Annual Environmental Report

GLENALLA LANDFILL SITE
(Waste Licence Ref. W0125-1)

By
Donegal County Council
For
Environmental Protection Agency

Reporting Period: January to December 2011

March 2012

CONTENTS

1. INTRODUCTION

1.1 This Annual Environmental Report (AER) has been prepared to meet the requirements of Schedule E and F of Waste Licence W0125-1 for Glenalla Landfill. This report provides an environmental review of the site from the 1st of January 2011 to the 31st of December 2011.

1.2 On the 4th of December 2001 the Environmental Protection Agency granted the Council a Waste Licence (registration number W0125-1) for the orderly closure, capping and restoration of the landfill facility, in accordance with the Third Schedule of the Waste Management Act, 1996. Donegal County Council ceased operational activity at Glenalla Landfill Site after the Christmas period in December 2001. Subsequently, Donegal County Council was only permitted to accept inert waste for disposal for the purposes of restoration and aftercare of the site. The quantity of inert waste to be accepted is limited to 46,000 tonnes. The Council has managed the facility to ensure that activities have not caused environmental pollution and carries out regular environmental monitoring. All monitoring data is submitted to the EPA. The site was formally restored in 2005/6.

1.3 Glenalla Landfill is an unlined facility, historically operated on the dilute and disperse principle, whereby leachate generated by rainfall infiltration and the decomposition of the landfilled waste is allowed to disperse into the surrounding environment. The landfill site is situated in a low-lying hollow that has been infilled by peat deposits constituting an area of blanket bog. These deposits can represent an effective hydraulic barrier to the downward percolation of leachate. The disposal of waste was undertaken by the landraise method, whereby tipping took place directly onto the stripped ground surface raising its level to form an elevated landform flanked by low graded banks. As mentioned above the site was formally restored in 2005/6.

1.4 The landfill is situated in a fully rural setting, some 4km east of Milford in an area of moderate relief that forms part of the upper catchment of the Glenalla River. This watercourse dissects the southwest boundary of the landfill site. The ground surface of the closed hollow in which the landfill is based generally falls in a south to south westerly direction under a shallow gradient towards the Glenalla River. The downstream extent of the landfill is therefore represented by a small area situated on the southern site boundary. The area to the north and northeast of the site represents the principal upstream area.

2. WASTE ACTIVITIES CARRIED OUT AT THE FACILITY

2.1 Type of Waste

The licensed 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 the deposition of inert waste.
- **Class 4 Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons:** This activity is limited too 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. QUANTITIES AND COMPOSITION OF WASTE

3.1 Quantities of Waste for Restoration

In accordance with Condition 1 of the waste licence only inert waste may be deposited at the facility. A maximum of 46,000 tonnes shall be accepted for the purposes of restoration and aftercare. The quantity of waste received during the reporting period and each previous year at the facility are presented in Table 3.1.

3.2 Glenalla landfill site was closed in 2001 and no material was been imported or exported until restoration works commenced during 2005. The material imported during 2005 was inert and specifically for the purpose of restoring the site.

Table 3.1 Waste quantities accepted (tonnes)

	1998	**1999**	**2000**	**2001**	**2002**	**20036**	**2004**	**2005**
Total	550	1,565	5,722	10,093	0	0	0	34,474*
	2006	**2007**	**2008**	**2009**	**2010**	**2011**		
Total	0	0	0	0	0	0		

* inert material imported for restoration.

4. SUMMARY REPORT OF EMISSIONS

4.1 Groundwater

4.1.1 Introduction

Groundwater is monitored at the locations shown on drg. no. BL523421/415. GW1 is located upstream of the landfill and GW3 and GW2 are immediately downstream. GW2 was re-drilled during 2006. Parameters to be monitored and frequencies as required by the Waste Licence are listed in Appendix A. Since restoration the Agency has agreed to reduce monitoring frequency to bi-annual and the requirement to annually test for List I/II subtsances has been dropped. All results in tabular and graphical format are contained in Appendix B. Results are compared against EC (Quality of Water Intended for Human Consumption) Regulations 1988; EC (Drinking Water) Regulations 2000 and EPA Interim Guideline Values.

4.1.2 Summary of Results

The site was developed on the dilute and disperse principal, however the groundwater receives some protection against contamination from the peat underlying the landfill and the landfill is now fully restored. Results do indicate an impact on downstream groundwater from the landfill but levels detected are substantially redcued when compared to those recorded in the last period.

4.2 Surface Water

4.2.1 Introduction

Surface water monitoring is carried out at SW1, SW2, SW3 & SW4 as shown on Drawing No. BL523421/415. SW1 is reflective of the quality of the surface water upstream of the landfill site. The parameters and frequencies of monitoring required by the Waste Licence are listed in Appendix A, however since restoration of the site the Agency has agreed to a frequency of bi-annual monitoring and drop the requirement for the annual parameters. The results of monitoring in tabular and graphical format are presented in Appendix B. Results are compared against EC (Quality of Surface Water Intended for the Abstraction of Drinking Water) Regulations 1989.

4.2.2 Summary of Results

On the basis of the hydrogeology of the site, surface water represents the principal receptor of leachate emissions from the site. Surface water results previously did indeed indicate that leachate was being released from the facility into the surrounding environment. Following restoration, levels of emissions to surface water had been reducing. Following a rise in downstream ammonia levels at the end of 2008 however an investigation was undertaken into the cause of the increase in downstream leachate emissions. It was eventually discovered that although the leachate pump appeared to be working, it was not delivering leachate to the lagoon. The pump was repaired and its performance monitored, however, it was still problematic throughout this period and so was replaced entirely during December 2011. Levels of ammoniacal nitrogen (and other parameters indicative of leachate) do show leachate

being released into the surface water environment but levels are substantially lower than those detected in recent periods. A further improvement would be anticipated as a result of the replacement of the leachate pump in December 2011.

4.3 Leachate Composition

4.3.1 Leachate is monitored at one location at the facility, L1, as shown on Drawing No. BL523421/415. The results are contained in Appendix B and have been compared with typical leachate quality as reported in EPA Landfill Manual – Landfill Operational Practices (see Section 5.3). All parameters are consistent with typical leachate composition and comparable with levels recorded during the last reporting period.

4.4 Landfill gas

4.4.1 Landfill gas is monitored at three locations at the facility as shown on Drawing No. BL523421/415. LG1, LG2, and LG3 are all located in waste. Both LG1 and LG3 were replaced during restoration works. Maintenance works were carried out previously to secure access to these wells. Levels detected during this period are similar to those reported last period.

4.5 Dust Monitoring

4.5.1 Dust monitoring was not undertaken in this reporting period.

5. RESULTS & INTERPRETATIONS OF MONITORING INCLUDING PLANS & UPDATES OF MONITORING LOCATIONS.

5.1 Groundwater

5.1.1 Locations, parameters and monitoring frequencies, as required by the Waste Licence are listed in Appendix A. Locations are shown in Drg no. BL523421/415. Results of the monitoring programme are listed in Appendix B. These results have been compared to EC Quality of Water Intended for Human Consumption Regulations, 1988, the European communities (Drinking Water) Regulations, 2000 and the EPA Interim Report, Towards Setting Guidelines Values (IGV) for the Protection of Groundwater in Ireland

5.1.2 Upstream no parameters were recorded in excess of MAC.

5.1.3 Downstream, exceedances were recorded for Ammoniacal Nitrogen (max. 3.67mg/l); Chloride (max. 57mg/l) and Iron (max 2.36mg/l).

5.2 Surface Water

5.2.1 Locations, parameters and monitoring frequencies, as required by the Waste Licence are listed in Appendix A. Since restoration sampling frequency has been reduced to bi-annual and the annual parameters ceased, by agreement of the Agency. Locations are shown in Drg no. BL523421/415. The results are presented graphically and in tabular format in Appendix B. These results have been compared to EC Quality of Surface Water (Intended for the Abstraction of Drinking Water) Regulations, 1989.

5.2.2 Upstream of the site, results showed elevated levels of COD (max. 49mg/l).

5.2.3 Downstream, levels of Ammoniacal Nitrogen (max. 2.29mgl), COD (max. 55mg/l) and Chloride (max. 32mg/l) are elevated.

5.3 Leachate

5.3.1 Leachate quality can vary during the lifetime of landfill site 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 leachate are listed in Table 5.1 below.

Table 5.1: Raw Leachate Concentrations 2011					
	Glenalla 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)	70	120	<0.2	1700	491
BOD	2.9	3.7	4.5	>4800	>834
COD	37	54	<10	33,700	3078
Chloride (mg/l)	132	137	27	3410	1256
Iron (mg/l)	NA	NA	0.4	664	54.4
Potassium (mg/l)	NA	NA	2.7	1480	491
TON (mg/l N)	<0.01	<0.01	/	/	/
Conductivity (mS/cm)	2105	2290	503	19,200	7789
pH	7.2	7.35	6.4	8	7.2

NA = not available

5.3.2 Leachate results have been compared to "Typical Leachate Composition of 30 Samples from UK/Irish Landfills accepting mainly Domestic Waste" (Landfill Operational Practices). All parameters are consistent with typical leachate composition.

5.4 Landfill Gas

Levels this period are consistent with those recorded post restoration. Maximum and minimum levels are shown in Table 5.2 below and full results and graphs are contained in Appendix B. These wells are all located within waste.

