



Annual Environmental Report

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

By
Donegal County Council
For
Environmental Protection Agency

Reporting Period: January to December 2010

April 2011

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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 2010 to the 31st of December 2010.
- 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 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. 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)

Waste types	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total	550	1,565	5,722	10,093	0	0	0	34,474	0	0	0	0	0

4. SUMMARY REPORT OF EMISSIONS

4.1 Groundwater

4.1.1 Introduction

Groundwater is monitored at the locations shown on drg. no. 5234.30/04. GW1 is located upstream of the landfill and GW3 and GW2 are 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. 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.

Due to current national 'non-replacement of staff' policy currently in force, the scientific officer responsible for monitoring this site was off on maternity leave for the second half of the period and was not replaced. Consequently samples were not gathered during this period. This was communicated to the EPA but due to the lower amount of results compared with a normal period results from the first monitoring phase of the current period (2011) have also been reported in this AER to provide a better picture of emissions.

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 again indicate an impact on downstream groundwater from the landfill with levels similar 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. 5234.30/04. 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. 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 is now monitored for performance. Levels are similar this period to those recorded last period.

4.3 Leachate Composition

4.3.1 Leachate is monitored at one location at the facility, L1, as shown on Drawing No. 5234.30/04. 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. 5234.30/04. LG1, LG2, and LG3 are all located in waste. Both LG1 and LG3 were replaced during restoration works. Wells were not accessible towards the end of the reporting period due to growth of vegetation. Levels detected are consistent with those detected during the previous reporting 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. 5234.30/04. 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. The majority of the parameters are below the recommended limits.

5.1.2 Upstream groundwater shows levels in excess of the MAC for Iron & Nutrients.

5.1.3 Downstream, levels of Ammonia, Conductivity, COD, Chloride, Iron and Nutrient levels are slightly elevated.

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 with the agreement of the Agency. Locations are shown in Drg no. 5234.30/04. 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 and Nutrients.

5.2.3 Downstream, levels of Ammonia, COD Chloride and Nutrients 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.

PARAMETER	Glenalla Landfill Site		From 30 samples from UK/Irish landfills accepting domestic waste Results in mg/l		
	Min.Conc	Max.Conc	Min.Conc	Max.Conc	Mean
Ammonia (mg/N)	62	120	<0.2	1700	491
BOD	3.7	4.14	4.5	>4800	>834
COD	37	49	<10	33,700	3078
Chloride (mg/l)	132	169	27	3410	1256
Iron (mg/l)	n/a	n/a	0.4	664	54.4
Potassium (mg/l)	n/a	n/a	2.7	1480	491
TON (mg/l N)	<0.01	<0.01	/	/	/
Conductivity (mS/cm)	1553	2290	503	19,200	7789
pH	7.35	7.43	6.4	8	7.2

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	2008		2009		2010	
	Max	Min	Max	Min	Max	Min
Methane	63.2%	12.7%	54.2%	34.8%	74.5%	4.1%
Carbon Dioxide	31.4%	1.4%	13.2%	22.4%	46.8%	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 2010 was approximately 1983m³.
- 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 3716m³.

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 were 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.

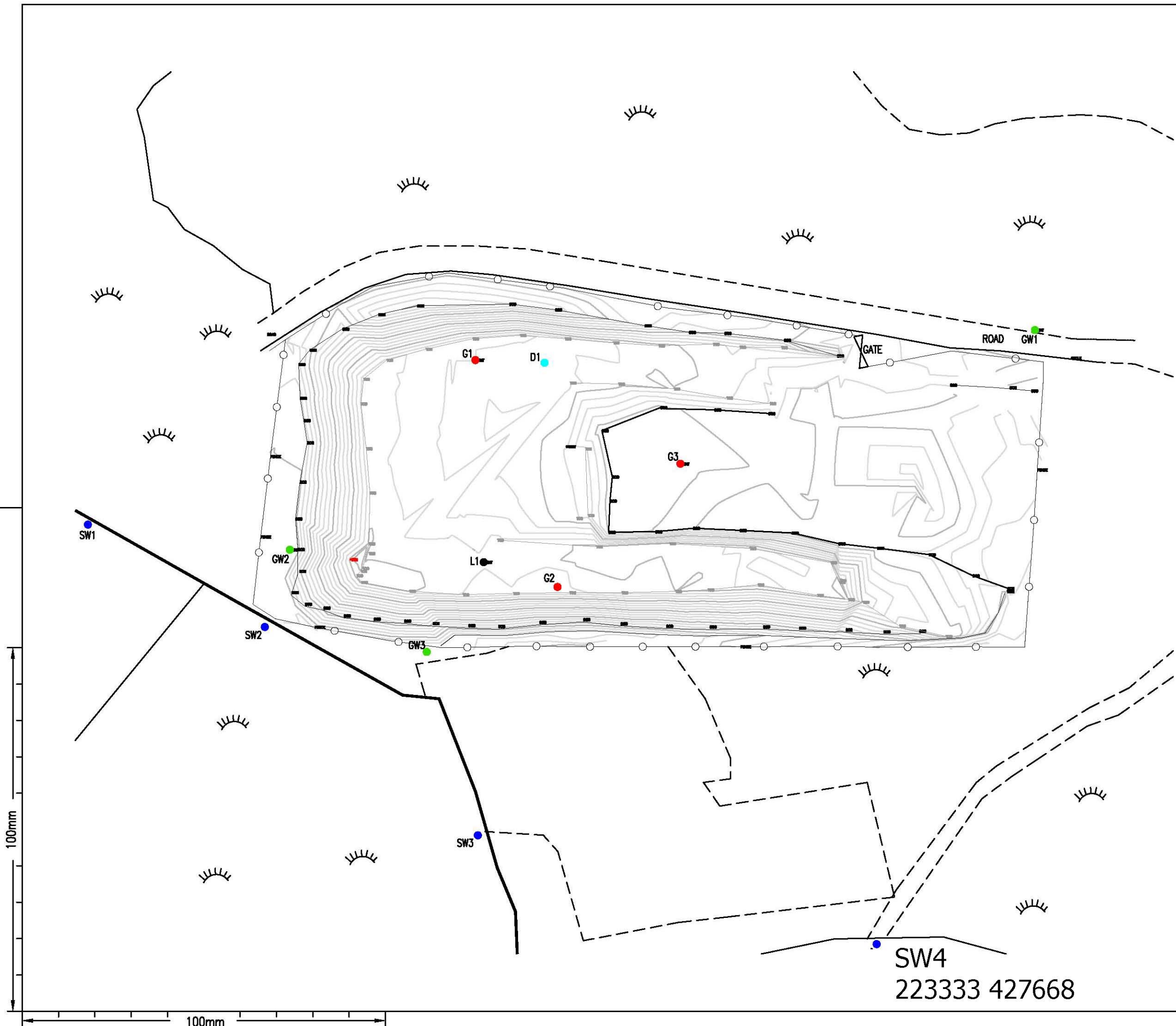
13. REPORT ON STAFF TRAINING

13.1 As the site is no longer operational, management is as per Section 10. The Scientific Officers 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 During the reporting period maintenance works were carried out to establish more permanent access to monitoring locations.



