

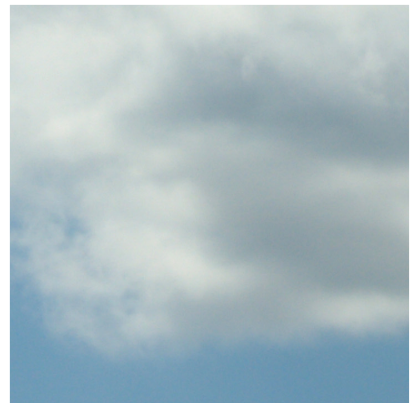
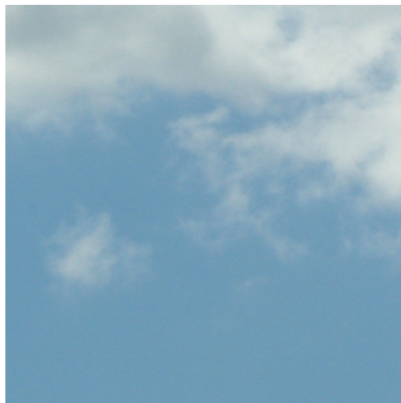
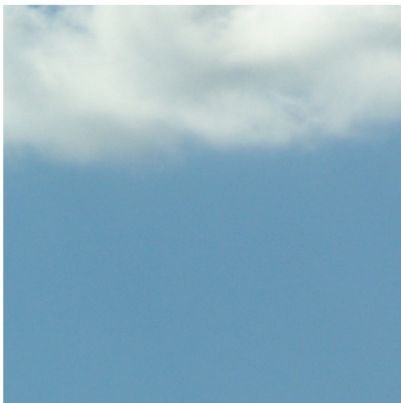
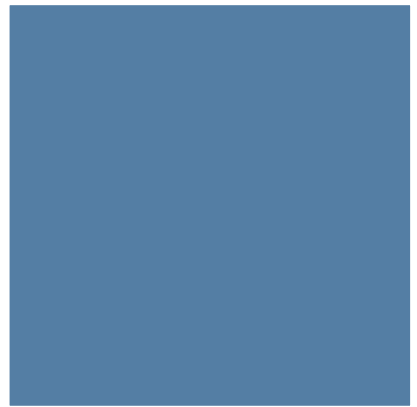
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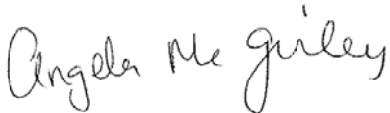

Ballynacarrick Landfill Site

IBR0859 / April 2017



Document Control Sheet

Client	Donegal County Council					
Project Title	Annual Environmental Report 2016					
Document Title	Ballynacarrick Landfill Site (W0024-04)					
Document No.	IBR0859					
This Document Comprises	DCS	TOC	Text	No. of Tables	No. of Figures	No. of Appendices
	1	1	37	11	1	7

Rev.	Status	Author(s)	Reviewed & Approved By	Issue Date
1.0	Final	 _____ Angela McGinley, Senior Scientist	 _____ Donal Doyle, Director	3 rd April 2017

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1 Introduction and Reporting Period

This Annual Environmental Report (AER) has been prepared to meet the requirements of Condition 11.11 of Waste Licence W0024-4 for Ballynacarrick Landfill and includes the information listed in Schedule G of the Waste Licence.

Ballynacarrick Landfill Site operated from c.1980 until closure in July 2012. In 2000 Donegal County Council submitted an application to the Environmental Protection Agency for the continued operation of the landfill site, as required by the Waste Management (Licensing) Regulations, 1997. On the 7th of December 2000 the Environmental Protection Agency granted the Council a Waste Licence (registration number 24-1) for the facility, in accordance with the Third Schedule of the Waste Management Act, 1996.

An application to review the Waste Licence (ref. W0024-1) for Ballynacarrick Landfill Site was made to the Agency in November 2003. This review of the licence was completed in December 2004 and a new licence (ref. W0024-2) granted for an extension to the Site. The new licence was granted on 10th December, 2004, and was active from this date. In December 2007 an application was made to the Agency to review Licence W0024-2 in order to regularise tonnage. A Preliminary Decision for Licence W0024-3 was issued on 26th September 2008 and a Final Decision on 27th November 2008. During 2009 the Agency instigated a further review of all waste licences in Ireland. A Preliminary Decision for W0024-4 was issued to Donegal County Council on 19th October 2009. A Final Decision was granted on 24th March 2010. The site closed on 31st July 2012 due to the capacity of the facility being exhausted.

The site is located at Ballynacarrick, Ballintra, Co Donegal and occupies an area of approximately 9 hectares. The facility, as shown on Drawing IBR0859/001, is located in a rural setting and surrounding land use is agricultural. The site lies approximately 3km southeast of Ballintra and 7 km south of Laghey. The site is located in a low-lying position in an area of marginal hill land and is bounded by chain link fencing and a 2.0m high security fence. This report covers the period from January to December 2016.

A summary of Facility Information is provided in Table 1.1 below.

Table 1.1 Facility Information Summary

AER Reporting Year	2016
Licence Register Number	W0024-04
Name of site	Ballynacarrick Landfill Site
Site Location	Ballintra, County Donegal
NACE Code	3821
Class/Classes of Activity	Landfill

2 Waste Activities Carried Out at the Facility

The licensed waste disposal activities, in accordance with the Third Schedule of the Waste Management Act, 1996 to 2008 were restricted to those listed as follows

- Class 5 - Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.
- Class 6 - Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10 of this Schedule.
- Class 13 - Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.

Licensed waste recovery activities, in accordance with the Fourth Schedule of the Waste Management Act, 1996 to 2008 were restricted to those listed as follows:

- Class 2 - Recycling or reclamation of organic substances, which are not used as solvents (including composting and other biological transformation processes).
- Class 3 - Recycling or reclamation of metals and metal compounds.
- Class 4 - Recycling or reclamation of other inorganic materials.
- Class 13 – Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.

The maximum tonnage of individual waste types for disposal is listed in Schedule A of the Waste Licence with a total tonnage of 35,000 tonnes per annum.

Access to site is controlled by the Site Manager. All persons availing of the site must report to the site office at the time of entering and leaving the landfill site. Access is restricted to those times when staff are on duty and out of operating hours the site is secured to prevent unauthorised entry.

3 Calculated Remaining Capacity of the Facility and the Year in which Final Capacity is Expected to be Reached

The site was filled to capacity on 31st July 2012. The site closed on this date.

4 Methods of Deposition of Waste

The landfill is now closed. The landfill was filled in accordance with a series of filling plans as referenced in previous AER's.

All waste loads were directed to the working face where the waste was infilled within a pre-designated area under the direction of the machine operator. The waste was inspected and, if acceptable for disposal, spread and compacted.

5 Report on Restoration of Completed Cells / Phases

Final restoration works were completed in October 2013.

6 Emissions from the Facility (including results summary and interpretation of environmental monitoring)

Monitoring is carried out at locations and at frequencies as specified in Schedule C of the waste licence, as set out in Tables A2, A3, A4 and A5 of Appendix G. Permanent access to all monitoring points is maintained. The results contained in this report were screened using the following criteria;

- SI No 9 of 2010 European Communities Environmental Objectives (Groundwater) Regulations (GTV),
- EPA Interim guideline values¹ (IGV),
- SI No 278 of 2007 EC (Drinking water) Regulations (DWR),
- SI No 294 of 1989 European Communities (Quality of Surface Water Intended for the Abstraction of Drinking Water) Regulations (SWQS),and
- SI No 272 of 2009 European Communities Environmental Objectives (Surface Water) Regulations 2009 (EQS).

Monitoring locations referred to are shown on Drawing IBR0859/002.

6.1 Air Emissions

There is no continuous air emission monitoring at Ballynacarrick landfill site.

In accordance with The PRTR Regulations releases of pollutants and off site transfers of waste by facilities operating in relevant industrial sectors are to be reported by the EPA to the European E-PRTR website where the facility exceeds specified thresholds. The PRTR reporting and landfill gas survey has been completed for Ballynacarrick Landfill Site and submitted to the EPA. The PRTR is including in Appendix B.

6.2 Emissions To Groundwater And Surface Water

Cells 1 to 3 of the site are unlined. These cells were excavated through the peat to surface of the underlying glacial till. Waste was discharged directly onto the upper surface of the glacial till. There are no direct emissions to groundwater.

¹EPA (2003) Towards setting guideline values for the protection of groundwater in Ireland. Interim Report

A Water Balance Calculation (WBC) has been completed for Ballynacarrick landfill site and is presented in Appendix C. This estimates that 18,440 m³ of leachate would have been generated on this site given the recorded rainfall. This is further discussed in Section 9.

Prior to April 2010 the outfall from the groundwater drainage layer beneath Phases 1 and 2 discharged directly to the surface water course at the north western corner of the site. This is now collected in storage tank and is diverted to a leachate treatment system.

6.3 Emissions to Waste Water Treatment Works

There is no continuous wastewater (sewer) emissions monitoring at Ballynacarrick landfill site. Periodic/non-continuous monitoring is carried out on treated leachate. Treated leachate from the landfill site is collected and tankered to the Letterkenny Waste Water Treatment Works (WWTW). This is further discussed in Section 9.

6.4 Groundwater

Groundwater is monitored at nine locations on a quarterly basis. The direction of groundwater flow is in a southwesterly direction in the eastern part of the landfill (*i.e.* underlying the unlined cells and Cell 4) and in a northwesterly direction underlying Phases 1 and 2². GW1, GW7 and GW8 are located up-gradient of the landfill. The direction of groundwater flow is presented in Figure 6 in Appendix A.

Other wells (GW2, GW4, GW5, GW6, GW9 & GW10) are located around the perimeter of the landfill. Wells GW4 and GW5 are on the western boundary which is the down-gradient end of the facility. Those wells which surround the historic unlined waste body on the eastern side of the facility are proximate to unlined waste. Five of these perimeter wells were installed at the request of the Agency in September 2009 (GW6, GW7, GW8, GW9 and GW10 respectively).

The groundwater results contained in this report were assessed against the following:

- SI No 9 of 2010 European Communities Environmental Objectives (Groundwater) Regulations (GTV) and;
- EPA Interim Guideline Values (IGV)³.

² 2015 Ballynacarrick Landfill Hydrogeological Risk Assessment W0024-04

³ Environmental Protection Agency Interim Guideline Values for Groundwater as presented in EPA interim report "Towards Setting Guideline Values for the Protection of Groundwater in Ireland" 2002.

These are highlighted in Table 6.1 below. Laboratory certificates and results provided in graph format are presented in Appendix D.

6.4.1 Up gradient

The GTV guideline value for ammonium is 0.175 mg/l N. Elevated concentrations of ammonia (as N) were recorded in GW1 in all sampling dates ranging from 0.611 to 1.43 mg/l N. Elevated concentrations of ammonia (as N) were also recorded in GW7 in all sampling dates except May ranging from 0.121 to 7.31 mg/l N. These upgradient ammonia (as N) levels are in excess of the screening value applied to Donegal County Council (0.175 mg/l N) for reporting environmental incidents.

Elevated concentrations of Chloride above the IGV of 30 mg/l were recorded in upgradient borehole GW7 in February and October ranging between 18.86 and 34.74 mg/l. These concentrations were within the GTV threshold range of 24-187.5 mg/l.

No exceedances of the appropriate GTV and IGV values up gradient of the site have been recorded for the remaining parameters measured throughout the monitoring period except for Iron at times and Ortho-phosphate in GW1.

A hydrogeological risk assessment was undertaken in 2015 and submitted to the EPA. The report found that the high background ammonia (as N) levels are considered likely to be attributable to peatland conditions in the general area given the up gradient location of the well and its general peatland environs. The high organic content of peatlands is frequently associated with elevated levels of Ammonia as the peat degrades over time.

6.4.2 Down gradient

Parameters monitored quarterly in the down gradient boreholes are presented in Table 6.1 below and the results are provided in graph format in Appendix D. Analysis for metals and List I / II substances was undertaken in 2016.

Elevated concentrations of ammonia (as N) relative to the GTV value of 0.175 mg/l N were found in all downgradient boreholes throughout the monitoring period except for GW5 and GW6 in February and GW4 and GW6 in August. Concentrations down gradient ranged from 0.0419 to 17.1 mg/l N. The highest ammonia (as N) concentrations were recorded at the perimeter of the site in GW2 throughout the monitoring period ranging from 13.5 to 17.1 mg/l. Ammonia (as N) concentrations in GW2 decreased throughout 2016 until October when it slightly increased to 15.80 mg/l.

Chloride concentrations exceeded the IGV of 30 mg/l at times in all down gradient boreholes except GW10. Concentrations ranged from 1.99 to 75.44 mg/l.

Iron concentrations exceeded the IGV of 0.2 mg/l in all downgradient boreholes at times except GW5. Concentrations ranged from 0.043 to 22.65 mg/l.

As per up gradient boreholes no exceedances of the appropriate GTV and IGV values have been recorded for the remaining parameters measured throughout the monitoring period except for orthro-phosphate in GW2 and GW5.

The 2015 hydrogeological risk assessment found that three plumes have been interpreted across the site in the vicinity of GW5, GW10 and GW2. The area of impact in the vicinity of GW2 and GW5 is considered to be minor relative to the groundwater body catchment area. A low permeability cap has been placed over the landfill which will limit the continued excess generation of leachate into groundwater. A volume of leachate approximately equivalent or in excess of the whole WBC leachate estimation figure is pumped, stored and tankered to a WWTW each year.

There are no known direct impacts to down gradient groundwater-related receptors i.e. Durnesh Lake SAC, the downgradient regionally important aquifer or downgradient groundwater users.

A series of proposed mitigation measures and additional investigation have been proposed to address the data gaps at the site, to facilitate a more detailed understanding of the hydrogeological regime and to assess the risk posed to downgradient receptors.

Plans for all actions identified in the hydrogeological risk assessment across all 6 sites are being developed. The overall plan is being finalised at present and will be issued to the Agency when complete.

6.4.3 Annual

Annual parameters were monitored in groundwater boreholes GW1, GW2, GW4-7 and GW10 on 30th May and 2nd June 2016. Results were below the relative guideline values for all parameters except:

- Chromium exceeded the GTV of 37.5 ug/l and IGV of 0.03 mg/l at GW4, GW5 and GW 6 (ranged from <3 to 90.5 ug/l);

- Manganese exceeded the IGV of 0.05 mg/l at GW2, GW4, GW7 and GW10 (ranged from 7.5 to 1,600 ug/l); and
- Potassium exceeded the IGV of 5 mg/l at GW2 (13 mg/l).

Results were less than the laboratory levels of detection for the methodology used for annual parameters (acid herbicides, pesticides, total phenols SVOCs, total cyanide and VOCs) analysed except for Total Petroleum Hydrocarbons >C6-C40 at GW10 (75 ug/l) which exceeded the IGV of 0.01 mg/l. This was within chain length TPH >C20 - C40 (MO) which are heavier end hydrocarbons such as diesels, lubricating oils, greases, waxes and hydraulic oils. These results are included in Appendix D.

Table 6.1 Groundwater Results 2016

Station	Sample Date	Ammonia (as N)	Chloride	Conductivity	Depth	Iron	Nitrate (as N)	Nitrite (as N)	Ortho-phosphate	pH	Temperature	Total Oxidised Nitrogen
		mg/l	mg/l	µS/cm @ 20°C	m	mg/l	mg/l	mg/l	mg/l	pH units	Degrees C	mg/l
GW 1	16-Feb	0.611	16.87	462	3.14	0.374				6.7	9.6	0.15
GW 2	16-Feb	17.1	40.7	752	1.75	22.65				6.8	10.3	0.12
GW 4	16-Feb	10.2	43.67	598	4.75	0.277				7.5	10.9	< 0.11
GW 5	16-Feb	0.095	45.66	536	1.25	0.124				7.3	10.9	< 0.11
GW 6	16-Feb	0.057	75.44	489	6.53	4.95				7.4	11.2	0.11
GW 7	16-Feb	3.4	33.75	658	3.85	7.35				7.4	11.6	< 0.11
GW 10	16-Feb	0.838	24.82	487	1.85	0.487				6.6	11.6	< 0.11
GW 1	25-May	1.06	18.86	382	3.51	0.381	0.273	0.035	0.042	6.9	15.7	0.308
GW 2	25-May	14.2	39.7	622	1.82	12.33	0.577	0.034	< 0.01	6.8	14.8	0.611
GW 4	26-May	2.14	39.7	556	4.73	0.941	0.1066	0.0234	< 0.01	7.5	12.1	0.19
GW 5	26-May	1.71	60.55	476	1.55	0.043	0.824	0.02	0.052	7.4	13.6	0.844
GW 6	25-May	1.56	40.7	428	5.01	1.253	0.081	0.02	0.018	7.1	15.1	0.101
GW 7	26-May	0.121	18.86	628	3.85	4.14	< 0.1	< 0.01	< 0.01	6.7	11.1	0.103
GW 10	25-May	1.12	25.81	375	1.96	7.14	0.05	0.023	0.02	6.6	14.9	0.073
GW 1	30-Aug	1.06	15.88	457	3.3	0.077	0.16085	< 0.01	< 0.01	6.8	16.4	0.16
GW 2	30-Aug	13.5	35.73	755	2.46	4.58	0.227	0.015	0.036	6.9	17	0.242
GW 4	30-Aug	0.0526	12.9	739	4.82	0.083	0.11204	< 0.01	< 0.01	7.5	15.3	0.117
GW 5	30-Aug	0.664	46.65	827	1.83	0.167	< 0.1	< 0.01	0.064	7.3	16.1	< 0.11
GW6	30-Aug	0.0419	22.83	690	5.9	0.244	< 0.1	< 0.01	< 0.01	6.9	14.3	< 0.1
GW 7	30-Aug	0.401	26.8	772	3.92	1.448	< 0.1	< 0.01	< 0.01	6.6	15.5	< 0.11
GW 10	30-Aug	1.92	21.84	481	2.14	4.108	< 0.1	0.012	0.012	6.6	15.1	< 0.1
GW 1	25-Oct	1.43	9.93	412 *	2.66	**	0.175	0.018	0.023	6.9 *	11.4	0.198

Station	Sample Date	Ammonia (as N)	Chloride	Conductivity	Depth	Iron	Nitrate (as N)	Nitrite (as N)	Ortho-phosphate	pH	Temperature	Total Oxidised Nitrogen
		mg/l	mg/l	µS/cm @ 20°C	m	mg/l	mg/l	mg/l	mg/l	pH units	Degrees C	mg/l
GW 2	25-Oct	15.8	4.96	639 *	2.22	**	0.159	0.026	0.024	6.7 *	11.9	0.175
GW 4	25-Oct	0.453	1.99	672 *	3.7	**	< 0.1	< 0.01	0.016	7.4 *	11.9	< 0.1
GW 5	25-Oct	0.509	44.67	767 *	1.68	**	< 0.1	< 0.01	< 0.01	7.2 *	11.7	< 0.1
GW 6	25-Oct	6.3	29.78	567 *	4.66	**	< 0.1	< 0.01	0.011	7 *	11.8	< 0.1
GW 7	25-Oct	7.31	34.74	715 *	3.49	**	< 0.1	< 0.01	0.022	6.5 *	11.9	< 0.1
GW 10	25-Oct	0.965	12.9	383 *	2.32		< 0.1	0.01	< 0.01	6.6 *	12	< 0.11

* Indicative results **Results not available

6.5 Surface Water

Surface water is monitored at four locations, one upstream and three downstream:

- SW2 - At the inlet to the surface water culvert that drains from the peat bog to the east of the site (upstream);
- SW1 - The surface water lagoon part way along the surface water culvert along the southern site boundary (downstream);
- SW3 - The discharge from the surface water culvert at the north western corner of the site (downstream); and,
- SW4 - The watercourse downstream of the culvert discharge (downstream).

The surface water results contained in this report were assessed against the following:

- SI No 294 of 1989 European Communities (Quality of Surface Water Intended for the Abstraction of Drinking Water) Regulations (SWQS); and
- SI No 272 of 2009 European Communities Environmental Objectives (Surface Water) Regulations 2009 (EQS).

These are highlighted in Table 6.2. Laboratory certificates and results provided in graph format are presented in Appendix D.

6.5.1 Upstream

The EQS guideline value for good status total ammonia is 0.140 mg N/l. Elevated concentrations of ammonia (as N) relative to the EQS value were recorded during 3 of the 4 monitoring dates at SW2. Concentrations ranged from <0.04 to 3.32 mg/l N. Concentrations of BOD above the EQS value for good status (2.6 mg/l) were recorded in May and August. BOD concentrations ranged from <1 to 10.1 mg/l.

COD concentrations ranged from 42 to 88 mg/l during 2016, above the SWQS of 40 mg/l. Suspended solid concentrations were above the SWQS of 50 mg/l in May.

6.5.2 Downstream

Elevated concentrations of ammonia (as N) relative to the EQS value for good status total ammonia (0.140 mg N/l) were recorded on all monitoring dates except SW3 in February and

May. Concentrations ranged from <0.04 to 8.42 mg/l N. Concentrations of BOD above the EQS value for good status (2.6 mg/l) were recorded in surface water monitoring points SW1 and SW3 at times and SW4 for all monitoring dates with concentrations ranging from 0 to 54.5 mg/l.

COD concentrations ranged from 15 to 71 mg/l during 2016, above the SWQS of 40 mg/l for the majority of the monitoring dates.

It should be noted that baseline ammonia (as N), BOD and COD concentrations recorded at upstream monitoring point SW2 exceeded the relative EQS and SWQS at times throughout the monitoring period.

The hydrogeological risk assessment (2015) found that the surface water culvert along the southern site boundary has historically been impacted by leachate at a point in between the surface water lagoon and the culvert discharge. This is to be investigated as part of a package of works arising from the Hydrogeological risk assessment.

6.5.3 Annual

Annual monitoring at SW1 to SW4 was undertaken on 2nd June 2016. Results were below the relative guideline values for all parameters except:

- Iron exceeded the SWQS of 0.2 mg/l at all monitoring points (ranged from 210 to 650 ug/l); and
- Manganese exceeded the SWQS of 0.05 mg/l at SW1 (150 ug/l) and SW2 (180 ug/l).

Results were less than the laboratory levels of detection for the methodology used for annual parameters (acid herbicides, pesticides, total phenols SVOCs, total cyanide and VOCs) analysed except for Total Petroleum Hydrocarbons >C6-C40 at SW1 (85 ug/l) which exceeded the SWQS of 0.01 mg/l. This was within chain length TPH >C20 - C40 (MO) which are heavier end hydrocarbons such as diesels, lubricating oils, greases, waxes and hydraulic oils. These results are included in Appendix D.

Table 6.2 Surface Water Results 2016

Station	Sample Date	Ammonia (as N)	BOD	Chloride	COD	Conductivity	Dissolved Oxygen	pH	Temperature	Suspended Solids	Ortho-phosphate	Nitrate (as N)	Nitrite (as N)
		mg/l	mg/l	mg/l	mg/l	µS/cm @ 20°C	mg/l	pH units	Degrees C	mg/l	mg/l	mg/l	mg/l
SW 1	16-Feb	0.471	0	36.73	15	234	9.24	7.8	9.5	6			
SW 2	16-Feb	3.32	2	35.73	43	143.9	8.69	6.7	9.2	34			
SW 3	16-Feb	< 0.04	0	37.72	61	355	9.04	8	9.3	6			
SW 4	16-Feb	8.42	8	56.58	18	367	9.07	7.7	9.5	6			
SW 1	25-May	0.602	54.5	22.22	41	166.2	8.51	7.5	15.2	7.5	0.0359	0.3509	0.0511
SW 2	25-May	2.12	10.1	36.73	42	99.3	8.45	6.4	16.3	165	0.043	< 0.1	0.027
SW 3	26-May	0.0594	< 1	32.76	19	412	8.64	7.8	12.7	12.5	< 0.01	0.9333	0.0337
SW 4	26-May	1.73	10.14	40.7	23	392	8.65	7.9	13.2	28.5	< 0.01	0.719	0.03
SW 1	30-Aug	1.07	2	14.89	71	179.2	8.9	7.4	15.9	16	< 0.01	0.5448	0.0442
SW 2	30-Aug	< 0.04	3	11.91	88	134	5.62	6.7	15.7	9	< 0.01	< 0.1	< 0.01
SW 3	30-Aug	1	7	62.53	46	489	8.95	7.8	15.6	< 6	< 0.01	1.0314	0.0786
SW 4	30-Aug	0.789	3	19.85	44	442	8.9	7.8	16.6	9	0.01	0.327	0.104
SW 1	25-Oct	0.565	1	0.99	56 *	153 *	9.22	7.2 *	12.1 *	< 6	0.022	0.364	0.036
SW 2	25-Oct	1.77	< 1	11.91	47 *	114.7 *	7.46	6.5 *	11.5	14 *	0.036	< 0.1	0.014
SW 3	25-Oct	2.72	9	14.89	26 *	385 *	9.23	7.7 *	10.4	< 6 *	0.017	0.379	0.02
SW 4	25-Oct	3.55	9	22.83	34 *	440 *	9.14	7.8 *	11	< 6 *	< 0.01	0.484	0.047

* Indicative results

6.6 Leachate Quality

Leachate results for 2016 are presented in Appendix D and some of the characteristic parameters of the raw leachate are listed in Table 6.3 below.

Leachate samples are taken at Pump 5 near to the southern boundary (L1), from the leachate storage tank (L6) and from the groundwater chamber on the western boundary (L8). The lowest raw leachate concentrations were recorded at L8.

Table 6.3 Leachate Results 2016

Station	Date	Ammonia (as N)	BOD	Chloride	COD	Conductivity	pH	Temperature	TON	Ortho-phosphate	Nitrate	Nitrite
		mg/l	mg/l	mg/l	mg/l	µS/c m	pH unit	°C	mg/l	mg/l	mg/l	mg/l
L6	16-Feb	127	13	144.92	93	1996	7.3	9.6	23.1			
L1	16-Feb	142	3	148.89	109	2800	6.7	11.5	0.19			
L8	16-Feb	0.7	0	44.67	19	805	7.3	10.4	2.606			
L6	25-May	25.4	< 1	159.81	79	1488	7.3	16.7	56.6	0.126	56.46	0.14
L1	25-May	120	< 1	137.97	90	2132	6.7	16.5	0.078	0.033	0.057	0.021
L8	26-May	6.57	< 1	66.5	24	866	7.7	14.6	3.27	0.018	3.428	0.202
L6	30-Aug	1.61	81	211.42	72	1674	7.8	19.3	16.1	0.35	16.04	0.06
L1	30-Aug	144	5	2.98	128	3.09	6.7	15.3	0.25	0.045	0.2	0.05
L8	30-Aug	7.27	3	53.6	37	1050	7.3	18.1	0.995	< 0.01	0.899	0.096
L6	25-Oct	45.4	6	268	92	2002 *	7.3*	12	62	< 0.01	61.08	0.92
L1	25-Oct	118	1	138.96	107	2290 0*	6.6*	12.2	< 0.11	< 0.01	< 0.1	0.03
L8	25-Oct	5.28	6	39.7	29	868	7.3	12.3	4.34	0.013	3.614	0.726

* Indicative results

6.7 Gas Emissions

6.7.1 Gas Management Infrastructure

Gas emissions are managed by means of a gas collection network and a permanent flare that runs continuously. Gas is extracted across the site from an extensive network of wells and delivered to the flare. In addition there are four locations at which gas levels are monitored within the waste (at LG2, LG4, LG5 & LG6) and 10 perimeter monitoring wells (Labels LG8 to LG17) which determine whether gas is migrating off site or not. There is also a gas cut-off trench located along the north-eastern boundary near to the entrance gate.

A 500 m³/hr flare has been installed at the facility. Field balancing is undertaken at the facility as required. The average flow rate from the flare in 2016 was approximately 260 m³/hr with an average methane concentration of 31% v/v. The total hours run was 8,712.

6.7.2 Gas Wells in Waste

Gas levels within the waste body (all in the unlined part of the site) are monitored at locations LG2, LG4, LG5 & LG6 as shown on Drawing IBR0859/002. The ranges of levels % v/v detected during the period are summarised in Table 6.4.

Table 6.4 Summary of Gas Levels in Waste (% v/v)

Parameter	2012		2013		2014		2015		2016	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Methane	36.2	87.1	60.1	77.9	39.9	61.2	29.2	58.9	50.3	63.5
Carbon Dioxide	12.9	36.6	20.2	36.6	21.3	26.9	20.3	33.1	17.5	35.6

6.7.3 Perimeter Gas Wells

Perimeter gas wells were installed during 2005. Nine wells were initially installed labelled LG8 – LG16 inclusive. A well was also installed at a later stage just outside the site boundary at LG17. All of these locations are shown on Drawing IBR0859/002 Monitoring Locations. Results from these wells detected over the period are summarised in Table 6.5.

Carbon Dioxide levels exceeded the 1.5% v/v trigger level at a number of boreholes during the monitoring period (ranging 1.7 to 4.6 % v/v).

The trigger level for Methane is 1.0% v/v. Methane levels remained consistent at zero throughout the monitoring period in the perimeter wells.

The flare at the site runs continuously to control landfill gas produced at the site. No methane was detected in the perimeter gas wells which show that the flare is containing the gas and preventing gas migration outside the site boundary. Field balancing is undertaken at the facility as required.

Table 6.5 Summary of Gas Levels in Perimeter Gas Wells (% v/v)

Parameter	2014		2015		2016	
	Min	Max	Min	Max	Min	Max
Methane	0	4.1	0	4.1	0	0
Carbon Dioxide	0	8.6	0	8.6	0	4.6

6.8 Dust Monitoring

As the facility is now non-operational the dust monitoring programme is in abeyance until such time as site activity warrants its re-establishment.