Table 5.2 Methane and Carbon Dioxide Max & Min for Gas Wells in Waste

Parameter	2009		2010		2011	
	Max	Min	Max	Min	Max	Min
Methane	54.1%	34.8%	74.5%	4.1%	74.5%	4.1%
Carbon Dioxide	22.4%	13.2%	46.8%	2.3%	29.8%	2.3%

5.5 Dust

Dust monitoring was not undertaken during this period.

6. VOLUME OF LEACHATE PRODUCED AND VOLUME OF LEACHATE DISCHARGED

6.1 A water balance calculation has been undertaken and is contained in Appendix C. This indicates that the estimated volume of leachate produced at the site for 2011 was approximately 2526m^3.

6.2 Leachate is typically tankered from the collection lagoon on the site one day per week. The total volume of leachate tankered during the last reporting period was 3939m^3. Table 6.1 below shows a breakdown of volumes tankered each month and the corresponding rainfall at the Malin Head weather station.

Table 6.1 Breakdown of leachate volumes by month in 2011 relative to rainfall at Malin Head

Month	Leachate Volume (m^3)	Rainfall at Main Head (mm)
January	343	89.6
February	292	105.4
March	205	59.0
April	297	66.2
May	330	100.4
June	264	84.5
July	252	49.9
August	306	79.0
September	300	133.0
October	360	177.1
November	420	103.7
December	570	184.2
Totals	**3939m^3**	**1232.0**

7. TOPOGRAPHICAL SITE SURVEY

7.1 A topographical survey of the site was carried out in May 2006 post restoration. Copies of the survey were forwarded to the Agency in March 2007.

8. REPORTED INCIDENTS AND COMPLAINTS SUMMARIES

8.1 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 six-monthly reporting period or when the results become available.

8.2 Apart from the on-going emissions exceedance reporting referred to above, no incidents have been reported to the Environmental Protection Agency during this reporting period.

8.3 No complaints where received during this reporting period.

9. REVIEW OF NUISANCE CONTROLS

9.1 General

As the facility is not operational, and all areas formerly used for placement of municipal waste have been fully restored, the following list of nuisances are no longer deemed likely to cause problems. Regular site inspections carried out by environmental scientists check for evidence of any of the following. Where any sign of these is detected appropriate control measures would be introduced.

- Flies and vermin;
- Dust;
- Litter;
- Birds;
- Noise;
- Odours.

9.2.1 EMS

As part of the Environmental Management System a procedure has been developed to ensure that the site is inspected for each of the above-mentioned nuisances on a quarterly basis. This will ensure that should any nuisance arise, the situation is identified and dealt with appropriately.

10. MANAGEMENT STRUCTURE OF SITE

10.1 Organisation

The management of the landfill site is illustrated in the diagram that follows.

10.2 Management Responsibility

Senior Engineer**:** Overall responsibility for the management of the site and ensuring compliance with the Waste Licence. Delegation of authority and responsibility to ensure the effective management of the facility and licence compliance.

Senior Executive Engineer: Responsible for the day-to-day management of the facility as directed by the Senior Engineer.

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

Scientific Officer: Carry out environmental monitoring of emissions and reporting in accordance with licence requirements.

11. PROGRAMME FOR PUBLIC INFORMATION

11.1 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 Environmental Headquarters at Three Rivers Centre in Lifford. Details regarding this programme are contained in Section 2 of the Environmental Management System Manual.

12. CAPPING AND RESTORATION OF THE SITE.

12.1 The site was fully restored in 2005/6 in accordance with the approved Restoration and Aftercare Plan dated May 2004.

12.2 It was agreed with the Agency in July 2006 that monitoring and reporting frequency would be reduced to bi-annually. It is hoped that when the benefits of restoration have been fully demonstrated that the Council can surrender the licence for this facility.

12.3 It was further agreed with the Agency in November 2009 that the annual run of List I & II parameters could be dispensed with on the restored sites such as Glenalla.

13. REPORT ON STAFF TRAINING

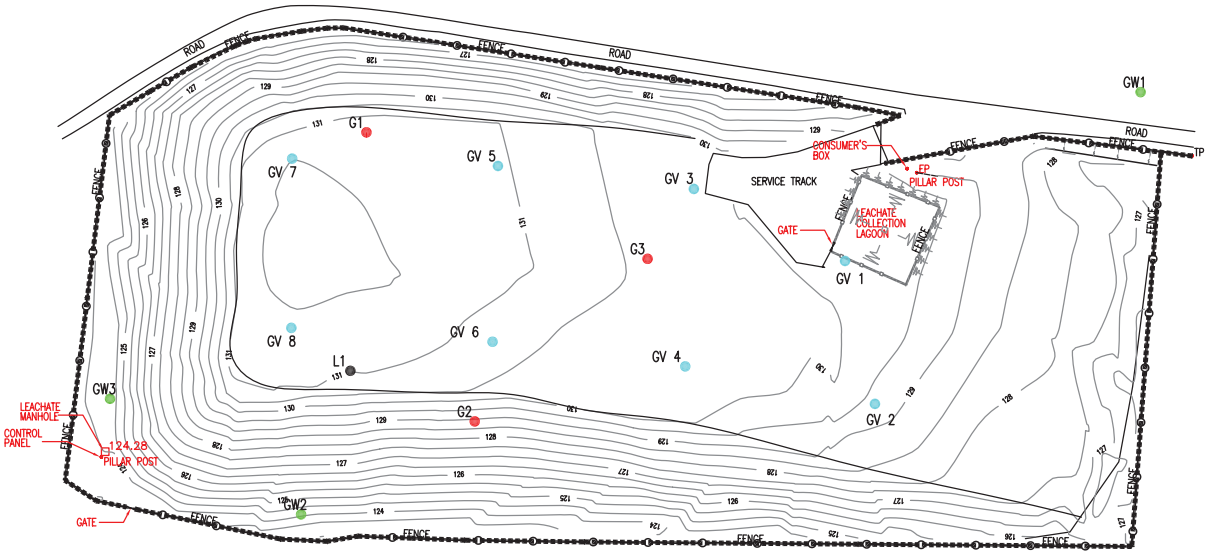
13.1 As the site is no longer operational, management is as per Section 10. The Scientific Officers monitoring the site are scheduled for the following types of training courses:

- FAS Waste Management Training Programme;
- FAS Waste Operatives Training;
- Manual Handling;
- Specific EPA training courses.

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

14.1 The leachate pump, which delivers gravity fed leachate to the collection lagoon beside the gate, was replaced at the end of this reporting period.

Borehole Locations	
Gas Vents	Grid Reference
GV 1	223262.21, 427932.43
GV 2	223267.63, 427904.00
GV 3	223232.14, 427946.76
GV 4	223230.43, 427911.45
GV 5	223193.16, 427951.33
GV 6	223192.09, 427916.36
GV 7	223152.23, 427952.74
GV 8	223152.07, 427919.12



NOTES

1.KEY

NEW GAS VENTS

EXISTING BORHOLES

L1 LEACHATE MONITORING POINT

G1 GAS MONITORING POINT

SW1 SURFACE WATER MONITORING POINT

GW1 GROUNDWATER MONITORING POINT

MONITORING TYPE	REF NO	GRID REFERENCE
GROUNDWATER	GW1	223321 427966
	GW2	223154 427882
	GW3	223116 427905
LEACHATE	L1	223169 427902
GAS	G1	223167 427958
	G2	223190 427895
	G3	223224 427929
SURFACE WATER	SW1	223060 427912
	SW2	223109 427884
	SW3	223168 427827

REV	DESCRIPTION	BY DATE	CHECK DATE

DRAWN BY AMB DATE JAN '08	CHECK BY DD DATE JAN '08	APPROVED DD DATE JAN '08
PLOT SCALE 1:1000	SCHEDULES	SHEET SIZE A3

CLIENT

DONEGAL COUNTY COUNCIL

PROJECT

GLENALLA LANDFILL SITE

TITLE

MONITORING POINTS

RPS Consulting Engineers

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THE ENTERPRISE FUND BUSINESS CENTRE, BALLYRAINE, LETTERKENNY, Co. DONEGAL

ARCHITECT	
DRAWING No.	BL523421/415
REVISION	

DWG. STATUS	
PRELIM.	
TENDER	
CONST.	
RECORD	●

100mm

100mm

APPENDIX A

MONITORING LOCATIONS, FREQUENCIES AND PARAMETERS

Table A1: Monitoring Locations

Type	Label	Location (Grid Ref.)
Landfill Gas	G1	223167 427958
	G2	223190 427895
	G3	223224 427989
Dust	D1	TBC
Groundwater	GW1	223391 427948
	GW2	223154 427882
	GW3	223116 427905
Leachate	L1	223169 427902
Surface Water	SW1	223060 427912
	SW2	223109 427884
	SW3	223168 427827
	SW4	223333 427668

Table A2: Groundwater Parameters & Monitoring Frequencies

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

Table A3 Surface Water Parameters & Monitoring Frequencies

Bi-Annually	**Annually**	
Chloride	Iron	Magnesium
Dissolved Oxygen	Cadmium	Manganese
COD	Calcium	Mercury
Visual Inspection /Odour	Chromium	Orthophosphate
Ammoniacal Nitrogen	Copper	Zinc
BOD	Sodium	Potassium
Electrical Conductivity	Lead	TON
pH	List I/II substances	Sulphate
Suspended Solids		
Temperature		

