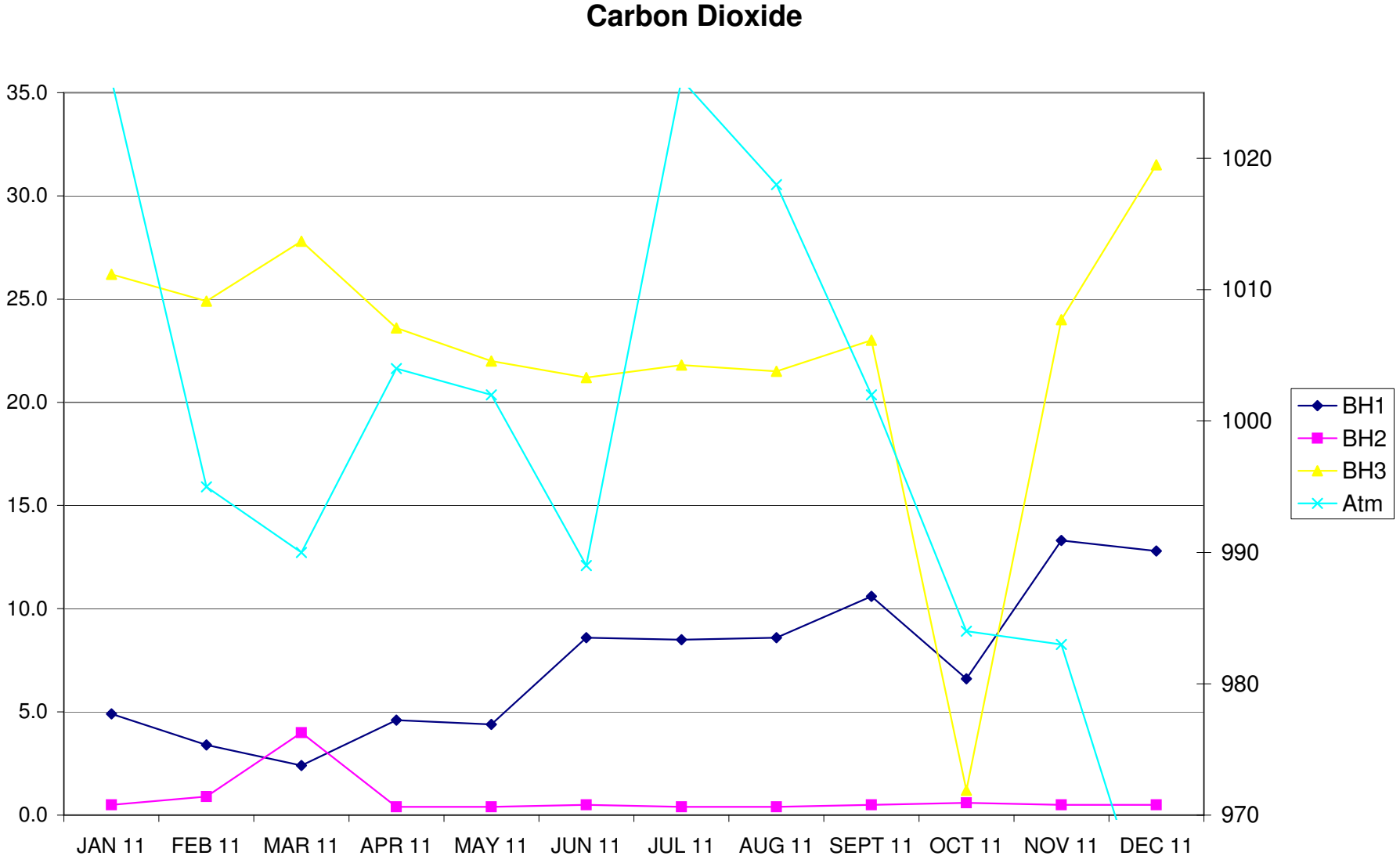
--- Not Applicable

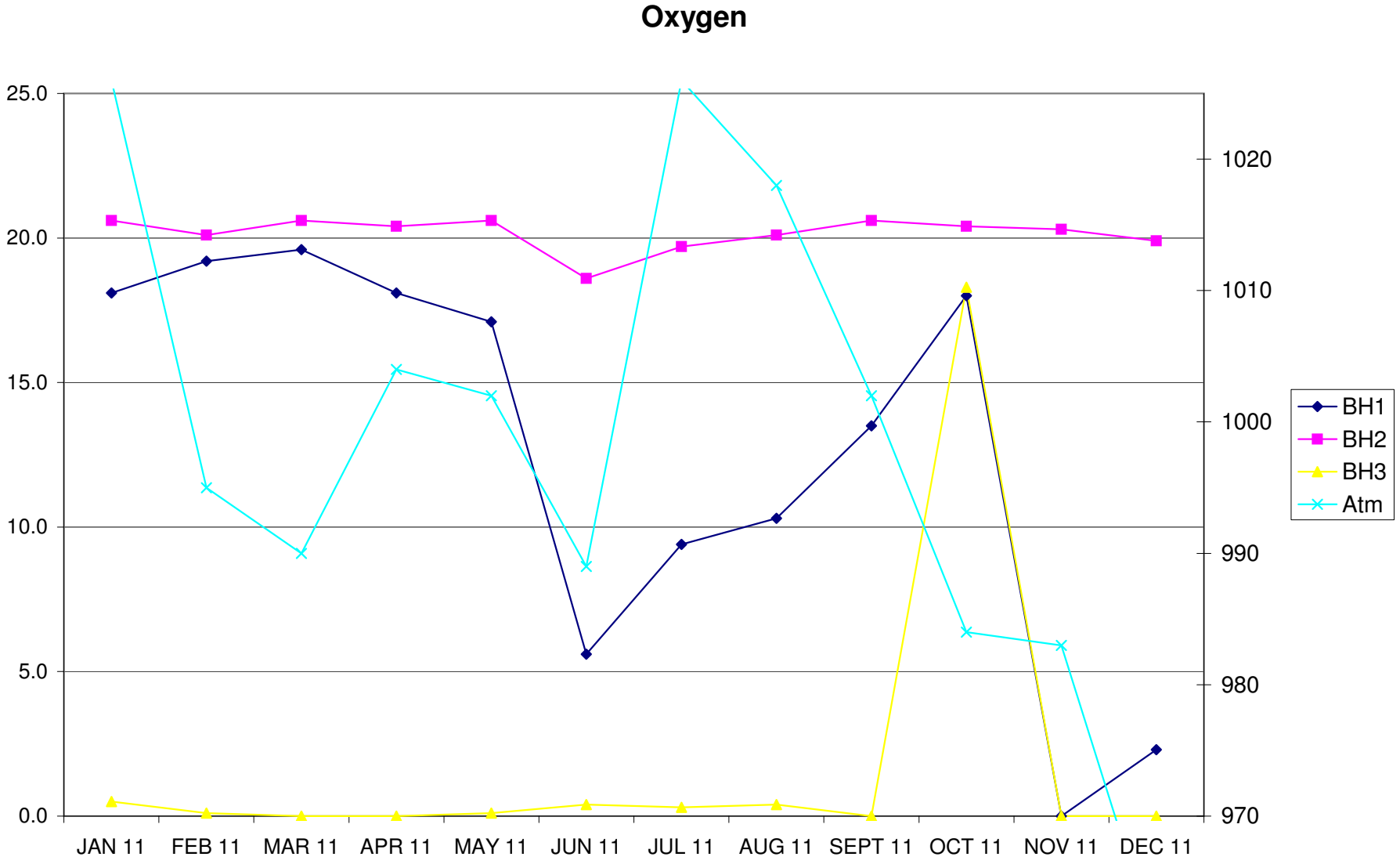
		Balbane Landfill Site, Killybegs, Co Donegal											
		Gas Levels											
		BH1											
PARAMETERS	**UNITS**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**
		JAN 11	FEB 11	MAR 11	APR 11	MAY 11	JUN 11	JUL 11	AUG 11	SEPT 11	OCT 11	NOV 11	DEC 11
Methane	**%**	0.2	0.0	0.1	0.1	0.1	22.6	18.4	10.4	0.0	0.1	40.4	30.6
Carbon Dioxide	**%**	4.9	3.4	2.4	4.6	4.4	8.6	8.5	8.6	10.6	6.6	13.3	12.8
Oxygen	**%**	18.1	19.2	19.6	18.1	17.1	5.6	9.4	10.3	13.5	18.0	0.0	2.3
Atm. Pressure	**mBar**	1026	995	990	1004	1002	989	1026	1018	1002	984	983	960