7 Estimated Annual Quantity of Landfill Gas Emitted from the Facility

The gas yield figures provided in Appendix E were calculated using GasSim Model 2.0. As can be seen from the data landfill gas production is calculated to be approximately 340 m³/hr in 2016.

8 Volume of Leachate Produced and Volume of Leachate Transported / Discharged Off-Site

The WBC (Appendix C) estimates that 18,440 m³ of leachate would have been generated on this site given the recorded rainfall. As shown in Table 8.1 37,664.5 m³ of leachate was pumped, stored and tankered off-site to Letterkenny Sludge Treatment Centre which greatly exceeds the estimated volume of leachate in the WBC.

The completion of the cap has reduced both the amount of leachate generated and tankered from the lined areas. Contaminated groundwater from the groundwater drainage blanket underlying Phases 1 and 2 cells is currently diverted to the on site leachate treatment plant.

As shown in the Leachate Management Report February 2017 approximately 41% of total leachate production on the site arises from the groundwater chamber. This level of containment of leachate is not sustainable going forward and was not the original intention of the function of the chamber.

Table 8.1 Leachate Quantities Removed from Site during 2016

Month	Quantity of Leachate (m ³)
January	3,709.26
February	4,132.70
March	3,290.80
April	2,652.62
May	2,761.60
June	2,380.22
July	2,837.96
August	3,197.00
September	3,163.34
October	2,371.10
November	4,271.26
December	2,896.64
Total (m³)	37,664.50

9 Annual Water Balance Calculation and Interpretation

The annual WBC is contained in Appendix C and discussed in the previous section.

10 Waste Management Record

In accordance with Condition 5 of the Waste Licence only those wastes types and quantities listed in Schedule A shall be recovered or disposed of at the facility unless prior agreement of the Agency has been obtained. The maximum annual tonnage of individual waste categories for acceptance to the site is listed in Schedule A of the Waste Licence. The quantities of waste received at the facility between 1997 and 2012 are presented in Table 10.1. The site closed at the end of July 2012 as it had been filled to capacity. No waste has been received at the site since this time.

Table 10.1 Waste Quantities Accepted (tonnes)

Year	1997	1998	1999	2000	2001	2002	2003	2004
Total	23,000	24,000	25,000	9,100	8,300	17,189	16,872	37,746
Year	2005	2006	2007	2008	2009	2010	2011	2012
Total	36,141	32,908	35,143	30,332	24,535	23,7614	16,170	20,190

19,047 m³ of inert soil was imported in 2013 for restoration works.

⁴ Excludes 28,342 tonnes of repatriated waste imported from Northern Ireland under agreement of DEHLG and EPA.

11 Waste Recovery Report

There was no waste recovery carried out on the site in the reporting period.

12 Topographical Survey

A site survey was completed in October 2013 following restoration and submitted to the Agency.

13 Slope Stability Survey

A slope stability survey was submitted to the Agency in May 2013.

14 Resource Consumption Summary

The consumption of electricity and fuel for the period is summarised as follows:

Table 14.1 Consumption of Resources

	Unit	Landfill 2014	Landfill 2015	Landfill 2016
Diesel	Litres	760	4,010	3,940
Electricity	kwhrs	238,200	289,349	236,300

15 Complaints Summary

There were no complaints received during the reporting period.

16 Schedule of Environmental Objectives and Targets

Programme for 2017 is outlined in Table 16.1 below.

Table 16.1 Environmental Objective and Targets

Environmental Objectives and Targets
<p>Objective 1:</p> <p>Maintenance of infrastructure to contain leachate and gas emissions whilst optimising the sustainability of the emissions management systems.</p>
<p>Reason:</p> <p>To comply with the conditions of the waste licence. To continue the containment of leachate and gas emissions by means of collection and treatment whilst minimising leachate generation and the need for haulage to a remote treatment facility with its associated secondary environmental impacts and costs.</p>
<p>Individual Targets:</p> <p>(a) Continue monitoring and maintenance programmes; (b) Optimise LFG management through the introduction of engine to produce electricity subject to publication of revised tariffs. (c) Investigate scope for bio-remediation solutions.</p>
<p>Timescales for individual targets:</p> <p>1. Year end 2017. 2. Year end 2017. 3. Year end 2017.</p>
<p>Personnel Responsible for implementation of targets</p> <p>Executive Environmental Officer</p>
<p>Estimated cost and funding available to implements objectives</p> <p>No capital costs associated with the objectives. Ongoing costs associated with operations circa €500k. Budget reduction cost efficiency sought.</p>
<p>Payback from Project</p> <p>Maintain containment of leachate and gas emissions whilst minimising secondary environmental impacts and financial cost associated with leachate haulage and remote treatment</p>

17 Environmental Management Programme - Report for Current Year

Programme for 2017 outlined in Table 16.1.

18 Pollutant Release Transfer Register - Report for Previous Year

Not applicable.

19 Pollutant Release Transfer Register - Proposal for Current Year

Not applicable.

20 Noise Monitoring Summary Report

As the site is now non-operational the noise levels on the site are no longer being monitored. Should any activity be initiated that would have noise associated with it then the programme will be re-instated as appropriate.

21 Meteorological Data Summary

Meteorological data is contained in Appendix C.

22 Ambient Monitoring Summary, including Biological Assessment

All results of the ambient monitoring are contained in Appendix D and these results have been summarised and discussed in Section 6 of this report.

A biological assessment of surface water was carried out in November 2016. This report is provided in Appendix F. Two samples were obtained upstream and downstream at each monitoring location (SW3 and SW4). Please refer to the report in the appendices for sampling locations.

A Q Value of Q3 has been assigned to surface water upstream of the landfill site. WFD classification upstream remains 'poor'. A Q Value of Q3 has also been assigned to surface water downstream of the landfill site. This represents a slight degradation in water quality downstream at the site from WFD classification 'moderate' to 'poor'.

23 Current Monitoring Location Reference Drawing

Drawing IBR0859/002 shows the layout of all monitoring locations for the site.

24 Tank, Pipeline and Bund Inspection

Refurbishment of the Glass Lined Steel Water Tank at Ballinacarrick landfill site was undertaken by Irish Industrial Tanks Ltd in 2015. The warranty on the tank is effective from 25th December 2015 for a period of 3 years.

25 Reported Incidents Summary

Other than the reporting of on-going emissions exceedances detected in the routine monitoring programme (12 in total), no other incidents occurred during the monitoring period and no complaints were received.

DCC currently reports all Ammonia exceedances when compared to relevant regulations/guidance values at any groundwater or surface water monitoring point as incidents for all licensed landfill sites in Donegal via EDEN to the EPA. Results are currently screened using the following regulations/guidance.

- SI No 9 of 2010 European Communities Environmental Objectives (Groundwater) Regulations (GTV),
- SI No 272 of 2009 European Communities Environmental Objectives (Surface Water) Regulations 2009 (EQS).

Revised screening levels for incident reporting based on a combination of compliance points derived from the hydrogeological review, or standards as appropriate to each site and location have been submitted to the EPA for approval.

A site visit was undertaken by the EPA on the 11/05/2016. Samples were taken from GW1, GW2, GW3, GW10, SW3 and SW4 for analysis.

Six observations and no non compliances were reported on 10/10/2016 during a site inspection by the EPA. The following corrective actions were noted:

- Fire prevention plan should be updated to reflect the closed status of the facility;
- Leachate collection and removal should be optimised at the leachate extraction wells at the facility;
- Licensee should examine the options for future leachate treatment at the facility and decide on an option that has long term sustainability for the management of leachate. Submit a report on the progress to date on the willow trial at the facility; and
- Licensee should review emergency response procedures to reflect the closed state of the facility.

26 Energy Efficiency Implementation Programme

An Energy Audit Report was produced for the Council in 2007 and submitted to the Agency at that time. It concluded that there was limited scope for energy reduction on the site but that consideration should be given to:

- Harnessing energy from the flare in terms of energy generation and connection to the national grid;
- Improving metering and control systems;
- Changing electricity supplier.

27 Energy Review Audit Report Summary

The tender process for the installation of a landfill gas engine at the site has been completed. The council are currently waiting the signing of the landfill gas agreement at which time the tender can be awarded and power purchase agreement sought from the ESB. This is dependent on the introduction of a new Renewable Electricity Support Scheme. The White Paper on Energy policy published in December 2015 includes a commitment to introduce a new Renewable Electricity Support Scheme. The Partnership Government has committed to comprehensively review price supports for renewable energy following the closure of the REFIT 2 scheme which are the principal means of supporting renewable electricity generators for renewable energy exported to the grid. The level of tariffs is still under consideration.

The control systems on the site have been continuously developed and upgraded since the time of the Energy Audit Report. Since 2011 additional meters have been added to the leachate control infrastructure on a continual basis to allow for improved management of that system.

A new supervisory control and data acquisition (SCADA) for the leachate treatment and landfill gas extraction system has been installed at the site.

The Council has changed its electricity supply on a number of occasions.

28 Development Infrastructure Works Summary (Completed Previous Year of Prepared for Current Year)

The landfill site is closed and has been restored. No significant works planned as facility non-operational, on-going maintenance requirements will be met.

29 Report on Management and Staffing Structure of the Installation / Facility

Management Structure at Ballynacarrick Landfill site is as follows. This is the present status and maybe subject to change at a later stage.

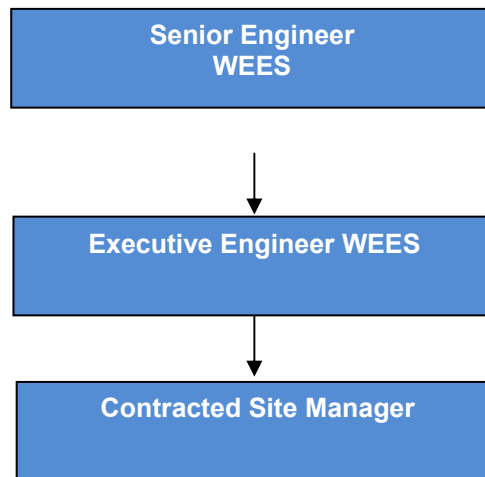


Figure 29.1 Management Structure

Responsibility is as follows:

- **Senior Engineer:** Overall responsibility for the management of the landfill activity and the implementation of the waste licence.
- **Executive Engineer:** Responsible for the ongoing management of the facility as directed by the Senior Engineer
- **Site Manager:** Responsible for the day to day management of the landfill as per licence requirements and as directed by Senior Executive Engineer or Senior Engineer.

30 Report on Programme for Public Information

A public information programme is in place in accordance with Condition 2 of the Waste Licence to ensure that information regarding the environmental performance is available from Council Headquarters in Lifford at all reasonable times. Details of this are contained in the Environmental Management System Manual.

31 Report on Financial Provision made under this Licence

Donegal County Council is a Local Authority and is committed to provide for the proper management, development and restoration of Ballynacarrick Landfill Site.

32 Statement on Costs of Landfill

Ballynacarrick Landfill AER 2016	
Statement of Account	
Expenditure	
Operational Expenses	€559,713.01
Loan Repayments	N/A
Landfill Levy Paid	€0
Income	
Landfill Charges Accrued (incl VAT)	-€000,000
Balance	N/A

33 Review of Environmental Liabilities

Efforts are made on a continuous basis to contain leachate and gas emissions by means of extraction systems and treatment of pollutants to protect the local environment. In terms of leachate containment, the number of locations from which leachate is pumped has been increased along with the capacity to convey and store leachate. Gas continues to be collected and flared.

The Council does not specifically underwrite environmental risks but as a Local Authority is committed to provide for the proper environmental management of the site.

34 Any Amendments to CRAMP

The CRAMP for Ballynacarrick Landfill Site was submitted to the Agency for approval in April 2010. There have been no amendments to the Plan since this time.

35 Detailed Statement, with Mass Balance, of Construction and Demolition Wastes and Compost Used in Construction

No such wastes are used in construction at this site.

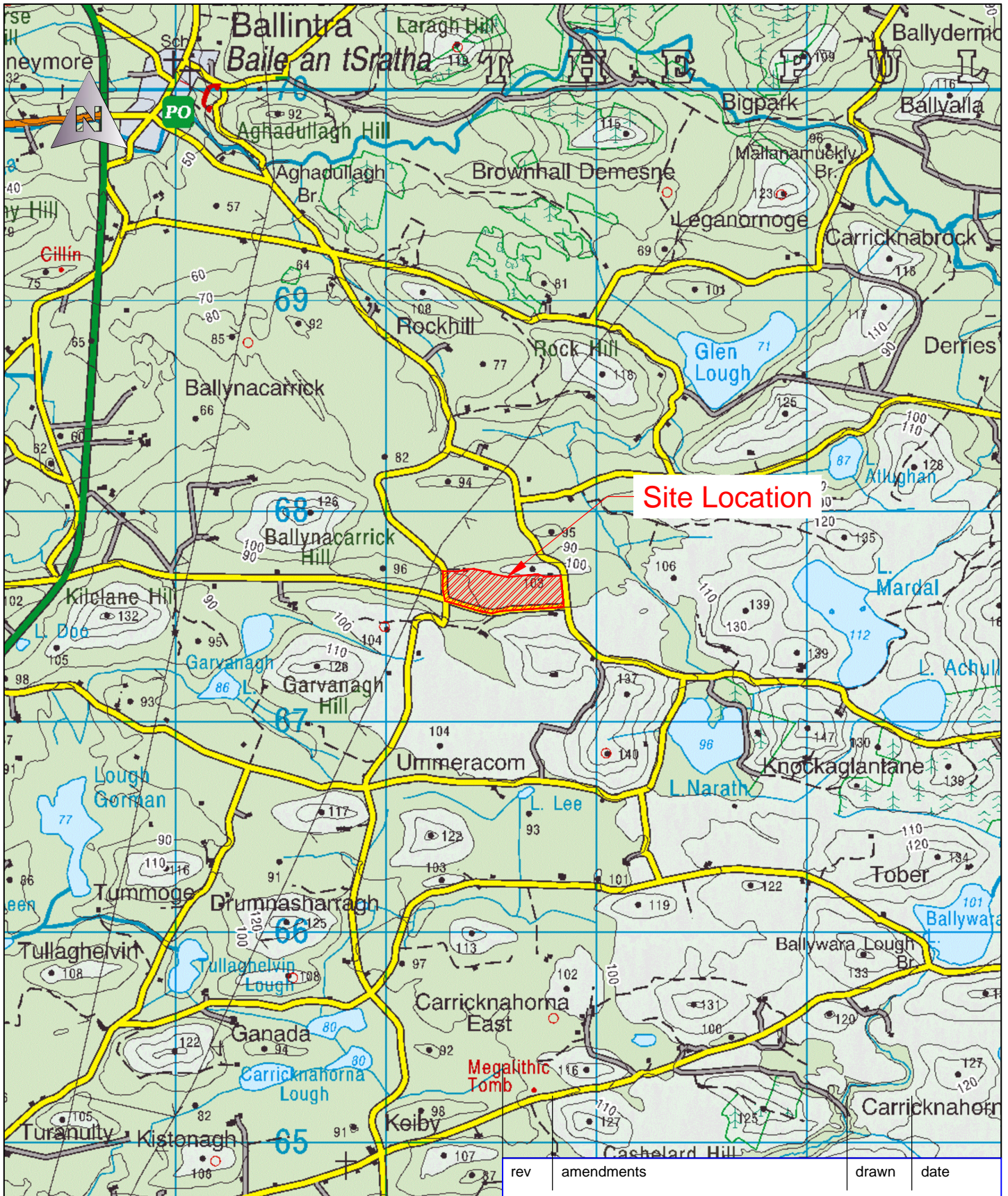
36 Statement of Compliance of Facility with any Updates of the Relevant Waste Management Plan

None applicable.


37 Statement on the Achievement of the Waste Acceptance and Treatment Obligations

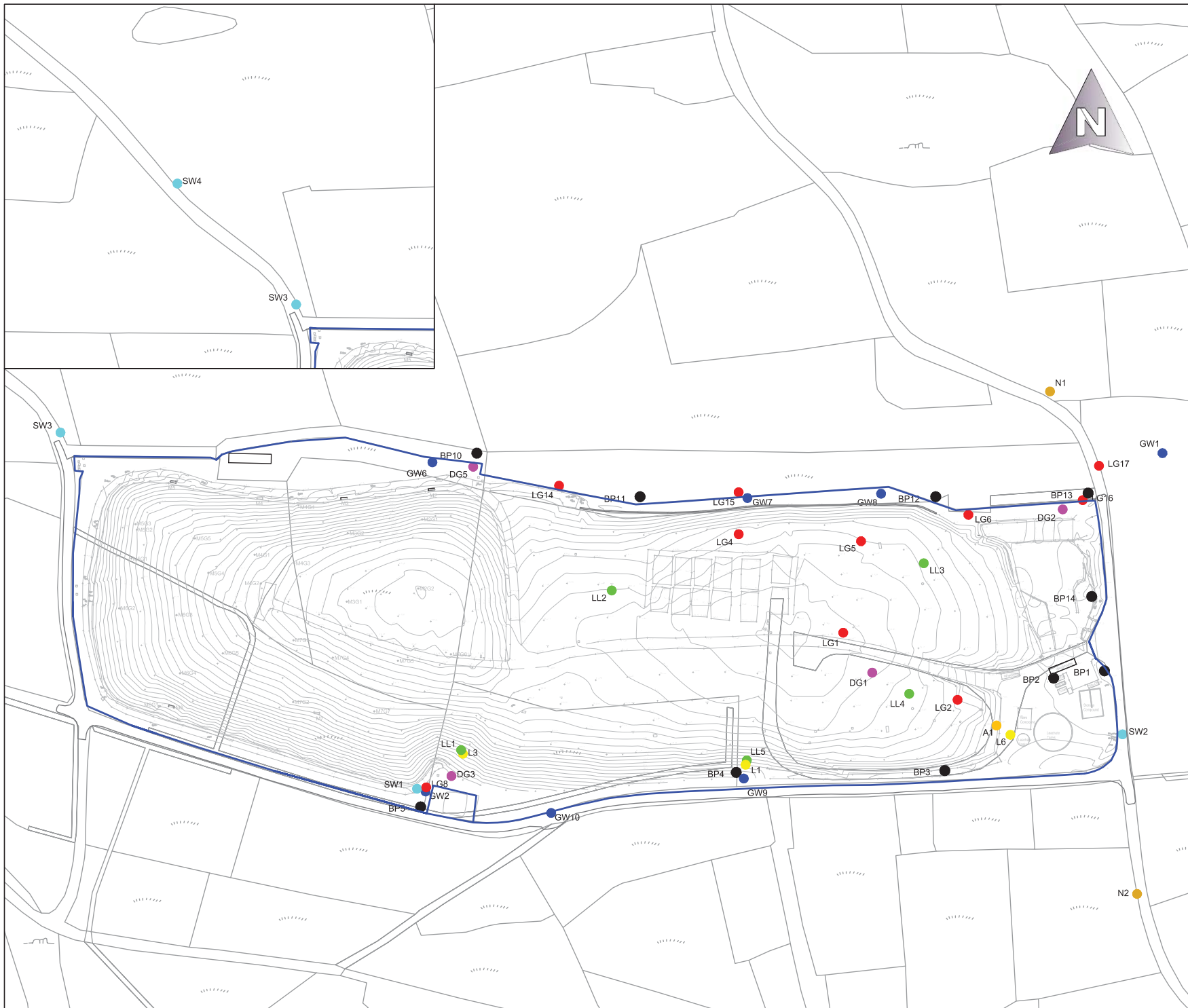
None applicable.

Appendix A
Drawings
IBR0859/001 Site Location
IBR0859/002 Monitoring Locations
Figure 6 Groundwater Contours



rev	amendments	drawn	date
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 Enterprise Fund Business Centre Ballyraire Letterkenny Co. Donegal	T +353 74 9161927 F +353 74 9161928 W www.rpsgroup.com/ireland E ireland@rpsgroup.com	Drawing Number	Rev
		IBR0859/001	0
Project Donegal Landfill Reporting 2016		Title Ballynacarrick Landfill Site Location	
Client Donegal County Council		Architect	
Drawing Status Preliminary	Sheet Size A4	Drawing Scale 1:25,000	Project Leader DD
		Drawn By AMB	Date Apr '15
			Initial Review AMcG



NOTES

- Verifying Dimensions.
The contractor shall verify dimensions against such other drawings or site conditions as pertain to this part of the work.
- Existing Services.
Any information concerning the location of existing services indicated on this drawing is intended for general guidance only. It shall be the responsibility of the contractor to determine and verify the exact horizontal and vertical alignment of all cables, pipes, etc. (both underground and overhead) before work commences.
- Issue of Drawings.
Hard copies, dwf and pdf will form a controlled issue of the drawing. All other formats (dwg, dxf etc.) are deemed to be an uncontrolled issue and any work carried out based on these files is at the recipient's own risk. RPS will not accept any responsibility for any errors arising from the use of these files, either by human error by the recipient, listing of un-dimensioned measurements, compatibility issues with the recipient's software, and any errors arising when these files are used to aid the recipient's drawing production, or setting out on site.
- Keys:

- Site Fence
- LG17 Landfill Gas Monitoring Point
- DG2 Dust Monitoring Point
- N1 Noise Monitoring Point
- SW2 Surface Water Monitoring Point
- GW1 Ground Water Monitoring Point
- L6 Leachate Monitoring Point
- LL4 Leachate Level
- BP13 Bait Point
- A1 Landfill Gas Flare

A	Added SW3 & SW\$	AMB	Mar '17
rev	amendments	drawn	date

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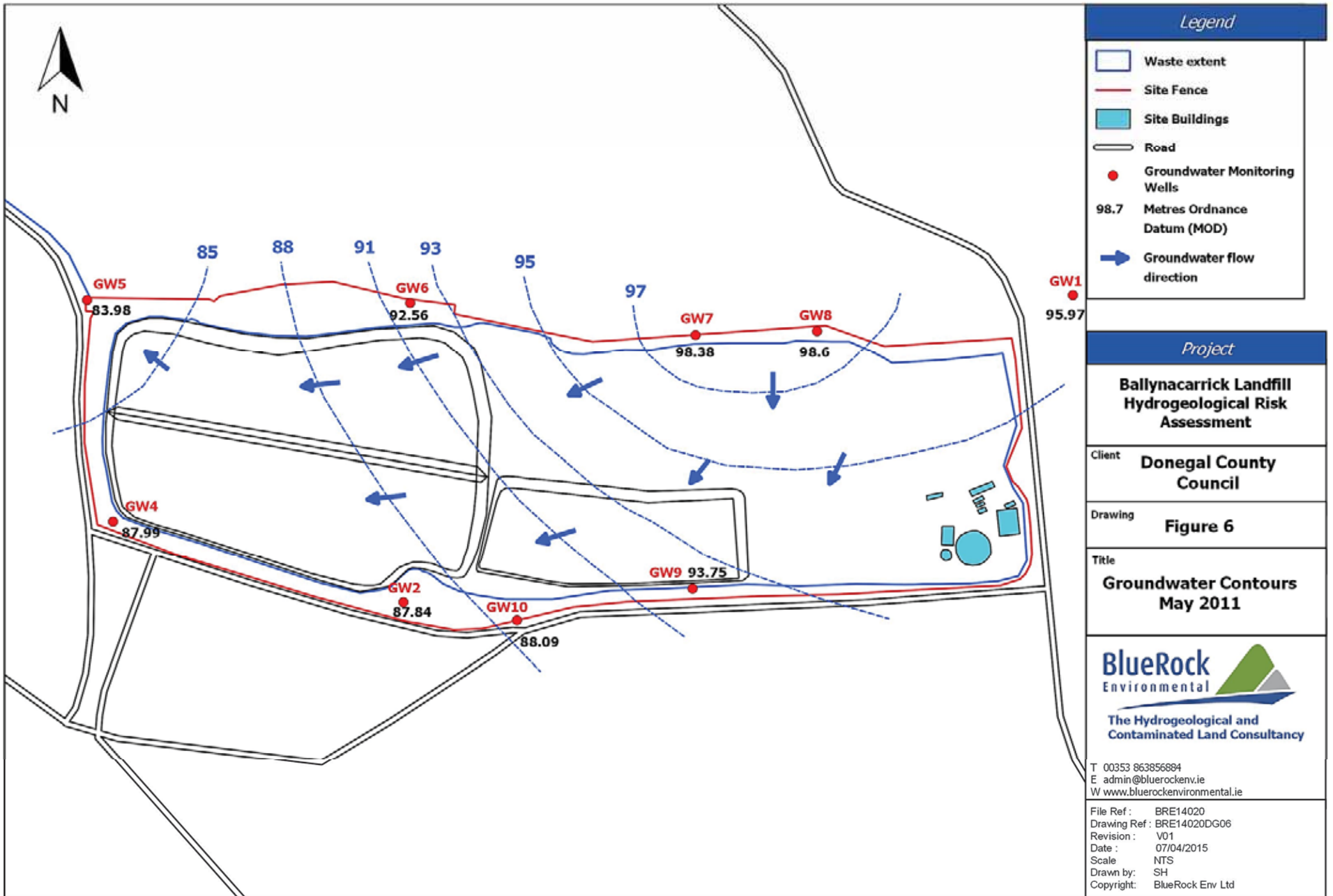
Project
Donegal Landfill Site Reporting 2016

Title
Ballynacarrick LFS - Monitoring Points

Drawing Status Preliminary	Sheet Size A3	Drawing Scale 1:2000
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Drawing Number IBR0859 /002	Rev A
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Project Leader DD	Drawn By AMB	Date Apr '15	Initial Review AMCG
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Appendix B

E-PRTR



| PRTR# : W0024 | Facility Name : Ballynacarrick Landfill Site | Filename : W0024_2016.xls | Return Year : 2016 |

[Guidance to completing the PRTR workbook](#)

PRTR Returns Workbook

Version 1.1.19

REFERENCE YEAR	2016
-----------------------	------

1. FACILITY IDENTIFICATION

Parent Company Name	Donegal County Council
Facility Name	Ballynacarrick Landfill Site
PRTR Identification Number	W0024
Licence Number	W0024-04

Classes of Activity	
No.	class_name
-	Refer to PRTR class activities below

Address 1	Ballynacarrick
Address 2	Ballintra
Address 3	
Address 4	
Country	Donegal
Country	Ireland
Coordinates of Location	-8.44131 54.6298
River Basin District	GBNIIENW
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Julie McMahon
AER Returns Contact Email Address	julie.mcmahon@donegalcoco.ie
AER Returns Contact Position	Executive Engineer
AER Returns Contact Telephone Number	0749122787
AER Returns Contact Mobile Phone Number	0872861096
AER Returns Contact Fax Number	0749161304
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	1
User Feedback/Comments	Total estimates Metal generated as per site model - GasSim 2.5 total LFG * Average Methane % from LFG survey 2015. Methane was converted from m3 to kg using STP (0.717). If results for a particular year are below the reporting threshold, GasSim2.5 will output "brt". If the result is above the reporting threshold, a 25%ile and 75%ile is reported, if the reporting of this value is not required, GasSim2.5 will output "n/a".
Web Address	

2. PRTR CLASS ACTIVITIES

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

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

Is it applicable?	
Have you been granted an exemption?	
If applicable which activity class applies (as per Schedule 2 of the regulations)?	
Is the reduction scheme compliance route being used?	