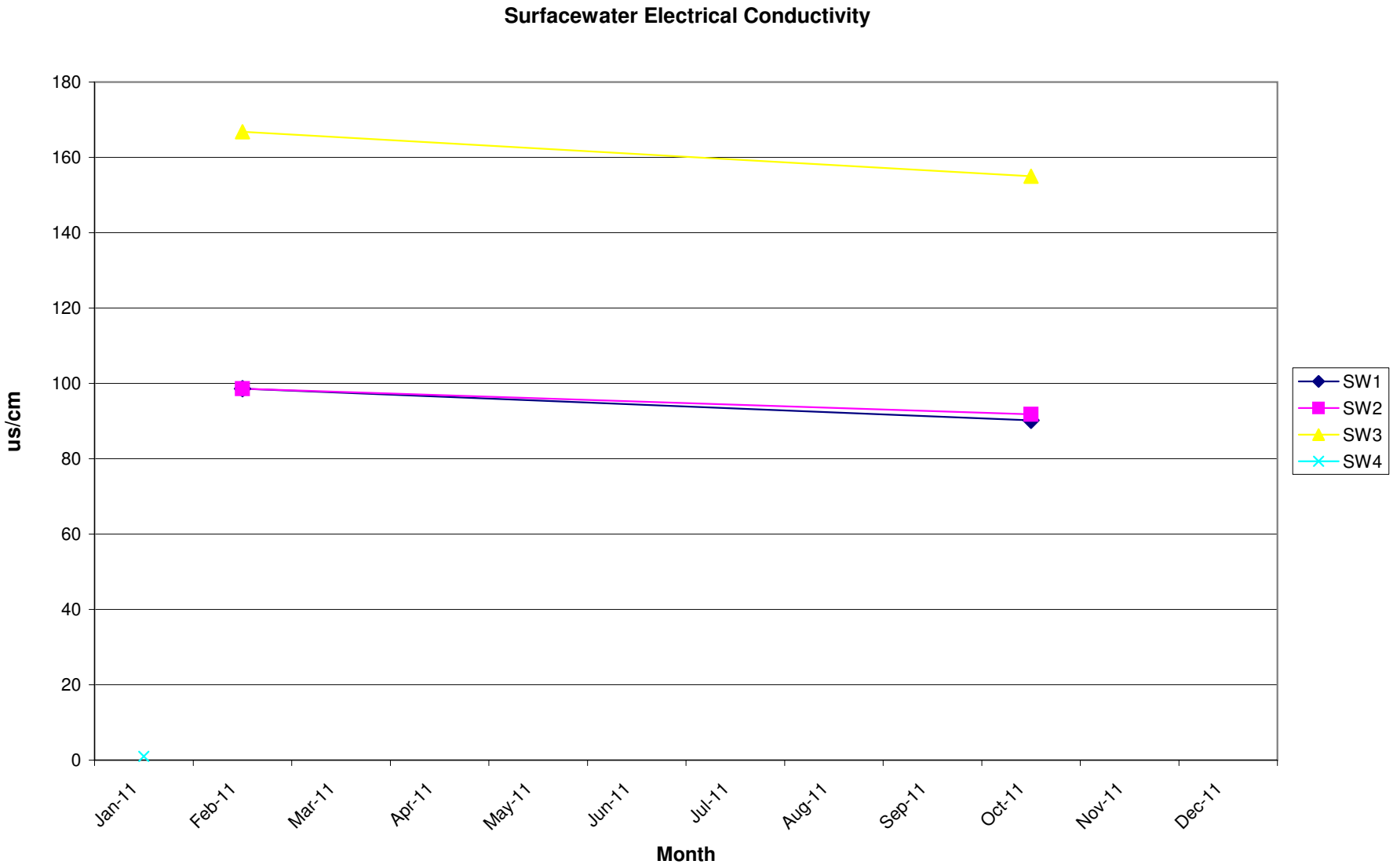
APPENDIX B
MONITORING RESULTS

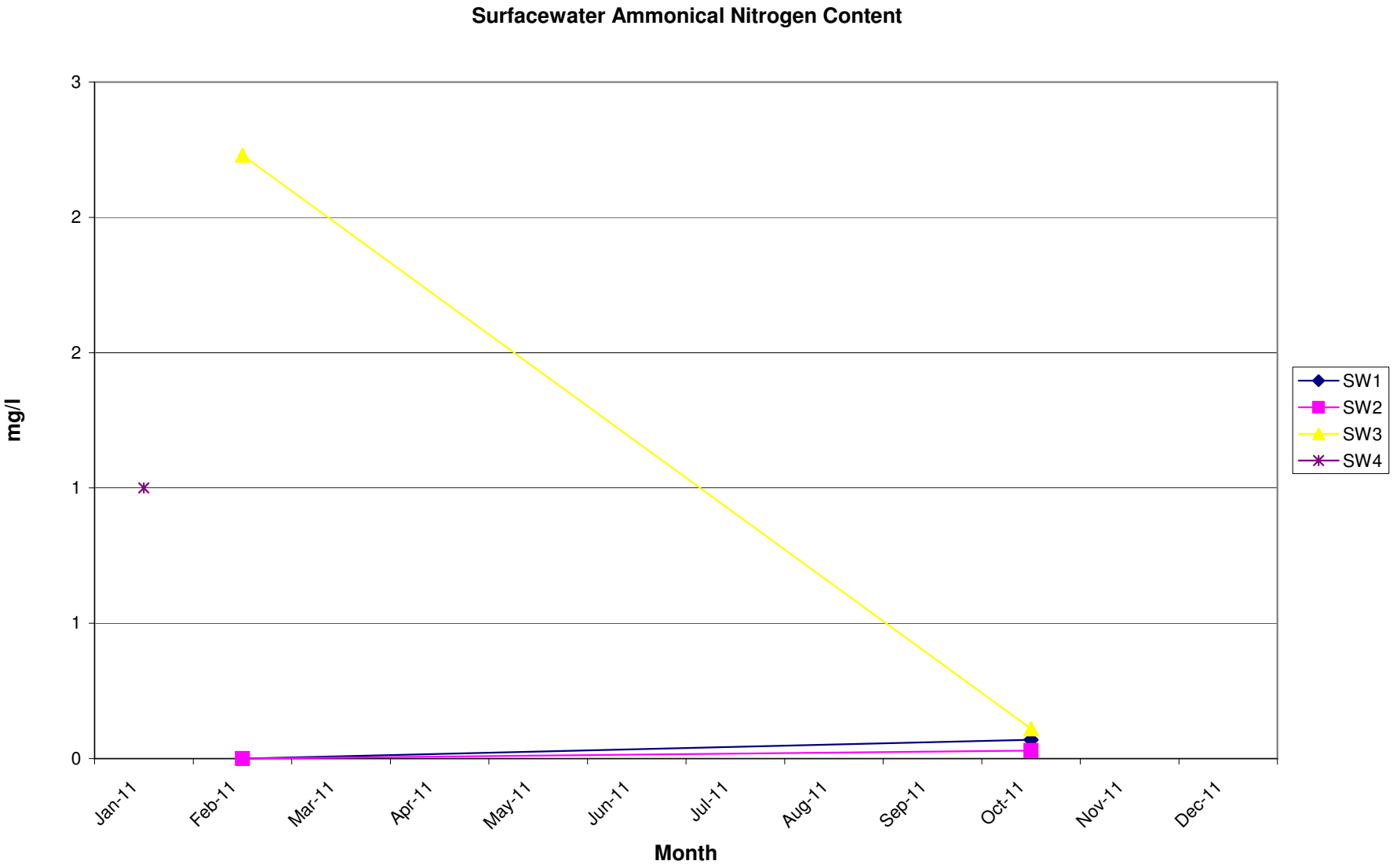
Location		*Glenalla, Milford Co Donegal*											
Sample Type		surface water											
Site No		SW1											
Date of Sample		Jan 11	Feb 11	Mar 11	Apr 11	May 11	Jun 11	Jul 11	Aug 11	Sept 11	Oct 11	Nov 11	Dec 11
Lab No			1700a			2780					5475		
pH			7.21			8.80					7.13		
Temp	C		13.60			13.00					11.60		
Electrical Conductivity	uS/cm		99			85					90		
Ammonical Nitrogen	mg/l		<0.05			0.02					0.07		
COD	mg/l		42								49		
BOD	mg/l		1.38								0.62		
Dissolved Oxygen	mg/l		10.55			0.66					9.93		
SS	mg/l		13.0								2.00		
Residue on Evaporator	mg/l												
Calcium	ug/l												
Cadmium	ug/l												
Chromium	ug/l												
Chloride	mg/l		18								20		
Chlorine	mg/l												
Copper	ug/l												
Cyanide	mg/l												
Dissolved Iron	ug/l												
Lead	ug/l												
Magnesium	ug/l												
Manganese	ug/l												
Mercury	ug/l												
Nickel	mg/l												
Potassium	mg/l												
Sodium	mg/l												
Sulphate	mg/l												
Zinc	ug/l												
Total Alkalinity as CaCO3	mg/l												
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l												
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		<0.03								<0.01		
Nitrate	mg/l		<0.04								0.0360		
Phosphate - ORTHO	mg/l										0.0208		
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m												