NOTES

- KEY**
- L1 ● LEACHATE MONITORING POINT
 - G1 ● GAS MONITORING POINT
 - SW1 ● SURFACE WATER MONITORING POINT
 - GW1 ● GROUNDWATER MONITORING POINT
 - D1 ● DUST MONITORING POINT

MONITORING TYPE	REF NO	GRID REFERENCE
GROUNDWATER	GW1	223321 427966
	GW2	223116 427905
	GW3	223153 427877
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
DUST	D1	223186 427957

GRID COORDINATES DETERMINED FROM SITE SURVEY

B	UPDATED GRID COORDINATES	JD AUG 05	AMcG AUG 05
A	UPDATED GRID COORDINATES	JD JULY 05	AMcG JULY 05

REV	DESCRIPTION	BY DATE	CHECK DATE
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DRAWN BY RS DATE JULY 03	CHECK BY KAD DATE JULY 03	APPROVED AB DATE JULY 03
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PLOT SCALE 1:1000	SCHEDULES	SHEET SIZE A3
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CLIENT
DONEGAL COUNTY COUNCIL

PROJECT
GLENALLA LANDFILL SITE

TITLE
MONITORING LOCATIONS

RPS Kirk McClure Morton
CONSULTING ENGINEERS

TEL: 074 916 1827 Email: info.kmm.eu.com FAX: 074 916 1828
THE ENTERPRISE FUND BUSINESS CENTRE BALLYRAINE LETTERKENNY CO DONEGAL

ARCHITECT	DWG. STATUS
DRAWING No. 5234.30/04	PRELIM. <input type="checkbox"/>
REVISION A B	TENDER <input type="checkbox"/>
	CONST. <input checked="" type="checkbox"/>
	RECORD <input type="checkbox"/>

SW4
223333 427668

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 surface water SW1													
Sample Type	Site No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
Date of Sample	Lab No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
pH		---	1464	---	---	---	3207	---	---	---	---	---	---	---	1700a
Electrical Conductivity	C	---	8.22	---	---	---	6.83	---	---	---	---	---	---	---	7.21
Ammonical Nitrogen	us/cm	---	6.5	---	---	---	19.3	---	---	---	---	---	---	---	13.60
GOD	mg/l	---	<0.05	---	---	---	124.8	---	---	---	---	---	---	---	99
BOD	mg/l	---	0.54	---	---	---	41	---	---	---	---	---	---	---	<0.05
SS	mg/l	---	13.63	---	---	---	28	---	---	---	---	---	---	---	42
Residue on Evaporator	mg/l	---	---	---	---	---	0.25	---	---	---	---	---	---	---	1.38
Calcium	ug/l	---	---	---	---	---	8.37	---	---	---	---	---	---	---	10.55
Cadmium	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	13.00
Chromium	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chloride	mg/l	---	---	---	---	---	24	---	---	---	---	---	---	---	18
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	---	---	---	---	---	0.23	---	---	---	---	---	---	---	---
Arsenic	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Barium	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Flouride	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Phenols	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Phosphorous	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Selenium	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Silver	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Microtox	Toxic Units	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Microtox	Toxic Units	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrite	mg/l	---	---	---	---	---	0.036	---	---	---	---	---	---	---	---
Nitrate	mg/l	---	---	---	---	---	0.945	---	---	---	---	---	---	---	---
Phosphate - ORTHO	mg/l	---	---	---	---	---	0.00	---	---	---	---	---	---	---	---
Phosphate - TOTAL	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Coliforms	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Facal Coliforms	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Depth	m	---	---	---	---	---	---	---	---	---	---	---	---	---	---

***no result/ not sampled
 --- not applicable

Location		Glenalla, Milford Co Donegal surface water SW2													
Sample Type	Site No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
Date of Sample	Lab No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
pH		---	1465	---	---	---	3208	---	---	---	---	---	---	---	1700b
Temp	C	---	7.67	---	---	---	7.29	---	---	---	---	---	---	---	7.31
Electrical Conductivity	uS/cm	---	7.10	---	---	---	19	---	---	---	---	---	---	---	13.10
Ammonical Nitrogen	mg/l	---	78	---	---	---	127.6	---	---	---	---	---	---	---	99
COD	mg/l	---	<0.05	---	---	---	0.02	---	---	---	---	---	---	---	<0.05
BOD	mg/l	---	1.05	---	---	---	0.23	---	---	---	---	---	---	---	27
Dissolved Oxygen	mg/l	---	13.39	---	---	---	8.72	---	---	---	---	---	---	---	1.09
SS	mg/l	---	---	---	---	---	20	---	---	---	---	---	---	---	10.60
Residue on Evaporator	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	13.0
Calcium	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cadmium	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chloride	mg/l	---	---	---	---	---	25	---	---	---	---	---	---	---	19
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	---	---	---	---	---	0.25	---	---	---	---	---	---	---	---
Arsenic	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Barium	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Flouride	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Phenols	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Phosphorous	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Selenium	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Silver	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Microtox	Toxic Units	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Microtox	Toxic Units	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrite	mg/l	---	---	---	---	---	0.020	---	---	---	---	---	---	---	---
Nitrate	mg/l	---	---	---	---	---	0.057	---	---	---	---	---	---	---	---
Phosphate - ORTHO	mg/l	---	---	---	---	---	0.006	---	---	---	---	---	---	---	---
Phosphate - TOTAL	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Coliforms	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Facal Coliforms	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Depth	m	---	---	---	---	---	---	---	---	---	---	---	---	---	---