		Balbane Landfill Site, Killybegs, Co Donegal											
		Gas Levels											
		BH2											
PARAMETERS	**UNITS**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**
		JAN 11	FEB 11	MAR 11	APR 11	MAY 11	JUN 11	JUL 11	AUG 11	SEPT 11	OCT 11	NOV 11	DEC 11
Methane	**%**	0	0	0.1	0.2	0	0.3	0.3	0.2	0.0	0.1	0.0	0.3
Carbon Dioxide	**%**	0.5	0.9	4	0.4	0.4	0.5	0.4	0.4	0.5	0.6	0.5	0.5
Oxygen	**%**	20.6	20.1	20.6	20.4	20.6	18.6	19.7	20.1	20.6	20.4	20.3	19.9
Atm. Pressure	**mBar**	1026	995	990	1004	1002	989	1026	1018	1002	984	983	960

		Balbane Landfill Site, Killybegs, Co Donegal											
		Gas Levels											
		BH3											
PARAMETERS	**UNITS**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**
		JAN 11	FEB 11	MAR 11	APR 11	MAY 11	JUN 11	JUL 11	AUG 11	SEPT 11	OCT 11	NOV 11	DEC 11
Methane	**%**	25	26.1	25.8	23.3	22.9	27.8	26.9	27.1	29.1	1.8	29.5	29.6
Carbon Dioxide	**%**	26.2	24.9	27.8	23.6	22	21.2	21.8	21.5	23.0	1.2	24.0	31.5
Oxygen	**%**	0.5	0.1	0	0	0.1	0.4	0.3	0.4	0.0	18.3	0.0	0.0
Atm. Pressure	**mBar**	1026	995	990	1004	1002	989	1026	1018	1002	984	983	960


Methane
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
1020
1010
1000
990
980
970
JAN 11
FEB 11
MAR 11
APR 11
MAY 11
JUN 11
JUL 11
AUG 11
SEPT 11
OCT 11
NOV 11
DEC 11
BH1
BH2
BH3
Atm


Carbon Dioxide
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
1020
1010
1000
990
980
970
JAN 11
FEB 11
MAR 11
APR 11
MAY 11
JUN 11
JUL 11
AUG 11
SEPT 11
OCT 11
NOV 11
DEC 11
BH1
BH2
BH3
Atm


Oxygen
25.0
20.0
15.0
10.0
5.0
0.0
1020
1010
1000
990
980
970
JAN 11
FEB 11
MAR 11
APR 11
MAY 11
JUN 11
JUL 11
AUG 11
SEPT 11
OCT 11
NOV 11
DEC 11
BH1
BH2
BH3
Atm

APPENDIX C

WATER BALANCE CALCULATION AND METEOROLOGICAL DATA

BALBANE 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)
2011	Closed	1,232	0	29,500	9,086	9,086	9,086
Total							9,086

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, site closed in Jan 2004	29,500	m2
Rainfall Data	Data taken from Ballynacarrick Weather Station. Evaporation los	1,232	mm

APPENDIX D

E-PRTR Return

(AER Electronic Reporting System)

Environmental Protection Agency

Guidance to completing the PRTR workbook

AER Returns Workbook

Version 1.1.13

REFERENCE YEAR	2011

1. FACILITY IDENTIFICATION

Parent Company Name	Donegal County Council
Facility Name	Balbane Landfill Site
PRTR Identification Number	W0090
Licence Number	W0090-01

Waste or IPPC Classes of Activity

No.	class_name
3.1	Deposit on, in or under land (including landfill).
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	Balbane
Address 2	Killybegs
Address 3	Co Donegal
Address 4	
	Donegal
Country	Ireland
Coordinates of Location	-8.44483 54.6955
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	0
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
5(d)	Landfills
5(c)	Installations for the disposal of non-hazardous waste

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 ?	