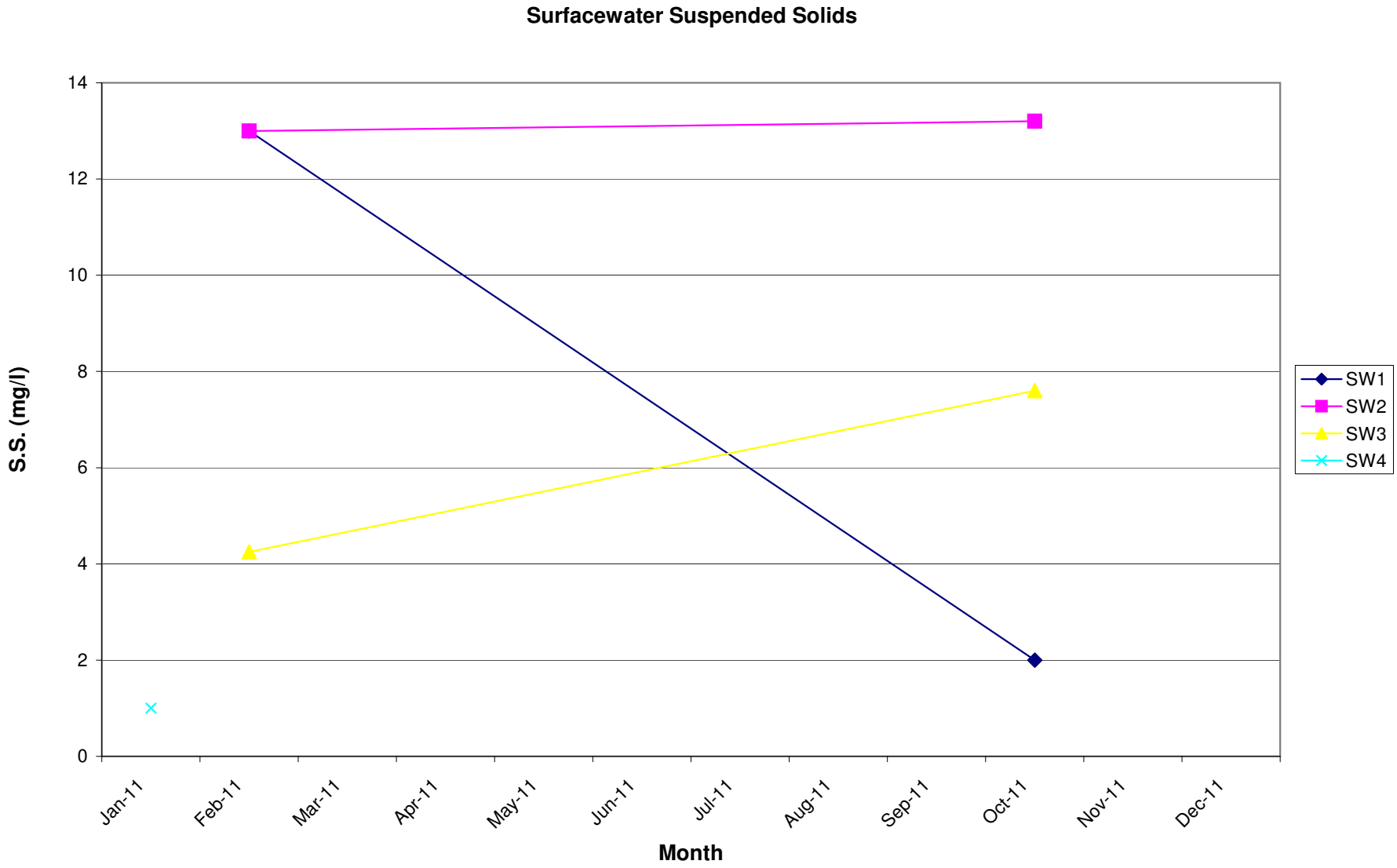
Location		*Glenalla, Milford Co Donegal*											
Sample Type		surface water											
Site No		SW2											
Date of Sample		Jan 11	Feb 11	Mar 11	Apr 11	May 11	Jun 11	Jul 11	Aug 11	Sept 11	Oct 11	Nov 11	Dec 11
Lab No			1700b			2871					5476		
pH			7.31			7.43					7.22		
Temp	C		13.10			12.70					11.90		
Electrical Conductivity	uS/cm		99			85					92		
Ammonical Nitrogen	mg/l		<0.05			0.02					0.03		
COD	mg/l		27								55		
BOD	mg/l		1.09								0.84		
Dissolved Oxygen	mg/l		10.60			0.76					9.50		
SS	mg/l		13.00								13.20		
Residue on Evaporator	mg/l												
Calcium	ug/l												
Cadmium	ug/l												
Chromium	ug/l												
Chloride	mg/l		19								21		
Chlorine	mg/l												
Copper	ug/l												
Cyanide	mg/l												
Dissolved Iron	ug/l												
Lead	ug/l												
Magnesium	ug/l												
Manganese	ug/l												
Mercury	ug/l												
Nickel	mg/l												
Potassium	mg/l												
Sodium	mg/l												
Sulphate	mg/l												
Zinc	ug/l												
Total Alkalinity as CaCO3	mg/l												
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l										0.0489		
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		<0.03								<0.01		
Nitrate	mg/l		<0.04								0.0490		
Phosphate - ORTHO	mg/l										0.0196		
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m												

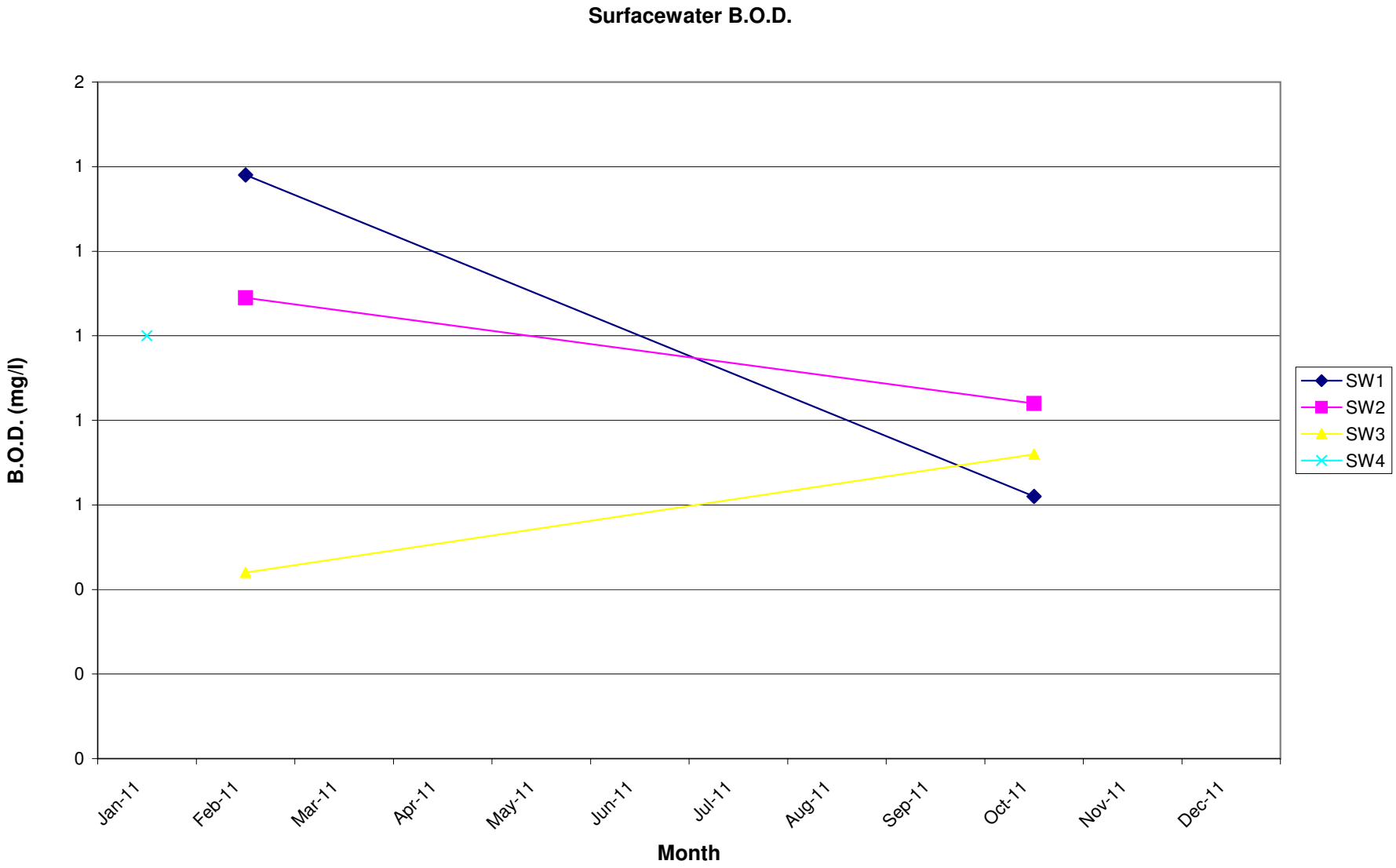
Location		*Glenalla, Milford Co Donegal*											
Sample Type		surface water											
Site No		SW3											
Date of Sample		Jan 11	Feb 11	Mar 11	Apr 11	May 11	Jun 11	Jul 11	Aug 11	Sept 11	Oct 11	Nov 11	Dec 11
Lab No			1701			2782					5477		
pH			7.34			8.30					7.24		
Temp	C		12.90			12.50					11.30		
Electrical Conductivity	uS/cm		167			108					155		
Ammonical Nitrogen	mg/l		2.23			1.04					0.11		
COD	mg/l		33								52		
BOD	mg/l		0.4								0.7		
Dissolved Oxygen	mg/l		10.6			0.6					9.6		
SS	mg/l		4.3								7.6		
Residue on Evaporator	mg/l												
Calcium	ug/l												
Cadmium	ug/l												
Chromium	ug/l												
Chloride	mg/l		29								31		
Chlorine	mg/l												
Copper	ug/l												
Cyanide	mg/l												
Dissolved Iron	ug/l												
Lead	ug/l												
Magnesium	ug/l												
Manganese	ug/l												
Mercury	ug/l												
Nickel	mg/l												
Potassium	mg/l												
Sodium	mg/l												
Sulphate	mg/l												
Zinc	ug/l												
Total Alkalinity as CaCO3	mg/l												
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l										0.0360		
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		<0.03								<0.01		
Nitrate	mg/l		<0.04								0.0360		
Phosphate - ORTHO	mg/l										0.0170		
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m												