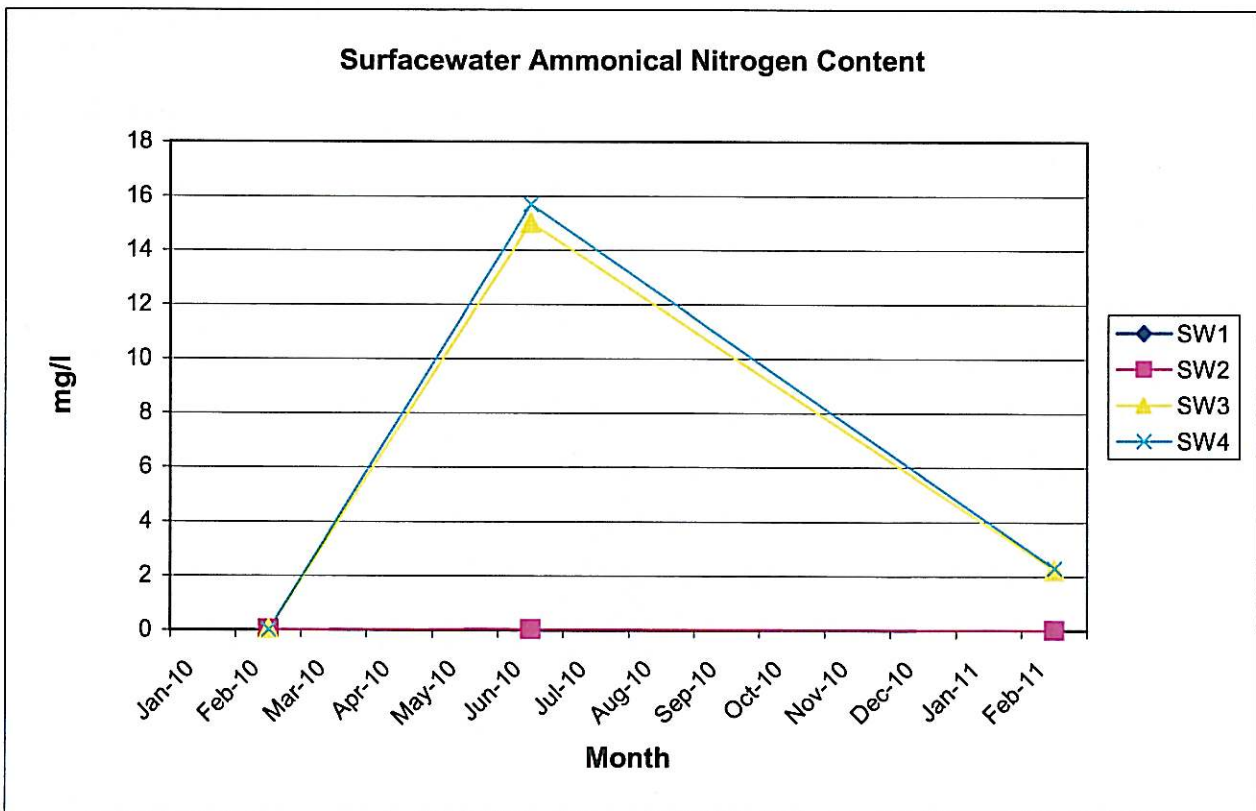
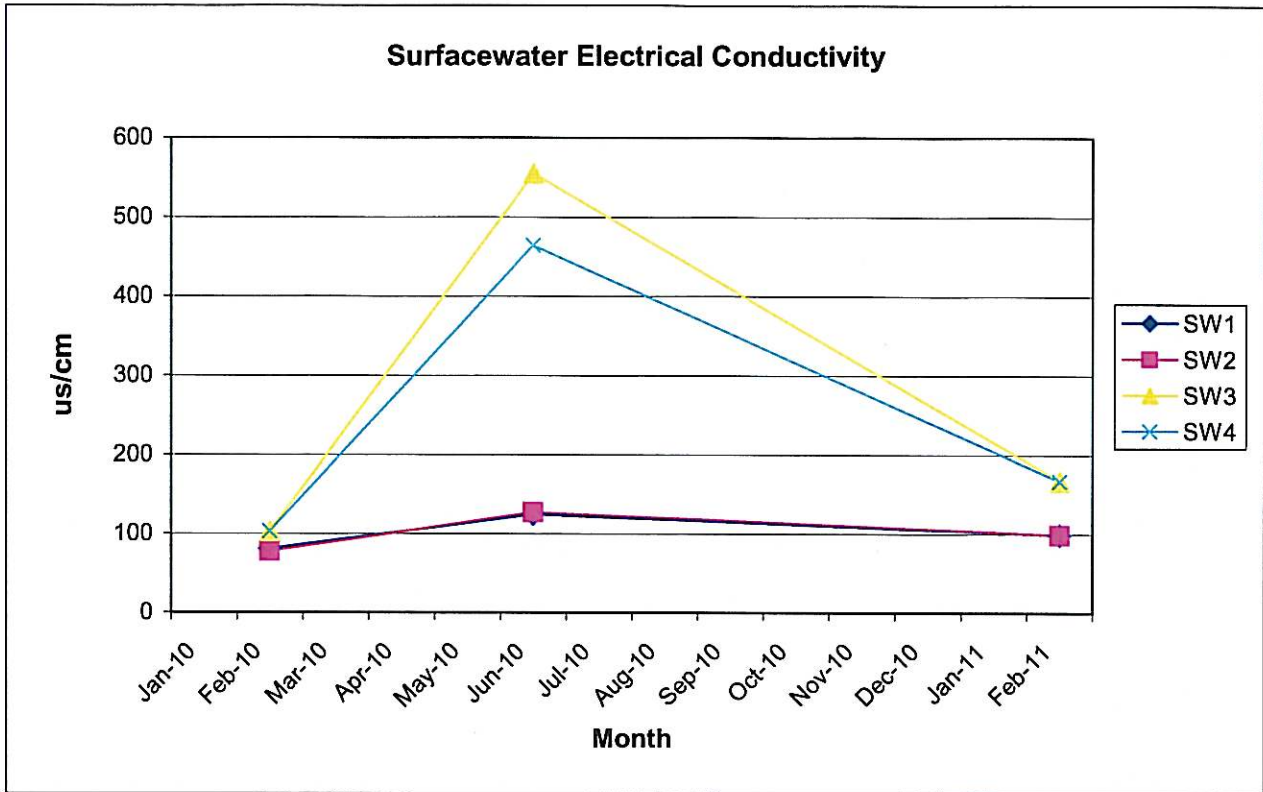
*** no result/ not sampled
 --- not applicable

Location		Glenalla, Milford Co Donegal surface water SW3													
Sample Type	Site No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
Date of Sample		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
Lab No			1466				3209								1701
pH			8.64				7.16								7.34
Temp	C		7.13				19.3								12.90
Electrical Conductivity	uS/cm		103				555								166.80
Ammonical Nitrogen	mg/l		1.464				15.01								2.23
COD	mg/l						42								33
BOD	mg/l		0.95				0.25								0.44
Dissolved Oxygen	mg/l		13.48				7.98								10.62
SS	mg/l						4								
Residue on Evaporator	mg/l														
Calcium	ug/l														
Cadmium	ug/l														
Chromium	ug/l														
Chloride	mg/l						43								29
Chlorine	mg/l														
Copper	ug/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						0.02								
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														
Microtox	Toxic Units														
Microtox	Toxic Units														
Nitrite	mg/l						0.262								<0.03
Nitrate	mg/l						<0.04								<0.04
Phosphate - ORTHO	mg/l						0.063								
Phosphate - TOTAL	mg/l														
Total Coliforms	mg/l														
Facel Coliforms	mg/l														
Depth	m														