4. WASTE IMPORTED/ACCEPTED ONTO SITE

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

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

| PRTR# : W0024 | Facility Name : Ballynacarrick Landfill Site | Filename : W0024_2016.xls | Return Year : 2016 |

03/04/2017 14:26

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	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
01	Methane (CH4)	C	OTH	GasSim	9263.0 0.0	199105.0 0.0	0.0 0.0	189842.0 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	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
15	Chlorofluorocarbons (CFCs)	C	OTH	GasSIM	1.37	1.37	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	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

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: Ballynacarrick 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)	652,998	C	OTH	Gassim 2.5	N/A
Methane flared	453,893	M	OTH	LFG Survey 2016	0.0 (Total Flaring Capacity)
Methane utilised in engine/s	0.0	C	OTH		0.0 (Total Utilising Capacity)
Net methane emission (as reported in Section A above)	199,105	C	OTH	Total estimated methane ge	N/A

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR# : W0024 | Facility Name : Ballynacarrick Landfill Site | Filename : W0024_2016.xls | Return Year : 2016 |

03/04/2017 14:24

Please enter all quantities on this sheet in Tonnes

3

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	37664.5 in 19 07 02	landfill leachate other than those mentioned	D8	M	Weighed	Offsite in Ireland	Donegal County Council,D0009-01		Letterkenny WWTP, Magheranan, Letterkenny, County Donegal, Ireland		

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

Appendix C

Water Balance Calculation

WATER BALANCE CALCULATION - BALLYNACARRICK LANDFILL

Period	Active Phase	Active Area A(m ²)	Waste Input t/year	Rainfall mm	Active Area Infiltration R(A)(m ³)	Restored area	Restored area RCA m ²	Restored area infiltration IRCA(m ³)	Total Water	Leachate produced Lo(m ³)	Leachate tankered m ³
						Fully Capped area					
2016	Infrastructural Area	2,500		1,828	4,569	Whole Site	75,890	13,870	18,440	18,440	37,665
Total				1,828				13,870	18,440	18,440	

Notes

1 - Phase 2A Operational from 31st March 2007

2 - Phase 2B Operational from 12th September 2007

3 - Phase 2C Operational from 9th April 2008

1. IRCA =	Fully Capped/Restored area infiltration of rainfall estimated (2-10%)	10%	% of annual rainfall
	Temporarily Capped/Restored area infiltration of rainfall estimated (25-30%)	30%	% of annual rainfall
2. Used actual rainfall R (m) for active cells and restored areas instead of Effective Rainfall (ER)			
3. Absorptive Capacity = Waste density of 0.8 tonnes/m³. Estimated absorptive capacity (water per tonnes waste before leachate is produced)		0.06	t/m ³
4. Landfill Areas			
Extension			
Phase 1		15,400	m ²
Phase 2A		4,300	m ²
Phase 2B		2,890	m ²
Phase 2C		8,300	m ²
Recycling Area - front of site		4,000	m ²
Existing site			
Original Site		41,000	m ²
Infrastructural Area		2,500	m ²
5. Rainfall		1,828	mm
6. Liquid Waste input (assumed 25% dry solids)		-	tonnes

Appendix D Monitoring Data



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Analysis Report - Landfill Monitoring

Sample Station : Ballynacarrick Landfill, Ballynacarrick Gw 1
Sample Notes : -----
Sample Details : Sample Reference : 162500420
 Sampled by : Nigel Breslin On : 16/02/2016 - 12:00 Hrs.
 Sample Template : Ballynacarrick Quarterly GW monitoring
 Sample Method: Grab
 Laboratory : Donegal Co Co Analyst : Patrick Gallagher

Sample Parameters			Parameter Standards		Results			
Parameter	Unit	Test Method	Max. Limit	Min. Limit	Date	Time	Notes	Result A*SC*
Ammonia (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	17:21		0.611
Chloride	mg/l	5.4P-TMC14	--	--	17/02/16	10:00		16.87
Conductivity @ 20°C	µS/cm	5.4P-TMC2	--	--	16/02/16	08:52		462
Iron	mg/l		--	--	16/02/16	12:00		0.374
pH	pH units	5.4P-TMC1	--	--	17/02/16	08:40		6.7
Temperature	Degrees C	5.4P-TMC1	--	--	16/02/16	08:52		9.6
Total Oxidised Nitrogen	mg/l	5.4P-TMC6	--	--	01/03/16	17:30		0.15
Visual Inspection	Descriptive		--	--	16/02/16	12:00		Acceptable
Depth	m		--	--	16/02/16	08:52		3.14
Orthophosphate	mg/l	5.4P-TMC6	--	--	16/02/16	17:21		0.033
Nitrate (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	17:21		0.129
Nitrite (as N)	mg/l	5.4P-TMC6	--	--	01/03/16	17:21		0.0209

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Analysis Report - Landfill Monitoring

Sample Station : Ballynacarrick Landfill, Ballynacarrick Gw 2
Sample Notes : ---- ----
Sample Details : Sample Reference : 162500423
 Sampled by : Nigel Breslin On : 16/02/2016 - 12:00 Hrs.
 Sample Template : Ballynacarrick Quarterly GW monitoring
 Sample Method: Grab
 Laboratory : Donegal Co Co Analyst : Patrick Gallagher

Sample Parameters			Parameter Standards		Results			
Parameter	Unit	Test Method	Max. Limit	Min. Limit	Date	Time	Notes	Result A*SC*
Ammonia (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	17:58		17.1
Chloride	mg/l	5.4P-TMC14	--	--	17/02/16	10:00		40.7
Conductivity @ 20°C	µS/cm	5.4P-TMC2	--	--	16/02/16	11:01		752
Iron	mg/l		--	--	17/02/16	12:00		22.65
pH	pH units	5.4P-TMC1	--	--	17/02/16	08:43		6.8
Temperature	Degrees C	5.4P-TMC1	--	--	16/02/16	11:01		10.3
Total Oxidised Nitrogen	mg/l	5.4P-TMC6	--	--	01/03/16	17:30		0.12
Visual Inspection	Descriptive		--	--	16/02/16	12:00		Acceptable
Depth	m		--	--	16/02/16	11:01		1.75
Orthophosphate	mg/l	5.4P-TMC6	--	--	16/02/16	17:58		< 0.01
Nitrate (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	17:58		< 0.1
Nitrite (as N)	mg/l	5.4P-TMC6	--	--	01/03/16	17:58		0.021

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Analysis Report - Landfill Monitoring

Sample Station : Ballynacarrick Landfill, Ballynacarrick Gw 4
Sample Notes : ---- ----
Sample Details : Sample Reference : 162500431
 Sampled by : Nigel Breslin On : 16/02/2016 - 12:01 Hrs.
 Sample Template : Ballynacarrick Quarterly GW monitoring
 Sample Method: Grab
 Laboratory : Donegal Co Co Analyst : Patrick Gallagher

Sample Parameters			Parameter Standards		Results			
Parameter	Unit	Test Method	Max. Limit	Min. Limit	Date	Time	Notes	Result A*SC*
Ammonia (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	18:00		10.2
Chloride	mg/l	5.4P-TMC14	--	--	17/02/16	10:00		43.67
Conductivity @ 20°C	µS/cm	5.4P-TMC2	--	--	16/02/16	12:01		598
Iron	mg/l		--	--	17/02/16	12:00		0.277
pH	pH units	5.4P-TMC1	--	--	17/02/16	08:51		7.5
Temperature	Degrees C	5.4P-TMC1	--	--	16/02/16	12:01		10.9
Total Oxidised Nitrogen	mg/l	5.4P-TMC6	--	--	01/03/16	17:30		< 0.11
Visual Inspection	Descriptive		--	--	16/02/16	12:00		Acceptable
Depth	m		--	--	16/02/16	12:01		4.75
Orthophosphate	mg/l	5.4P-TMC6	--	--	16/02/16	18:00		< 0.01
Nitrate (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	18:00		< 0.1
Nitrite (as N)	mg/l	5.4P-TMC6	--	--	01/03/16	18:00		< 0.01

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Analysis Report - Landfill Monitoring

Sample Station : Ballynacarrick Landfill, Ballynacarrick Gw 5
Sample Notes : -----
Sample Details : Sample Reference : 162500425
 Sampled by : Nigel Breslin On : 16/02/2016 - 12:00 Hrs.
 Sample Template : Ballynacarrick Quarterly GW monitoring
 Sample Method: Grab
 Laboratory : Donegal Co Co Analyst : Patrick Gallagher

Sample Parameters			Parameter Standards		Results			
Parameter	Unit	Test Method	Max. Limit	Min. Limit	Date	Time	Notes	Result A*SC*
Ammonia (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	17:09		0.095
Chloride	mg/l	5.4P-TMC14	--	--	17/02/16	10:00		45.66
Conductivity @ 20°C	µS/cm	5.4P-TMC2	--	--	16/02/16	11:25		536
Iron	mg/l		--	--	17/02/16	11:30		0.124
pH	pH units	5.4P-TMC1	--	--	17/02/16	08:45		7.3
Temperature	Degrees C	5.4P-TMC1	--	--	16/02/16	11:25		10.9
Total Oxidised Nitrogen	mg/l	5.4P-TMC6	--	--	01/03/16	17:30		0
Visual Inspection	Descriptive		--	--	16/02/16	12:00		Acceptable
Depth	m		--	--	16/02/16	11:25		1.25
Orthophosphate	mg/l	5.4P-TMC6	--	--	16/02/16	17:09		0.0479
Nitrate (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	17:09		0.136
Nitrite (as N)	mg/l	5.4P-TMC6	--	--	01/03/16	17:09		< 0.01

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Analysis Report - Landfill Monitoring

Sample Station : Ballynacarrick Landfill, Ballynacarrick Gw 6
Sample Notes : -----
Sample Details : Sample Reference : 162500432
 Sampled by : Nigel Breslin On : 16/02/2016 - 15:38 Hrs.
 Sample Template : Ballynacarrick Quarterly GW monitoring
 Sample Method: Grab
 Laboratory : Donegal Co Co Analyst : Patrick Gallagher

Sample Parameters			Parameter Standards		Results			
Parameter	Unit	Test Method	Max. Limit	Min. Limit	Date	Time	Notes	Result A*SC
Ammonia (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	17:25		0.057
Chloride	mg/l	5.4P-TMC14	--	--	17/02/16	10:00		75.44
Conductivity @ 20°C	µS/cm	5.4P-TMC2	--	--	16/02/16	12:08		489
Iron	mg/l		--	--	17/02/16	12:00		4.95
pH	pH units	5.4P-TMC1	--	--	17/02/16	08:51		7.4
Temperature	Degrees C	5.4P-TMC1	--	--	16/02/16	06:53		11.2
Total Oxidised Nitrogen	mg/l	5.4P-TMC6	--	--	01/03/16	17:30		0.11
Visual Inspection	Descriptive		--	--	16/02/16	12:00		Acceptable
Depth	m		--	--	16/02/16	06:53		6.53
Orthophosphate	mg/l	5.4P-TMC6	--	--	16/02/16	17:25		0.0239
Nitrate (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	17:25		< 0.1
Nitrite (as N)	mg/l	5.4P-TMC6	--	--	01/03/16	17:25		< 0.01

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Analysis Report - Landfill Monitoring

Sample Station : Ballynacarrick Landfill, Ballynacarrick Gw 7
Sample Notes : ----
Sample Details : Sample Reference : 162500433
 Sampled by : Nigel Breslin On : 16/02/2016 - 15:38 Hrs.
 Sample Template : Ballynacarrick Quarterly GW monitoring
 Sample Method: Grab
 Laboratory : Donegal Co Co Analyst : Patrick Gallagher

Sample Parameters			Parameter Standards		Results			
Parameter	Unit	Test Method	Max. Limit	Min. Limit	Date	Time	Notes	Result A "SC"
Ammonia (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	17:07		3.4
Chloride	mg/l	5.4P-TMC14	--	--	17/02/16	10:00		33.75
Conductivity @ 20°C	µS/cm	5.4P-TMC2	--	--	16/02/16	12:15		658
Iron	mg/l		--	--	17/02/16	12:00		7.35
pH	pH units	5.4P-TMC1	--	--	17/02/16	08:52		7.4
Temperature	Degrees C	5.4P-TMC1	--	--	16/02/16	12:15		11.6
Total Oxidised Nitrogen	mg/l	5.4P-TMC6	--	--	01/03/16	17:30		< 0.11
Visual Inspection	Descriptive		--	--	16/02/16	12:00		Acceptable
Depth	m		--	--	16/02/16	12:15		3.85
Orthophosphate	mg/l	5.4P-TMC6	--	--	16/02/16	17:07		0.0221
Nitrate (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	17:07		< 0.1
Nitrite (as N)	mg/l	5.4P-TMC6	--	--	01/03/16	17:07		< 0.01

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Analysis Report - Landfill Monitoring

Sample Station : Ballynacarrick Landfill, Ballynacarrick Gw 10
Sample Notes : ---- ----
Sample Details : Sample Reference : 162500422
 Sampled by : Nigel Breslin On : 16/02/2016 - 12:00 Hrs.
 Sample Template : Ballynacarrick Quarterly GW monitoring
 Sample Method: Grab
 Laboratory : Donegal Co Co Analyst : Patrick Gallagher

Sample Parameters			Parameter Standards		Results			
Parameter	Unit	Test Method	Max. Limit	Min. Limit	Date	Time	Notes	Result A*SC
Ammonia (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	17:30		0.838
Chloride	mg/l	5.4P-TMC14	--	--	17/02/16	10:00		24.82
Conductivity @ 20°C	µS/cm	5.4P-TMC2	--	--	16/02/16	10:56		487
Iron	mg/l		--	--	17/02/16	12:00		0.487
pH	pH units	5.4P-TMC1	--	--	17/02/16	08:42		6.6
Temperature	Degrees C	5.4P-TMC1	--	--	16/02/16	10:56		11.6
Total Oxidised Nitrogen	mg/l	5.4P-TMC6	--	--	01/03/16	17:30		< 0.11
Visual Inspection	Descriptive		--	--	16/02/16	12:00		Acceptable
Depth	m		--	--	16/02/16	10:56		1.85
Orthophosphate	mg/l	5.4P-TMC6	--	--	16/02/16	17:30		< 0.01
Nitrate (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	17:30		< 0.1
Nitrite (as N)	mg/l	5.4P-TMC6	--	--	01/03/16	17:30		0.0097

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Analysis Report - Landfill Monitoring

Sample Station : Ballynacarrick Landfill, Ballynacarrick Sw 1
Sample Notes : ----
Sample Details : Sample Reference : 162500424
 Sampled by : Nigel Breslin On : 16/02/2016 - 11:06 Hrs.
 Sample Template : Ballynacarrick Quarterly SW monitoring
 Sample Method: Grab
 Laboratory : Donegal Co Co Analyst : Patrick Gallagher

Sample Parameters			Parameter Standards		Results			
Parameter	Unit	Test Method	Max. Limit	Min. Limit	Date	Time	Notes	Result A*SC*
Ammonia (as N)	mg/l	5.4P-TMC5	--	--	16/02/16	17:48		0.471
BOD	mg/l	5.4P-TMC9	--	--	17/02/16	09:30		0
Chloride	mg/l	5.4P-TMC14	--	--	17/02/16	10:00		36.73
Conductivity @ 20°C	µS/cm	5.4P-TMC2	--	--	16/02/16	11:06		234
Dissolved Oxygen (Measurement) keep	mg/l	5.4P-TMC18	--	--	17/02/16	09:30		9.24
pH	pH units	5.4P-TMC1	--	--	17/02/16	08:44		7.8
Suspended Solids	mg/l	5.4P-TMC4	--	--	17/02/16	10:05		6
Temperature	Degrees C	5.4P-TMC1	--	--	16/02/16	11:06		9.5
Visual Inspection	Descriptive		--	--	16/02/16	12:00		Acceptable
COD	mg/l	5.4P-TMC3	--	--	18/02/16	13:45		15
Orthophosphate	mg/l	5.4P-TMC5	--	--	16/02/16	17:48		0.0115
Nitrate (as N)	mg/l	5.4P-TMC5	--	--	16/02/16	17:48		0.112
Nitrite (as N)	mg/l	5.4P-TMC5	--	--	01/03/16	17:48		0.066

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Analysis Report - Landfill Monitoring

Sample Station : Ballynacarrick Landfill, Ballynacarrick Sw 2
Sample Notes : ---- ----
Sample Details : Sample Reference : 162500421
 Sampled by : Nigel Breslin On : 16/02/2016 - 10:50 Hrs.
 Sample Template : Ballynacarrick Quarterly SW monitoring
 Sample Method: Grab
 Laboratory : Donegal Co Co Analyst : Patrick Gallagher

Sample Parameters			Parameter Standards		Results			
Parameter	Unit	Test Method	Max. Limit	Min. Limit	Date	Time	Notes	Result A*SC*
Ammonia (as N)	mg/l	5.4P-TMC5	--	--	16/02/16	17:18		3.32
BOD	mg/l	5.4P-TMC9	--	--	17/02/16	09:30		2
Chloride	mg/l	5.4P-TMC14	--	--	17/02/16	10:00		35.73
Conductivity @ 20°C	µS/cm	5.4P-TMC2	--	--	16/02/16	10:50		143.9
Dissolved Oxygen (Measurement) keep	mg/l	5.4P-TMC18	--	--	17/02/16	09:30		8.69
pH	pH units	5.4P-TMC1	--	--	17/02/16	08:41		6.7
Suspended Solids	mg/l	5.4P-TMC4	--	--	17/02/16	10:05		34
Temperature	Degrees C	5.4P-TMC1	--	--	16/02/16	10:50		9.2
Visual Inspection	Descriptive		--	--	16/02/16	12:00		Acceptable
COD	mg/l	5.4P-TMC3	--	--	18/02/16	13:45		43
Orthophosphate	mg/l	5.4P-TMC5	--	--	16/02/16	17:18		0.0387
Nitrate (as N)	mg/l	5.4P-TMC5	--	--	16/02/16	17:18		< 0.1
Nitrite (as N)	mg/l	5.4P-TMC5	--	--	01/03/16	17:18		0.0139

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Analysis Report - Landfill Monitoring

Sample Station : Ballynacarrick Landfill, Ballynacarrick Sw 3
Sample Notes : ---- ----
Sample Details : Sample Reference : 162500428
 Sampled by : Nigel Breslin On : 16/02/2016 - 11:43 Hrs.
 Sample Template : Ballynacarrick Quarterly SW monitoring
 Sample Method: Grab
 Laboratory : Donegal Co Co Analyst : Patrick Gallagher

Sample Parameters			Parameter Standards		Results			
Parameter	Unit	Test Method	Max. Limit	Min. Limit	Date	Time	Notes	Result A*SC*
Ammonia (as N)	mg/l	5.4P-TMC5	--	--	16/02/16	17:31		< 0.04
BOD	mg/l	5.4P-TMC9	--	--	17/02/16	09:30		0
Chloride	mg/l	5.4P-TMC14	--	--	17/02/16	10:00		37.72
Conductivity @ 20°C	µS/cm	5.4P-TMC2	--	--	16/02/16	11:43		355
Dissolved Oxygen (Measurement) keep	mg/l	5.4P-TMC18	--	--	17/02/16	09:30		9.04
pH	pH units	5.4P-TMC1	--	--	17/02/16	08:48		8
Suspended Solids	mg/l	5.4P-TMC4	--	--	17/02/16	10:05		6
Temperature	Degrees C	5.4P-TMC1	--	--	16/02/16	11:43		9.3
Visual Inspection	Descriptive		--	--	16/02/16	12:00		Acceptable
COD	mg/l	5.4P-TMC3	--	--	18/02/16	13:45		61
Orthophosphate	mg/l	5.4P-TMC5	--	--	16/02/16	17:31		0.103
Nitrate (as N)	mg/l	5.4P-TMC5	--	--	16/02/16	17:31		0.235
Nitrite (as N)	mg/l	5.4P-TMC5	--	--	01/03/16	17:31		0.0143

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Analysis Report - Landfill Monitoring

Sample Station : Ballynacarrick Landfill, Ballynacarrick Sw 4
Sample Notes : ---- ----
Sample Details : Sample Reference : 162500427
 Sampled by : Nigel Breslin On : 16/02/2016 - 11:41 Hrs.
 Sample Template : Ballynacarrick Quarterly SW monitoring
 Sample Method: Grab
 Laboratory : Donegal Co Co Analyst : Patrick Gallagher

Sample Parameters			Parameter Standards		Results			
Parameter	Unit	Test Method	Max. Limit	Min. Limit	Date	Time	Notes	Result A*SC*
Ammonia (as N)	mg/l	5.4P-TMC5	--	--	16/02/16	17:50		8.42
BOD	mg/l	5.4P-TMC9	--	--	17/02/16	09:30		8
Chloride	mg/l	5.4P-TMC14	--	--	17/02/16	10:00		56.58
Conductivity @ 20°C	µS/cm	5.4P-TMC2	--	--	16/02/16	11:41		367
Dissolved Oxygen (Measurement) keep	mg/l	5.4P-TMC18	--	--	17/02/16	09:30		9.07
pH	pH units	5.4P-TMC1	--	--	17/02/16	08:47		7.7
Suspended Solids	mg/l	5.4P-TMC4	--	--	17/02/16	10:05		6
Temperature	Degrees C	5.4P-TMC1	--	--	16/02/16	11:41		9.5
Visual Inspection	Descriptive		--	--	16/02/16	12:00		Acceptable
COD	mg/l	5.4P-TMC3	--	--	18/02/16	13:45		18
Orthophosphate	mg/l	5.4P-TMC5	--	--	16/02/16	17:50		< 0.01
Nitrate (as N)	mg/l	5.4P-TMC5	--	--	16/02/16	17:50		0.216
Nitrite (as N)	mg/l	5.4P-TMC5	--	--	01/03/16	17:50		0.0111

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Analysis Report - Landfill Monitoring

Sample Station : Ballynacarrick Landfill, Ballynacarrick Leachate L 1
Sample Notes : -----
Sample Details : Sample Reference : 162500430
 Sampled by : Nigel Breslin On : 16/02/2016 - 11:55 Hrs.
 Sample Template : Ballynacarrick Quarterly Leachate monitoring
 Sample Method: Grab
 Laboratory : Donegal Co Co Analyst : Patrick Gallagher

Sample Parameters			Parameter Standards		Results			
Parameter	Unit	Test Method	Max. Limit	Min. Limit	Date	Time	Notes	Result A*SC*
Ammonia (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	18:25		142
BOD	mg/l	5.4P-TMC9	--	--	17/02/16	09:30		3
Chloride	mg/l	5.4P-TMC14	--	--	17/02/16	10:00		148.89
Conductivity @ 20°C	µS/cm	5.4P-TMC2	--	--	16/02/16	11:55		2800
pH	pH units	5.4P-TMC1	--	--	17/02/16	08:50		6.7
Temperature	Degrees C	5.4P-TMC1	--	--	16/02/16	11:55		11.5
Total Oxidised Nitrogen	mg/l	5.4P-TMC6	--	--	01/03/16	17:30		0.19
Visual Inspection	Descriptive		--	--	16/02/16	12:00		Acceptable
Orthophosphate	mg/l	5.4P-TMC6	--	--	16/02/16	18:25		0.0134
Nitrate (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	18:25		0.15
Nitrite (as N)	mg/l	5.4P-TMC6	--	--	01/03/16	18:25		0.04
COD	mg/l	5.4P-TMC3	--	1	18/02/16	13:45		109

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Donegal County Council

Central Laboratory, The Kube, Magheranan, Letterkenny

Analysis Report - Landfill Monitoring

Sample Station : Ballynacarrick Landfill, Ballynacarrick L 6 (Tank)
Sample Notes : Pre- treatment
Sample Details : Sample Reference : 162500429
 Sampled by : Nigel Breslin On : 16/02/2016 - 11:47 Hrs.
 Sample Template : Ballynacarrick Quarterly Leachate monitoring
 Sample Method: Grab
 Laboratory : Donegal Co Co Analyst : Patrick Gallagher

Sample Parameters			Parameter Standards		Results			
Parameter	Unit	Test Method	Max. Limit	Min. Limit	Date	Time	Notes	Result A*SC*
Ammonia (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	18:22		127
BOD	mg/l	5.4P-TMC9	--	--	17/02/16	09:30		13
Chloride	mg/l	5.4P-TMC14	--	--	17/02/16	10:00		144.92
Conductivity @ 20°C	µS/cm	5.4P-TMC2	--	--	16/02/16	11:47		1996
pH	pH units	5.4P-TMC1	--	--	17/02/16	08:49		7.3
Temperature	Degrees C	5.4P-TMC1	--	--	16/02/16	11:47		9.6
Total Oxidised Nitrogen	mg/l	5.4P-TMC6	--	--	01/03/16	17:30		23.1
Visual Inspection	Descriptive		--	--	16/02/16	12:00		Acceptable
Orthophosphate	mg/l	5.4P-TMC6	--	--	16/02/16	18:22		< 0.01
Nitrate (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	18:22		11.9
Nitrite (as N)	mg/l	5.4P-TMC6	--	--	01/03/16	18:22		11.2
COD	mg/l	5.4P-TMC3	--	1	18/02/16	13:45		93

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Donegal County Council

Central Laboratory, The Kube, Magheranan, Letterkenny

Analysis Report - Landfill Monitoring

Sample Station : Ballynacarrick Landfill, Ballynacarrick Leachate L8
Sample Notes : ---- ----
Sample Details : Sample Reference : 162500426
 Sampled by : Nigel Breslin On : 16/02/2016 - 11:30 Hrs.
 Sample Template : Ballynacarrick Quarterly Leachate monitoring
 Sample Method: Grab
 Laboratory : Donegal Co Co Analyst : Patrick Gallagher

Sample Parameters			Parameter Standards		Results			
Parameter	Unit	Test Method	Max. Limit	Min. Limit	Date	Time	Notes	Result A*SC
Ammonia (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	17:53		0.7
BOD	mg/l	5.4P-TMC9	--	--	17/02/16	09:30		0
Chloride	mg/l	5.4P-TMC14	--	--	17/02/16	10:00		44.67
Conductivity @ 20°C	µS/cm	5.4P-TMC2	--	--	16/02/16	11:30		805
pH	pH units	5.4P-TMC1	--	--	17/02/16	08:46		7.3
Temperature	Degrees C	5.4P-TMC1	--	--	16/02/16	11:30		10.4
Total Oxidised Nitrogen	mg/l	5.4P-TMC6	--	--	01/03/16	17:30		2.606
Visual Inspection	Descriptive		--	--	16/02/16	12:00		Acceptable
Orthophosphate	mg/l	5.4P-TMC6	--	--	16/02/16	17:53		< 0.01
Nitrate (as N)	mg/l	5.4P-TMC6	--	--	16/02/16	17:53		2.48
Nitrite (as N)	mg/l	5.4P-TMC6	--	--	01/03/16	17:53		0.126
COD	mg/l	5.4P-TMC3	--	1	18/02/16	13:45		19

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Comhairle Contae Dhún na nGall
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 074-9122787

Sample No.:	162501630	Sample Date/Time:	25/05/2016 @ 10:53
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Gw 1	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly GW monitoring	Analyst:	Donegal CoCo

Sample Notes:

Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501630
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	25/05/2016
		Mode Of Delivery:	Cooler Box
		Condition On Delivery:	OK
		Date Started:	26/05/2016
		Report Date:	29/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Ammonia (as N) mg/l	5.4P-TMC6	--	--	27/05/16	1.06
Chloride mg/l	5.4P-TMC14	--	--	27/05/16	18.86
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	26/05/16	382
Iron mg/l	5.4P-TMC20	--	--	27/05/16	0.381
pH pH units	5.4P-TMC1	--	--	26/05/16	6.9
Temperature Degrees C	5.4P-TMC1	--	--	25/05/16	15.7
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	27/05/16	0.308
Visual Inspection Descriptive	5.4P-TMC26	--	--	27/05/16	0
Depth m	5.4P-TMC27	--	--	25/05/16	3.51
Orthophosphate mg/l	5.4P-TMC6	--	--	27/05/16	0.042
Nitrate (as N) mg/l	5.4P-TMC6	--	--	27/05/16	0.273
Nitrite (as N) mg/l	5.4P-TMC6	--	--	27/05/16	0.035

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Notes 4.....

Notes 5.....



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Sample No.:	162501631	Sample Date/Time:	25/05/2016 @ 15:40
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Gw 2	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly GW monitoring	Analyst:	Donegal CoCo
Sample Notes:			
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501631
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	25/05/2016
		Mode Of Delivery:	Cooler Box
		Condition On Delivery:	OK
		Date Started:	26/05/2016
		Report Date:	29/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Ammonia (as N) mg/l	5.4P-TMC6	--	--	27/05/16	14.2
Chloride mg/l	5.4P-TMC14	--	--	27/05/16	39.7
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	26/05/16	622
Iron mg/l	5.4P-TMC20	--	--	27/05/16	12.33
pH pH units	5.4P-TMC1	--	--	26/05/16	6.8
Temperature Degrees C	5.4P-TMC1	--	--	25/05/16	14.8
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	27/05/16	0.611
Visual Inspection Descriptive	5.4P-TMC26	--	--	27/05/16	0
Depth m	5.4P-TMC27	--	--	25/05/16	1.82
Orthophosphate mg/l	5.4P-TMC6	--	--	27/05/16	< 0.01
Nitrate (as N) mg/l	5.4P-TMC6	--	--	27/05/16	0.577
Nitrite (as N) mg/l	5.4P-TMC6	--	--	27/05/16	0.034

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Notes 4.....

Notes 5.....



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Sample No.:	162501632	Sample Date/Time:	26/05/2016 @ 10:00
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Gw 4	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly GW monitoring	Analyst:	Donegal CoCo
Sample Notes:			
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501632
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	26/05/2016
		Mode Of Delivery:	Cooler Box
		Condition On Delivery:	OK
		Date Started:	26/05/2016
		Report Date:	29/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Ammonia (as N) mg/l	5.4P-TMC6	--	--	03/06/16	2.14
Chloride mg/l	5.4P-TMC14	--	--	27/05/16	39.7
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	26/05/16	556
Iron mg/l	5.4P-TMC20	--	--	27/05/16	0.941
pH pH units	5.4P-TMC1	--	--	26/05/16	7.5
Temperature Degrees C	5.4P-TMC1	--	--	26/05/16	12.1
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	03/06/16	0.19
Visual Inspection Descriptive	5.4P-TMC26	--	--	26/05/16	0
Depth m	5.4P-TMC27	--	--	26/05/16	4.73
Orthophosphate mg/l	5.4P-TMC6	--	--	03/06/16	< 0.01
Nitrate (as N) mg/l	5.4P-TMC6	--	--	03/06/16	0.1066
Nitrite (as N) mg/l	5.4P-TMC6	--	--	03/06/16	0.0234

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Notes 4.....

Notes 5.....



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Sample No.:	162501633	Sample Date/Time:	26/05/2016 @ 09:35
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Gw 5	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly GW monitoring	Analyst:	Donegal CoCo
Sample Notes:			
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501633
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	26/05/2016
		Mode Of Delivery:	Cooler Box
		Condition On Delivery:	OK
		Date Started:	26/05/2016
		Report Date:	29/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Ammonia (as N) mg/l	5.4P-TMC6	--	--	27/05/16	1.71
Chloride mg/l	5.4P-TMC14	--	--	27/05/16	60.55
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	26/05/16	476
Iron mg/l	5.4P-TMC20	--	--	27/05/16	0.043
pH pH units	5.4P-TMC1	--	--	26/05/16	7.4
Temperature Degrees C	5.4P-TMC1	--	--	26/05/16	13.6
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	27/05/16	0.844
Visual Inspection Descriptive	5.4P-TMC26	--	--	26/05/16	0
Depth m	5.4P-TMC27	--	--	26/05/16	1.55
Orthophosphate mg/l	5.4P-TMC6	--	--	27/05/16	0.052
Nitrate (as N) mg/l	5.4P-TMC6	--	--	27/05/16	0.824
Nitrite (as N) mg/l	5.4P-TMC6	--	--	27/05/16	0.02

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Notes 4.....