Location		*Glenalla, Milford 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			1702			2784					5478		
pH			7.30			7.78					7.19		
Temp	C		12.70			12.30					11.50		
Electrical Conductivity	uS/cm		167			113					152		
Ammonical Nitrogen	mg/l		2.29			1.14					0.04		
COD	mg/l		37								43		
BOD	mg/l		0.8								0.4		
Dissolved Oxygen	mg/l		10.52			0.96					8.9		
SS	mg/l		4.0								2.0		
Residue on Evaporator	mg/l												
Calcium	ug/l												
Cadmium	ug/l												
Chromium	ug/l												
Chloride	mg/l		32								31		
Chlorine	mg/l												
Copper	ug/l												
Cyanide	mg/l												
Dissolved Iron	ug/l												
Lead	ug/l												
Magnesium	ug/l												
Manganese	ug/l												
Mercury	ug/l												
Nickel	mg/l												
Potassium	mg/l												
Sodium	mg/l												
Sulphate	mg/l												
Zinc	ug/l												
Total Alkalinity as CaCO3	mg/l												
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l										0.1050		
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		<0.03								<0.01		
Nitrate	mg/l		<0.04								0.1050		
Phosphate - ORTHO	mg/l										0.0153		
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m												


Surfacewater Electrical Conductivity
180
160
140
120
100
80
60
40
20
0
us/cm
Jan-11
Feb-11
Mar-11
Apr-11
May-11
Jun-11
Jul-11
Aug-11
Sep-11
Oct-11
Nov-11
Dec-11
Month
SW1
SW2
SW3
SW4


Surfacewater Ammonical Nitrogen Content
mg/l
3
2
2
1
1
0
Jan-11
Feb-11
Mar-11
Apr-11
May-11
Jun-11
Jul-11
Aug-11
Sep-11
Oct-11
Nov-11
Dec-11
Month
SW1
SW2
SW3
SW4

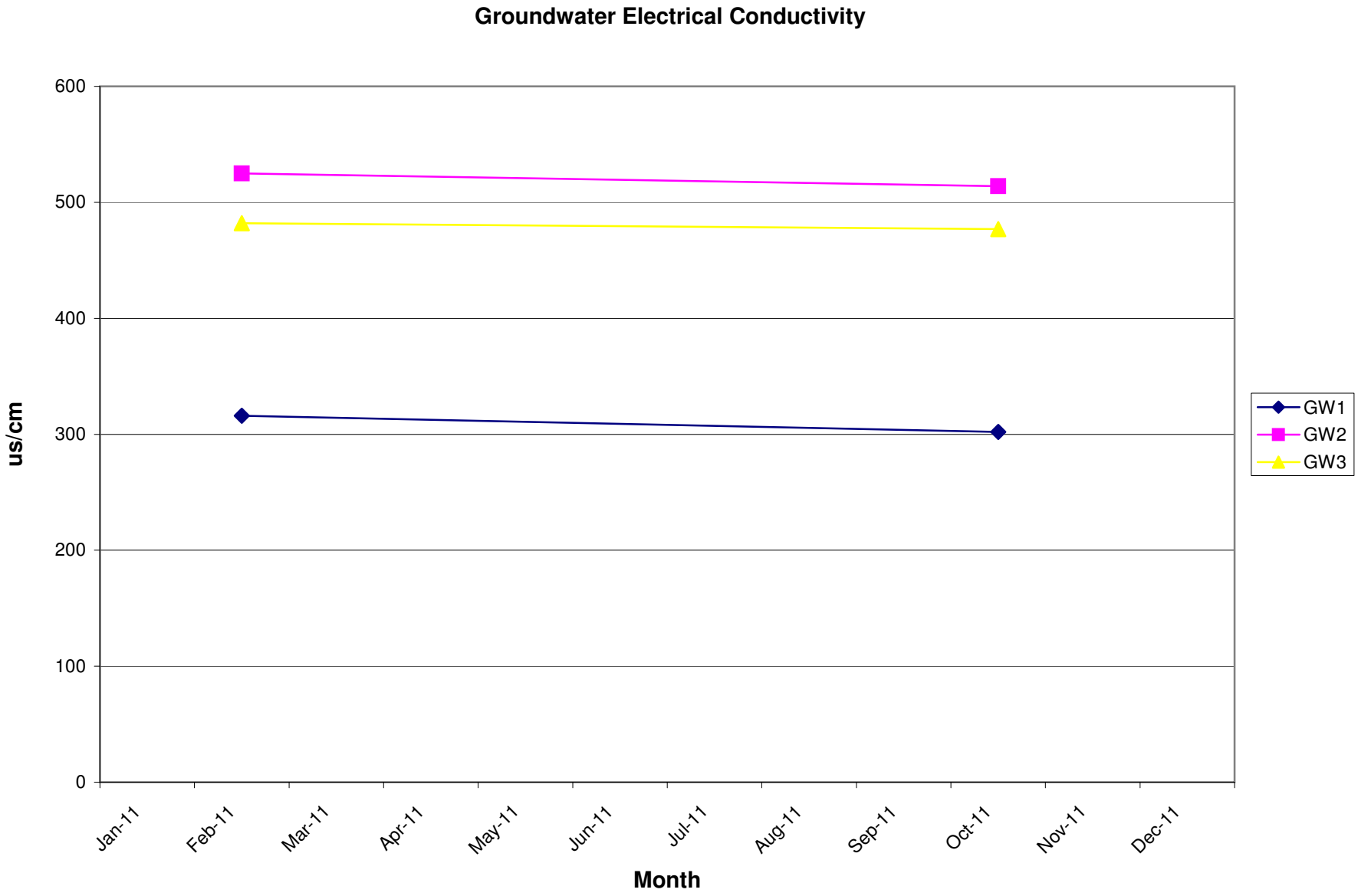

Surfacewater Suspended Solids
S.S. (mg/l)
14
12
10
8
6
4
2
0
Jan-11
Feb-11
Mar-11
Apr-11
May-11
Jun-11
Jul-11
Aug-11
Sep-11
Oct-11
Nov-11
Dec-11
Month
SW1
SW2
SW3
SW4