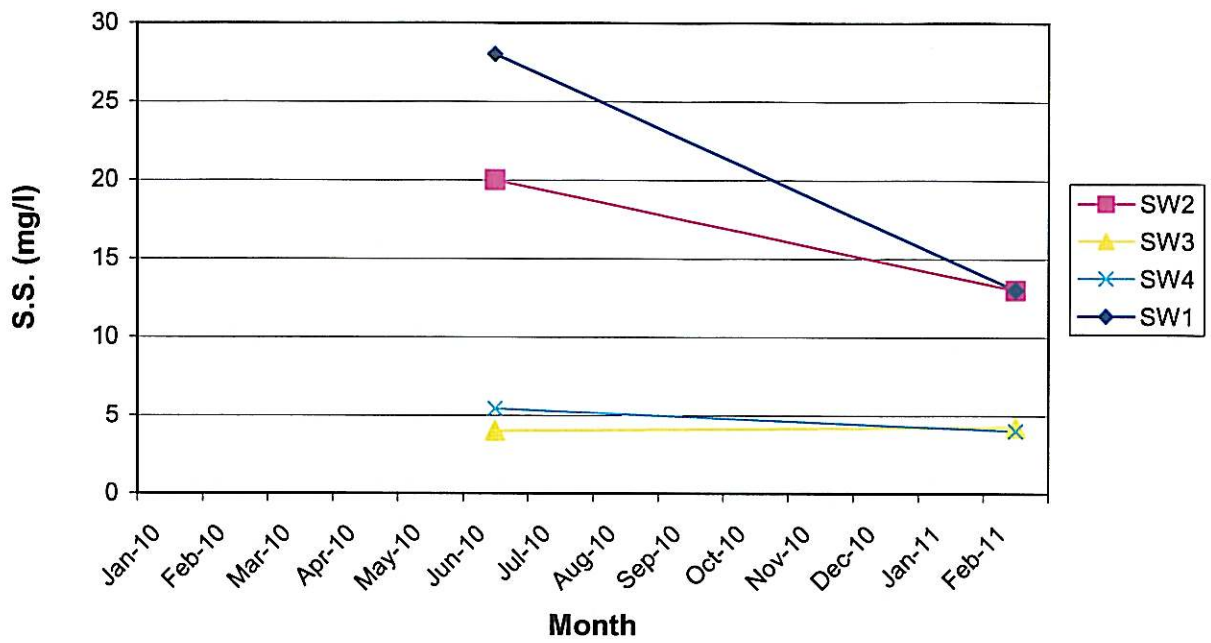
no result/ not sampled
 --- not applicable

Location		Glenalla, Milford Co Donegal surface water SW4													
Sample Type	Site No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
Date of Sample		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
Lab No			1467				3210								
pH			7.41				7.51								
Temp	C		7.24				19.8								
Electrical Conductivity	uS/cm		103				464								
Ammonical Nitrogen	mg/l		1.708				15.69								
GOD	mg/l						30								37
BOD	mg/l		0.95				0.23								0.83
Dissolved Oxygen	mg/l		13.07				8.24								10.52
SS	mg/l						5.4								4.00
Residue on Evaporator	mg/l														
Calcium	ug/l														
Cadmium	ug/l														
Chromium	ug/l														
Chloride	mg/l						39								32
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						0.23								
Arsenic	mg/l														
Barium	mg/l														
Boron	mg/l														
Flouride	mg/l														
Total Phenols	mg/l														
Phosphorous	mg/l														
Selenium	mg/l														
Silver	mg/l														
Microtox	Toxic Units														
Microtox	Toxic Units														
Nitrite	mg/l						0.260								<0.03
Nitrate	mg/l						0.6851								<0.04
Phosphate - ORTHO	mg/l						0.063								
Phosphate - TOTAL	mg/l														
Total Coliforms															
Faecal Coliforms															
Depth	m														

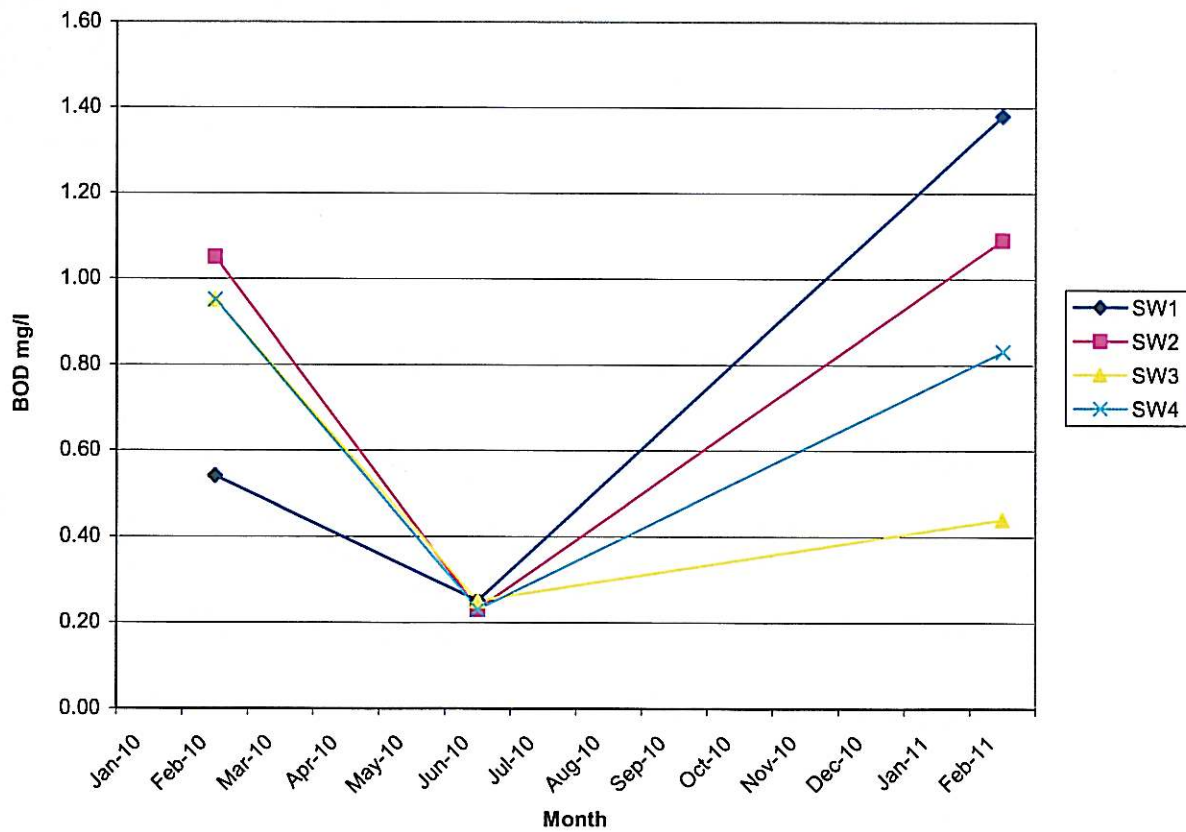
*** no result/ not sampled
 --- not applicable