Notes 5.....



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Sample No.:	162501634	Sample Date/Time:	25/05/2016 @ 09:30
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Gw 6	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly GW monitoring	Analyst:	Donegal CoCo
Sample Notes:			
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501634
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	25/05/2016
		Mode Of Delivery:	Cooler Box
		Condition On Delivery:	OK
		Date Started:	25/05/2016
		Report Date:	29/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Ammonia (as N) mg/l	5.4P-TMC6	--	--	27/05/16	1.56
Chloride mg/l	5.4P-TMC14	--	--	27/05/16	40.7
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	26/05/16	428
Iron mg/l	5.4P-TMC20	--	--	27/05/16	1.253
pH pH units	5.4P-TMC1	--	--	26/05/16	7.1
Temperature Degrees C	5.4P-TMC1	--	--	25/05/16	15.1
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	27/05/16	0.101
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/05/16	0
Depth m	5.4P-TMC27	--	--	25/05/16	5.01
Orthophosphate mg/l	5.4P-TMC6	--	--	27/05/16	0.018
Nitrate (as N) mg/l	5.4P-TMC6	--	--	27/05/16	0.081
Nitrite (as N) mg/l	5.4P-TMC6	--	--	27/05/16	0.02

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Notes 4.....

Notes 5.....



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 074-9122787

Sample No.:	162501635	Sample Date/Time:	26/05/2016 @ 06:00
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Gw 7	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly GW monitoring	Analyst:	Donegal CoCo

Sample Notes:			
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501635
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	26/05/2016
		Mode Of Delivery:	Cooler Box
		Condition On Delivery:	OK
		Date Started:	26/05/2016
		Report Date:	29/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Ammonia (as N) mg/l	5.4P-TMC6	--	--	03/06/16	0.121
Chloride mg/l	5.4P-TMC14	--	--	27/05/16	18.86
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	26/05/16	628
Iron mg/l	5.4P-TMC20	--	--	27/05/16	4.14
pH pH units	5.4P-TMC1	--	--	26/05/16	6.7
Temperature Degrees C	5.4P-TMC1	--	--	26/05/16	11.1
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	03/06/16	0.103
Visual Inspection Descriptive	5.4P-TMC26	--	--	26/05/16	0
Depth m	5.4P-TMC27	--	--	26/05/16	3.85
Orthophosphate mg/l	5.4P-TMC6	--	--	03/06/16	< 0.01
Nitrate (as N) mg/l	5.4P-TMC6	--	--	03/06/16	< 0.1
Nitrite (as N) mg/l	5.4P-TMC6	--	--	03/06/16	< 0.01

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Notes 4.....

Notes 5.....



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Sample No.:	162501636	Sample Date/Time:	25/05/2016 @ 15:00
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Gw 10	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly GW monitoring	Analyst:	Donegal CoCo

Sample Notes:			
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501636
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	25/05/2016
		Mode Of Delivery:	Cooler Box
		Condition On Delivery:	OK
		Date Started:	26/05/2016
		Report Date:	29/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Ammonia (as N) mg/l	5.4P-TMC6	--	--	27/05/16	1.12
Chloride mg/l	5.4P-TMC14	--	--	27/05/16	25.81
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	26/05/16	375
Iron mg/l	5.4P-TMC20	--	--	27/05/16	7.14
pH pH units	5.4P-TMC1	--	--	26/05/16	6.6
Temperature Degrees C	5.4P-TMC1	--	--	26/05/16	14.9
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	27/05/16	0.073
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/05/16	0
Depth m	5.4P-TMC27	--	--	25/05/16	1.96
Orthophosphate mg/l	5.4P-TMC6	--	--	27/05/16	0.02
Nitrate (as N) mg/l	5.4P-TMC6	--	--	27/05/16	0.05
Nitrite (as N) mg/l	5.4P-TMC6	--	--	27/05/16	0.023

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Notes 4.....

Notes 5.....



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Central Laboratory, The Kube
Magheranan
Letterkenny
 074-9122787

Sample No.:	162501626	Sample Date/Time:	25/05/2016 @ 16:05
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Sw 1	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly SW monitoring	Analyst:	Donegal CoCo
Sample Notes:			
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501626
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	25/05/2016
		Mode Of Delivery:	Cooler Box
		Condition On Delivery:	OK
		Date Started:	26/05/2016
		Report Date:	20/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Ammonia (as N) mg/l	5.4P-TMC5	--	--	03/06/16	0.602
BOD mg/l	5.4P-TMC9	--	--	27/05/16	54.5
Chloride mg/l	5.4P-TMC14	--	--	27/05/16	22.22
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	26/05/16	166.2
Dissolved Oxygen (Measurement) keep mg/l	5.4P-TMC18	--	--	27/05/16	8.51
pH pH units	5.4P-TMC1	--	--	26/05/16	7.5
Suspended Solids mg/l	5.4P-TMC4	--	--	26/05/16	7.5
Temperature Degrees C	5.4P-TMC1	--	--	25/05/16	15.2
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/05/16	0
COD mg/l	5.4P-TMC3	--	--	26/05/16	41
Orthophosphate mg/l	5.4P-TMC5	--	--	03/06/16	0.0359
Nitrate (as N) mg/l	5.4P-TMC5	--	--	03/06/16	0.3509
Nitrite (as N) mg/l	5.4P-TMC5	--	--	03/06/16	0.0511

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Notes 4.....

Notes 5.....



Comhairle Contae Dhún na nGall
Donegal County Council
Central Laboratory, The Kube
Magheranan
Letterkenny
 074-9122787

Sample No.:	162501627	Sample Date/Time:	25/05/2016 @ 11:30
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Sw 2	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly SW monitoring	Analyst:	Donegal CoCo
Sample Notes:			
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501627
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	25/05/2016
		Mode Of Delivery:	Cooler Box
		Condition On Delivery:	OK
		Date Started:	26/05/2016
		Report Date:	20/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Ammonia (as N) mg/l	5.4P-TMC5	--	--	03/06/16	2.12
BOD mg/l	5.4P-TMC9	--	--	27/05/16	10.1
Chloride mg/l	5.4P-TMC14	--	--	27/05/16	36.73
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	26/05/16	99.3
Dissolved Oxygen (Measurement) keep mg/l	5.4P-TMC18	--	--	27/05/16	8.45
pH pH units	5.4P-TMC1	--	--	26/05/16	6.4
Suspended Solids mg/l	5.4P-TMC4	--	--	26/05/16	165
Temperature Degrees C	5.4P-TMC1	--	--	25/05/16	16.3
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/05/16	0
COD mg/l	5.4P-TMC3	--	--	26/05/16	42
Orthophosphate mg/l	5.4P-TMC5	--	--	27/05/16	0.043
Nitrate (as N) mg/l	5.4P-TMC5	--	--	27/05/16	< 0.1
Nitrite (as N) mg/l	5.4P-TMC5	--	--	27/05/16	0.027

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Notes 4.....

Notes 5.....



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Sample No.:	162501628	Sample Date/Time:	26/05/2016 @ 08:30
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Sw 3	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly SW monitoring	Analyst:	Donegal CoCo
Sample Notes:			
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501628
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	26/05/2016
		Mode Of Delivery:	Cooler Box
		Condition On Delivery:	OK
		Date Started:	26/05/2016
		Report Date:	20/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Ammonia (as N) mg/l	5.4P-TMC5	--	--	03/06/16	0.0594
BOD mg/l	5.4P-TMC9	--	--	27/05/16	< 1
Chloride mg/l	5.4P-TMC14	--	--	27/05/16	32.76
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	26/05/16	412
Dissolved Oxygen (Measurement) keep mg/l	5.4P-TMC18	--	--	27/05/16	8.64
pH pH units	5.4P-TMC1	--	--	26/05/16	7.8
Suspended Solids mg/l	5.4P-TMC4	--	--	26/05/16	12.5
Temperature Degrees C	5.4P-TMC1	--	--	26/05/16	12.7
Visual Inspection Descriptive	5.4P-TMC26	--	--	26/05/16	0
COD mg/l	5.4P-TMC3	--	--	26/05/16	19
Orthophosphate mg/l	5.4P-TMC5	--	--	03/06/16	< 0.01
Nitrate (as N) mg/l	5.4P-TMC5	--	--	03/06/16	0.9333
Nitrite (as N) mg/l	5.4P-TMC5	--	--	03/06/16	0.0337

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Notes 4.....

Notes 5.....



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Sample No.:	162501629	Sample Date/Time:	26/05/2016 @ 08:50
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Sw 4	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly SW monitoring	Analyst:	Donegal CoCo
Sample Notes:			
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501629
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	26/05/2016
		Mode Of Delivery:	Cooler Box
		Condition On Delivery:	OK
		Date Started:	26/05/2016
		Report Date:	20/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT
					Accredited* Sub-Contract**
Ammonia (as N) mg/l	5.4P-TMC5	--	--	27/05/16	1.73
BOD mg/l	5.4P-TMC9	--	--	27/05/16	10.14
Chloride mg/l	5.4P-TMC14	--	--	27/05/16	40.7
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	26/05/16	392
Dissolved Oxygen (Measurement) keep mg/l	5.4P-TMC18	--	--	27/05/16	8.65
pH pH units	5.4P-TMC1	--	--	26/05/16	7.9
Suspended Solids mg/l	5.4P-TMC4	--	--	26/05/16	28.5
Temperature Degrees C	5.4P-TMC1	--	--	26/05/16	13.2
Visual Inspection Descriptive	5.4P-TMC26	--	--	26/05/16	0
COD mg/l	5.4P-TMC3	--	--	26/05/16	23
Orthophosphate mg/l	5.4P-TMC5	--	--	27/05/16	< 0.01
Nitrate (as N) mg/l	5.4P-TMC5	--	--	27/05/16	0.719
Nitrite (as N) mg/l	5.4P-TMC5	--	--	27/05/16	0.03

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Notes 4.....

Notes 5.....



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Sample No.:	162501637	Sample Date/Time:	25/05/2016 @ 12:30
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Leachate L 1	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly Leachate monitor	Analyst:	Donegal CoCo

Sample Notes:			
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501637
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	25/05/2016
		Mode Of Delivery:	Cooler Box
		Condition On Delivery:	OK
		Date Started:	26/05/2016
		Report Date:	20/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Ammonia (as N) mg/l	5.4P-TMC6	--	--	27/05/16	120
BOD mg/l	5.4P-TMC9	--	--	27/05/16	< 1
Chloride mg/l	5.4P-TMC14	--	--	27/05/16	137.97
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	26/05/16	2132
pH pH units	5.4P-TMC1	--	--	26/05/16	6.7
Temperature Degrees C	5.4P-TMC1	--	--	25/05/16	16.5
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	27/05/16	0.078
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/05/16	0
Orthophosphate mg/l	5.4P-TMC6	--	--	27/05/16	0.033
Nitrate (as N) mg/l	5.4P-TMC6	--	--	27/05/16	0.057
Nitrite (as N) mg/l	5.4P-TMC6	--	--	27/05/16	0.021
COD mg/l	5.4P-TMC3	--	1	26/05/16	90

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Sample No.:	162501638	Sample Date/Time:	25/05/2016 @ 11:50
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick L6 (Treated)	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly Leachate monitor	Analyst:	Donegal CoCo

Sample Notes:

Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501638
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	25/05/2016
		Mode Of Delivery:	Cooler Box
		Condition On Delivery:	OK
		Date Started:	26/05/2016
		Report Date:	20/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Ammonia (as N) mg/l	5.4P-TMC6	--	--	27/05/16	25.4
BOD mg/l	5.4P-TMC9	--	--	27/05/16	< 1
Chloride mg/l	5.4P-TMC14	--	--	27/05/16	159.81
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	26/05/16	1488
pH pH units	5.4P-TMC1	--	--	26/05/16	7.3
Temperature Degrees C	5.4P-TMC1	--	--	25/05/16	16.7
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	25/05/16	56.6
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/05/16	0
Orthophosphate mg/l	5.4P-TMC6	--	--	27/05/16	0.126
Nitrate (as N) mg/l	5.4P-TMC6	--	--	27/05/16	56.46
Nitrite (as N) mg/l	5.4P-TMC6	--	--	27/05/16	0.14
COD mg/l	5.4P-TMC3	--	1	26/05/16	79

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Notes 4.....

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Sample No.:	162501639	Sample Date/Time:	26/05/2016 @ 09:15
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Leachate L8	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly Leachate monitor	Analyst:	Donegal CoCo

Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501639
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	26/05/2016
		Mode Of Delivery:	Cooler Box
		Condition On Delivery:	OK
		Date Started:	26/05/2016
		Report Date:	20/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Ammonia (as N) mg/l	5.4P-TMC6	--	--	27/05/16	6.57
BOD mg/l	5.4P-TMC9	--	--	27/05/16	< 1
Chloride mg/l	5.4P-TMC14	--	--	27/05/16	66.5
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	26/05/16	866
pH pH units	5.4P-TMC1	--	--	26/05/16	7.7
Temperature Degrees C	5.4P-TMC1	--	--	26/05/16	14.6
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	27/05/16	3.27
Visual Inspection Descriptive	5.4P-TMC26	--	--	26/05/16	0
Orthophosphate mg/l	5.4P-TMC6	--	--	27/05/16	0.018
Nitrate (as N) mg/l	5.4P-TMC6	--	--	27/05/16	3.428
Nitrite (as N) mg/l	5.4P-TMC6	--	--	27/05/16	0.202
COD mg/l	5.4P-TMC3	--	1	26/05/16	24

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 Notes 4.....
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074-9122787**

Sample No.:	162501964	Sample Date/Time:	06/06/2016 @ 10:55
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Lg2	Laboratory:	Donegal Co Council
Template:	Landfill Monitoring - Landfill Gas	Analyst:	Nigel Breslin
Sample Notes:	Test carried out in the field		
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501964
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	06/06/2016
		Mode Of Delivery:	Field test
		Condition On Delivery:	n/a
		Date Started:	06/06/2016
		Report Date:	22/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Atmospheric Pressure mBar		--	--	06/06/16	1019
Carbon Dioxide %		--	--	06/06/16	34.7
Methane %		--	--	06/06/16	61.2
Oxygen % O2		--	--	06/06/16	0.6

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Notes 5.....



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Sample No.:	162501965	Sample Date/Time:	06/06/2016 @ 11:12
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Lg4	Laboratory:	Donegal Co Council
Template:	Landfill Monitoring - Landfill Gas	Analyst:	Nigel Breslin
Sample Notes:	Field test		
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501965
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	06/06/2016
		Mode Of Delivery:	Field test
		Condition On Delivery:	n/a
		Date Started:	06/06/2016
		Report Date:	22/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Atmospheric Pressure mBar		--	--	06/06/16	1019
Carbon Dioxide %		--	--	06/06/16	26.1
Methane %		--	--	06/06/16	56.2
Oxygen % O2		--	--	06/06/16	0.3

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Sample No.:	162501966	Sample Date/Time:	06/06/2016 @ 11:21
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Lg5	Laboratory:	Donegal Co Council
Template:	Landfill Monitoring - Landfill Gas	Analyst:	Nigel Breslin
Sample Notes:	Field test		
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501966
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	06/06/2016
		Mode Of Delivery:	Field test
		Condition On Delivery:	n/a
		Date Started:	06/06/2016
		Report Date:	22/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Atmospheric Pressure mBar		--	--	06/06/16	1019
Carbon Dioxide %		--	--	06/06/16	21.2
Methane %		--	--	06/06/16	55.3
Oxygen % O2		--	--	06/06/16	3.1

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Sample No.:	162501967	Sample Date/Time:	06/06/2016 @ 09:40
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Lg6	Laboratory:	Donegal Co Council
Template:	Landfill Monitoring - Landfill Gas	Analyst:	Nigel Breslin
Sample Notes:	Filed test		
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501967
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	06/06/2016
		Mode Of Delivery:	Field test
		Condition On Delivery:	n/a
		Date Started:	06/06/2016
		Report Date:	22/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT
					Accredited* Sub-Contract**
Atmospheric Pressure mBar		--	--	06/06/16	1019
Carbon Dioxide %		--	--	06/06/16	19.4
Methane %		--	--	06/06/16	59.1
Oxygen % O2		--	--	06/06/16	2.9

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Sample No.:	162501968	Sample Date/Time:	06/06/2016 @ 10:48
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Lg8	Laboratory:	Donegal Co Council
Template:	Landfill Monitoring - Landfill Gas	Analyst:	Nigel Breslin
Sample Notes:	Field test		

Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501968
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	06/06/2016
		Mode Of Delivery:	Field test
		Condition On Delivery:	n/a
		Date Started:	06/06/2016
		Report Date:	22/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT
					Accredited* Sub-Contract**
Atmospheric Pressure mBar		--	--	06/06/16	1019
Carbon Dioxide %		--	--	06/06/16	1.9
Methane %		--	--	06/06/16	0
Oxygen % O2		--	--	06/06/16	19.2

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Notes 4.....

Notes 5.....



Comhairle Contae Dhún na nGall
Donegal County Council
Central Laboratory, The Kube
Magheranan
Letterkenny
 074-9122787

Sample No.:	162501969	Sample Date/Time:	06/06/2016 @ 10:36
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Lg9	Laboratory:	Donegal Co Council
Template:	Landfill Monitoring - Landfill Gas	Analyst:	Nigel Breslin
Sample Notes:	Field test		
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501969
Contact Details:	Julie McMahan	Sample No. - Customer:	
	Central Lab	Date Received:	06/06/2016
	The Kube, Magheranan	Mode Of Delivery:	Field test
	Letterkenny	Condition On Delivery:	n/a
	0749122787: 0872861096	Date Started:	06/06/2016
	julie.mcmahan@donegalcoco.ie	Report Date:	22/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT
					Accredited* Sub-Contract**
Atmospheric Pressure mBar		--	--	06/06/16	1019
Carbon Dioxide %		--	--	06/06/16	0.6
Methane %		--	--	06/06/16	0
Oxygen % O2		--	--	06/06/16	19.9

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Notes 4.....

Notes 5.....



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Letterkenny
074-9122787**

Sample No.:	162501970	Sample Date/Time:	06/06/2016 @ 10:26
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Lg10	Laboratory:	Donegal Co Council
Template:	Landfill Monitoring - Landfill Gas	Analyst:	Nigel Breslin
Sample Notes:	Field test		
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501970
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	06/06/2016
		Mode Of Delivery:	Field test
		Condition On Delivery:	n/a
		Date Started:	06/06/2016
		Report Date:	22/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Atmospheric Pressure mBar		--	--	06/06/16	1019
Carbon Dioxide %		--	--	06/06/16	1.9
Methane %		--	--	06/06/16	0
Oxygen % O2		--	--	06/06/16	19

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 Notes 4.....
 Notes 5.....



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Magheranan
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074-9122787**

Sample No.:	162501971	Sample Date/Time:	06/06/2016 @ 10:19
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Lg11	Laboratory:	Donegal Co Council
Template:	Landfill Monitoring - Landfill Gas	Analyst:	Nigel Breslin
Sample Notes:	Field test		
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501971
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	06/06/2016
		Mode Of Delivery:	Field test
		Condition On Delivery:	n/a
		Date Started:	06/06/2016
		Report Date:	22/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Atmospheric Pressure mBar		--	--	06/06/16	1019
Carbon Dioxide %		--	--	06/06/16	0.2
Methane %		--	--	06/06/16	0
Oxygen % O2		--	--	06/06/16	19.6

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Notes 4.....

Notes 5.....



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Sample No.:	162501972	Sample Date/Time:	06/06/2016 @ 10:12
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Lg12	Laboratory:	Donegal Co Council
Template:	Landfill Monitoring - Landfill Gas	Analyst:	Nigel Breslin
Sample Notes:	Field test		
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501972
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	06/06/2016
		Mode Of Delivery:	Field test
		Condition On Delivery:	n/a
		Date Started:	06/06/2016
		Report Date:	22/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT <small>Accredited* Sub-Contract**</small>
Atmospheric Pressure mBar		--	--	06/06/16	1019
Carbon Dioxide %		--	--	06/06/16	4.6
Methane %		--	--	06/06/16	0
Oxygen % O2		--	--	06/06/16	20.1

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Notes 4.....

Notes 5.....



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Sample No.:	162501973	Sample Date/Time:	06/06/2016 @ 10:16
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Lg13	Laboratory:	Donegal Co Council
Template:	Landfill Monitoring - Landfill Gas	Analyst:	Nigel Breslin
Sample Notes:	Field test		
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501973
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	06/06/2016
		Mode Of Delivery:	Field test
		Condition On Delivery:	n/a
		Date Started:	06/06/2016
		Report Date:	22/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT
					Accredited* Sub-Contract**
Atmospheric Pressure mBar		--	--	06/06/16	1019
Carbon Dioxide %		--	--	06/06/16	2.1
Methane %		--	--	06/06/16	0
Oxygen % O2		--	--	06/06/16	18.6

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Notes 4.....

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Sample No.:	162501974	Sample Date/Time:	06/06/2016 @ 09:55
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Lg14	Laboratory:	Donegal Co Council
Template:	Landfill Monitoring - Landfill Gas	Analyst:	Nigel Breslin
Sample Notes:	Field test		
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501974
Contact Details:	Julie McMahan Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahan@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	06/06/2016
		Mode Of Delivery:	Field test
		Condition On Delivery:	n/a
		Date Started:	06/06/2016
		Report Date:	22/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT <small>Accredited* Sub-Contract**</small>
Atmospheric Pressure mBar		--	--	06/06/16	1019
Carbon Dioxide %		--	--	06/06/16	1.9
Methane %		--	--	06/06/16	0
Oxygen % O2		--	--	06/06/16	16.3

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Notes 4.....

Notes 5.....



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Sample No.:	162501975	Sample Date/Time:	06/06/2016 @ 09:31
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Lg15	Laboratory:	Donegal Co Council
Template:	Landfill Monitoring - Landfill Gas	Analyst:	Nigel Breslin
Sample Notes:	Field test		
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501975
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	06/06/2016
		Mode Of Delivery:	Field test
		Condition On Delivery:	n/a
		Date Started:	06/06/2016
		Report Date:	22/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT <small>Accredited* Sub-Contract**</small>
Atmospheric Pressure mBar		--	--	06/06/16	1019
Carbon Dioxide %		--	--	06/06/16	2.1
Methane %		--	--	06/06/16	0
Oxygen % O2		--	--	06/06/16	11.1

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Notes 4.....

Notes 5.....



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Sample No.:	162501976	Sample Date/Time:	06/06/2016 @ 09:18
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Lg16	Laboratory:	Donegal Co Council
Template:	Landfill Monitoring - Landfill Gas	Analyst:	Nigel Breslin
Sample Notes:	Field test		
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501976
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	06/06/2016
		Mode Of Delivery:	Field test
		Condition On Delivery:	n/a
		Date Started:	06/06/2016
		Report Date:	22/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Atmospheric Pressure mBar		--	--	06/06/16	1019
Carbon Dioxide %		--	--	06/06/16	4.3
Methane %		--	--	06/06/16	0
Oxygen % O2		--	--	06/06/16	18.6

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Notes 5.....



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Sample No.:	162501977	Sample Date/Time:	06/06/2016 @ 09:12
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick @ Caravan (Gas)	Laboratory:	Donegal Co Council
Template:	Landfill Monitoring - Landfill Gas	Analyst:	Nigel Breslin
Sample Notes:	Field test		
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501977
Contact Details:	Julie McMahan Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahan@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	06/06/2016
		Mode Of Delivery:	Field test
		Condition On Delivery:	n/a
		Date Started:	06/06/2016
		Report Date:	22/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT Accredited* Sub-Contract**
Atmospheric Pressure mBar		--	--	06/06/16	1019
Carbon Dioxide %		--	--	06/06/16	3.9
Methane %		--	--	06/06/16	0
Oxygen % O2		--	--	06/06/16	0.8

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Sample No.:	162501978	Sample Date/Time:	06/06/2016 @ 09:01
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Caravan	Laboratory:	Donegal Co Council
Template:	Landfill Monitoring - Landfill Gas	Analyst:	Nigel Breslin
Sample Notes:	Field test		
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. - Laboratory:	162501978
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. - Customer:	
		Date Received:	06/06/2016
		Mode Of Delivery:	Field test
		Condition On Delivery:	n/a
		Date Started:	06/06/2016
		Report Date:	22/06/2016
Customer Reference:	Landfill Compliance Monitoring	Report Reference:	Original Test Report

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	RESULT
					Accredited* Sub-Contract**
Atmospheric Pressure mBar		--	--	06/06/16	1019
Carbon Dioxide %		--	--	06/06/16	0
Methane %		--	--	06/06/16	0
Oxygen % O2		--	--	06/06/16	20.9

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Notes 4.....

Notes 5.....



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Sample No.:	162502868	Sample Date/Time:	30/08/2016 @ 09:15
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Donegal CoCo
Station:	Ballynacarrick Gw 1	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly GW monitoring	Analyst:	Donegal CoCo
Sample Notes:			
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. Laboratory:	162502868
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. Customer:	
		Date Received:	30/08/2016
		Mode Of Delivery:	cooler box
		Condition On Delivery:	ok
		Date Started:	30/08/2016
Customer Ref:	Landfill Compliance Monitoring	Report Date:	14/09/2016
		Report Reference:	Report No 16DL38

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	31/08/16	1.06
Chloride mg/l	5.4P-TMC14	--	--	14/09/16	15.88
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	30/08/16	457
Iron mg/l	5.4P-TMC20	--	--	14/09/16	0.077
pH pH units	5.4P-TMC1	--	--	30/08/16	6.8
Temperature Degrees C	5.4P-TMC1	--	--	30/08/16	16.4
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	31/08/16	0.16
Visual Inspection Descriptive	5.4P-TMC26	--	--	05/09/16	0
Depth m	5.4P-TMC27	--	--	30/08/16	3.3
Orthophosphate mg/l	5.4P-TMC6	--	--	31/08/16	< 0.01
Nitrate (as N) mg/l	5.4P-TMC6	--	--	31/08/16	0.16085
Nitrite (as N) mg/l	5.4P-TMC6	--	--	31/08/16	< 0.01

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 Original Test Report, unless otherwise indicated by the insertion of Supplementary Test Report in Report Reference section
 In RESULT column, unaccredited in-house test result - no asterisk, *inhouse accred., **unaccred. & subcontracted, *** accred. & sub-cont.