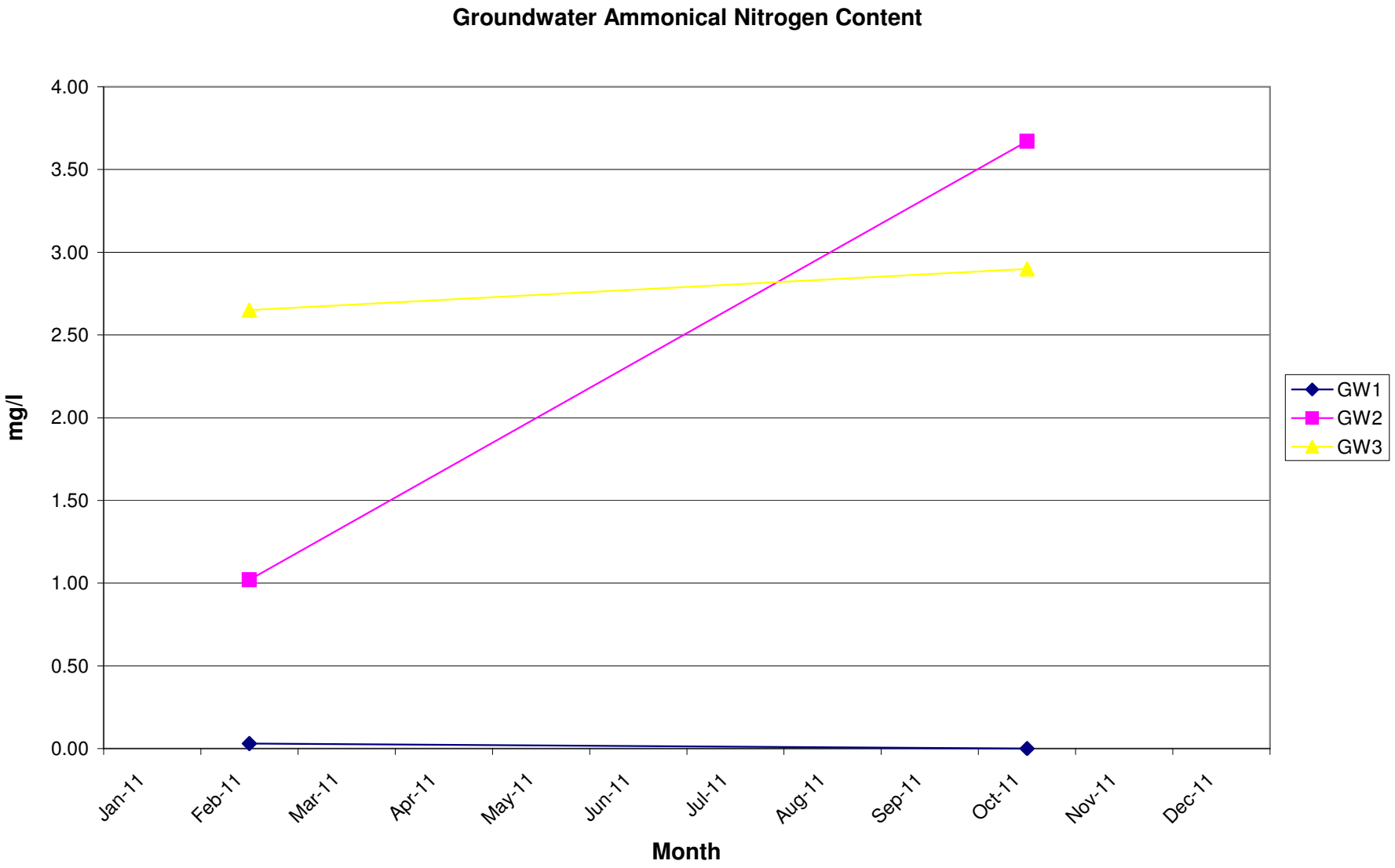

Surfacewater B.O.D.
B.O.D. (mg/l)
2
1
1
1
1
1
0
0
0
Jan-11
Feb-11
Mar-11
Apr-11
May-11
Jun-11
Jul-11
Aug-11
Sep-11
Oct-11
Nov-11
Dec-11
Month
SW1
SW2
SW3
SW4

Location		*Glenalla, Milford 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			1740								5487		
pH			6.88								6.98		
Temp	C		13.30								11.10		
Electrical Conductivity	uS/cm		316								302		
Ammonical Nitrogen	mg/l		0.03								0.00		
COD	mg/l		11								0		
BOD	mg/l										0.00		
Dissolved Oxygen	mg/l		2.01								4.94		
SS	mg/l										0.00		
Residue on Evaporator	mg/l												
Calcium	ug/l												
Cadmium	ug/l												
Chromium	ug/l												
Chloride	mg/l		28								26		
Chlorine	mg/l												
Copper	ug/l												
Cyanide	mg/l												
Dissolved Iron	mg/l										<0.019		
Lead	ug/l												
Magnesium	ug/l												
Manganese	ug/l												
Mercury	ug/l												
Nickel	mg/l												
Potassium	mg/l										<2.34		
Sodium	mg/l										22		
Sulphate	mg/l												
Zinc	ug/l												
Total Alkalinity as CaCO3	mg/l												
Total Organic Carbon	mg/l										<3		
Total Oxidised Nitrogen	mg/l		<0.01								0.221		
Arsenic	mg/l												
Barium	mg/l												
Boron	ug/l												
Flouride	mg/l												
Total Phenols	mg/l										<0.002		
Phosphorous	mg/l												
Selenium	mg/l												
Silver	mg/l												
Mircrotox	Toxic Units												
Microtox	Toxic Units												
Nitrite	mg/l		<0.03								<0.01		
Nitrate	mg/l		<0.04								0.2210		
Phosphate - ORTHO	mg/l		0.04								0.0191		
Phosphate - TOTAL	mg/l												
Total Coliforms											<1		
Facel Coliforms											<1		
Depth	m		0.7								0.6		

Location		*Glenalla, Milford 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			1741								5488		
pH			6.98								6.95		
Temp	C		12.50								11.10		
Electrical Conductivity	uS/cm		525								514		
Ammonical Nitrogen	mg/l		1.02								3.67		
COD	mg/l		17										
BOD	mg/l												
Dissolved Oxygen	mg/l		0.81								1.29		
SS	mg/l												
Residue on Evaporator	mg/l												
Calcium	ug/l												
Cadmium	ug/l												
Chromium	ug/l												
Chloride	mg/l		30								28		
Chlorine	mg/l												
Copper	ug/l												
Cyanide	mg/l												
Dissolved Iron	Mg/l										<0.019		
Lead	ug/l												
Magnesium	ug/l												
Manganese	ug/l												
Mercury	ug/l												
Nickel	mg/l												
Potassium	mg/l										4		
Sodium	mg/l										30		
Sulphate	mg/l												
Zinc	ug/l												
Total Alkalinity as CaCO3	mg/l												
Total Organic Carbon	mg/l										<3		
Total Oxidised Nitrogen	mg/l		<0.01								<0.01		
Arsenic	mg/l												
Barium	mg/l												
Boron	ug/l												
Flouride	mg/l												
Total Phenols	mg/l										<0.002		
Phosphorous	mg/l												
Selenium	mg/l												
Silver	mg/l												
Mircrotox	Toxic Units												
Microtox	Toxic Units												
Nitrite	mg/l		<0.03								<0.01		
Nitrate	mg/l		<0.04								<0.04		
Phosphate - ORTHO	mg/l		0.04								0.01		
Phosphate - TOTAL	mg/l												
Total Coliforms											<1		
Facel Coliforms											<1		
Depth	m		0.3								0.2		

Location		*Glenalla, Milford Co Donegal*											
Sample Type		groundwater											
Site No		GW3											
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			1742								5489		
pH			6.64								6.57		
Temp	C		11.90								11.40		
Electrical Conductivity	uS/cm		482								477		
Ammonical Nitrogen	mg/l		2.65								2.90		
COD	mg/l		46										
BOD	mg/l												
Dissolved Oxygen	mg/l		2.11								2.90		
SS	mg/l												
Residue on Evaporator	mg/l												
Calcium	ug/l												
Cadmium	ug/l												
Chromium	ug/l												
Chloride	mg/l		57								52		
Chlorine	mg/l												
Copper	ug/l												
Cyanide	mg/l												
Dissolved Iron	Mg/l										2.360		
Lead	ug/l												
Magnesium	ug/l												
Manganese	ug/l												
Mercury	ug/l												
Nickel	mg/l												
Potassium	mg/l										4.70		
Sodium	mg/l										22.80		
Sulphate	mg/l												
Zinc	ug/l												
Total Alkalinity as CaCO3	mg/l												
Total Organic Carbon	mg/l										16.1		
Total Oxidised Nitrogen	mg/l		<0.01								0.165		
Arsenic	mg/l												
Barium	mg/l												
Boron	ug/l												
Flouride	mg/l												
Total Phenols	mg/l										<0.002		
Phosphorous	mg/l												
Selenium	mg/l												
Silver	mg/l												
Mircrotox	Toxic Units												
Microtox	Toxic Units												
Nitrite	mg/l		<0.03								<0.01		
Nitrate	mg/l		<0.04								0.1650		
Phosphate - ORTHO	mg/l		0.056								0.02		
Phosphate - TOTAL	mg/l												
Total Coliforms											<1		
Facel Coliforms											<1		
Depth	m		0.25								0.2		


Groundwater Electrical Conductivity
600
500
400
300
200
100
0
us/cm
Jan-11
Feb-11
Mar-11
Apr-11
May-11
Jun-11
Jul-11
Aug-11
Sep-11
Oct-11
Nov-11
Dec-11
Month
GW1
GW2
GW3