Surfacewater Suspended Solids



Surfacewater B.O.D



Location		Glenalla, Milford Co Donegal groundwater GW1													
Sample Type Site No		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
Date of Sample	Lab No														
pH							3211								
Temp	C						6.89								6.88
Electrical Conductivity	uS/cm						15.9								13.30
Ammonical Nitrogen	mg/l						288								316.00
COD	mg/l						<0.05								0.03
BOD	mg/l						10								11
Dissolved Oxygen	mg/l						3.22								2.01
SS	mg/l														
Residue on Evaporator	mg/l														
Calcium	ug/l														
Cadmium	ug/l														
Chromium	ug/l														
Chloride	mg/l						28								28
Chlorine	mg/l														
Copper	ug/l														
Cyanide	mg/l														
Dissolved Iron	ug/l						1730								
Lead	ug/l														
Magnesium	ug/l														
Manganese	ug/l														
Mercury	ug/l														
Nickel	mg/l														
Potassium	mg/l						3.1								
Sodium	mg/l						15.6								
Sulphate	mg/l														
Zinc	ug/l														
Total Alkalinity as CaCO3	mg/l														
Total Organic Carbon	mg/l														
Total Oxidised Nitrogen	mg/l						<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														
Microtox	Toxic Units														
Microtox	Toxic Units														
Nitrite	mg/l														
Nitrate	mg/l						<0.03								<0.03
Phosphate - ORTHO	mg/l						<0.04								<0.04
Phosphate - TOTAL	mg/l						0.180								
Total Coliforms	mg/l														
Facal Coliforms	mg/l														
Depth	m						0.75								0.70