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Sample No.:	162502869	Sample Date/Time:	30/08/2016 @ 10:26
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Donegal CoCo
Station:	Ballynacarrick Gw 2	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly GW monitoring	Analyst:	Donegal CoCo

Sample Notes:		Sample No. Laboratory:	162502869
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. Customer:	
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Date Received:	30/08/2016
		Mode Of Delivery:	cooler box
		Condition On Delivery:	ok
		Date Started:	30/08/2016
Customer Ref:	Landfill Compliance Monitoring	Report Date:	14/09/2016
		Report Reference:	Report No 16DL38

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	05/09/16	13.5
Chloride mg/l	5.4P-TMC14	--	--	14/09/16	35.73
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	30/08/16	755
Iron mg/l	5.4P-TMC20	--	--	14/09/16	4.58
pH pH units	5.4P-TMC1	--	--	30/08/16	6.9
Temperature Degrees C	5.4P-TMC1	--	--	30/08/16	17
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	05/09/16	0.242
Visual Inspection Descriptive	5.4P-TMC26	--	--	05/09/16	0
Depth m	5.4P-TMC27	--	--	30/08/16	2.46
Orthophosphate mg/l	5.4P-TMC6	--	--	05/09/16	0.036
Nitrate (as N) mg/l	5.4P-TMC6	--	--	05/09/16	0.227
Nitrite (as N) mg/l	5.4P-TMC6	--	--	05/09/16	0.015

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Sample No.:	162502870	Sample Date/Time:	30/08/2016 @ 11:34
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Donegal CoCo
Station:	Ballynacarrick Gw 4	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly GW monitoring	Analyst:	Donegal CoCo

Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. Laboratory:	162502870
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. Customer:	
		Date Received:	30/08/2016
		Mode Of Delivery:	cooler box
		Condition On Delivery:	ok
		Date Started:	30/08/2016
Customer Ref:	Landfill Compliance Monitoring	Report Date:	14/09/2016
		Report Reference:	Report No 16DL38

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	31/08/16	0.0526
Chloride mg/l	5.4P-TMC14	--	--	14/09/16	12.9
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	30/08/16	739
Iron mg/l	5.4P-TMC20	--	--	14/09/16	0.083
pH pH units	5.4P-TMC1	--	--	30/08/16	7.5
Temperature Degrees C	5.4P-TMC1	--	--	30/08/16	15.3
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	31/08/16	0.117
Visual Inspection Descriptive	5.4P-TMC26	--	--	05/09/16	0
Depth m	5.4P-TMC27	--	--	30/08/16	4.82
Orthophosphate mg/l	5.4P-TMC6	--	--	31/08/16	< 0.01
Nitrate (as N) mg/l	5.4P-TMC6	--	--	31/08/16	0.11204
Nitrite (as N) mg/l	5.4P-TMC6	--	--	31/08/16	< 0.01

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Comhairle Contae Dhún na nGall
Donegal County Council
Central Laboratory, The Kube
Magheranan
Letterkenny
 074-9122787

Sample No.:	162502871	Sample Date/Time:	30/08/2016 @ 11:09
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Donegal CoCo
Station:	Ballynacarrick Gw 5	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly GW monitoring	Analyst:	Donegal CoCo

Sample Notes:		Sample No. Laboratory:	162502871
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. Customer:	
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Date Received:	30/08/2016
		Mode Of Delivery:	cooler box
		Condition On Delivery:	ok
		Date Started:	30/08/2016
Customer Ref:	Landfill Compliance Monitoring	Report Date:	14/09/2016
		Report Reference:	Report No 16DL38

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	05/09/16	0.664
Chloride mg/l	5.4P-TMC14	--	--	14/09/16	46.65
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	30/08/16	827
Iron mg/l	5.4P-TMC20	--	--	14/09/16	0.167
pH pH units	5.4P-TMC1	--	--	30/08/16	7.3
Temperature Degrees C	5.4P-TMC1	--	--	30/08/16	16.1
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	05/09/16	< 0.11
Visual Inspection Descriptive	5.4P-TMC26	--	--	05/09/16	0
Depth m	5.4P-TMC27	--	--	30/08/16	1.83
Orthophosphate mg/l	5.4P-TMC6	--	--	05/09/16	0.064
Nitrate (as N) mg/l	5.4P-TMC6	--	--	05/09/16	< 0.1
Nitrite (as N) mg/l	5.4P-TMC6	--	--	05/09/16	< 0.01

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Sample No.:	162502872	Sample Date/Time:	30/08/2016 @ 11:43
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Donegal CoCo
Station:	Ballynacarrick Gw 6	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly GW monitoring	Analyst:	Donegal CoCo

Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. Laboratory:	162502872
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. Customer:	
Customer Ref:	Landfill Compliance Monitoring	Date Received:	30/08/2016
		Mode Of Delivery:	cooler box
		Condition On Delivery:	ok
		Date Started:	30/08/2016
		Report Date:	14/09/2016
		Report Reference:	Report No 16DL38

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	31/08/16	0.0419
Chloride mg/l	5.4P-TMC14	--	--	14/09/16	22.83
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	30/08/16	690
Iron mg/l	5.4P-TMC20	--	--	14/09/16	0.244
pH pH units	5.4P-TMC1	--	--	30/08/16	6.9
Temperature Degrees C	5.4P-TMC1	--	--	30/08/16	14.3
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	31/08/16	< 0.1
Visual Inspection Descriptive	5.4P-TMC26	--	--	05/09/16	0
Depth m	5.4P-TMC27	--	--	30/08/16	5.9
Orthophosphate mg/l	5.4P-TMC6	--	--	31/08/16	< 0.01
Nitrate (as N) mg/l	5.4P-TMC6	--	--	31/08/16	< 0.1
Nitrite (as N) mg/l	5.4P-TMC6	--	--	31/08/16	< 0.01

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Sample No.:	162502873	Sample Date/Time:	30/08/2016 @ 11:54
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Donegal CoCo
Station:	Ballynacarrick Gw 7	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly GW monitoring	Analyst:	Donegal CoCo

Sample Notes:		Sample No. Laboratory:	162502873
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. Customer:	
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Date Received:	30/08/2016
		Mode Of Delivery:	cooler box
		Condition On Delivery:	ok
Customer Ref:	Landfill Compliance Monitoring	Date Started:	30/08/2016
		Report Date:	14/09/2016
		Report Reference:	Report No 16DL38

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	05/09/16	0.401
Chloride mg/l	5.4P-TMC14	--	--	14/09/16	26.8
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	30/08/16	772
Iron mg/l	5.4P-TMC20	--	--	14/09/16	1.448
pH pH units	5.4P-TMC1	--	--	30/08/16	6.6
Temperature Degrees C	5.4P-TMC1	--	--	30/08/16	15.5
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	05/09/16	< 0.11
Visual Inspection Descriptive	5.4P-TMC26	--	--	05/09/16	0
Depth m	5.4P-TMC27	--	--	30/08/16	3.92
Orthophosphate mg/l	5.4P-TMC6	--	--	05/09/16	< 0.01
Nitrate (as N) mg/l	5.4P-TMC6	--	--	05/09/16	< 0.1
Nitrite (as N) mg/l	5.4P-TMC6	--	--	05/09/16	< 0.01

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Sample No.:	162502874	Sample Date/Time:	30/08/2016 @ 10:13
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Donegal CoCo
Station:	Ballynacarrick Gw 10	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly GW monitoring	Analyst:	Donegal CoCo
Sample Notes:			
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. Laboratory:	162502874
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. Customer:	
		Date Received:	30/08/2016
		Mode Of Delivery:	cooler box
		Condition On Delivery:	ok
		Date Started:	30/08/2016
		Report Date:	14/09/2016
Customer Ref:	Landfill Compliance Monitoring	Report Reference:	Report No 16DL38

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	05/09/16	1.92
Chloride mg/l	5.4P-TMC14	--	--	14/09/16	21.84
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	30/08/16	481
Iron mg/l	5.4P-TMC20	--	--	14/09/16	4.108
pH pH units	5.4P-TMC1	--	--	30/08/16	6.6
Temperature Degrees C	5.4P-TMC1	--	--	30/08/16	15.1
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	05/09/16	< 0.1
Visual Inspection Descriptive	5.4P-TMC26	--	--	05/09/16	0
Depth m	5.4P-TMC27	--	--	30/08/16	2.14
Orthophosphate mg/l	5.4P-TMC6	--	--	05/09/16	0.012
Nitrate (as N) mg/l	5.4P-TMC6	--	--	05/09/16	< 0.1
Nitrite (as N) mg/l	5.4P-TMC6	--	--	05/09/16	0.012

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Sample No.:	162502864	Sample Date/Time:	30/08/2016 @ 10:32
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Donegal CoCo
Station:	Ballynacarrick Sw 1	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly SW monitoring	Analyst:	Donegal CoCo

Sample Notes:		Sample No. Laboratory:	162502864
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. Customer:	
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Date Received:	30/08/2016
		Mode Of Delivery:	cooler box
		Condition On Delivery:	ok
		Date Started:	30/08/2016
Customer Ref:	Landfill Compliance Monitoring	Report Date:	14/09/2016
		Report Reference:	Report No 16DL38

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC5	--	--	31/08/16	1.07
BOD mg/l	5.4P-TMC9	--	--	07/09/16	2
Chloride mg/l	5.4P-TMC14	--	--	14/09/16	14.89
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	30/08/16	179.2
Dissolved Oxygen (Measurement) keep mg/l	5.4P-TMC18	--	--	30/08/16	8.9
pH pH units	5.4P-TMC1	--	--	30/08/16	7.4
Suspended Solids mg/l	5.4P-TMC4	--	--	06/09/16	16
Temperature Degrees C	5.4P-TMC1	--	--	30/08/16	15.9
Visual Inspection Descriptive	5.4P-TMC26	--	--	05/09/16	0
COD mg/l	5.4P-TMC3	--	--	02/09/16	71
Orthophosphate mg/l	5.4P-TMC5	--	--	31/08/16	< 0.01
Nitrate (as N) mg/l	5.4P-TMC5	--	--	31/08/16	0.5448
Nitrite (as N) mg/l	5.4P-TMC5	--	--	31/08/16	0.0442

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Sample No.:	162502865	Sample Date/Time:	30/08/2016 @ 10:05
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Donegal CoCo
Station:	Ballynacarrick Sw 2	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly SW monitoring	Analyst:	Donegal CoCo

Sample Notes:		Sample No. Laboratory:	162502865
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. Customer:	
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Date Received:	30/08/2016
		Mode Of Delivery:	cooler box
		Condition On Delivery:	ok
		Date Started:	30/08/2016
Customer Ref:	Landfill Compliance Monitoring	Report Date:	14/09/2016
		Report Reference:	Report No 16DL38

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC5	--	--	31/08/16	< 0.04
BOD mg/l	5.4P-TMC9	--	--	07/09/16	3
Chloride mg/l	5.4P-TMC14	--	--	14/09/16	11.91
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	30/08/16	134
Dissolved Oxygen (Measurement) keep mg/l	5.4P-TMC18	--	--	30/08/16	5.62
pH pH units	5.4P-TMC1	--	--	30/08/16	6.7
Suspended Solids mg/l	5.4P-TMC4	--	--	06/09/16	9
Temperature Degrees C	5.4P-TMC1	--	--	30/08/16	15.7
Visual Inspection Descriptive	5.4P-TMC26	--	--	05/09/16	0
COD mg/l	5.4P-TMC3	--	--	02/09/16	88
Orthophosphate mg/l	5.4P-TMC5	--	--	31/08/16	< 0.01
Nitrate (as N) mg/l	5.4P-TMC5	--	--	31/08/16	< 0.1
Nitrite (as N) mg/l	5.4P-TMC5	--	--	31/08/16	< 0.01

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Sample No.:	162502866	Sample Date/Time:	30/08/2016 @ 11:15
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Donegal CoCo
Station:	Ballynacarrick Sw 3	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly SW monitoring	Analyst:	Donegal CoCo

Sample Notes:		Sample No. Laboratory:	162502866
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. Customer:	
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Date Received:	30/08/2016
		Mode Of Delivery:	cooler box
		Condition On Delivery:	ok
		Date Started:	30/08/2016
Customer Ref:	Landfill Compliance Monitoring	Report Date:	14/09/2016
		Report Reference:	Report No 16DL38

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC5	--	--	31/08/16	1
BOD mg/l	5.4P-TMC9	--	--	07/09/16	7
Chloride mg/l	5.4P-TMC14	--	--	14/09/16	62.53
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	30/08/16	489
Dissolved Oxygen (Measurement) keep mg/l	5.4P-TMC18	--	--	30/08/16	8.95
pH pH units	5.4P-TMC1	--	--	30/08/16	7.8
Suspended Solids mg/l	5.4P-TMC4	--	--	06/09/16	< 6
Temperature Degrees C	5.4P-TMC1	--	--	30/08/16	15.6
Visual Inspection Descriptive	5.4P-TMC26	--	--	05/09/16	0
COD mg/l	5.4P-TMC3	--	--	02/09/16	46
Orthophosphate mg/l	5.4P-TMC5	--	--	31/08/16	< 0.01
Nitrate (as N) mg/l	5.4P-TMC5	--	--	31/08/16	1.0314
Nitrite (as N) mg/l	5.4P-TMC5	--	--	31/08/16	0.0786

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Sample No.:	162502867	Sample Date/Time:	30/08/2016 @ 11:22
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Donegal CoCo
Station:	Ballynacarrick Sw 4	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly SW monitoring	Analyst:	Donegal CoCo
Sample Notes:			
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. Laboratory:	162502867
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. Customer:	
		Date Received:	30/08/2016
		Mode Of Delivery:	cooler box
		Condition On Delivery:	ok
		Date Started:	30/08/2016
		Report Date:	14/09/2016
Customer Ref:	Landfill Compliance Monitoring	Report Reference:	Report No 16DL38

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC5	--	--	05/09/16	0.789
BOD mg/l	5.4P-TMC9	--	--	07/09/16	3
Chloride mg/l	5.4P-TMC14	--	--	14/09/16	19.85
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	30/08/16	442
Dissolved Oxygen (Measurement) keep mg/l	5.4P-TMC18	--	--	30/08/16	8.9
pH pH units	5.4P-TMC1	--	--	30/08/16	7.8
Suspended Solids mg/l	5.4P-TMC4	--	--	06/09/16	9
Temperature Degrees C	5.4P-TMC1	--	--	30/08/16	16.6
Visual Inspection Descriptive	5.4P-TMC26	--	--	05/09/16	0
COD mg/l	5.4P-TMC3	--	--	02/09/16	44
Orthophosphate mg/l	5.4P-TMC5	--	--	05/09/16	0.01
Nitrate (as N) mg/l	5.4P-TMC5	--	--	05/09/16	0.327
Nitrite (as N) mg/l	5.4P-TMC5	--	--	05/09/16	0.104

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Sample No.:	162502875	Sample Date/Time:	30/08/2016 @ 09:03
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Donegal CoCo
Station:	Ballynacarrick Leachate L 1	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly Leachate monitoring	Analyst:	Donegal CoCo

Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. Laboratory:	162502875
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. Customer:	
Customer Ref:	Landfill Compliance Monitoring	Date Received:	30/08/2016
		Mode Of Delivery:	cooler box
		Condition On Delivery:	ok
		Date Started:	30/08/2016
		Report Date:	14/09/2016
		Report Reference:	Report No 16DL38

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	05/09/16	144
BOD mg/l	5.4P-TMC9	--	--	07/09/16	5
Chloride mg/l	5.4P-TMC14	--	--	14/09/16	2.98
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	30/08/16	3.09
pH pH units	5.4P-TMC1	--	--	30/08/16	6.7
Temperature Degrees C	5.4P-TMC1	--	--	30/08/16	15.3
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	05/09/16	0.25
Visual Inspection Descriptive	5.4P-TMC26	--	--	05/09/16	0
Orthophosphate mg/l	5.4P-TMC6	--	--	05/09/16	0.045
Nitrate (as N) mg/l	5.4P-TMC6	--	--	05/09/16	0.2
Nitrite (as N) mg/l	5.4P-TMC6	--	--	05/09/16	0.05
COD mg/l	5.4P-TMC3	--	1	02/09/16	128

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Comhairle Contae Dhún na nGall
Donegal County Council
Central Laboratory, The Kube
Magheranan
Letterkenny
 074-9122787

Sample No.:	162502876	Sample Date/Time:	30/08/2016 @ 11:01
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Donegal CoCo
Station:	Ballynacarrick L6 (Treated)	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly Leachate monitoring	Analyst:	Donegal CoCo

Sample Notes:		Sample No. Laboratory:	162502876
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. Customer:	
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Date Received:	30/08/2016
		Mode Of Delivery:	cooler box
		Condition On Delivery:	ok
		Date Started:	30/08/2016
Customer Ref:	Landfill Compliance Monitoring	Report Date:	14/09/2016
		Report Reference:	Report No 16DL38

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	05/09/16	1.61
BOD mg/l	5.4P-TMC9	--	--	07/09/16	81
Chloride mg/l	5.4P-TMC14	--	--	14/09/16	211.42
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	30/08/16	1674
pH pH units	5.4P-TMC1	--	--	30/08/16	7.8
Temperature Degrees C	5.4P-TMC1	--	--	30/08/16	19.3
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	05/09/16	16.1
Visual Inspection Descriptive	5.4P-TMC26	--	--	05/09/16	0
Orthophosphate mg/l	5.4P-TMC6	--	--	05/09/16	0.35
Nitrate (as N) mg/l	5.4P-TMC6	--	--	05/09/16	16.04
Nitrite (as N) mg/l	5.4P-TMC6	--	--	05/09/16	0.06
COD mg/l	5.4P-TMC3	--	1	02/09/16	72

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Central Laboratory, The Kube
Magheranan
Letterkenny
 074-9122787

Sample No.:	162502877	Sample Date/Time:	30/08/2016 @ 11:01
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Donegal CoCo
Station:	Ballynacarrick Leachate L8	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly Leachate monitoring	Analyst:	Donegal CoCo

Sample Notes:		Sample No. Laboratory:	162502877
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. Customer:	
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Date Received:	30/08/2016
		Mode Of Delivery:	cooler box
		Condition On Delivery:	ok
		Date Started:	30/08/2016
Customer Ref:	Landfill Compliance Monitoring	Report Date:	14/09/2016
		Report Reference:	Report No 16DL38

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	05/09/16	7.27
BOD mg/l	5.4P-TMC9	--	--	07/09/16	3
Chloride mg/l	5.4P-TMC14	--	--	14/09/16	53.6
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	30/08/16	1050
pH pH units	5.4P-TMC1	--	--	30/08/16	7.3
Temperature Degrees C	5.4P-TMC1	--	--	30/08/16	18.1
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	05/09/16	0.995
Visual Inspection Descriptive	5.4P-TMC26	--	--	05/09/16	0
Orthophosphate mg/l	5.4P-TMC6	--	--	05/09/16	< 0.01
Nitrate (as N) mg/l	5.4P-TMC6	--	--	05/09/16	0.899
Nitrite (as N) mg/l	5.4P-TMC6	--	--	05/09/16	0.096
COD mg/l	5.4P-TMC3	--	1	02/09/16	37

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074-9122787



Sample No.: 162503541 **Sample Date/Time:** 25/10/2016 @ 16:20
Category: Landfill Monitoring **Sample Method:** Grab
Entity: Ballynacarrick Landfill **Sampled By:** Nigel Breslin
Station: Ballynacarrick Gw 1 **Laboratory:** Donegal Co Council
Template: Ballynacarrick Quarterly GW monitoring **Analyst:** Eddie Carr
Sample Notes:

Customer Name: Landfill Monitoring Donegal Co. Council
Contact Details: Julie McMahon
Central Lab
The Kube, Magheranan
Letterkenny
0749122787: 0872861096
julie.mcmahon@donegalcoco.ie
Customer Ref: Landfill Compliance Monitoring

Sample No. Laboratory: 162503541
Sample No. Customer:
Date Received: 25/10/2016
Mode Of Delivery: coolbox
Condition On Delivery: ok
Date Started: 25/10/2016
Report Date: 21/12/2016
Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	01/11/16	1.43
Chloride mg/l	5.4P-TMC14	--	--	02/11/16	9.93
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	27/10/16	412 *
Iron mg/l	5.4P-TMC20	--	--	25/10/16	--
pH pH units	5.4P-TMC1	--	--	27/10/16	6.9 *
Temperature Degrees C	5.4P-TMC1	--	--	25/10/16	11.4
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	01/11/16	0.198
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/10/16	Nothing Observed
Depth m	5.4P-TMC27	--	--	25/10/16	2.66
Orthophosphate mg/l	5.4P-TMC6	--	--	01/11/16	0.023
Nitrate (as N) mg/l	5.4P-TMC6	--	--	01/11/16	0.175
Nitrite (as N) mg/l	5.4P-TMC6	--	--	01/11/16	0.018

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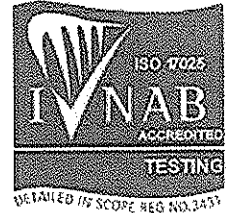
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 074-9122787



Sample No.:	162503542	Sample Date/Time:	25/10/2016 @ 16:59
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Gw 2	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly GW monitoring	Analyst:	Eddie Carr

Sample Notes:

Customer Name: Landfill Monitoring Donegal Co. Council
Contact Details: Julie McMahon
 Central Lab
 The Kube, Magheranan
 Letterkenny
 0749122787: 0872861096
 julie.mcmahon@donegalcoco.ie
Customer Ref: Landfill Compliance Monitoring

Sample No. Laboratory: 162503542
Sample No. Customer:
Date Received: 25/10/2016
Mode Of Delivery: coolbox
Condition On Delivery: ok
Date Started: 25/10/2016
Report Date: 21/12/2016
Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	01/11/16	15.8
Chloride mg/l	5.4P-TMC14	--	--	02/11/16	4.96
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	27/10/16	639 *
Iron mg/l	5.4P-TMC20	--	--	25/10/16	--
pH pH units	5.4P-TMC1	--	--	27/10/16	6.7 *
Temperature Degrees C	5.4P-TMC1	--	--	25/10/16	11.9
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	01/11/16	0.175
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/10/16	Nothing Observed
Depth m	5.4P-TMC27	--	--	25/10/16	2.22
Orthophosphate mg/l	5.4P-TMC6	--	--	01/11/16	0.024
Nitrate (as N) mg/l	5.4P-TMC6	--	--	01/11/16	0.159
Nitrite (as N) mg/l	5.4P-TMC6	--	--	01/11/16	0.026

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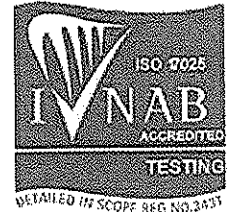
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 Dr. Joe Ferry, Laboratory Manager

10/01/2017

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Magheranan
Letterkenny
 074-9122787



Sample No.:	162503543	Sample Date/Time:	25/10/2016 @ 17:38
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Gw 4	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly GW monitoring	Analyst:	Eddie Carr

Sample Notes:		Sample No. Laboratory:	162503543
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. Customer:	
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Date Received:	25/10/2016
		Mode Of Delivery:	coolbox
		Condition On Delivery:	ok
		Date Started:	25/10/2016
Customer Ref:	Landfill Compliance Monitoring	Report Date:	21/12/2016
		Report Reference:	17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	01/11/16	0.453
Chloride mg/l	5.4P-TMC14	--	--	02/11/16	1.99
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	27/10/16	672 *
Iron mg/l	5.4P-TMC20	--	--	25/10/16	--
pH pH units	5.4P-TMC1	--	--	27/10/16	7.4 *
Temperature Degrees C	5.4P-TMC1	--	--	25/10/16	11.9
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	01/11/16	< 0.1
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/10/16	Nothing Observed
Depth m	5.4P-TMC27	--	--	25/10/16	3.7
Orthophosphate mg/l	5.4P-TMC6	--	--	01/11/16	0.016
Nitrate (as N) mg/l	5.4P-TMC6	--	--	01/11/16	< 0.1
Nitrite (as N) mg/l	5.4P-TMC6	--	--	01/11/16	< 0.01

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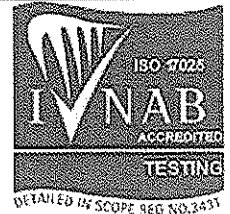
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 074-9122787



Sample No.: 162503544
Category: Landfill Monitoring
Entity: Ballynacarrick Landfill
Station: Ballynacarrick Gw 5
Template: Ballynacarrick Quarterly GW monitoring
Sample Notes:

Sample Date/Time: 25/10/2016 @ 17:11
Sample Method: Grab
Sampled By: Nigel Breslin
Laboratory: Donegal Co Council
Analyst: Eddie Carr

Customer Name: Landfill Monitoring Donegal Co. Council
Contact Details: Julie McMahon
 Central Lab
 The Kube, Magheranan
 Letterkenny
 0749122787: 0872861096
 julie.mcmahon@donegalcoco.ie
Customer Ref: Landfill Compliance Monitoring

Sample No. Laboratory: 162503544
Sample No. Customer:
Date Received: 25/10/2016
Mode Of Delivery: coolbox
Condition On Delivery: ok
Date Started: 25/10/2016
Report Date: 21/12/2016
Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	01/11/16	0.509
Chloride mg/l	5.4P-TMC14	--	--	02/11/16	44.67
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	27/10/16	767 *
Iron mg/l	5.4P-TMC20	--	--	25/10/16	--
pH pH units	5.4P-TMC1	--	--	27/10/16	7.2 *
Temperature Degrees C	5.4P-TMC1	--	--	25/10/16	11.7
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	01/11/16	< 0.1
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/10/16	Nothing Observed
Depth m	5.4P-TMC27	--	--	25/10/16	1.68
Orthophosphate mg/l	5.4P-TMC6	--	--	01/11/16	< 0.01
Nitrate (as N) mg/l	5.4P-TMC6	--	--	01/11/16	< 0.1
Nitrite (as N) mg/l	5.4P-TMC6	--	--	01/11/16	< 0.01

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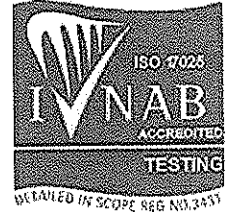
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 074-9122787



Sample No.:	162503545	Sample Date/Time:	25/10/2016 @ 17:49
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Gw 6	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly GW monitoring	Analyst:	Eddie Carr

Sample Notes:		Sample No. Laboratory:	162503545
Customer Name:	Landfill Monitoring Donegal Co. Council	Sample No. Customer:	
Contact Details:	Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Date Received:	25/10/2016
Customer Ref:	Landfill Compliance Monitoring	Mode Of Delivery:	coolbox
		Condition On Delivery:	ok
		Date Started:	25/10/2016
		Report Date:	21/12/2016
		Report Reference:	17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	01/11/16	6.3
Chloride mg/l	5.4P-TMC14	--	--	02/11/16	29.78
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	27/10/16	567 *
Iron mg/l	5.4P-TMC20	--	--	25/10/16	--
pH pH units	5.4P-TMC1	--	--	27/10/16	7 *
Temperature Degrees C	5.4P-TMC1	--	--	25/10/16	11.8
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	01/11/16	< 0.1
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/10/16	Nothing Observed
Depth m	5.4P-TMC27	--	--	25/10/16	4.66
Orthophosphate mg/l	5.4P-TMC6	--	--	01/11/16	0.011
Nitrate (as N) mg/l	5.4P-TMC6	--	--	01/11/16	< 0.1
Nitrite (as N) mg/l	5.4P-TMC6	--	--	01/11/16	< 0.01

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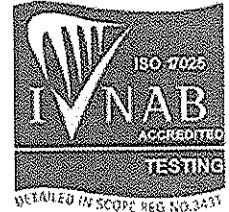
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Central Laboratory, The Kube
Magheranan
Letterkenny
 074-9122787



Sample No.: 162503546 **Sample Date/Time:** 25/10/2016 @ 18:06
Category: Landfill Monitoring **Sample Method:** Grab
Entity: Ballynacarrick Landfill **Sampled By:** Nigel Breslin
Station: Ballynacarrick Gw 7 **Laboratory:** Donegal Co Council
Template: Ballynacarrick Quarterly GW monitoring **Analyst:** Eddie Carr

Sample Notes:
Customer Name: Landfill Monitoring Donegal Co. Council **Sample No. Laboratory:** 162503546
Contact Details: Julie McMahon **Sample No. Customer:**
 Central Lab **Date Received:** 25/10/2016
 The Kube, Magheranan **Mode Of Delivery:** coolbox
 Letterkenny **Condition On Delivery:** ok
 0749122787: 0872861096 **Date Started:** 25/10/2016
 julie.mcmahon@donegalcoco.ie **Report Date:** 21/12/2016
Customer Ref: Landfill Compliance Monitoring **Report Reference:** 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	01/11/16	7.31
Chloride mg/l	5.4P-TMC14	--	--	02/11/16	34.74
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	27/10/16	715 *
Iron mg/l	5.4P-TMC20	--	--	25/10/16	--
pH pH units	5.4P-TMC1	--	--	27/10/16	6.5 *
Temperature Degrees C	5.4P-TMC1	--	--	25/10/16	11.9
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	01/11/16	< 0.1
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/10/16	Nothing Observed
Depth m	5.4P-TMC27	--	--	25/10/16	3.49
Orthophosphate mg/l	5.4P-TMC6	--	--	01/11/16	0.022
Nitrate (as N) mg/l	5.4P-TMC6	--	--	01/11/16	< 0.1
Nitrite (as N) mg/l	5.4P-TMC6	--	--	01/11/16	< 0.01

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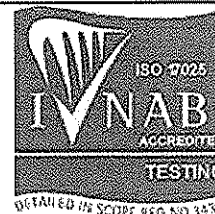
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**Comhairle Contae Dhún na nGall
Donegal County Council
Central Laboratory, The Kube
Magheranan
Letterkenny
074-9122787**



Sample No.:	162503547	Sample Date/Time:	25/10/2016 @ 16:41
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Gw 10	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly GW monitoring	Analyst:	Eddie Carr

Sample Notes:

Customer Name: Landfill Monitoring Donegal Co. Council
Contact Details: Julie McMahon
 Central Lab
 The Kube, Magheranan
 Letterkenny
 0749122787: 0872861096
 julie.mcmahon@donegalcoco.ie

Sample No. Laboratory: 162503547
Sample No. Customer:
Date Received: 25/10/2016
Mode Of Delivery: coolbox
Condition On Delivery: ok
Date Started: 25/10/2016
Report Date: 21/12/2016
Report Reference: 17DL07

Customer Ref: Landfill Compliance Monitoring

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	01/11/16	0.965
Chloride mg/l	5.4P-TMC14	--	--	02/11/16	12.9
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	27/10/16	383 *
Iron mg/l	5.4P-TMC20	--	--	25/10/16	--
pH pH units	5.4P-TMC1	--	--	27/10/16	6.6 *
Temperature Degrees C	5.4P-TMC1	--	--	25/10/16	12
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	01/11/16	< 0.11
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/10/16	Nothing Observed
Depth m	5.4P-TMC27	--	--	25/10/16	2.32
Orthophosphate mg/l	5.4P-TMC6	--	--	01/11/16	< 0.01
Nitrate (as N) mg/l	5.4P-TMC6	--	--	01/11/16	< 0.1
Nitrite (as N) mg/l	5.4P-TMC6	--	--	01/11/16	0.01

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Geraldine Friel

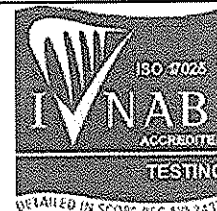
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**Comhairle Contae Dhún na nGall
Donegal County Council
Central Laboratory, The Kube
Magheranan
Letterkenny
074-9122787**



Sample No.:	162503537	Sample Date/Time:	25/10/2016 @ 16:47
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Sw 1	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly SW monitoring	Analyst:	Eddie Carr

Sample Notes:**Customer Name:** Landfill Monitoring Donegal Co. Council**Contact Details:** Julie McMahon

Central Lab

The Kube, Magheranan

Letterkenny

0749122787: 0872861096

julie.mcmahon@donegalcoco.ie

Customer Ref: Landfill Compliance Monitoring**Sample No. Laboratory:** 162503537**Sample No. Customer:****Date Received:** 25/10/2016**Mode Of Delivery:** coolbox**Condition On Delivery:** ok**Date Started:** 25/10/2016**Report Date:** 23/11/2016**Report Reference:** 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC5	--	--	01/11/16	0.565
BOD mg/l	5.4P-TMC9	--	--	27/10/16	1
Chloride mg/l	5.4P-TMC14	--	--	02/11/16	0.99
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	27/10/16	153 *
Dissolved Oxygen (Measurement) keep mg/l	5.4P-TMC18	--	--	27/10/16	9.22
pH pH units	5.4P-TMC1	--	--	27/10/16	7.2 *
Suspended Solids mg/l	5.4P-TMC4	--	--	27/10/16	< 6
Temperature Degrees C	5.4P-TMC1	--	--	25/10/16	12.1 *
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/10/16	Nothing Observed
COD mg/l	5.4P-TMC3	--	--	27/10/16	56 *
Orthophosphate mg/l	5.4P-TMC5	--	--	01/11/16	0.022
Nitrate (as N) mg/l	5.4P-TMC5	--	--	01/11/16	0.364
Nitrite (as N) mg/l	5.4P-TMC5	--	--	01/11/16	0.036