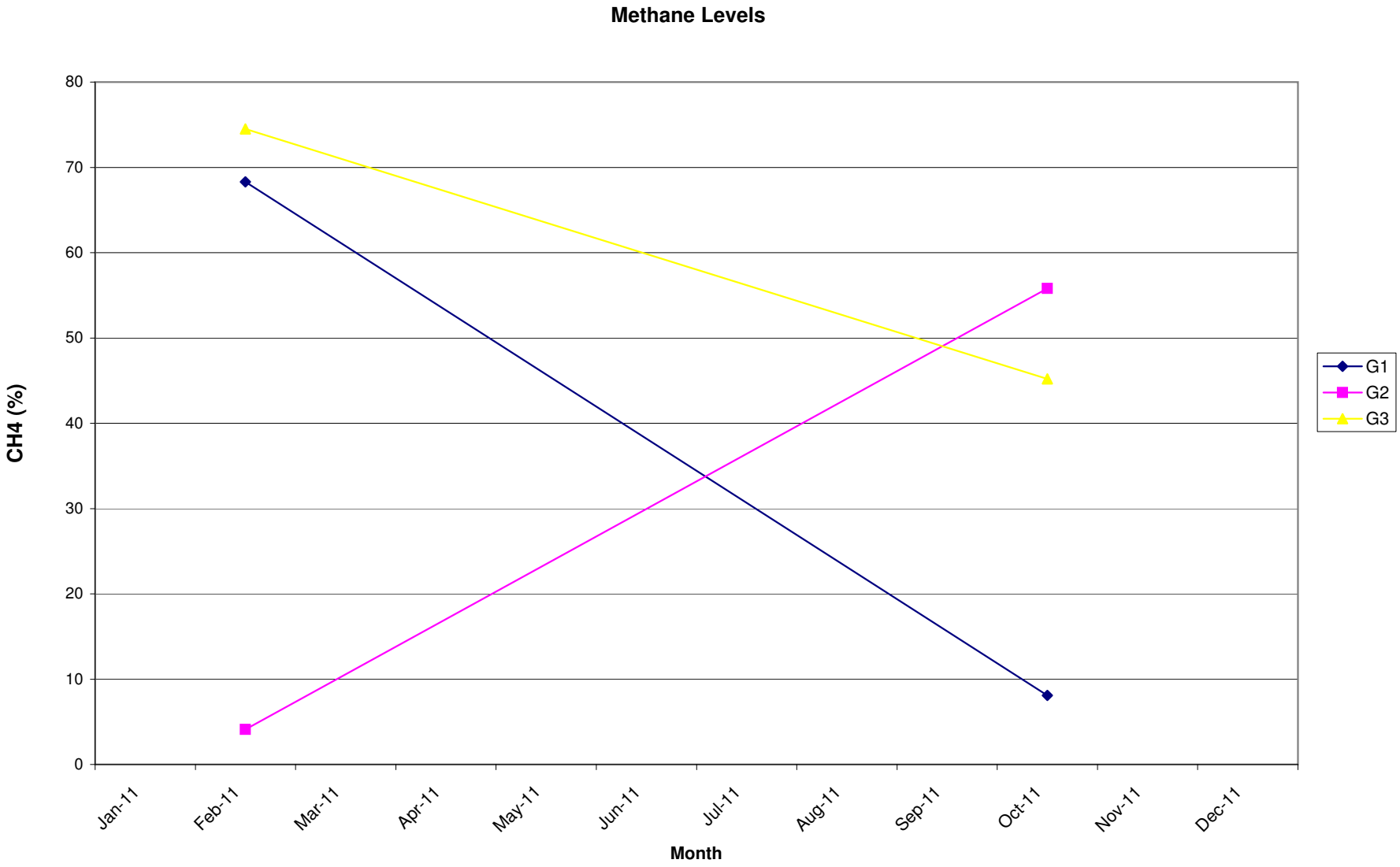

Groundwater Ammonical Nitrogen Content
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
mg/l
Jan-11
Feb-11
Mar-11
Apr-11
May-11
Jun-11
Jul-11
Aug-11
Sep-11
Oct-11
Nov-11
Dec-11
Month
GW1
GW2
GW3

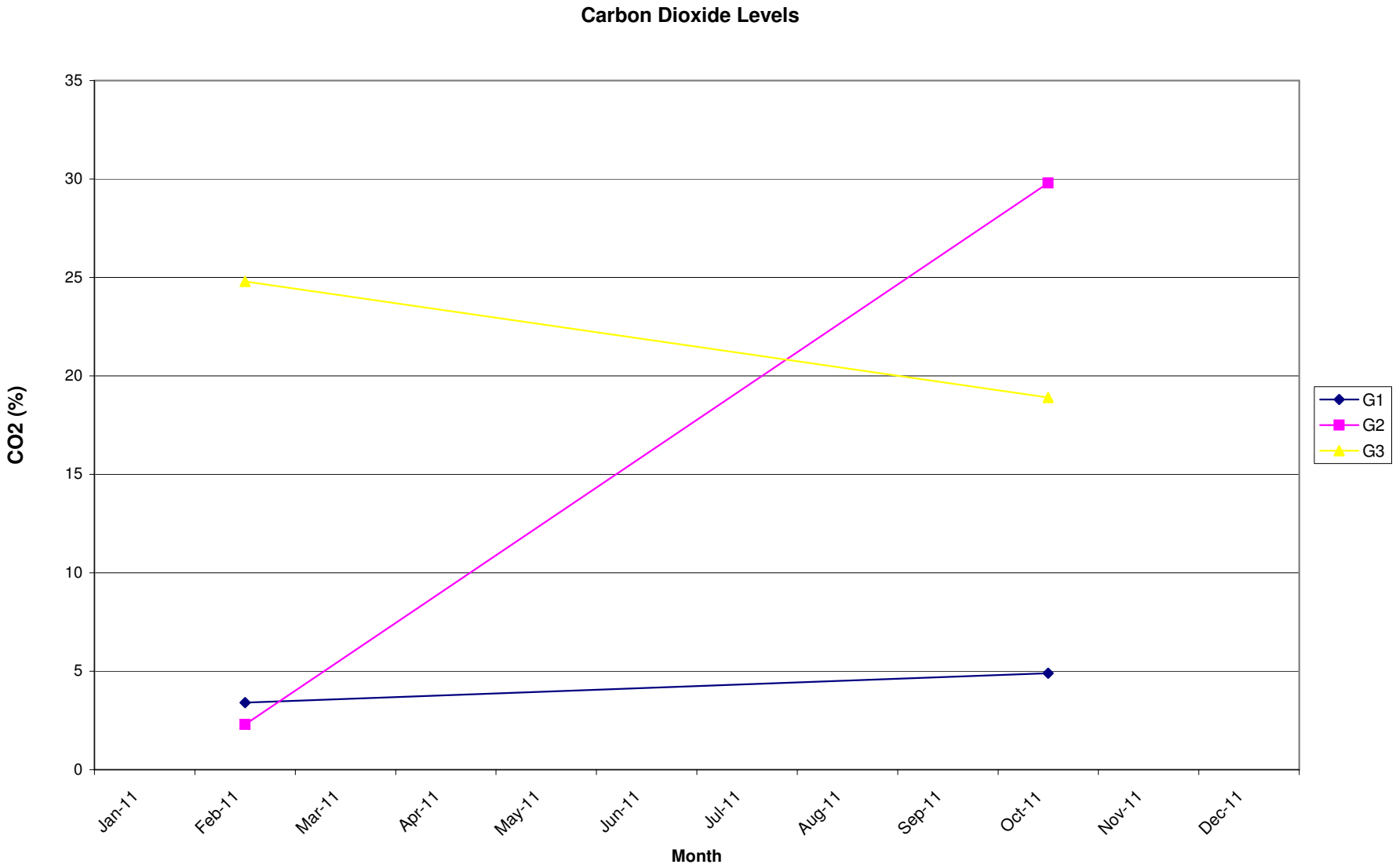
Location		*Glenalla, Milford Co Donegal*											
Sample Type		lechate											
Site No		L1											
Date of Sample		Jan 11	Feb 11	Mar 11	Apr 11	May 11	Jun 11	Jul 11	Aug 11	Sept 11	Oct 11	Nov 11	Dec 11
Lab No			1743								5490		
pH			7.35								7.20		
Temp	C		13.40								11.80		
Electrical Conductivity	uS/cm		2290								2105		
Ammonical Nitrogen	mg/l		120.00								70.00		
COD	mg/l		37								54		
BOD	mg/l		3.7000								2.9		
Dissolved Oxygen	mg/l		1.19								6.5		
SS	mg/l												
Residue on Evaporator	mg/l												
Calcium	ug/l												
Cadmium	ug/l												
Chromium	ug/l												
Chloride	mg/l		132								137		
Chlorine	mg/l												
Copper	ug/l												
Cyanide	mg/l												
Dissolved Iron	ug/l												
Lead	ug/l												
Magnesium	ug/l												
Manganese	ug/l												
Mercury	ug/l												
Nickel	mg/l												
Potassium	mg/l												
Sodium	mg/l												
Sulphate	mg/l												
Zinc	ug/l												
Total Alkalinity as CaCO3	mg/l												
Total Organic Carbon	mg/l												
Total Oxidised Nitrogen	mg/l		<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		<0.03								<0.01		
Nitrate	mg/l		<0.04								<0.04		
Phosphate - ORTHO	mg/l		0.056								<0.04		
Phosphate - TOTAL	mg/l												
Total Coliforms													
Facel Coliforms													
Depth	m		4.5								4.3		