*** no result/ not sampled
 --- not applicable

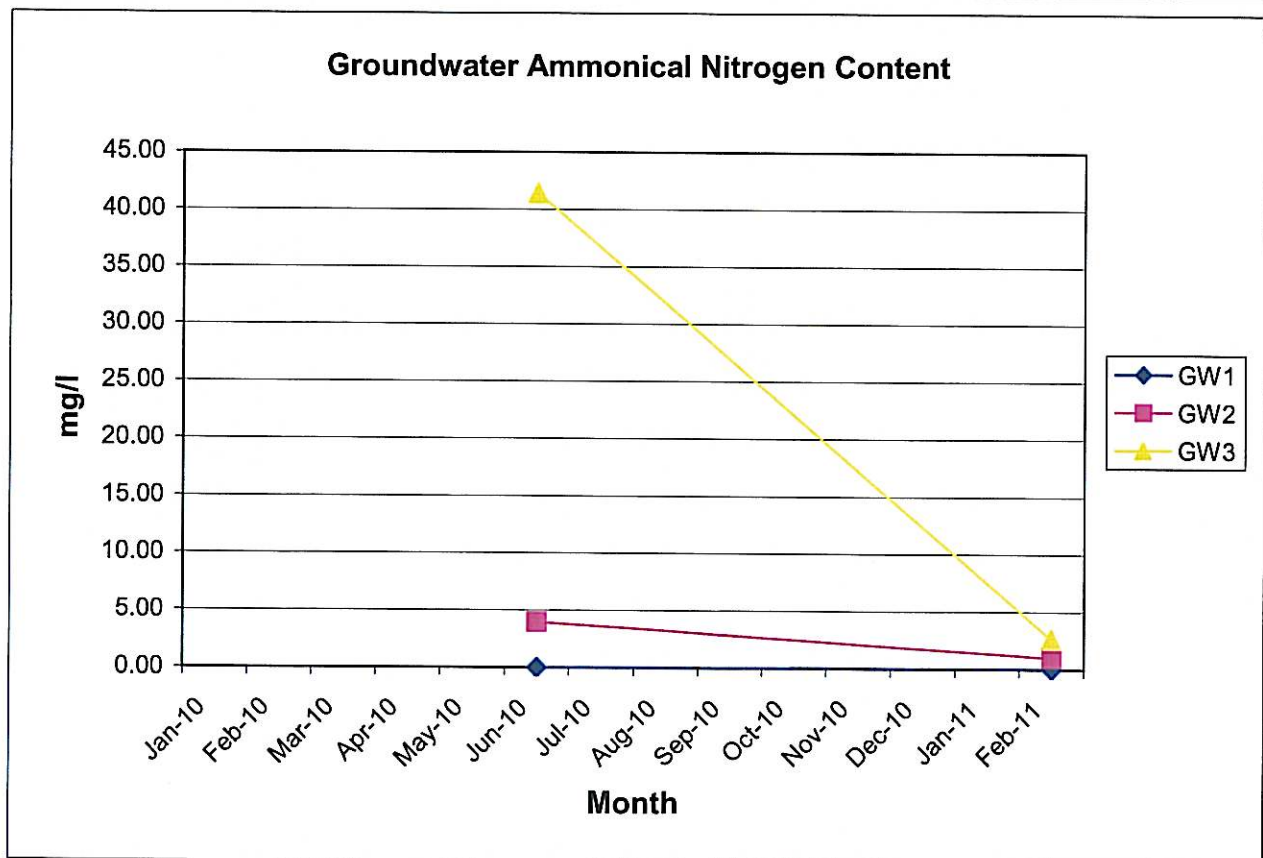
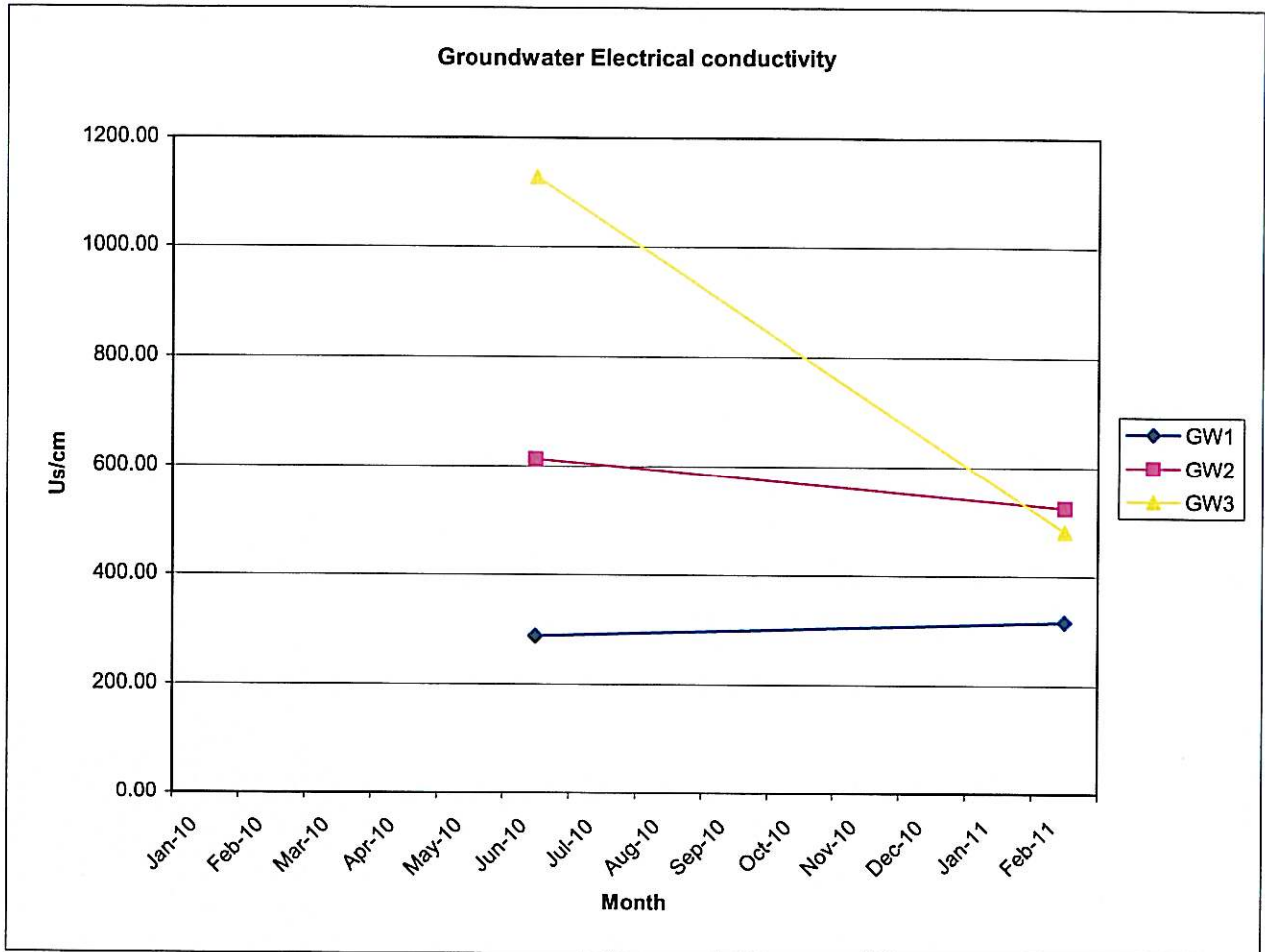
Location		Glenalla, Milford Co Donegal groundwater GW2													
Sample Type		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
Site No		---	---	---	---	---	---	---	---	---	---	---	---	---	---
Date of Sample		---	---	---	---	---	---	---	---	---	---	---	---	---	---
Lab No		---	---	---	---	---	---	---	---	---	---	---	---	---	---
pH		---	---	---	---	---	---	---	---	---	---	---	---	---	---
Temp	C	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Electrical Conductivity	uS/cm	---	---	---	---	---	3212	---	---	---	---	---	---	---	1741
Ammonical Nitrogen	mg/l	---	---	---	---	---	7.03	---	---	---	---	---	---	---	6.98
COD	mg/l	---	---	---	---	---	17.1	---	---	---	---	---	---	---	12.50
BOD	mg/l	---	---	---	---	---	613	---	---	---	---	---	---	---	1.02
Dissolved Oxygen	mg/l	---	---	---	---	---	3.95	---	---	---	---	---	---	---	17.00
SS	mg/l	---	---	---	---	---	14	---	---	---	---	---	---	---	17
Residue on Evaporator	mg/l	---	---	---	---	---	1.3	---	---	---	---	---	---	---	0.81
Calcium	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cadmium	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chloride	mg/l	---	---	---	---	---	39	---	---	---	---	---	---	---	---
Chlorine	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Copper	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cyanide	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dissolved Iron	ug/l	---	---	---	---	---	25260	---	---	---	---	---	---	---	---
Lead	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Magnesium	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mercury	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nickel	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	mg/l	---	---	---	---	---	5.2	---	---	---	---	---	---	---	---
Sodium	mg/l	---	---	---	---	---	25.8	---	---	---	---	---	---	---	---
Sulphate	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Zinc	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Alkalinity as CaCO3	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Organic Carbon	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Oxidised Nitrogen	mg/l	---	---	---	---	---	<0.01	---	---	---	---	---	---	---	---
Arsenic	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Barium	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Flouride	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Phenols	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Phosphorous	mg/l	---	---	---	---	---	0.023	---	---	---	---	---	---	---	---
Selenium	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Silver	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Microtox	Toxic Units	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Microtox	Toxic Units	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrite	mg/l	---	---	---	---	---	<0.03	---	---	---	---	---	---	---	<0.03
Nitrate	mg/l	---	---	---	---	---	<0.04	---	---	---	---	---	---	---	<0.04
Phosphate - ORTHO	mg/l	---	---	---	---	---	0.062	---	---	---	---	---	---	---	---
Phosphate - TOTAL	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Coliforms	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Facal Coliforms	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Depth	m	---	---	---	---	---	0.4	---	---	---	---	---	---	---	0.3

*** no result/ not sampled

--- not applicable

Location		Glenalla, Milford Co Donegal groundwater GW3													
Sample Type		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
Site No		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
Date of Sample	Lab No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
pH		---	---	---	---	---	3213	---	---	---	---	---	---	---	1742
Temp	C	---	---	---	---	---	6.66	---	---	---	---	---	---	---	6.64
Electrical Conductivity	uS/cm	---	---	---	---	---	17.2	---	---	---	---	---	---	---	11.90
Ammonical Nitrogen	mg/l	---	---	---	---	---	1127	---	---	---	---	---	---	---	482.00
GOD	mg/l	---	---	---	---	---	41.40	---	---	---	---	---	---	---	2.65
BOD	mg/l	---	---	---	---	---	39	---	---	---	---	---	---	---	46
Dissolved Oxygen	mg/l	---	---	---	---	---	1.52	---	---	---	---	---	---	---	2.11
SS	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Residue on Evaporator	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Calcium	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cadmium	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chromium	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chloride	mg/l	---	---	---	---	---	78	---	---	---	---	---	---	---	---
Chlorine	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	57
Copper	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cyanide	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dissolved Iron	ug/l	---	---	---	---	---	688	---	---	---	---	---	---	---	---
Lead	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Magnesium	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mercury	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nickel	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	mg/l	---	---	---	---	---	35.8	---	---	---	---	---	---	---	---
Sodium	mg/l	---	---	---	---	---	62.5	---	---	---	---	---	---	---	---
Sulphate	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Zinc	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Alkalinity as CaCO3	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Organic Carbon	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Oxidised Nitrogen	mg/l	---	---	---	---	---	<0.01	---	---	---	---	---	---	---	---
Arsenic	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Barium	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Flouride	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Phenols	mg/l	---	---	---	---	---	0.017	---	---	---	---	---	---	---	---
Phosphorous	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Selenium	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Silver	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Microtox	Toxic Units	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Microtox	Toxic Units	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrite	mg/l	---	---	---	---	---	0.262	---	---	---	---	---	---	---	<0.03
Nitrate	mg/l	---	---	---	---	---	<0.04	---	---	---	---	---	---	---	<0.04
Phosphate - ORTHO	mg/l	---	---	---	---	---	0.063	---	---	---	---	---	---	---	---
Phosphate - TOTAL	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Coliforms	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Facel Coliforms	mg/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Depth	m	---	---	---	---	---	0.3	---	---	---	---	---	---	---	0.25