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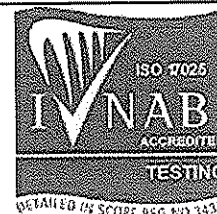
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Donegal County Council
Central Laboratory, The Kube
Magheranan
Letterkenny
 074-9122787



Sample No.:	162503538	Sample Date/Time:	25/10/2016 @ 16:31
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Sw 2	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly SW monitoring	Analyst:	Eddie Carr

Sample Notes:

Customer Name: Landfill Monitoring Donegal Co. Council
Contact Details: Julie McMahon
 Central Lab
 The Kube, Magheranan
 Letterkenny
 0749122787: 0872861096
 julie.mcmahon@donegalcoco.ie
Customer Ref: Landfill Compliance Monitoring

Sample No. Laboratory: 162503538
Sample No. Customer:
Date Received: 25/10/2016
Mode Of Delivery: coolbox
Condition On Delivery: ok
Date Started: 25/10/2016
Report Date: 10/01/2017
Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC5	--	--	01/11/16	1.77
BOD mg/l	5.4P-TMC9	--	--	27/10/16	< 1
Chloride mg/l	5.4P-TMC14	--	--	02/11/16	11.91
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	27/10/16	114.7 *
Dissolved Oxygen (Measurement) keep mg/l	5.4P-TMC18	--	--	27/10/16	7.46
pH pH units	5.4P-TMC1	--	--	27/10/16	6.5 *
Suspended Solids mg/l	5.4P-TMC4	--	--	27/10/16	14 *
Temperature Degrees C	5.4P-TMC1	--	--	25/10/16	11.5
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/10/16	Nothing Observed
COD mg/l	5.4P-TMC3	--	--	27/10/16	47 *
Orthophosphate mg/l	5.4P-TMC5	--	--	01/11/16	0.036
Nitrate (as N) mg/l	5.4P-TMC5	--	--	01/11/16	< 0.1
Nitrite (as N) mg/l	5.4P-TMC5	--	--	01/11/16	0.014

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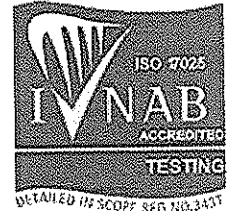
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Donegal County Council
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Magheranan
Letterkenny
074-9122787



Sample No.: 162503539
Category: Landfill Monitoring
Entity: Ballynacarrick Landfill
Station: Ballynacarrick Sw 3
Template: Ballynacarrick Quarterly SW monitoring
Sample Notes:

Sample Date/Time: 25/10/2016 @ 17:16
Sample Method: Grab
Sampled By: Nigel Breslin
Laboratory: Donegal Co Council
Analyst: Eddie Carr

Customer Name: Landfill Monitoring Donegal Co. Council
Contact Details: Julie McMahon
Central Lab
The Kube, Magheranan
Letterkenny
0749122787: 0872861096
julie.mcmahon@donegalcoco.ie
Customer Ref: Landfill Compliance Monitoring

Sample No. Laboratory: 162503539
Sample No. Customer:
Date Received: 25/10/2016
Mode Of Delivery: coolbox
Condition On Delivery: ok
Date Started: 25/10/2016
Report Date: 23/11/2016
Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC5	--	--	01/11/16	2.72
BOD mg/l	5.4P-TMC9	--	--	27/10/16	9
Chloride mg/l	5.4P-TMC14	--	--	02/11/16	14.89
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	27/10/16	385 *
Dissolved Oxygen (Measurement) keep mg/l	5.4P-TMC18	--	--	27/10/16	9.23
pH pH units	5.4P-TMC1	--	--	27/10/16	7.7 *
Suspended Solids mg/l	5.4P-TMC4	--	--	27/10/16	< 6 *
Temperature Degrees C	5.4P-TMC1	--	--	25/10/16	10.4
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/10/16	Nothing Observed
COD mg/l	5.4P-TMC3	--	--	27/10/16	26 *
Orthophosphate mg/l	5.4P-TMC5	--	--	01/11/16	0.017
Nitrate (as N) mg/l	5.4P-TMC5	--	--	01/11/16	0.379
Nitrite (as N) mg/l	5.4P-TMC5	--	--	01/11/16	0.02

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Magheranan
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 074-9122787



Sample No.:	162503540	Sample Date/Time:	25/10/2016 @ 17:22
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Sw 4	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly SW monitoring	Analyst:	Eddie Carr

Sample Notes:

Customer Name: Landfill Monitoring Donegal Co. Council
Contact Details: Julie McMahon
 Central Lab
 The Kube, Magheranan
 Letterkenny
 0749122787: 0872861096
 julie.mcmahon@donegalcoco.ie
Customer Ref: Landfill Compliance Monitoring

Sample No. Laboratory: 162503540
Sample No. Customer:
Date Received: 25/10/2016
Mode Of Delivery: coolbox
Condition On Delivery: ok
Date Started: 25/10/2016
Report Date: 23/11/2016
Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC5	--	--	01/11/16	3.55
BOD mg/l	5.4P-TMC9	--	--	27/10/16	9
Chloride mg/l	5.4P-TMC14	--	--	02/11/16	22.83
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	27/10/16	440 *
Dissolved Oxygen (Measurement) keep mg/l	5.4P-TMC18	--	--	27/10/16	9.14
pH pH units	5.4P-TMC1	--	--	27/10/16	7.8 *
Suspended Solids mg/l	5.4P-TMC4	--	--	27/10/16	< 6 *
Temperature Degrees C	5.4P-TMC1	--	--	25/10/16	11
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/10/16	Nothing Observed
COD mg/l	5.4P-TMC3	--	--	27/10/16	34 *
Orthophosphate mg/l	5.4P-TMC5	--	--	01/11/16	< 0.01
Nitrate (as N) mg/l	5.4P-TMC5	--	--	01/11/16	0.484
Nitrite (as N) mg/l	5.4P-TMC5	--	--	01/11/16	0.047

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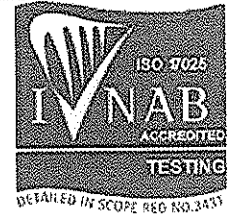
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Letterkenny
 074-9122787



Sample No.:	162503548	Sample Date/Time:	25/10/2016 @ 15:30
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Leachate L 1	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly Leachate monitoring	Analyst:	Eddie Carr

Sample Notes:

Customer Name: Landfill Monitoring Donegal Co. Council
Contact Details: Julie McMahon
 Central Lab
 The Kube, Magheranan
 Letterkenny
 0749122787: 0872861096
 julie.mcmahon@donegalcoco.ie
Customer Ref: Landfill Compliance Monitoring

Sample No. Laboratory: 162503548
Sample No. Customer:
Date Received: 25/10/2016
Mode Of Delivery: coolbox
Condition On Delivery: ok
Date Started: 25/10/2016
Report Date: 10/01/2017
Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	01/11/16	118
BOD mg/l	5.4P-TMC9	--	--	27/10/16	1
Chloride mg/l	5.4P-TMC14	--	--	02/11/16	138.96
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	27/10/16	22900
pH pH units	5.4P-TMC1	--	--	27/10/16	6.6
Temperature Degrees C	5.4P-TMC1	--	--	25/10/16	12.2
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	01/11/16	< 0.11
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/10/16	Nothing Observed
Orthophosphate mg/l	5.4P-TMC6	--	--	01/11/16	< 0.01
Nitrate (as N) mg/l	5.4P-TMC6	--	--	01/11/16	< 0.1
Nitrite (as N) mg/l	5.4P-TMC6	--	--	01/11/16	0.03
COD mg/l	5.4P-TMC3	--	1	27/10/16	107

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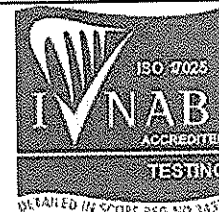
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074-9122787



Sample No.: 162503549
Category: Landfill Monitoring
Entity: Ballynacarrick Landfill
Station: Ballynacarrick L 6 (Tank)
Template: Ballynacarrick Quarterly Leachate monitoring
Sample Notes:

Sample Date/Time: 25/10/2016 @ 16:10
Sample Method: Grab
Sampled By: Nigel Breslin
Laboratory: Donegal Co Council
Analyst: Eddie Carr

Customer Name: Landfill Monitoring Donegal Co. Council
Contact Details: Julie McMahon
Central Lab
The Kube, Magheranan
Letterkenny
0749122787; 0872861096
julie.mcmahon@donegalcoco.ie
Customer Ref: Landfill Compliance Monitoring

Sample No. Laboratory: 162503549
Sample No. Customer:
Date Received: 25/10/2016
Mode Of Delivery: coolbox
Condition On Delivery: ok
Date Started: 25/10/2016
Report Date: 10/01/2017
Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	01/11/16	45.4
BOD mg/l	5.4P-TMC9	--	--	27/10/16	6
Chloride mg/l	5.4P-TMC14	--	--	02/11/16	268
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	27/10/16	2002
pH pH units	5.4P-TMC1	--	--	27/10/16	7.3
Temperature Degrees C	5.4P-TMC1	--	--	25/10/16	12
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	01/11/16	62
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/10/16	Nothing Observed
Orthophosphate mg/l	5.4P-TMC6	--	--	01/11/16	< 0.01
Nitrate (as N) mg/l	5.4P-TMC6	--	--	01/11/16	61.08
Nitrite (as N) mg/l	5.4P-TMC6	--	--	01/11/16	0.92
COD mg/l	5.4P-TMC3	--	1	27/10/16	92

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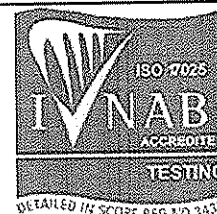
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 074-9122787



Sample No.:	162503550	Sample Date/Time:	25/10/2016 @ 17:04
Category:	Landfill Monitoring	Sample Method:	Grab
Entity:	Ballynacarrick Landfill	Sampled By:	Nigel Breslin
Station:	Ballynacarrick Leachate L8	Laboratory:	Donegal Co Council
Template:	Ballynacarrick Quarterly Leachate monitoring	Analyst:	Eddie Carr

Sample Notes:**Customer Name:** Landfill Monitoring Donegal Co. Council**Contact Details:** Julie McMahon

Central Lab

The Kube, Magheranan

Letterkenny

0749122787: 0872861096

julie.mcmahon@donegalcoco.ie

Customer Ref: Landfill Compliance Monitoring**Sample No. Laboratory:** 162503550**Sample No. Customer:****Date Received:** 25/10/2016**Mode Of Delivery:** coolbox**Condition On Delivery:** ok**Date Started:** 25/10/2016**Report Date:** 12/01/2017**Report Reference:** 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Ammonia (as N) mg/l	5.4P-TMC6	--	--	01/11/16	5.28
BOD mg/l	5.4P-TMC9	--	--	27/10/16	6
Chloride mg/l	5.4P-TMC14	--	--	02/11/16	39.7
Conductivity @ 20°C µS/cm	5.4P-TMC2	--	--	27/10/16	868
pH pH units	5.4P-TMC1	--	--	27/10/16	7.3
Temperature Degrees C	5.4P-TMC1	--	--	25/10/16	12.3
Total Oxidised Nitrogen mg/l	5.4P-TMC6	--	--	01/11/16	4.34
Visual Inspection Descriptive	5.4P-TMC26	--	--	25/10/16	Nothing Observed
Orthophosphate mg/l	5.4P-TMC6	--	--	01/11/16	0.013
Nitrate (as N) mg/l	5.4P-TMC6	--	--	01/11/16	3.614
Nitrite (as N) mg/l	5.4P-TMC6	--	--	01/11/16	0.726
COD mg/l	5.4P-TMC3	--	1	27/10/16	29

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12/01/2017

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Donegal County Council
Central Laboratory, The Kube
Magheranan
Letterkenny
074-9122787



Sample No.: 162503673 **Sample Date/Time:** 28/10/2016 @ 10:58
Category: Landfill Monitoring **Sample Method:** Grab
Entity: Ballynacarrick Landfill **Sampled By:** Nigel Breslin
Station: Ballynacarrick Lg2 **Laboratory:** Donegal Co Co
Template: Landfill Monitoring - Landfill Gas **Analyst:** Donegal CoCo

Sample Notes:

Customer Name: Landfill Monitoring Donegal Co. Council
Contact Details: Julie McMahon
Central Lab
The Kube, Magheranan
Letterkenny
0749122787: 0872861096
julie.mcmahon@donegalcoco.ie
Customer Ref: Landfill Compliance Monitoring

Sample No. Laboratory: 162503673
Sample No. Customer:
Date Received: 28/10/2016
Mode Of Delivery: Field Test
Condition On Delivery: N/A
Date Started: 28/10/2016
Report Date: 07/11/2016
Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Atmospheric Pressure mBar		--	--	28/10/16	1000
Carbon Dioxide %		--	--	28/10/16	32.6
Methane %		--	--	28/10/16	51.3
Oxygen % O2		--	--	28/10/16	0.9

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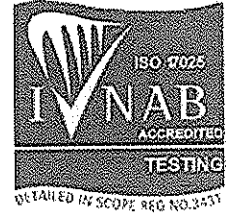
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**Comhairle Contae Dhún na nGall
Donegal County Council
Central Laboratory, The Kube
Magheranan
Letterkenny
074-9122787**



Sample No.: 162503674	Sample Date/Time: 28/10/2016 @ 11:08
Category: Landfill Monitoring	Sample Method: Grab
Entity: Ballynacarrick Landfill	Sampled By: Nigel Breslin
Station: Ballynacarrick Lg4	Laboratory: Donegal Co Co
Template: Landfill Monitoring - Landfill Gas	Analyst: Donegal CoCo

Sample Notes:	
Customer Name: Landfill Monitoring Donegal Co. Council	Sample No. Laboratory: 162503674
Contact Details: Julie McMahon	Sample No. Customer:
Central Lab	Date Received: 28/10/2016
The Kube, Magheranan	Mode Of Delivery: Field Test
Letterkenny	Condition On Delivery: N/A
0749122787: 0872861096	Date Started: 28/10/2016
julie.mcmahon@donegalcoco.ie	Report Date: 07/11/2016
Customer Ref: Landfill Compliance Monitoring	Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Atmospheric Pressure mBar		--	--	28/10/16	1000
Carbon Dioxide %		--	--	28/10/16	25.1
Methane %		--	--	28/10/16	52.4
Oxygen % O2		--	--	28/10/16	3.1

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Magheranan
Letterkenny
074-9122787**



Sample No.: 162503675	Sample Date/Time: 28/10/2016 @ 11:15
Category: Landfill Monitoring	Sample Method: Grab
Entity: Ballynacarrick Landfill	Sampled By: Nigel Breslin
Station: Ballynacarrick Lg5	Laboratory: Donegal Co Co
Template: Landfill Monitoring - Landfill Gas	Analyst: Donegal CoCo

Sample Notes:	
Customer Name: Landfill Monitoring Donegal Co. Council	Sample No. Laboratory: 162503675
Contact Details: Julie McMahon	Sample No. Customer:
Central Lab	Date Received: 28/10/2016
The Kube, Magheranan	Mode Of Delivery: Field Test
Letterkenny	Condition On Delivery: N/A
0749122787: 0872861096	Date Started: 28/10/2016
julie.mcmahon@donegalcoco.ie	Report Date: 07/11/2016
Customer Ref: Landfill Compliance Monitoring	Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Atmospheric Pressure mBar		--	--	28/10/16	1000
Carbon Dioxide %		--	--	28/10/16	23.9
Methane %		--	--	28/10/16	57.3
Oxygen % O2		--	--	28/10/16	2.8

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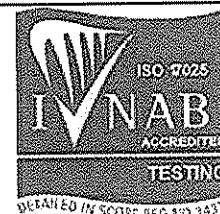
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Letterkenny
074-9122787



Sample No.: 162503676 **Sample Date/Time:** 28/10/2016 @ 09:44
Category: Landfill Monitoring **Sample Method:** Grab
Entity: Ballynacarrick Landfill **Sampled By:** Nigel Breslin
Station: Ballynacarrick Lg6 **Laboratory:** Donegal Co Co
Template: Landfill Monitoring - Landfill Gas **Analyst:** Donegal CoCo

Sample Notes:

Customer Name: Landfill Monitoring Donegal Co. Council
Contact Details: Julie McMahon
 Central Lab
 The Kube, Magheranan
 Letterkenny
 0749122787: 0872861096
 julie.mcmahon@donegalcoco.ie
Customer Ref: Landfill Compliance Monitoring

Sample No. Laboratory: 162503676
Sample No. Customer:
Date Received: 28/10/2016
Mode Of Delivery: Field Test
Condition On Delivery: N/A
Date Started: 28/10/2016
Report Date: 07/11/2016
Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Atmospheric Pressure mBar		--	--	28/10/16	1000
Carbon Dioxide %		--	--	28/10/16	19.2
Methane %		--	--	28/10/16	50.3
Oxygen % O2		--	--	28/10/16	3.6

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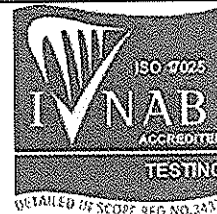
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074-9122787



Sample No.: 162503677
Category: Landfill Monitoring
Entity: Ballynacarrick Landfill
Station: Ballynacarrick Lg8
Template: Landfill Monitoring - Landfill Gas

Sample Date/Time: 28/10/2016 @ 10:43
Sample Method: Grab
Sampled By: Nigel Breslin
Laboratory: Donegal Co Co
Analyst: Donegal CoCo

Sample Notes:

Customer Name: Landfill Monitoring Donegal Co. Council
Contact Details: Julie McMahon
Central Lab
The Kube, Magheranan
Letterkenny
0749122787: 0872861096
julie.mcmahon@donegalcoco.ie
Customer Ref: Landfill Compliance Monitoring

Sample No. Laboratory: 162503677
Sample No. Customer:
Date Received: 28/10/2016
Mode Of Delivery: Field Test
Condition On Delivery: N/A
Date Started: 28/10/2016
Report Date: 07/11/2016
Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Atmospheric Pressure mBar		--	--	28/10/16	1000
Carbon Dioxide %		--	--	28/10/16	2.2
Methane %		--	--	28/10/16	0
Oxygen % O2		--	--	28/10/16	14.3

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074-9122787**



Sample No.: 162503678	Sample Date/Time: 28/10/2016 @ 10:35
Category: Landfill Monitoring	Sample Method: Grab
Entity: Ballynacarrick Landfill	Sampled By: Nigel Breslin
Station: Ballynacarrick Lg9	Laboratory: Donegal Co Co
Template: Landfill Monitoring - Landfill Gas	Analyst: Donegal CoCo

Sample Notes:	
Customer Name: Landfill Monitoring Donegal Co. Council	Sample No. Laboratory: 162503678
Contact Details: Julie McMahon	Sample No. Customer:
Central Lab	Date Received: 28/10/2016
The Kube, Magheranan	Mode Of Delivery: Field Test
Letterkenny	Condition On Delivery: N/A
0749122787: 0872861096	Date Started: 28/10/2016
julie.mcmahon@donegalcoco.ie	Report Date: 07/11/2016
Customer Ref: Landfill Compliance Monitoring	Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Atmospheric Pressure mBar		--	--	28/10/16	1000
Carbon Dioxide %		--	--	28/10/16	1.3
Methane %		--	--	28/10/16	0
Oxygen % O2		--	--	28/10/16	20.2

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074-9122787**



Sample No.: 162503679	Sample Date/Time: 28/10/2016 @ 10:29
Category: Landfill Monitoring	Sample Method: Grab
Entity: Ballynacarrick Landfill	Sampled By: Nigel Breslin
Station: Ballynacarrick Lg10	Laboratory: Donegal Co Co
Template: Landfill Monitoring - Landfill Gas	Analyst: Donegal CoCo

Sample Notes:	Customer Name: Landfill Monitoring Donegal Co. Council	Sample No. Laboratory: 162503679
Contact Details: Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. Customer:	Date Received: 28/10/2016
Customer Ref: Landfill Compliance Monitoring		Mode Of Delivery: Field Test
		Condition On Delivery: N/A
		Date Started: 28/10/2016
		Report Date: 07/11/2016
		Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Atmospheric Pressure mBar		--	--	28/10/16	1000
Carbon Dioxide %		--	--	28/10/16	0.5
Methane %		--	--	28/10/16	0
Oxygen % O2		--	--	28/10/16	19.7

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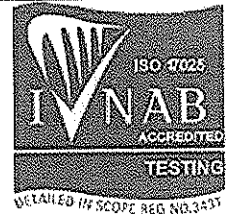
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Magheranan
Letterkenny
074-9122787**



Sample No.: 162503680	Sample Date/Time: 28/10/2016 @ 10:22
Category: Landfill Monitoring	Sample Method: Grab
Entity: Ballynacarrick Landfill	Sampled By: Nigel Breslin
Station: Ballynacarrick Lg11	Laboratory: Donegal Co Co
Template: Landfill Monitoring - Landfill Gas	Analyst: Donegal CoCo
Sample Notes:	
Customer Name: Landfill Monitoring Donegal Co. Council	Sample No. Laboratory: 162503680
Contact Details: Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. Customer: Date Received: 28/10/2016 Mode Of Delivery: Field Test Condition On Delivery: N/A Date Started: 28/10/2016 Report Date: 07/11/2016 Report Reference: 17DL07
Customer Ref: Landfill Compliance Monitoring	

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Atmospheric Pressure mBar		--	--	28/10/16	1000
Carbon Dioxide %		--	--	28/10/16	1.4
Methane %		--	--	28/10/16	0
Oxygen % O2		--	--	28/10/16	19.2

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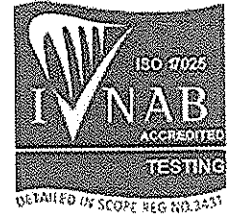
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Magheranan
Letterkenny
074-9122787



Sample No.: 162503681 **Sample Date/Time:** 28/10/2016 @ 10:16
Category: Landfill Monitoring **Sample Method:** Grab
Entity: Ballynacarrick Landfill **Sampled By:** Nigel Breslin
Station: Ballynacarrick Lg12 **Laboratory:** Donegal Co Co
Template: Landfill Monitoring - Landfill Gas **Analyst:** Donegal CoCo

Sample Notes:

Customer Name: Landfill Monitoring Donegal Co. Council
Contact Details: Julie McMahon
 Central Lab
 The Kube, Magheranan
 Letterkenny
 0749122787; 0872861096
 julie.mcmahon@donegalcoco.ie
Customer Ref: Landfill Compliance Monitoring

Sample No. Laboratory: 162503681
Sample No. Customer:
Date Received: 28/10/2016
Mode Of Delivery: Field Test
Condition On Delivery: N/A
Date Started: 28/10/2016
Report Date: 07/11/2016
Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Atmospheric Pressure mBar		--	--	28/10/16	1000
Carbon Dioxide %		--	--	28/10/16	4.2
Methane %		--	--	28/10/16	0
Oxygen % O2		--	--	28/10/16	16.4

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Magheranan
Letterkenny
074-9122787**



Sample No.: 162503682	Sample Date/Time: 28/10/2016 @ 10:11
Category: Landfill Monitoring	Sample Method: Grab
Entity: Ballynacarrick Landfill	Sampled By: Nigel Breslin
Station: Ballynacarrick Lg13	Laboratory: Donegal Co Co
Template: Landfill Monitoring - Landfill Gas	Analyst: Donegal CoCo

Sample Notes:	
Customer Name: Landfill Monitoring Donegal Co. Council	Sample No. Laboratory: 162503682
Contact Details: Julie McMahon	Sample No. Customer:
Central Lab	Date Received: 28/10/2016
The Kube, Magheranan	Mode Of Delivery: Field Test
Letterkenny	Condition On Delivery: N/A
0749122787: 0872861096	Date Started: 28/10/2016
julie.mcmahon@donegalcoco.ie	Report Date: 07/11/2016
Customer Ref: Landfill Compliance Monitoring	Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Atmospheric Pressure mBar		--	--	28/10/16	1000
Carbon Dioxide %		--	--	28/10/16	2.7
Methane %		--	--	28/10/16	0
Oxygen % O2		--	--	28/10/16	20.4

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Magheranan
Letterkenny
074-9122787**



Sample No.: 162503683	Sample Date/Time: 28/10/2016 @ 10:02
Category: Landfill Monitoring	Sample Method: Grab
Entity: Ballynacarrick Landfill	Sampled By: Nigel Breslin
Station: Ballynacarrick Lg14	Laboratory: Donegal Co Co
Template: Landfill Monitoring - Landfill Gas	Analyst: Donegal CoCo

Sample Notes:	
Customer Name: Landfill Monitoring Donegal Co. Council	Sample No. Laboratory: 162503683
Contact Details: Julie McMahon	Sample No. Customer:
Central Lab	Date Received: 28/10/2016
The Kube, Magheranan	Mode Of Delivery: Field Test
Letterkenny	Condition On Delivery: N/A
0749122787: 0872861096	Date Started: 28/10/2016
julie.mcmahon@donegalcoco.ie	Report Date: 07/11/2016
Customer Ref: Landfill Compliance Monitoring	Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Atmospheric Pressure mBar		--	--	28/10/16	1000
Carbon Dioxide %		--	--	28/10/16	0.6
Methane %		--	--	28/10/16	0
Oxygen % O2		--	--	28/10/16	17.9

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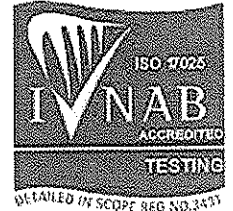
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**Comhairle Contae Dhún na nGall
Donegal County Council
Central Laboratory, The Kube
Magheranan
Letterkenny
074-9122787**



Sample No.: 162503684	Sample Date/Time: 28/10/2016 @ 09:51
Category: Landfill Monitoring	Sample Method: Grab
Entity: Ballynacarrick Landfill	Sampled By: Nigel Breslin
Station: Ballynacarrick Lg15	Laboratory: Donegal Co Co
Template: Landfill Monitoring - Landfill Gas	Analyst: Donegal CoCo
Sample Notes:	
Customer Name: Landfill Monitoring Donegal Co. Council	Sample No. Laboratory: 162503684
Contact Details: Julie McMahon Central Lab The Kube, Magheranan Letterkenny 0749122787: 0872861096 julie.mcmahon@donegalcoco.ie	Sample No. Customer: Date Received: 28/10/2016 Mode Of Delivery: Field Test Condition On Delivery: N/A Date Started: 28/10/2016 Report Date: 07/11/2016 Report Reference: 17DL07
Customer Ref: Landfill Compliance Monitoring	

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Atmospheric Pressure mBar		--	--	28/10/16	1000
Carbon Dioxide %		--	--	28/10/16	2.1
Methane %		--	--	28/10/16	0
Oxygen % O2		--	--	28/10/16	6.3

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Central Laboratory, The Kube
Magheranan
Letterkenny
074-9122787**



Sample No.: 162503685	Sample Date/Time: 28/10/2016 @ 09:34
Category: Landfill Monitoring	Sample Method: Grab
Entity: Ballynacarrick Landfill	Sampled By: Nigel Breslin
Station: Ballynacarrick Lg16	Laboratory: Donegal Co Co
Template: Landfill Monitoring - Landfill Gas	Analyst: Donegal CoCo

Sample Notes:	
Customer Name: Landfill Monitoring Donegal Co. Council	Sample No. Laboratory: 162503685
Contact Details: Julie McMahon	Sample No. Customer:
Central Lab	Date Received: 28/10/2016
The Kube, Magheranan	Mode Of Delivery: Field Test
Letterkenny	Condition On Delivery: N/A
0749122787; 0872861096	Date Started: 28/10/2016
julie.mcmahon@donegalcoco.ie	Report Date: 07/11/2016
Customer Ref: Landfill Compliance Monitoring	Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Atmospheric Pressure mBar		--	--	28/10/16	1000
Carbon Dioxide %		--	--	28/10/16	3.8
Methane %		--	--	28/10/16	0
Oxygen % O2		--	--	28/10/16	20.1

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Donegal County Council
Central Laboratory, The Kube
Magheranan
Letterkenny
074-9122787**



Sample No.: 162503686	Sample Date/Time: 28/10/2016 @ 09:15
Category: Landfill Monitoring	Sample Method: Grab
Entity: Ballynacarrick Landfill	Sampled By: Nigel Breslin
Station: Ballynacarrick @ Caravan (Gas)	Laboratory: Donegal Co Co
Template: Landfill Monitoring - Landfill Gas	Analyst: Donegal CoCo

Sample Notes:	
Customer Name: Landfill Monitoring Donegal Co. Council	Sample No. Laboratory: 162503686
Contact Details: Julie McMahon	Sample No. Customer:
Central Lab	Date Received: 28/10/2016
The Kube, Magheranan	Mode Of Delivery: Field Test
Letterkenny	Condition On Delivery: N/A
0749122787: 0872861096	Date Started: 28/10/2016
julie.mcmahon@donegalcoco.ie	Report Date: 07/11/2016
Customer Ref: Landfill Compliance Monitoring	Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Atmospheric Pressure mBar		--	--	28/10/16	1000
Carbon Dioxide %		--	--	28/10/16	4.1
Methane %		--	--	28/10/16	0
Oxygen % O2		--	--	28/10/16	1.1

* Accredited **Sub-Contract ***Accredited Sub-Contract

SIGNED

Geraldine Finel

10/01/2017

JF Dr. Joe Ferry, Laboratory Manager

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 Micro. parameters with units MPN/100mls are reported as zero for result of <1 MPN/100ml, i.e. none detected in volume tested
 Original Test Report, unless otherwise indicated by the insertion of Supplementary Test Report in Report Reference section
 In RESULT column, unaccredited in-house test result - no asterisk, *inhouse accred., **unaccred. & subcontracted, *** accred. & sub-cont.