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
01	Methane (CH4)	C	OTH	Landgem-v302	0.0	178800.0	0.0	178800.0
03	Carbon dioxide (CO2)	C	OTH	Landgem-v302	0.0	490500.0	0.0	490500.0
02	Carbon monoxide (CO)	C	OTH	Landgem-v302	0.0	87.4	0.0	87.4
07	Non-methane volatile organic compounds (NMVOC)	C	OTH	Landgem-v302	0.0	1153.0	0.0	1153.0
21	Mercury and compounds (as Hg)	C	OTH	Landgem-v302	0.0	0.00129	0.0	0.00129
55	1,1,1-trichloroethane	C	OTH	Landgem-v302	0.0	1.427	0.0	1.427

* 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
34	1,2-dichloroethane (EDC)	C	OTH	Landgem-v302	0.0	0.9043	0.0	0.9043
56	1,1,2,2-tetrachloroethane	C	OTH	Landgem-v302	0.0	4.115	0.0	4.115
35	Dichloromethane (DCM)	C	OTH	Landgem-v302	0.0	26.5	0.0	26.5
57	Trichloroethylene	C	OTH	Landgem-v302	0.0	8.2	0.0	8.2
60	Vinyl chloride	C	OTH	Landgem-v302	0.0	10.17	0.0	10.17
62	Benzene	C	OTH	Landgem-v302	0.0	3.308	0.0	3.308
65	Ethyl benzene	C	OTH	Landgem-v302	0.0	10.88	0.0	10.88
73	Toluene	C	OTH	Landgem-v302	0.0	80.08	0.0	80.08
78	**Xylenes**	C	OTH	Landgem-v302	0.0	28.39	0.0	28.39

* 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: Balbane Landfill Site

Please enter summary data on the quantities of methane flared and / or utilised	T (Total) kg/Year	M/C/E	Method Used: Method Code	Method Used: Designation or Description	Facility Total Capacity m3 per hour	
Total estimated methane generation (as per site model)	178800.0	C	OTH	Landgem-v302	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)	178800.0	C	OTH	Landgem-v302	N/A	

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 concerns Releases from your facility

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
18	Cadmium and compounds (as Cd)	M	EN ISO 5961:1995		0.0	0.0009	0.0	0.0009
19	Chromium and compounds (as Cr)	M	EN 1233:1996		0.0	0.027	0.0	0.027
20	Copper and compounds (as Cu)	M	CRM	Spectrophotometric	0.0	0.0077	0.0	0.0077
21	Mercury and compounds (as Hg)	M	EN 1483:1997		0.0	0.00009	0.0	0.00009
23	Lead and compounds (as Pb)	M	EN ISO 11885:1997		0.0	0.00058	0.0	0.00058
24	Zinc and compounds (as Zn)	M	EN ISO 11885:1997		0.0	0.0439	0.0	0.0439
79	Chlorides (as Cl)	M	EN ISO 15682:2001		0.0	1830.0	0.0	1830.0
82	Cyanides (as total CN)	M	EN ISO 14403:2002		0.0	0.4543	0.0	0.4543
83	Fluorides (as total F)	M	EN ISO 10304-1 to 4:1995		0.0	4.453	0.0	4.453

* 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
238	Ammonia (as N)	M	CRM	DCC SOP	0.0	115.75	0.0	115.75
303	BOD	M	CRM	DCC SOP	0.0	20.3	0.0	20.3
305	Calcium	M	CRM	ICP-MS	0.0	1.21	0.0	1.21
374	Boron	M	CRM	ICP-MS	0.0	2.33	0.0	2.33
306	COD	M	CRM	DCC SOP	0.0	319.82	0.0	319.82
357	Iron	M	CRM	DCC SOP	0.0	0.17	0.0	0.17
320	Magnesium	M	CRM	ICP-MS	0.0	0.217	0.0	0.217
321	Manganese (as Mn)	M	CRM	ICP-MS	0.0	14.44	0.0	14.44
332	Ortho-phosphate (as PO4)	M	CRM	DCC SOP	0.0	0.908	0.0	0.908
338	Potassium	M	CRM	Flame Photometer	0.0	101.76	0.0	101.76
341	Sodium	M	CRM	Flame Photometer	0.0	449.7	0.0	449.7
343	**Sulphate**	M	CRM	Spectrophotometer	0.0	18.17	0.0	18.17

* 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

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

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