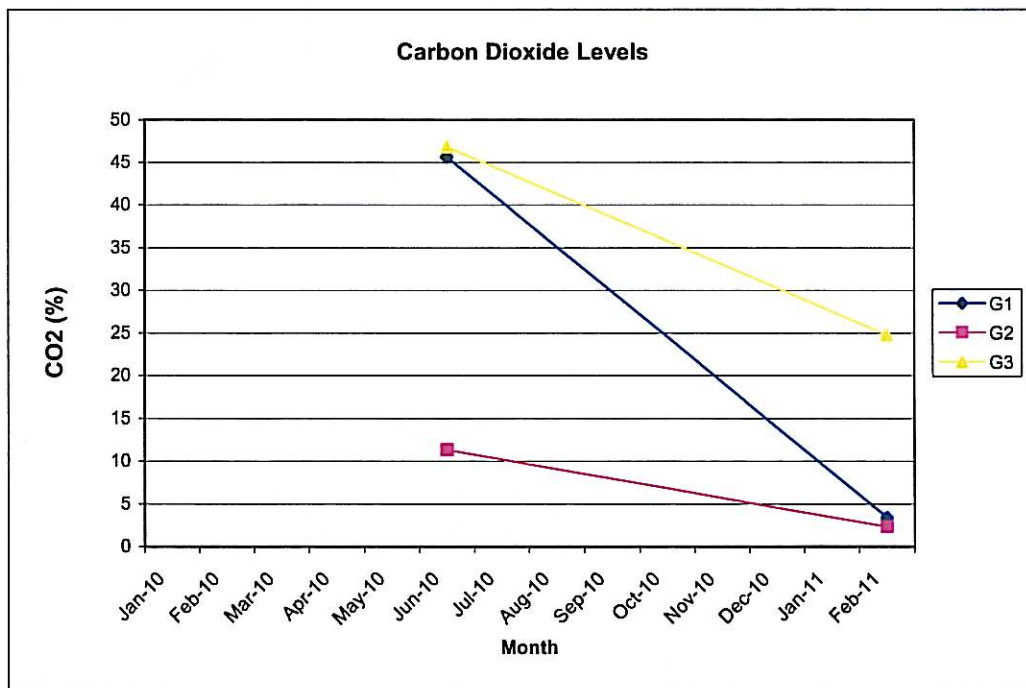
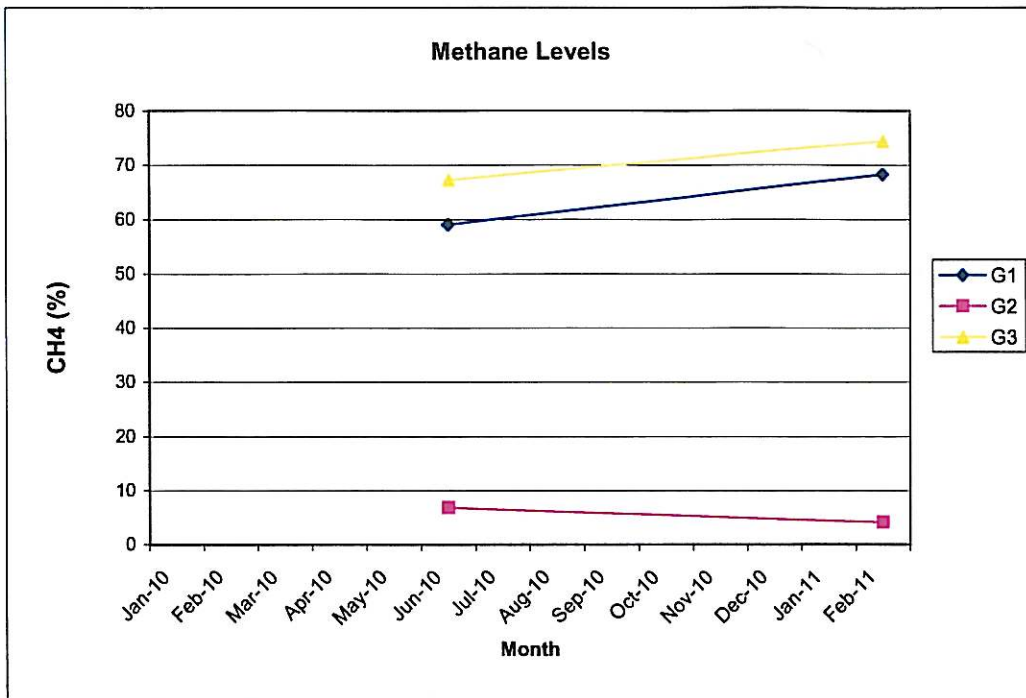
*** no result/ not sampled
 --- not applicable