**Comhairle Contae Dhún na nGall
Donegal County Council
Central Laboratory, The Kube
Magheranan
Letterkenny
074-9122787**



Sample No.: 162503687	Sample Date/Time: 28/10/2016 @ 09:15
Category: Landfill Monitoring	Sample Method: Grab
Entity: Ballynacarrick Landfill	Sampled By: Nigel Breslin
Station: Caravan	Laboratory: Donegal Co Co
Template: Landfill Monitoring - Landfill Gas	Analyst: Donegal CoCo

Sample Notes:	
Customer Name: Landfill Monitoring Donegal Co. Council	Sample No. Laboratory: 162503687
Contact Details: Julie McMahon	Sample No. Customer:
Central Lab	Date Received: 28/10/2016
The Kube, Magheranan	Mode Of Delivery: Field Test
Letterkenny	Condition On Delivery: N/A
0749122787: 0872861096	Date Started: 28/10/2016
julie.mcmahon@donegalcoco.ie	Report Date: 07/11/2016
Customer Ref: Landfill Compliance Monitoring	Report Reference: 17DL07

Parameter/Unit	Test Method	Maximum Limit	Minimum Limit	Test Date	Test RESULT
Atmospheric Pressure mBar		--	--	28/10/16	1000
Carbon Dioxide %		--	--	28/10/16	0
Methane %		--	--	28/10/16	0
Oxygen % O2		--	--	28/10/16	20.9

* Accredited **Sub-Contract ***Accredited Sub-Contract

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Joe Ferry
Dr. Joe Ferry, Laboratory Manager

10/01/2017

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DETAILED IN SCOPE REG NO.1117

Contact Name	Joe Ferry	Report Number	97131 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97131/001
		Date of Receipt	30/05/2016
		Date Started	30/05/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240572669	Date of Report	30/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	1630 GW1		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
AQ2-UP2									
	Sulphate		EW154M-1	1.0		11	mg/L	INAB	
GCFID TPH Split									
	TPH >C10 - C20 (DRO)		EO063	10		<10	ug/L		
	TPH >C20 - C40 (MO)		EO063	10		<10	ug/L		
	TPH >C6 - C10 (PRO)		EO063	10		<10	ug/L		
	TPH >C6-C40 (TPH)		EO063	10		<10	ug/L		
LCMSMS-Acid Herbicides									
	236-Trichlorobenzoic Acid (TBA)		EO162	0.005		<0.005	ug/L	INAB	
	2,4,5-T		EO162	0.005		<0.005	ug/L	INAB	
	2,4 D		EO162	0.005		<0.005	ug/L		
	24-DB		EO162	0.005		<0.005	ug/L	INAB	
	Bentazone		EO162	0.005		<0.005	ug/L	INAB	
	Bromacil		EO162	0.005		<0.005	ug/L	INAB	
	Bromoxynil		EO162	0.005		<0.005	ug/L	INAB	
	Clopyralid		EO162	0.005		<0.005	ug/L	INAB	
	Dicamba		EO162	0.005		<0.005	ug/L	INAB	
	Dichloroprop (24DP)		EO162	0.005		<0.005	ug/L	INAB	
	Fluroxypyr		EO162	0.005		<0.005	ug/L	INAB	
	Ioxynil		EO162	0.005		<0.005	ug/L	INAB	
	MCPA		EO162	0.005		<0.005	ug/L	INAB	
	MCPB		EO162	0.005		<0.005	ug/L	INAB	
	Mecoprop (MCP)		EO162	0.005		<0.005	ug/L	INAB	
	Pentachlorophenol (PCP)		EO162	0.005		<0.005	ug/L	INAB	
	Picloram		EO162	0.005		<0.005	ug/L	INAB	
	Quinmerac		EO162	0.005		<0.005	ug/L	INAB	
	Trichlopyr		EO162	0.005		<0.005	ug/L	INAB	
LCMSMS-Pesticide Suite A									
	Simazine-LC		EO 165	0.005		<0.005	ug/L	INAB	
Metals-Dissolved									
	Manganese-Dissolved		EM130	1.0		1600	ug/L		
	Boron-Dissolved		EM130	0.02		<0.02	mg/L	INAB	
	Cadmium-Dissolved		EM130	0.1		0.1	ug/L	INAB	
	Copper-Dissolved		EM130	0.003		<0.003	mg/L	INAB	
	Lead-Dissolved		EM130	0.3		<0.3	ug/L	INAB	

Signed :

Brendan Murray-Deputy Technical Manager

30/06/2016

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Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97131/001
		Date of Receipt	30/05/2016
		Date Started	30/05/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240572669	Date of Report	30/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	1630 GW1		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Metals-Dissolved									
	Magnesium-Dissolved		EM130	0.3		3.4	mg/L	INAB	
	Nickel-Dissolved		EM130	0.5		1.1	ug/L	INAB	
	Zinc-Dissolved		EM130	1.0		7.8	ug/L	INAB	
	Mercury-Dissolved		EM130	0.02		<0.02	ug/L	INAB	
	Potassium-Dissolved		EM130	0.2		2.9	mg/L	INAB	
	Sodium-Dissolved		EM130	0.5		44.8	mg/L	INAB	
Metals-Total									
	Chromium-Total		EM168	3.0		4.7	ug/L	INAB	
Non-Polar Pesticides (Sub)									
	Dichlobenil	*	Default	0.002		<2	ug/L	YES	
PhenolsTotal -Index (Sub1)									
	Phenols-Total	*	Default	0.10		<0.10	mg/L	YES	
SVOC (sub)									
	1,4-Dichlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
	<i>Reporting limits raised due to the nature of the sample matrix.</i>								
	2,4,5-Trichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4,6-Trichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dimethylphenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dinitrotoluene	*	Default	1.0		<1.0	ug/L	YES	
	2,6-Dinitrotoluene	*	Default	1.0		<1.0	ug/L	YES	
	2-Chloronaphthalene	*	Default	1.0		<1.0	ug/L	YES	
	2-Chlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2-Methylnaphthalene	*	Default	1.0		<1.0	ug/L	YES	
	2-Methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	2-Nitrophenol	*	Default	1.0		<1.0	ug/L	YES	
	3&4-Methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	4-Bromophenyl Phenyl Ether	*	Default	1.0		<1.0	ug/L	YES	
	4-Chloro-3-methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	4-Chlorophenyl phenyl ether	*	Default	1.0		<1.0	ug/L	YES	
	4-Nitrophenol	*	Default	5.0		<5.0	ug/L	YES	
	Acenaphthene	*	Default	1.0		<1.0	ug/L	YES	
	Acenaphthylene	*	Default	1.0		<1.0	ug/L	YES	
	Anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(a)anthracene	*	Default	1.0		<1.0	ug/L	YES	

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30/06/2016

Brendan Murray-Deputy Technical Manager

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Contact Name	Joe Ferry	Report Number	97131 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97131/001
		Date of Receipt	30/05/2016
		Date Started	30/05/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240572669	Date of Report	30/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	1630 GW1		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
SVOC (sub)									
	Benzo(a)pyrene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(b)fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(g,h,i)perylene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(k)fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Benzyl Butyl Phthalate	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroethoxy)methane	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroethyl)ether	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroisopropyl)ether	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-ethylhexyl)phthalate	*	Default	5.0		<5.0	ug/L	YES	
	Chrysene	*	Default	1.0		<1.0	ug/L	YES	
	Dibenz(a,h)anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Dibenzofuran	*	Default	1.0		<1.0	ug/L	YES	
	Diethylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Dimethylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	di-n-Butylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Di-n-octylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Diphenylamine	*	Default	1.0		<1.0	ug/L	YES	
	Fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Fluorene	*	Default	1.0		<1.0	ug/L	YES	
	Hexachlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
	Indeno(1,2,3-c,d)pyrene	*	Default	1.0		<1.0	ug/L	YES	
	Isophorone	*	Default	1.0		<1.0	ug/L	YES	
	n-Nitrosodi-n-propylamine	*	Default	1.0		<1.0	ug/L	YES	
	Pentachlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	Phenanthrene	*	Default	1.0		<1.0	ug/L	YES	
	Phenol	*	Default	1.0		<1.0	ug/L	YES	
	Pyrene	*	Default	1.0		<1.0	ug/L	YES	
Total Cyanide High (Sub)									
	Total Cyanide High	*	Default	10		<10	ug/L	YES	
VOC Full Suite									
	Epichlorohydrin		EO025	0.1		<0.1	ug/L		
	Dichlorodifluoromethane		EO025	10.0		<10.0	ug/L		
	Chloromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Chloride/Chloroethane		EO025	0.5		<0.5	ug/L		
	Vinyl Chloride		EO025	0.1		<0.1	ug/L		
	Bromomethane		EO025	0.5		<0.5	ug/L	INAB	

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Brendan Murray-Deputy Technical Manager

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Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97131/001
		Date of Receipt	30/05/2016
		Date Started	30/05/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240572669	Date of Report	30/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	1630 GW1		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Trichloromonofluoromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Ether/Diethyl Ether		EO025	0.5		<0.5	ug/L	INAB	
	11 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	Acetone		EO025	2.0		<2.0	ug/L		
	Iodomethane/Methyl Iodide		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Disulphide		EO025	0.5		<0.5	ug/L	INAB	
	Dichloromethane		EO025	5.0		<5.0	ug/L	INAB	
	2-Propenenitrile/Acrylonitrile		EO025	2.0		<2.0	ug/L	INAB	
	Chlormethyl Cyanide/Chloroacetonitrile		EO025	0.5		<0.5	ug/L	INAB	
	Nitrobenzene		EO025	0.5		<0.5	ug/L		
	Propanenitrile		EO025	10		<10	ug/L		
	Hexachlorobutadiene		EO025	0.5		0.7	ug/L	INAB	
	Trans-1,2 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	MtBE		EO025	0.5		<0.5	ug/L	INAB	
	1,1-dichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	2,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	cis-12 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	2-Butanone		EO025	5.0		<5.0	ug/L		
	Methyl Acrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromochloromethane		EO025	0.5		<0.5	ug/L	INAB	
	Methacrylonitrile		EO025	5.0		<5.0	ug/L		
	Tetrahydrofuran		EO025	0.5		<0.5	ug/L	INAB	
	Chloroform		EO025	1.0		<1.0	ug/L	INAB	
	1,1,1-trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1-Chlorobutane		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Tetrachloride		EO025	0.5		<0.5	ug/L	INAB	
	11 Dichloropropene		EO025	0.5		<0.5	ug/L	INAB	
	Benzene		EO025	0.1		<0.1	ug/L	INAB	
	1,2 dicloroethane		EO025	0.1		<0.1	ug/L	INAB	
	Trichloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	Dibromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Methyl Methacrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromodichloromethane		EO025	2.0		<2.0	ug/L	INAB	
	13 Dichloropropene,cis		EO025	2.0		<2.0	ug/L	INAB	
	MIBK/4 Methyl 2 Pentanone		EO025	2.0		<2.0	ug/L	INAB	

Signed : 

30/06/2016

Brendan Murray-Deputy Technical Manager

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Quotation No	QN005678	Received or Collected	Courier
Customer Ref	1630 GW1	Date of Report	30/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Toluene		EO025	0.5		<0.5	ug/L	INAB	
	13 Dichloropropene,trans		EO025	2.0		<2.0	ug/L	INAB	
	Ethyl Methacrylate		EO025	2.0		<2.0	ug/L	INAB	
	112 Trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	Tetrachloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,3-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	2-Hexanone		EO025	1.0		<1.0	ug/L	INAB	
	Dibromochloromethane		EO025	1.0		<1.0	ug/L	INAB	
	1,2-dibromoethane		EO025	0.5		<0.5	ug/L	INAB	
	Chlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1,2-tetrachloroethane		EO025	2.0		<2.0	ug/L	INAB	
	Ethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Xylene P&M		EO025	0.5		<0.5	ug/L	INAB	
	Xylene -o		EO025	0.5		<0.5	ug/L	INAB	
	Styrene		EO025	2.0		<2.0	ug/L	INAB	
	Bromoform		EO025	1.0		<1.0	ug/L	INAB	
	Isopropylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Bromobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,2,2-tetrachloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1,2,3-trichloropropane		EO025	2.0		<2.0	ug/L	INAB	
	Trans 14 Dichloro 2 Butene, tran		EO025	2.0		<2.0	ug/L	INAB	
	Propylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	2-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	4-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,3,5-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Tert Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2,4-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	sec-butylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,3-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	P Isopropyltoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,4-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	N Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	Hexachloroethane		EO025	5.0		<5.0	ug/L	INAB	
	1,2-dibromo-3-chloropropane		EO025	2.0		<2.0	ug/L	INAB	
	1,2,4-trichlorobenzene		EO025	0.5		0.7	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97131 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97131/001
Tel No	074-9122787 / 9176274	Date of Receipt	30/05/2016
Customer PO	240572669	Date Started	30/05/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	1630 GW1	Date of Report	30/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Naphthalene		EO025	2.0		<2.0	ug/L		
	1,2,3-trichlorobenzene		EO025	0.5		0.8	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97131 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97131/002
		Date of Receipt	30/05/2016
		Date Started	30/05/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240572669	Date of Report	30/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	1631 GW2		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
AQ2-UP2									
	Sulphate		EW154M-1	1.0		40	mg/L	INAB	
GCFID TPH Split									
	TPH >C10 - C20 (DRO)		EO063	10		<10	ug/L		
	TPH >C20 - C40 (MO)		EO063	10		<10	ug/L		
	TPH >C6 - C10 (PRO)		EO063	10		<10	ug/L		
	TPH >C6-C40 (TPH)		EO063	10		<10	ug/L		
LCMSMS-Acid Herbicides									
	236-Trichlorobenzoic Acid (TBA)		EO162	0.005		<0.005	ug/L	INAB	
	2,4,5-T		EO162	0.005		<0.005	ug/L	INAB	
	2,4 D		EO162	0.005		<0.005	ug/L		
	24-DB		EO162	0.005		<0.005	ug/L	INAB	
	Bentazone		EO162	0.005		<0.005	ug/L	INAB	
	Bromacil		EO162	0.005		<0.005	ug/L	INAB	
	Bromoxynil		EO162	0.005		<0.005	ug/L	INAB	
	Clopyralid		EO162	0.005		<0.005	ug/L	INAB	
	Dicamba		EO162	0.005		<0.005	ug/L	INAB	
	Dichloroprop (24DP)		EO162	0.005		<0.005	ug/L	INAB	
	Fluroxypyr		EO162	0.005		<0.005	ug/L	INAB	
	Ioxynil		EO162	0.005		<0.005	ug/L	INAB	
	MCPA		EO162	0.005		<0.005	ug/L	INAB	
	MCPB		EO162	0.005		<0.005	ug/L	INAB	
	Mecoprop (MCP)		EO162	0.005		<0.005	ug/L	INAB	
	Pentachlorophenol (PCP)		EO162	0.005		<0.005	ug/L	INAB	
	Picloram		EO162	0.005		<0.005	ug/L	INAB	
	Quinmerac		EO162	0.005		<0.005	ug/L	INAB	
	Trichlopyr		EO162	0.005		<0.005	ug/L	INAB	
LCMSMS-Pesticide Suite A									
	Simazine-LC		EO 165	0.005		<0.005	ug/L	INAB	
Metals-Dissolved									
	Manganese-Dissolved		EM130	1.0		290	ug/L		
	Boron-Dissolved		EM130	0.02		0.14	mg/L	INAB	
	Cadmium-Dissolved		EM130	0.1		0.1	ug/L	INAB	
	Copper-Dissolved		EM130	0.003		<0.003	ug/L	INAB	
	Lead-Dissolved		EM130	0.3		<0.3	ug/L	INAB	
	Magnesium-Dissolved		EM130	0.3		9.3	mg/L	INAB	

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Contact Name	Joe Ferry	Report Number	97131 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97131/002
		Date of Receipt	30/05/2016
		Date Started	30/05/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240572669	Date of Report	30/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	1631 GW2		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Metals-Dissolved									
	Nickel-Dissolved		EM130	0.5		1.8	ug/L	INAB	
	Zinc-Dissolved		EM130	1.0		2.3	ug/L	INAB	
	Mercury-Dissolved		EM130	0.02		<0.02	ug/L	INAB	
	Potassium-Dissolved		EM130	0.2		13.0	mg/L	INAB	
	Sodium-Dissolved		EM130	0.5		29.3	mg/L	INAB	
Metals-Total									
	Chromium-Total		EM168	3.0		<3.0	ug/L	INAB	
Non-Polar Pesticides (Sub)									
	Dichlobenil	*	Default	0.002		<4	ug/L	YES	
PhenolsTotal -Index (Sub1)									
	Phenols-Total	*	Default	0.10		<0.10	mg/L	YES	
SVOC (sub)									
	1,4-Dichlorobenzene	*	Default	1.0		<2.0	ug/L	YES	
	<i>Reporting limits raised due to the nature of the sample matrix.</i>								
	2,4,5-Trichlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4,6-Trichlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4-Dichlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4-Dimethylphenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4-Dinitrotoluene	*	Default	1.0		<2.0	ug/L	YES	
	2,6-Dinitrotoluene	*	Default	1.0		<2.0	ug/L	YES	
	2-Chloronaphthalene	*	Default	1.0		<2.0	ug/L	YES	
	2-Chlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2-Methylnaphthalene	*	Default	1.0		<2.0	ug/L	YES	
	2-Methylphenol	*	Default	1.0		<2.0	ug/L	YES	
	2-Nitrophenol	*	Default	1.0		<2.0	ug/L	YES	
	3&4-Methylphenol	*	Default	1.0		<2.0	ug/L	YES	
	4-Bromophenyl Phenyl Ether	*	Default	1.0		<2.0	ug/L	YES	
	4-Chloro-3-methylphenol	*	Default	1.0		<2.0	ug/L	YES	
	4-Chlorophenyl phenyl ether	*	Default	1.0		<2.0	ug/L	YES	
	4-Nitrophenol	*	Default	5.0		<10.0	ug/L	YES	
	Acenaphthene	*	Default	1.0		<2.0	ug/L	YES	
	Acenaphthylene	*	Default	1.0		<2.0	ug/L	YES	
	Anthracene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(a)anthracene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(a)pyrene	*	Default	1.0		<2.0	ug/L	YES	

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Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97131/002
Tel No	074-9122787 / 9176274	Date of Receipt	30/05/2016
Customer PO	240572669	Date Started	30/05/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	1631 GW2	Date of Report	30/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
SVOC (sub)									
	Benzo(b)fluoranthene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(g,h,i)perylene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(k)fluoranthene	*	Default	1.0		<2.0	ug/L	YES	
	Benzyl Butyl Phthalate	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-chloroethoxy)methane	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-chloroethyl)ether	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-chloroisopropyl)ether	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-ethylhexyl)phthalate	*	Default	5.0		<10.0	ug/L	YES	
	Chrysene	*	Default	1.0		<2.0	ug/L	YES	
	Dibenz(a,h)anthracene	*	Default	1.0		<2.0	ug/L	YES	
	Dibenzofuran	*	Default	1.0		<2.0	ug/L	YES	
	Diethylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	Dimethylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	di-n-Butylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	Di-n-octylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	Diphenylamine	*	Default	1.0		<2.0	ug/L	YES	
	Fluoranthene	*	Default	1.0		<2.0	ug/L	YES	
	Fluorene	*	Default	1.0		<2.0	ug/L	YES	
	Hexachlorobenzene	*	Default	1.0		<2.0	ug/L	YES	
	Indeno(1,2,3-c,d)pyrene	*	Default	1.0		<2.0	ug/L	YES	
	Isophorone	*	Default	1.0		<2.0	ug/L	YES	
	n-Nitrosodi-n-propylamine	*	Default	1.0		<2.0	ug/L	YES	
	Pentachlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	Phenanthrene	*	Default	1.0		<2.0	ug/L	YES	
	Phenol	*	Default	1.0		<2.0	ug/L	YES	
	Pyrene	*	Default	1.0		<2.0	ug/L	YES	
Total Cyanide High (Sub)									
	Total Cyanide High	*	Default	10		<10	ug/L	YES	
VOC Full Suite									
	Epichlorohydrin		EO025	0.1		<0.1	ug/L		
	Dichlorodifluoromethane		EO025	10.0		<10.0	ug/L		
	Chloromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Chloride/Chloroethane		EO025	0.5		<0.5	ug/L		
	Vinyl Chloride		EO025	0.1		<0.1	ug/L		
	Bromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Trichloromonofluoromethane		EO025	0.5		<0.5	ug/L		

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Contact Name	Joe Ferry	Report Number	97131 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97131/002
Tel No	074-9122787 / 9176274	Date of Receipt	30/05/2016
Customer PO	240572669	Date Started	30/05/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	1631 GW2	Date of Report	30/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Ethyl Ether/Diethyl Ether		EO025	0.5		0.6	ug/L	INAB	
	11 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	Acetone		EO025	2.0		<2.0	ug/L	INAB	
	Iodomethane/Methyl Iodide		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Disulphide		EO025	0.5		<0.5	ug/L	INAB	
	Dichloromethane		EO025	5.0		<5.0	ug/L	INAB	
	2-Propenenitrile/Acrylonitrile		EO025	2.0		<2.0	ug/L	INAB	
	Chlormethyl Cyanide/Chloroacetonitrile		EO025	0.5		<0.5	ug/L	INAB	
	Nitrobenzene		EO025	0.5		<0.5	ug/L	INAB	
	Propanenitrile		EO025	10		<10	ug/L	INAB	
	Hexachlorobutadiene		EO025	0.5		<0.5	ug/L	INAB	
	Trans-1,2 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	MtBE		EO025	0.5		<0.5	ug/L	INAB	
	1,1-dichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	2,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	cis-12 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	2-Butanone		EO025	5.0		<5.0	ug/L	INAB	
	Methyl Acrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromochloromethane		EO025	0.5		<0.5	ug/L	INAB	
	Methacrylonitrile		EO025	5.0		<5.0	ug/L	INAB	
	Tetrahydrofuran		EO025	0.5		<0.5	ug/L	INAB	
	Chloroform		EO025	1.0		<1.0	ug/L	INAB	
	1,1,1-trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1-Chlorobutane		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Tetrachloride		EO025	0.5		<0.5	ug/L	INAB	
	11 Dichloropropene		EO025	0.5		<0.5	ug/L	INAB	
	Benzene		EO025	0.1		<0.1	ug/L	INAB	
	1,2 dichloroethane		EO025	0.1		<0.1	ug/L	INAB	
	Trichloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	Dibromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Methyl Methacrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromodichloromethane		EO025	2.0		<2.0	ug/L	INAB	
	13 Dichloropropene,cis		EO025	2.0		<2.0	ug/L	INAB	
	MIBK/4 Methyl 2 Pentanone		EO025	2.0		<2.0	ug/L	INAB	
	Toluene		EO025	0.5		<0.5	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97131 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97131/002
		Date of Receipt	30/05/2016
		Date Started	30/05/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240572669	Date of Report	30/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	1631 GW2		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	13 Dichloropropene,trans		EO025	2.0		<2.0	ug/L	INAB	
	Ethyl Methacrylate		EO025	2.0		<2.0	ug/L	INAB	
	112 Trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	Tetrachloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,3-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	2-Hexanone		EO025	1.0		<1.0	ug/L	INAB	
	Dibromochloromethane		EO025	1.0		<1.0	ug/L	INAB	
	1,2-dibromoethane		EO025	0.5		<0.5	ug/L	INAB	
	Chlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1,2-tetrachloroethane		EO025	2.0		<2.0	ug/L	INAB	
	Ethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Xylene P&M		EO025	0.5		<0.5	ug/L	INAB	
	Xylene -o		EO025	0.5		<0.5	ug/L	INAB	
	Styrene		EO025	2.0		<2.0	ug/L	INAB	
	Bromoform		EO025	1.0		<1.0	ug/L	INAB	
	Isopropylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Bromobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,2,2-tetrachloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1,2,3-trichloropropane		EO025	2.0		<2.0	ug/L	INAB	
	Trans 1,4 Dichloro 2 Butene, tran		EO025	2.0		<2.0	ug/L	INAB	
	Propylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	2-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	4-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,3,5-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Tert Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2,4-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	sec-butylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,3-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	P Isopropyltoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,4-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	N Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	Hexachloroethane		EO025	5.0		<5.0	ug/L	INAB	
	1,2-dibromo-3-chloropropane		EO025	2.0		<2.0	ug/L	INAB	
	1,2,4-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	Naphthalene		EO025	2.0		<2.0	ug/L	INAB	

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email: info@elsltd.com



Contact Name	Joe Ferry	Report Number	97131 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97131/002
Tel No	074-9122787 / 9176274	Date of Receipt	30/05/2016
Customer PO	240572669	Date Started	30/05/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	1631 GW2	Date of Report	30/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	1,2,3-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97131 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97131/003
Tel No	074-9122787 / 9176274	Date of Receipt	30/05/2016
Customer PO	240572669	Date Started	30/05/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	1632 GW4	Date of Report	30/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
AQ2-UP2									
	Sulphate		EW154M-1	1.0		94	mg/L	INAB	
GCFID TPH Split									
	TPH >C10 - C20 (DRO)		EO063	10		<10	ug/L		
	TPH >C20 - C40 (MO)		EO063	10		<10	ug/L		
	TPH >C6 - C10 (PRO)		EO063	10		<10	ug/L		
	TPH >C6-C40 (TPH)		EO063	10		<10	ug/L		
LCMSMS-Acid Herbicides									
	236-Trichlorobenzoic Acid (TBA)		EO162	0.005		<0.005	ug/L	INAB	
	2,4,5-T		EO162	0.005		<0.005	ug/L	INAB	
	2,4 D		EO162	0.005		<0.005	ug/L		
	24-DB		EO162	0.005		<0.005	ug/L	INAB	
	Bentazone		EO162	0.005		<0.005	ug/L	INAB	
	Bromacil		EO162	0.005		<0.005	ug/L	INAB	
	Bromoxynil		EO162	0.005		<0.005	ug/L	INAB	
	Clopyralid		EO162	0.005		<0.005	ug/L	INAB	
	Dicamba		EO162	0.005		<0.005	ug/L	INAB	
	Dichloroprop (24DP)		EO162	0.005		<0.005	ug/L	INAB	
	Fluroxypyr		EO162	0.005		<0.005	ug/L	INAB	
	Ioxynil		EO162	0.005		<0.005	ug/L	INAB	
	MCPA		EO162	0.005		<0.005	ug/L	INAB	
	MCPB		EO162	0.005		<0.005	ug/L	INAB	
	Mecoprop (MCP)		EO162	0.005		<0.005	ug/L	INAB	
	Pentachlorophenol (PCP)		EO162	0.005		<0.005	ug/L	INAB	
	Picloram		EO162	0.005		<0.005	ug/L	INAB	
	Quinmerac		EO162	0.005		<0.005	ug/L	INAB	
	Trichlopyr		EO162	0.005		<0.005	ug/L	INAB	
LCMSMS-Pesticide Suite A									
	Simazine-LC		EO 165	0.005		<0.005	ug/L	INAB	
Metals-Dissolved									
	Manganese-Dissolved		EM130	1.0		78	ug/L	INAB	
	Boron-Dissolved		EM130	0.02		<0.02	mg/L	INAB	
	Cadmium-Dissolved		EM130	0.1		0.1	ug/L	INAB	
	Copper-Dissolved		EM130	0.003		<0.003	mg/L	INAB	
	Lead-Dissolved		EM130	0.3		<0.3	ug/L	INAB	
	Magnesium-Dissolved		EM130	0.3		10.3	mg/L	INAB	

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Contact Name	Joe Ferry	Report Number	97131 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97131/003
		Date of Receipt	30/05/2016
		Date Started	30/05/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240572669	Date of Report	30/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	1632 GW4		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Metals-Dissolved									
	Nickel-Dissolved		EM130	0.5		2.6	ug/L	INAB	
	Zinc-Dissolved		EM130	1.0		1.1	ug/L	INAB	
	Mercury-Dissolved		EM130	0.02		<0.02	ug/L	INAB	
	Potassium-Dissolved		EM130	0.2		1.7	mg/L	INAB	
	Sodium-Dissolved		EM130	0.5		12.9	mg/L	INAB	
Metals-Total									
	Chromium-Total		EM168	3.0		90.5	ug/L	INAB	
Non-Polar Pesticides (Sub)									
	Dichlobenil	*	Default	0.002		<2	ug/L	YES	
PhenolsTotal -Index (Sub1)									
	Phenols-Total	*	Default	0.10		<0.10	mg/L	YES	
SVOC (sub)									
	1,4-Dichlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
	2,4,5-Trichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4,6-Trichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dimethylphenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dinitrotoluene	*	Default	1.0		<1.0	ug/L	YES	
	2,6-Dinitrotoluene	*	Default	1.0		<1.0	ug/L	YES	
	2-Chloronaphthalene	*	Default	1.0		<1.0	ug/L	YES	
	2-Chlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2-Methylnaphthalene	*	Default	1.0		<1.0	ug/L	YES	
	2-Methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	2-Nitrophenol	*	Default	1.0		<1.0	ug/L	YES	
	3&4-Methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	4-Bromophenyl Phenyl Ether	*	Default	1.0		<1.0	ug/L	YES	
	4-Chloro-3-methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	4-Chlorophenyl phenyl ether	*	Default	1.0		<1.0	ug/L	YES	
	4-Nitrophenol	*	Default	5.0		<5.0	ug/L	YES	
	Acenaphthene	*	Default	1.0		<1.0	ug/L	YES	
	Acenaphthylene	*	Default	1.0		<1.0	ug/L	YES	
	Anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(a)anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(a)pyrene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(b)fluoranthene	*	Default	1.0		<1.0	ug/L	YES	