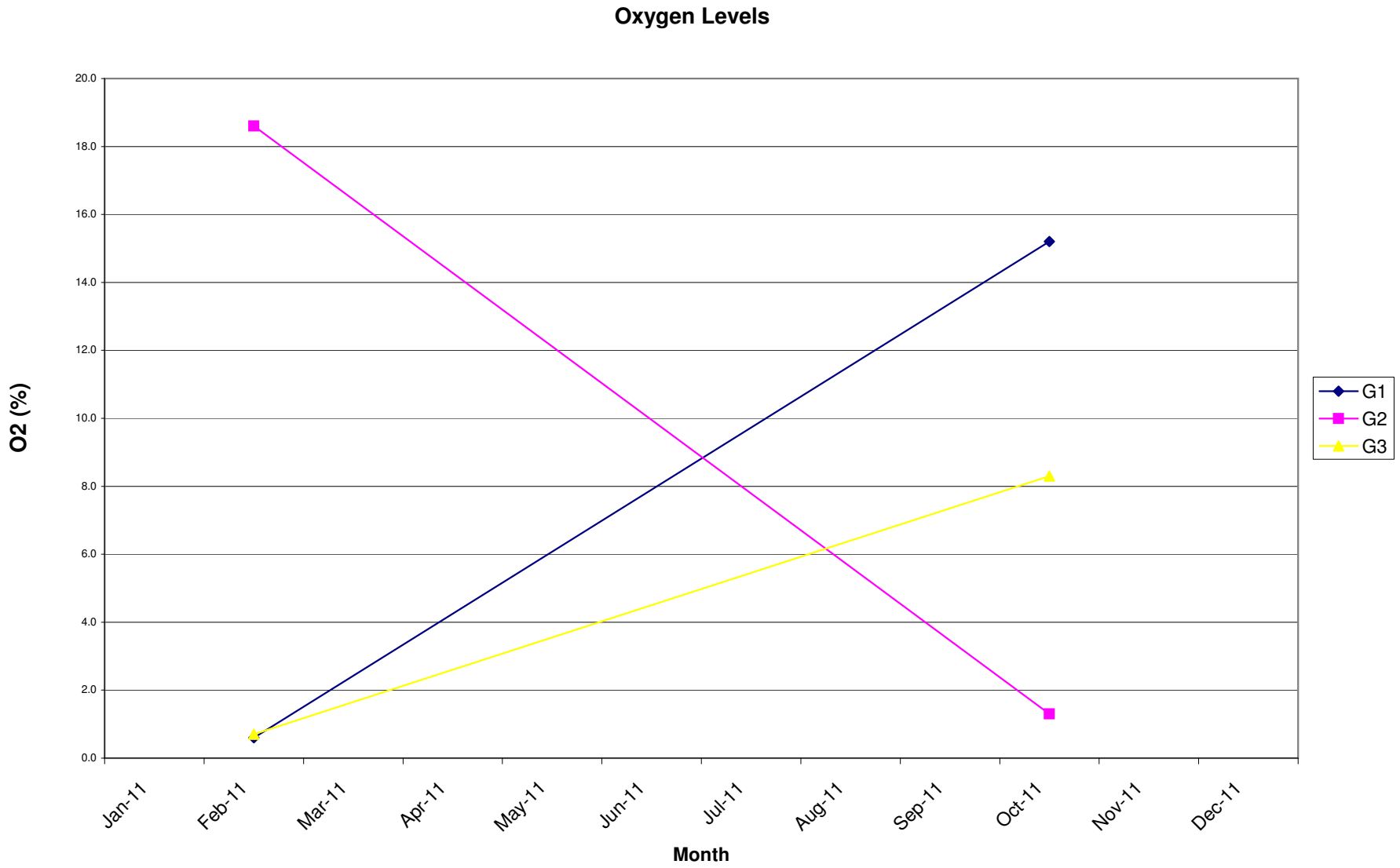
Location		*Glenalla, Milford Co Donegal*											
Sample Type		Landfill Gas levels											
Site No		G1											
Date of Sample													
Parameters	**Units**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Methane	%		68.3								8.1		
Carbon Dioxide	%		3.4								4.9		
Oxygen	%		0.6								15.2		
Atmos. Pressure	mBar		1020								1006		

Location		*Glenalla, Milford Co Donegal*											
Sample Type		Landfill Gas levels											
Site No		G2											
Date of Sample													
Parameters	**Units**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Methane	**%**		4.1								55.8		
Carbon Dioxide	**%**		2.3								29.8		
Oxygen	**%**		18.6								1.3		
Atmos. Pressure	**mBar**		1019								1006		

Location		*Glenalla, Milford Co Donegal*											
Sample Type		Landfill Gas levels											
Site No		G3											
Date of Sample													
Parameters	**Units**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**	**Date**
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Methane	**%**		74.5								45.2		
Carbon Dioxide	**%**		24.8								18.9		
Oxygen	**%**		0.7								8.3		
Atmos. Pressure	**mBar**		1020								1006		


Methane Levels
CH4 (%)
80
70
60
50
40
30
20
10
0
Jan-11
Feb-11
Mar-11
Apr-11
May-11
Jun-11
Jul-11
Aug-11
Sep-11
Oct-11
Nov-11
Dec-11
Month
G1
G2
G3


Carbon Dioxide Levels
CO2 (%)
35
30
25
20
15
10
5
0
Jan-11
Feb-11
Mar-11
Apr-11
May-11
Jun-11
Jul-11
Aug-11
Sep-11
Oct-11
Nov-11
Dec-11
Month
G1
G2
G3


Oxygen Levels
O2 (%)
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Jan-11
Feb-11
Mar-11
Apr-11
May-11
Jun-11
Jul-11
Aug-11
Sep-11
Oct-11
Nov-11
Dec-11
Month
G1
G2
G3

APPENDIX C
WATER BALANCE CALCULATION

GLENALLA WATER BALANCE CALCULATION

Year	Status	Rainfall (mm)	Temp Restored area Area	Temp Restored area infiltration IRCA(m3)	Restored area Area	Restored area infiltration IRCA(m3)	Total Water	Leachate produced Lo(m3)
2011	Closed	1232	0		20500	2526	2526	2526
Total		1232						2526

Assumptions

IRCA=	Fully Capped/Restored area infiltration of rainfall estimated (2-10% of ER),EPA Manual	10%	%
Restored area	Area capped is 20,500.	20,500	m^2
Rainfall Data	Data taken from Met Eireann Station Malin Head, Total Rainfall used.	1232.0	mm

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	135.4	38.9											174.3
2011	89.6	105.4	59	66.2	100.4	84.5	49.9	79	133	177.1	103.7	184.2	1232
mean	114.2	76.6	86.5	57.5	58.9	65	71.8	91.6	102.1	118.7	114.7	102.9	1060.6

APPENDIX D

E-PRTR Regulations

(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	Glenalla Landfill Site
PRTR Identification Number	W0125
Licence Number	W0125-01

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	##

Address 1	Glenalla
Address 2	Milford
Address 3	Co Donegal
Address 4	
	Donegal
Country	Ireland
Coordinates of Location	-7.63731 55.0981
River Basin District	GBNIIENW
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	
AER Returns Contact Email Address	
AER Returns Contact Position	
AER Returns Contact Telephone Number	
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	
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
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 ?	

4.1 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

* 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
55	1,1,1-trichloroethane	C	OTH	Landgem-v302	0.0	0.391	0.0	0.391
56	1,1,2,2-tetrachloroethane	C	OTH	Landgem-v302	0.0	1.127	0.0	1.127
34	1,2-dichloroethane (EDC)	C	OTH	Landgem-v302	0.0	0.2477	0.0	0.2477
62	Benzene	C	OTH	Landgem-v302	0.0	0.9062	0.0	0.9062
02	Carbon monoxide (CO)	C	OTH	Landgem-v302	0.0	23.94	0.0	23.94
35	Dichloromethane (DCM)	C	OTH	Landgem-v302	0.0	7.261	0.0	7.261
65	Ethyl benzene	C	OTH	Landgem-v302	0.0	2.982	0.0	2.982
73	Toluene	C	OTH	Landgem-v302	0.0	21.94	0.0	21.94
57	Trichloroethylene	C	OTH	Landgem-v302	0.0	2.247	0.0	2.247
60	Vinyl chloride	C	OTH	Landgem-v302	0.0	2.786	0.0	2.786
78	Xylenes	C	OTH	Landgem-v302	0.0	7.779	0.0	7.779
03	Carbon dioxide (CO2)	C	OTH	Landgem-v302	0.0	134400.0	0.0	134400.0
01	**Methane (CH4)**	C	OTH	Landgem-v302	0.0	48970.0	0.0	48970.0

* 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 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: Glenalla Landfill Site

Please enter summary data on the quantities of methane flared and / or utilised	**T (Total) kg/Year**	**M/C/E**	**Method Used**		**Facility Total Capacity m3 per hour**	
			Method Code	**Designation or Description**		
Total estimated methane generation (as per site model)	48970.0				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)	48970.0				N/A	

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 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
					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
79	**Chlorides (as Cl)**	M	CRM	DCC SOP	0.0	339.7	0.0	339.7

* 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
238	Ammonia (as N)	M	CRM	DCC SOP	0.0	239.97	0.0	239.97
303	BOD	M	CRM	DCC SOP	0.0	8.34	0.0	8.34
306	COD	M	CRM	DCC SOP	0.0	114.9	0.0	114.9
327	Nitrate (as N)	M	CRM	DCC SOP	0.0	0.101	0.0	0.101
387	Ortho-phosphate (as P)	M	CRM	DCC SOP	0.0	0.12125	0.0	0.12125

* 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					
Within the Country	**19 07 03**	**No**	3938.0	landfill leachate other than those mentioned in 19 07 02	D8	M	Weighed	Offsite in Ireland	Donegal County Council,D0009-01	Thorn rd,Magheranan ,Letterkenny WWTP,Letterkenny County Donegal,Ireland		

* 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