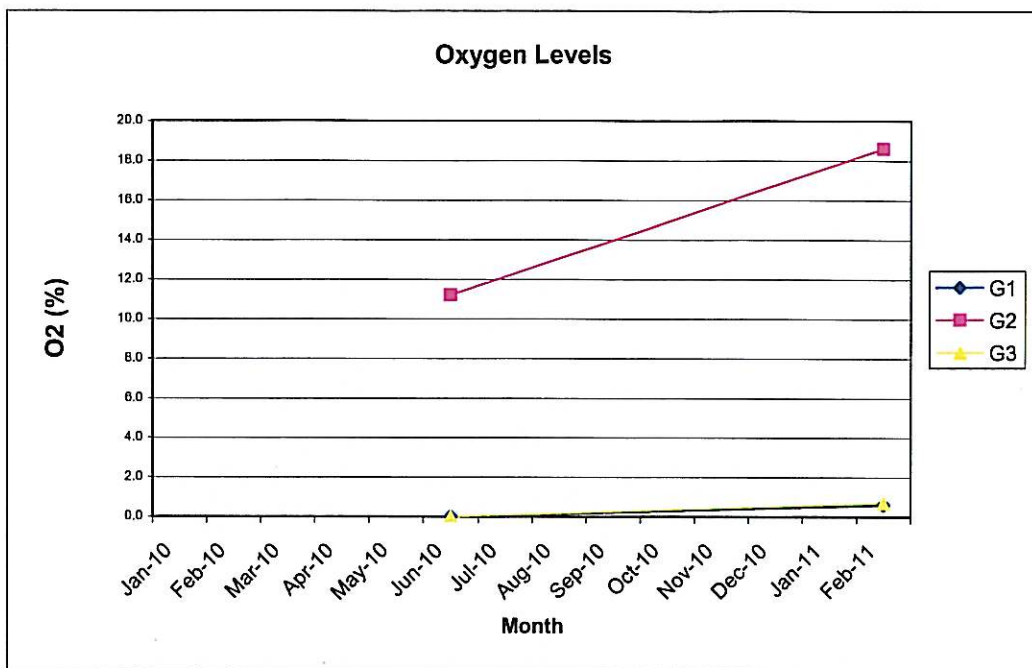


Location		Glenalla, Milford Co Donegal leachate L1													
Sample Type	Site No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
Date of Sample	Lab No	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
pH							3214								1743
Temp	C						7.43								7.35
Electrical Conductivity	uS/cm						17.30								13.40
Ammonical Nitrogen	mg/l						1553								2290.00
GOD	mg/l						62.00								120.00
BOD	mg/l						49								37
Dissolved Oxygen	mg/l						4.14								3.70
SS	mg/l						2.92								1.19
Residue on Evaporator	mg/l														
Calcium	ug/l														
Cadmium	ug/l														
Chromium	ug/l														
Chloride	mg/l						169								132
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								
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														
Microtox	Toxic Units														
Microtox	Toxic Units														
Nitrite	mg/l						0.260								<0.03
Nitrate	mg/l						<0.04								<0.04
Phosphate - ORTHO	mg/l						0.180								
Phosphate - TOTAL	mg/l														
Total Coliforms	mg/l														
Facal Coliforms	mg/l														
Depth	m						4.70								4.50

*** no result/ not sampled

--- not applicable





APPENDIX C
WATER BALANCE CALCULATION

GLENNALLA 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)
2010	Closed	967.5	0		20500	1983	1983	1983
Total		968						1983

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.	967.5	mm

APPENDIX D
E-PRTR Regulations
(AER Electronic Reporting System)

At the time of reporting the EPA's web-based database is not available to download. The Council awaits the availability of this system to allow the PRTR return to be made. When this occurs a hard copy of the return will be forwarded to the Agency under separate cover.

4.2 RELEASES TO WATERS

[Link to previous years emissions data](#)

[PRTR# : W0125 | Facility Name : Glenalla Landfill Site | Filename : W0125_2010.xls | Return Year : 2010]

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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

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

POLLUTANT		RELEASURES TO WATERS			Please enter all quantities in this section in KGs			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
79	Chlorides (as Cl)	M	15682:2001	DCC SOP	335.0	335.0	0.0	0.0
					0.0	0.0	0.0	0.0

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

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

POLLUTANT		RELEASURES TO WATERS			Please enter all quantities in this section in KGs			
Pollutant No.	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
238	Ammonia (as N)	M	CRM	DCC SOP	178.47	178.47	0.0	0.0
303	BOD	M	CRM	DCC SOP	7.77	7.77	0.0	0.0
306	COD	M	CRM	DCC SOP	85.27	85.27	0.0	0.0
327	Nitrate (as N)	M	CRM	DCC SOP	0.079	0.079	0.0	0.0
332	Ortho-phosphate (as PO4)	M	CRM	DCC SOP	0.36	0.36	0.0	0.0
					0.0	0.0	0.0	0.0
					0.0	0.0	0.0	0.0

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

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

| PRTR#: W0125 | Facility Name : Glenalla Landfill Site | Filename : W0125_2010.xls | Return Year : 2010 |

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SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

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

SECTION B : REMAINING PRTR POLLUTANTS

POLLUTANT		METHOD			Please enter all quantities in this section in KGs			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	QUANTITY	
			Method Code	Designation or Description			A (Accidental) KG/Year	F (Fugitive) KG/Year
62	Benzene	C	PER	Landgem v302	0.9432	0.9432	0.0	0.0
56	1,1,2,2-tetrachloroethane	C	PER	Landgem v302	1.17	1.17	0.0	0.0
34	1,2-dichloroethane (EDC)	C	PER	Landgem v302	0.2579	0.2579	0.0	0.0
35	Dichloromethane (DCM)	C	PER	Landgem v302	7.557	7.557	0.0	0.0
65	Ethyl benzene	C	PER	Landgem v302	3.1	3.1	0.0	0.0
73	Toluene	C	PER	Landgem v302	22.83	22.83	0.0	0.0
60	Vinyl chloride	C	PER	Landgem v302	2.9	2.9	0.0	0.0
78	Xylenes	C	PER	Landgem v302	8.096	8.096	0.0	0.0
57	Trichloroethylene	C	PER	Landgem v302	2.338	2.338	0.0	0.0
55	1,1,1-trichloroethane	C	PER	Landgem v302	0.407	0.407	0.0	0.0
03	Carbon dioxide (CO2)	C	PER	Landgem v302	139800.0	139800.0	0.0	0.0
02	Carbon monoxide (CO)	C	PER	Landgem v302	24.92	24.92	0.0	0.0
01	Methane (CH4)	C	PER	Landgem v302	50970.0	50970.0	0.0	0.0
07	Non-methane volatile organic compounds (NMVOC)	C	PER	Landgem v302	328.6	328.6	0.0	0.0
21	Mercury and compounds (as Hg)	C	PER	Landgem v302	0.000369	0.000369	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)

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

* 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: Please enter summary data on the quantities of methane flared and / or utilised	Glenalla Landfill Site				Facility Total Capacity m3 per hour
	T (Total) kg/Year	M/C/E	Method Used		
			Method Code	Designation or Description	
Total estimated methane generation (as per site model)	50970.0	C	PER	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)	50970.0	C	PER	Landgem v302	N/A



Environmental Protection Agency

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[Guidance to completing the PRTR workbook](#)

AER Returns Workbook

Version 1.1.12

REFERENCE YEAR	2010
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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	
Country	Ireland
Coordinates of Location	-7.63731 55.0981
River Basin District	GBNIENW
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Julie Mc Mahon (W0125)
AER Returns Contact Email Address	JULIE.MCMAHON@donegalcoco.ie
AER Returns Contact Position	
AER Returns Contact Telephone Number	074 9122787
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	074 9161304
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 ?	

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

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Please enter all quantities on this sheet in Tonnes

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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 : Address of Next Destination Facility	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)
						Haz Waste : Name and Licence/Permit No of Recover/Disposer			Non Haz Waste : Address of Recover/Disposer				
Within the Country	19 07 03	No	1983.0	landfill leachate other than those mentioned in 19 07 02	D8	M	Weighed	Onsite in Ireland	Donegal County Council WWTP,D0009-01		Letterkenny WWTP, Magheranan, Letterkenny, Co. 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](#)