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Contact Name	Joe Ferry	Report Number	97131 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97131/003
Tel No	074-9122787 / 9176274	Date of Receipt	30/05/2016
Customer PO	240572669	Date Started	30/05/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	1632 GW4	Date of Report	30/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
SVOC (sub)									
	Benzo(g,h,i)perylene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(k)fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Benzyl Butyl Phthalate	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroethoxy)methane	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroethyl)ether	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroisopropyl)ether	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-ethylhexyl)phthalate	*	Default	5.0		<5.0	ug/L	YES	
	Chrysene	*	Default	1.0		<1.0	ug/L	YES	
	Dibenz(a,h)anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Dibenzofuran	*	Default	1.0		<1.0	ug/L	YES	
	Diethylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Dimethylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	di-n-Butylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Di-n-octylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Diphenylamine	*	Default	1.0		<1.0	ug/L	YES	
	Fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Fluorene	*	Default	1.0		<1.0	ug/L	YES	
	Hexachlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
	Indeno(1,2,3-c,d)pyrene	*	Default	1.0		<1.0	ug/L	YES	
	Isophorone	*	Default	1.0		<1.0	ug/L	YES	
	n-Nitrosodi-n-propylamine	*	Default	1.0		<1.0	ug/L	YES	
	Pentachlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	Phenanthrene	*	Default	1.0		<1.0	ug/L	YES	
	Phenol	*	Default	1.0		<1.0	ug/L	YES	
	Pyrene	*	Default	1.0		<1.0	ug/L	YES	
Total Cyanide High (Sub)									
	Total Cyanide High	*	Default	10		<10	ug/L	YES	
VOC Full Suite									
	Epichlorohydrin		EO025	0.1		<0.1	ug/L		
	Dichlorodifluoromethane		EO025	10.0		<10.0	ug/L		
	Chloromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Chloride/Chloroethane		EO025	0.5		<0.5	ug/L		
	Vinyl Chloride		EO025	0.1		<0.1	ug/L		
	Bromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Trichloromonofluoromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Ether/Diethyl Ether		EO025	0.5		<0.5	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97131 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97131/003
Tel No	074-9122787 / 9176274	Date of Receipt	30/05/2016
Customer PO	240572669	Date Started	30/05/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	1632 GW4	Date of Report	30/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
11	Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	Acetone		EO025	2.0		<2.0	ug/L		
	Iodomethane/Methyl Iodide		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Disulphide		EO025	0.5		<0.5	ug/L	INAB	
	Dichloromethane		EO025	5.0		<5.0	ug/L	INAB	
	2-Propenenitrile/Acrylonitrile		EO025	2.0		<2.0	ug/L	INAB	
	Chlormethyl Cyanide/Chloroacetonitrile		EO025	0.5		<0.5	ug/L	INAB	
	Nitrobenzene		EO025	0.5		<0.5	ug/L		
	Propanenitrile		EO025	10		<10	ug/L		
	Hexachlorobutadiene		EO025	0.5		<0.5	ug/L	INAB	
	Trans-1,2 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	MtBE		EO025	0.5		<0.5	ug/L	INAB	
	1,1-dichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	2,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	cis-12 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	2-Butanone		EO025	5.0		<5.0	ug/L		
	Methyl Acrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromochloromethane		EO025	0.5		<0.5	ug/L	INAB	
	Methacrylonitrile		EO025	5.0		<5.0	ug/L		
	Tetrahydrofuran		EO025	0.5		<0.5	ug/L	INAB	
	Chloroform		EO025	1.0		<1.0	ug/L	INAB	
	1,1,1-trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1-Chlorobutane		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Tetrachloride		EO025	0.5		<0.5	ug/L	INAB	
	11 Dichloropropene		EO025	0.5		<0.5	ug/L	INAB	
	Benzene		EO025	0.1		<0.1	ug/L	INAB	
	1,2 dicloroethane		EO025	0.1		<0.1	ug/L	INAB	
	Trichloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	Dibromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Methyl Methacrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromodichloromethane		EO025	2.0		<2.0	ug/L	INAB	
	13 Dichloropropene,cis		EO025	2.0		<2.0	ug/L	INAB	
	MIBK/4 Methyl 2 Pentanone		EO025	2.0		<2.0	ug/L	INAB	
	Toluene		EO025	0.5		<0.5	ug/L	INAB	
	13 Dichloropropene,trans		EO025	2.0		<2.0	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97131 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97131/003
Tel No	074-9122787 / 9176274	Date of Receipt	30/05/2016
Customer PO	240572669	Date Started	30/05/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	1632 GW4	Date of Report	30/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Ethyl Methacrylate		EO025	2.0		<2.0	ug/L	INAB	
	112 Trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	Tetrachloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,3-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	2-Hexanone		EO025	1.0		<1.0	ug/L	INAB	
	Dibromochloromethane		EO025	1.0		<1.0	ug/L	INAB	
	1,2-dibromoethane		EO025	0.5		<0.5	ug/L	INAB	
	Chlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1,2-tetrachloroethane		EO025	2.0		<2.0	ug/L	INAB	
	Ethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Xylene P&M		EO025	0.5		<0.5	ug/L	INAB	
	Xylene -o		EO025	0.5		<0.5	ug/L	INAB	
	Styrene		EO025	2.0		<2.0	ug/L	INAB	
	Bromoform		EO025	1.0		<1.0	ug/L	INAB	
	Isopropylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Bromobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,2,2-tetrachloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1,2,3-trichloropropane		EO025	2.0		<2.0	ug/L	INAB	
	Trans 1,4 Dichloro 2 Butene, tran		EO025	2.0		<2.0	ug/L	INAB	
	Propylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	2-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	4-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,3,5-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Tert Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2,4-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	sec-butylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,3-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	P Isopropyltoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,4-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	N Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	Hexachloroethane		EO025	5.0		<5.0	ug/L	INAB	
	1,2-dibromo-3-chloropropane		EO025	2.0		<2.0	ug/L	INAB	
	1,2,4-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	Naphthalene		EO025	2.0		<2.0	ug/L	INAB	
	1,2,3-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	

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30/06/2016

Brendan Murray-Deputy Technical Manager

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Fax: +353 21 453 6149
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email: info@elsltd.com



Contact Name	Joe Ferry	Report Number	97277 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97277/001
Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501633 GW5	Date of Report	27/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
AQ2-UP2									
	Sulphate		EW154M-1	1.0		6.4	mg/L	INAB	
GCFID TPH Split									
	TPH >C10 - C20 (DRO)		EO063	10		<10	ug/L		
	TPH >C20 - C40 (MO)		EO063	10		<10	ug/L		
	TPH >C6 - C10 (PRO)		EO063	10		<10	ug/L		
	TPH >C6-C40 (TPH)		EO063	10		<10	ug/L		
LCMSMS-Acid Herbicides									
	236-Trichlorobenzoic Acid (TBA)		EO162	0.005		<0.005	ug/L	INAB	
	2,4,5-T		EO162	0.005		<0.005	ug/L	INAB	
	2,4 D		EO162	0.005		<0.005	ug/L	INAB	
	24-DB		EO162	0.005		<0.005	ug/L	INAB	
	Bentazone		EO162	0.005		<0.005	ug/L	INAB	
	Bromacil		EO162	0.005		<0.005	ug/L	INAB	
	Bromoxynil		EO162	0.005		<0.005	ug/L	INAB	
	Clopyralid		EO162	0.005		<0.005	ug/L	INAB	
	Dicamba		EO162	0.005		<0.005	ug/L	INAB	
	Dichloroprop (24DP)		EO162	0.005		<0.005	ug/L	INAB	
	Fluroxypyr		EO162	0.005		<0.005	ug/L	INAB	
	Ioxynil		EO162	0.005		<0.005	ug/L	INAB	
	MCPA		EO162	0.005		<0.005	ug/L	INAB	
	MCPB		EO162	0.005		<0.005	ug/L	INAB	
	Mecoprop (MCP)		EO162	0.005		<0.005	ug/L	INAB	
	Pentachlorophenol (PCP)		EO162	0.005		<0.005	ug/L	INAB	
	Picloram		EO162	0.005		<0.005	ug/L	INAB	
	Quinmerac		EO162	0.005		<0.005	ug/L	INAB	
	Trichlopyr		EO162	0.005		<0.005	ug/L	INAB	
LCMSMS-Pesticide Suite A									
	Simazine-LC		EO 165	0.005		<0.005	ug/L	INAB	
Metals-Dissolved									
	Manganese-Dissolved		EM130	1.0		17	ug/L	INAB	
	Boron-Dissolved		EM130	0.02		0.04	mg/L	INAB	
	Cadmium-Dissolved		EM130	0.1		<0.1	ug/L	INAB	
	Copper-Dissolved		EM130	0.003		<0.003	mg/L	INAB	
	Lead-Dissolved		EM130	0.3		<0.3	ug/L	INAB	

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Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	162501633 GW5		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Metals-Dissolved									
	Magnesium-Dissolved		EM130	0.3		31.8	mg/L		
	Nickel-Dissolved		EM130	0.5		0.8	ug/L	INAB	
	Zinc-Dissolved		EM130	1.0		1.2	ug/L	INAB	
	Mercury-Dissolved		EM130	0.02		<0.02	ug/L	INAB	
	Potassium-Dissolved		EM130	0.2		3.0	mg/L	INAB	
	Sodium-Dissolved		EM130	0.5		17.6	mg/L	INAB	
Metals-Total									
	Chromium-Total		EM168	3.0		34.6	ug/L	INAB	
Non-Polar Pesticides (Sub)									
	Dichlobenil	*	Default	0.002		<0.001	ug/L	YES	
PhenolsTotal -Index (Sub1)									
	Phenols-Total	*	Default	0.10		<0.15	mg/L	YES	
SVOC (sub)									
	1,4-Dichlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
	2,4,5-Trichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4,6-Trichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dimethylphenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dinitrotoluene	*	Default	1.0		<1.0	ug/L	YES	
	2,6-Dinitrotoluene	*	Default	1.0		<1.0	ug/L	YES	
	2-Chloronaphthalene	*	Default	1.0		<1.0	ug/L	YES	
	2-Chlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2-Methylnaphthalene	*	Default	1.0		<1.0	ug/L	YES	
	2-Methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	2-Nitrophenol	*	Default	1.0		<1.0	ug/L	YES	
	3&4-Methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	4-Bromophenyl Phenyl Ether	*	Default	1.0		<1.0	ug/L	YES	
	4-Chloro-3-methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	4-Chlorophenyl phenyl ether	*	Default	1.0		<1.0	ug/L	YES	
	4-Nitrophenol	*	Default	5.0		<5.0	ug/L	YES	
	Acenaphthene	*	Default	1.0		<1.0	ug/L	YES	
	Acenaphthylene	*	Default	1.0		<1.0	ug/L	YES	
	Anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(a)anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(a)pyrene	*	Default	1.0		<1.0	ug/L	YES	

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Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	162501633 GW5		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
SVOC (sub)									
	Benzo(b)fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(g,h,i)perylene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(k)fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Benzyl Butyl Phthalate	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroethoxy)methane	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroethyl)ether	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroisopropyl)ether	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-ethylhexyl)phthalate	*	Default	5.0		<5.0	ug/L	YES	
	Chrysene	*	Default	1.0		<1.0	ug/L	YES	
	Dibenz(a,h)anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Dibenzofuran	*	Default	1.0		<1.0	ug/L	YES	
	Diethylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Dimethylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	di-n-Butylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Di-n-octylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Diphenylamine	*	Default	1.0		<1.0	ug/L	YES	
	Fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Fluorene	*	Default	1.0		<1.0	ug/L	YES	
	Hexachlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
	Indeno(1,2,3-c,d)pyrene	*	Default	1.0		<1.0	ug/L	YES	
	Isophorone	*	Default	1.0		<1.0	ug/L	YES	
	n-Nitrosodi-n-propylamine	*	Default	1.0		<1.0	ug/L	YES	
	Pentachlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	Phenanthrene	*	Default	1.0		<1.0	ug/L	YES	
	Phenol	*	Default	1.0		<1.0	ug/L	YES	
	Pyrene	*	Default	1.0		<1.0	ug/L	YES	
Total Cyanide High (Sub)									
	Total Cyanide High	*	Default	10		<10	ug/L	YES	
VOC Full Suite									
	Epichlorohydrin		EO025	0.1		<0.1	ug/L		
	Dichlorodifluoromethane		EO025	10.0		<10.0	ug/L		
	Chloromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Chloride/Chloroethane		EO025	0.5		<0.5	ug/L		
	Vinyl Chloride		EO025	0.1		<0.1	ug/L		
	Bromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Trichloromonofluoromethane		EO025	0.5		<0.5	ug/L		

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		Date of Receipt	02/06/2016
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Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	162501633 GW5		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Ethyl Ether/Diethyl Ether		EO025	0.5		<0.5	ug/L	INAB	
	11 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	Acetone		EO025	2.0		<2.0	ug/L		
	Iodomethane/Methyl Iodide		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Disulphide		EO025	0.5		<0.5	ug/L	INAB	
	Dichloromethane		EO025	5.0		<5.0	ug/L	INAB	
	2-Propenenitrile/Acrylonitrile		EO025	2.0		<2.0	ug/L	INAB	
	Chlormethyl Cyanide/Chloroacetonitrile		EO025	0.5		<0.5	ug/L	INAB	
	Nitrobenzene		EO025	0.5		<0.5	ug/L		
	Propanenitrile		EO025	10		<10	ug/L		
	Hexachlorobutadiene		EO025	0.5		<0.5	ug/L	INAB	
	Trans-1,2 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	MtBE		EO025	0.5		<0.5	ug/L	INAB	
	1,1-dichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	2,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	cis-12 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	2-Butanone		EO025	5.0		<5.0	ug/L		
	Methyl Acrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromochloromethane		EO025	0.5		<0.5	ug/L	INAB	
	Methacrylonitrile		EO025	5.0		<5.0	ug/L		
	Tetrahydrofuran		EO025	0.5		<0.5	ug/L	INAB	
	Chloroform		EO025	1.0		<1.0	ug/L	INAB	
	1,1,1-trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1-Chlorobutane		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Tetrachloride		EO025	0.5		<0.5	ug/L	INAB	
	11 Dichloropropene		EO025	0.5		<0.5	ug/L	INAB	
	Benzene		EO025	0.1		<0.1	ug/L	INAB	
	1,2 dichloroethane		EO025	0.1		<0.1	ug/L	INAB	
	Trichloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	Dibromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Methyl Methacrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromodichloromethane		EO025	2.0		<2.0	ug/L	INAB	
	13 Dichloropropene,cis		EO025	2.0		<2.0	ug/L	INAB	
	MIBK/4 Methyl 2 Pentanone		EO025	2.0		<2.0	ug/L	INAB	
	Toluene		EO025	0.5		<0.5	ug/L	INAB	

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Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	162501633 GW5		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	13 Dichloropropene,trans		EO025	2.0		<2.0	ug/L	INAB	
	Ethyl Methacrylate		EO025	2.0		<2.0	ug/L	INAB	
	112 Trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	Tetrachloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,3-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	2-Hexanone		EO025	1.0		<1.0	ug/L	INAB	
	Dibromochloromethane		EO025	1.0		<1.0	ug/L	INAB	
	1,2-dibromoethane		EO025	0.5		<0.5	ug/L	INAB	
	Chlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1,2-tetrachloroethane		EO025	2.0		<2.0	ug/L	INAB	
	Ethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Xylene P&M		EO025	0.5		<0.5	ug/L	INAB	
	Xylene -o		EO025	0.5		<0.5	ug/L	INAB	
	Styrene		EO025	2.0		<2.0	ug/L	INAB	
	Bromoform		EO025	1.0		<1.0	ug/L	INAB	
	Isopropylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Bromobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,2,2-tetrachloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1,2,3-trichloropropane		EO025	2.0		<2.0	ug/L	INAB	
	Trans 14 Dichloro 2 Butene, tran		EO025	2.0		<2.0	ug/L	INAB	
	Propylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	2-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	4-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,3,5-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Tert Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2,4-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	sec-butylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,3-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	P Isopropyltoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,4-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	N Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	Hexachloroethane		EO025	5.0		<5.0	ug/L	INAB	
	1,2-dibromo-3-chloropropane		EO025	2.0		<2.0	ug/L	INAB	
	1,2,4-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	Naphthalene		EO025	2.0		<2.0	ug/L	INAB	

Signed :

27/06/2016

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Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97277/001
Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501633 GW5	Date of Report	27/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	1,2,3-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	

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Brendan Murray-Deputy Technical Manager

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email: info@elsltd.com



Contact Name	Joe Ferry	Report Number	97277 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97277/002
Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501634 GW6	Date of Report	27/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
AQ2-UP2									
	Sulphate		EW154M-1	1.0		19	mg/L	INAB	
GCFID TPH Split									
	TPH >C10 - C20 (DRO)		EO063	10		<10	ug/L		
	TPH >C20 - C40 (MO)		EO063	10		<10	ug/L		
	TPH >C6 - C10 (PRO)		EO063	10		<10	ug/L		
	TPH >C6-C40 (TPH)		EO063	10		<10	ug/L		
LCMSMS-Acid Herbicides									
	236-Trichlorobenzoic Acid (TBA)		EO162	0.005		<0.005	ug/L	INAB	
	2,4,5-T		EO162	0.005		<0.005	ug/L	INAB	
	2,4 D		EO162	0.005		<0.005	ug/L		
	24-DB		EO162	0.005		<0.005	ug/L	INAB	
	Bentazone		EO162	0.005		<0.005	ug/L	INAB	
	Bromacil		EO162	0.005		<0.005	ug/L	INAB	
	Bromoxynil		EO162	0.005		<0.005	ug/L	INAB	
	Clopyralid		EO162	0.005		<0.005	ug/L	INAB	
	Dicamba		EO162	0.005		<0.005	ug/L	INAB	
	Dichloroprop (24DP)		EO162	0.005		<0.005	ug/L	INAB	
	Fluroxypyr		EO162	0.005		<0.005	ug/L	INAB	
	Ioxynil		EO162	0.005		<0.005	ug/L	INAB	
	MCPA		EO162	0.005		<0.005	ug/L	INAB	
	MCPB		EO162	0.005		<0.005	ug/L	INAB	
	Mecoprop (MCP)		EO162	0.005		<0.005	ug/L	INAB	
	Pentachlorophenol (PCP)		EO162	0.005		<0.005	ug/L	INAB	
	Picloram		EO162	0.005		<0.005	ug/L	INAB	
	Quinmerac		EO162	0.005		<0.005	ug/L	INAB	
	Trichlopyr		EO162	0.005		<0.005	ug/L	INAB	
LCMSMS-Pesticide Suite A									
	Simazine-LC		EO 165	0.005		<0.005	ug/L	INAB	
Metals-Dissolved									
	Manganese-Dissolved		EM130	1.0		7.5	ug/L	INAB	
	Boron-Dissolved		EM130	0.02		<0.02	mg/L	INAB	
	Cadmium-Dissolved		EM130	0.1		<0.1	ug/L	INAB	
	Copper-Dissolved		EM130	0.003		0.004	mg/L	INAB	
	Lead-Dissolved		EM130	0.3		<0.3	ug/L	INAB	
	Magnesium-Dissolved		EM130	0.3		3.6	mg/L	INAB	

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Contact Name	Joe Ferry	Report Number	97277 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97277/002
Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501634 GW6	Date of Report	27/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Metals-Dissolved									
	Nickel-Dissolved		EM130	0.5		2.5	ug/L	INAB	
	Zinc-Dissolved		EM130	1.0		<1.0	ug/L	INAB	
	Mercury-Dissolved		EM130	0.02		<0.02	ug/L	INAB	
	Potassium-Dissolved		EM130	0.2		1.9	mg/L	INAB	
	Sodium-Dissolved		EM130	0.5		14.7	mg/L	INAB	
Metals-Total									
	Chromium-Total		EM168	3.0		37.1	ug/L	INAB	
Non-Polar Pesticides (Sub)									
	Dichlobenil	*	Default	0.002		<0.001	ug/L	YES	
PhenolsTotal -Index (Sub1)									
	Phenols-Total	*	Default	0.10		<0.15	mg/L	YES	
SVOC (sub)									
	1,4-Dichlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
	2,4,5-Trichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4,6-Trichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dimethylphenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dinitrotoluene	*	Default	1.0		<1.0	ug/L	YES	
	2,6-Dinitrotoluene	*	Default	1.0		<1.0	ug/L	YES	
	2-Chloronaphthalene	*	Default	1.0		<1.0	ug/L	YES	
	2-Chlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2-Methylnaphthalene	*	Default	1.0		<1.0	ug/L	YES	
	2-Methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	2-Nitrophenol	*	Default	1.0		<1.0	ug/L	YES	
	3&4-Methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	4-Bromophenyl Phenyl Ether	*	Default	1.0		<1.0	ug/L	YES	
	4-Chloro-3-methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	4-Chlorophenyl phenyl ether	*	Default	1.0		<1.0	ug/L	YES	
	4-Nitrophenol	*	Default	5.0		<5.0	ug/L	YES	
	Acenaphthene	*	Default	1.0		<1.0	ug/L	YES	
	Acenaphthylene	*	Default	1.0		<1.0	ug/L	YES	
	Anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(a)anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(a)pyrene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(b)fluoranthene	*	Default	1.0		<1.0	ug/L	YES	

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Contact Name	Joe Ferry	Report Number	97277 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97277/002
Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501634 GW6	Date of Report	27/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
SVOC (sub)									
	Benzo(g,h,i)perylene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(k)fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Benzyl Butyl Phthalate	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroethoxy)methane	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroethyl)ether	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroisopropyl)ether	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-ethylhexyl)phthalate	*	Default	5.0		<5.0	ug/L	YES	
	Chrysene	*	Default	1.0		<1.0	ug/L	YES	
	Dibenz(a,h)anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Dibenzofuran	*	Default	1.0		<1.0	ug/L	YES	
	Diethylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Dimethylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	di-n-Butylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Di-n-octylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Diphenylamine	*	Default	1.0		<1.0	ug/L	YES	
	Fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Fluorene	*	Default	1.0		<1.0	ug/L	YES	
	Hexachlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
	Indeno(1,2,3-c,d)pyrene	*	Default	1.0		<1.0	ug/L	YES	
	Isophorone	*	Default	1.0		<1.0	ug/L	YES	
	n-Nitrosodi-n-propylamine	*	Default	1.0		<1.0	ug/L	YES	
	Pentachlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	Phenanthrene	*	Default	1.0		<1.0	ug/L	YES	
	Phenol	*	Default	1.0		<1.0	ug/L	YES	
	Pyrene	*	Default	1.0		<1.0	ug/L	YES	
Total Cyanide High (Sub)									
	Total Cyanide High	*	Default	10		<10	ug/L	YES	
VOC Full Suite									
	Epichlorohydrin		EO025	0.1		<0.1	ug/L		
	Dichlorodifluoromethane		EO025	10.0		<10.0	ug/L		
	Chloromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Chloride/Chloroethane		EO025	0.5		<0.5	ug/L		
	Vinyl Chloride		EO025	0.1		<0.1	ug/L		
	Bromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Trichloromonofluoromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Ether/Diethyl Ether		EO025	0.5		<0.5	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97277 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97277/002
		Date of Receipt	02/06/2016
		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	162501634 GW6		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	11 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	Acetone		EO025	2.0		<2.0	ug/L		
	Iodomethane/Methyl Iodide		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Disulphide		EO025	0.5		0.5	ug/L	INAB	
	Dichloromethane		EO025	5.0		<5.0	ug/L	INAB	
	2-Propanenitrile/Acrylonitrile		EO025	2.0		<2.0	ug/L	INAB	
	Chlormethyl Cyanide/Chloroacetonitrile		EO025	0.5		<0.5	ug/L	INAB	
	Nitrobenzene		EO025	0.5		<0.5	ug/L		
	Propanenitrile		EO025	10		<10	ug/L		
	Hexachlorobutadiene		EO025	0.5		<0.5	ug/L	INAB	
	Trans-1,2 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	MtBE		EO025	0.5		<0.5	ug/L	INAB	
	1,1-dichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	2,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	cis-12 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	2-Butanone		EO025	5.0		<5.0	ug/L		
	Methyl Acrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromochloromethane		EO025	0.5		<0.5	ug/L	INAB	
	Methacrylonitrile		EO025	5.0		<5.0	ug/L		
	Tetrahydrofuran		EO025	0.5		<0.5	ug/L	INAB	
	Chloroform		EO025	1.0		<1.0	ug/L	INAB	
	1,1,1-trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1-Chlorobutane		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Tetrachloride		EO025	0.5		<0.5	ug/L	INAB	
	11 Dichloropropene		EO025	0.5		<0.5	ug/L	INAB	
	Benzene		EO025	0.1		<0.1	ug/L	INAB	
	1,2 dicloroethane		EO025	0.1		<0.1	ug/L	INAB	
	Trichloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	Dibromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Methyl Methacrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromodichloromethane		EO025	2.0		<2.0	ug/L	INAB	
	13 Dichloropropene,cis		EO025	2.0		<2.0	ug/L	INAB	
	MIBK/4 Methyl 2 Pentanone		EO025	2.0		<2.0	ug/L	INAB	
	Toluene		EO025	0.5		<0.5	ug/L	INAB	
	13 Dichloropropene,trans		EO025	2.0		<2.0	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97277 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97277/002
		Date of Receipt	02/06/2016
		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	162501634 GW6		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Ethyl Methacrylate		EO025	2.0		<2.0	ug/L	INAB	
	112 Trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	Tetrachloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,3-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	2-Hexanone		EO025	1.0		<1.0	ug/L	INAB	
	Dibromochloromethane		EO025	1.0		<1.0	ug/L	INAB	
	1,2-dibromoethane		EO025	0.5		<0.5	ug/L	INAB	
	Chlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1,2-tetrachloroethane		EO025	2.0		<2.0	ug/L	INAB	
	Ethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Xylene P&M		EO025	0.5		<0.5	ug/L	INAB	
	Xylene -o		EO025	0.5		<0.5	ug/L	INAB	
	Styrene		EO025	2.0		<2.0	ug/L	INAB	
	Bromoform		EO025	1.0		<1.0	ug/L	INAB	
	Isopropylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Bromobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1,2-tetrachloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1,2,3-trichloropropane		EO025	2.0		<2.0	ug/L	INAB	
	Trans 1,4 Dichloro 2 Butene, tran		EO025	2.0		<2.0	ug/L		
	Propylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	2-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	4-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,3,5-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Tert Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2,4-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	sec-butylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,3-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	P Isopropyltoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,4-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	N Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	Hexachloroethane		EO025	5.0		<5.0	ug/L	INAB	
	1,2-dibromo-3-chloropropane		EO025	2.0		<2.0	ug/L	INAB	
	1,2,4-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	Naphthalene		EO025	2.0		<2.0	ug/L	INAB	
	1,2,3-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97277 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97277/003
Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501635 GW7	Date of Report	27/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
AQ2-UP2									
	Sulphate		EW154M-1	1.0		8.3	mg/L	INAB	
GCFID TPH Split									
	TPH >C10 - C20 (DRO)		EO063	10		<10	ug/L		
	TPH >C20 - C40 (MO)		EO063	10		<10	ug/L		
	TPH >C6 - C10 (PRO)		EO063	10		<10	ug/L		
	TPH >C6-C40 (TPH)		EO063	10		<10	ug/L		
LCMSMS-Acid Herbicides									
	236-Trichlorobenzoic Acid (TBA)		EO162	0.005		<0.005	ug/L	INAB	
	2,4,5-T		EO162	0.005		<0.005	ug/L	INAB	
	2,4 D		EO162	0.005		<0.005	ug/L		
	24-DB		EO162	0.005		<0.005	ug/L	INAB	
	Bentazone		EO162	0.005		<0.005	ug/L	INAB	
	Bromacil		EO162	0.005		<0.005	ug/L	INAB	
	Bromoxynil		EO162	0.005		<0.005	ug/L	INAB	
	Clopyralid		EO162	0.005		<0.005	ug/L	INAB	
	Dicamba		EO162	0.005		<0.005	ug/L	INAB	
	Dichloroprop (24DP)		EO162	0.005		<0.005	ug/L	INAB	
	Fluroxypyr		EO162	0.005		<0.005	ug/L	INAB	
	Ioxynil		EO162	0.005		<0.005	ug/L	INAB	
	MCPA		EO162	0.005		<0.005	ug/L	INAB	
	MCPB		EO162	0.005		<0.005	ug/L	INAB	
	Mecoprop (MCP)		EO162	0.005		<0.005	ug/L	INAB	
	Pentachlorophenol (PCP)		EO162	0.005		<0.005	ug/L	INAB	
	Picloram		EO162	0.005		<0.005	ug/L	INAB	
	Quinmerac		EO162	0.005		<0.005	ug/L	INAB	
	Trichlopyr		EO162	0.005		<0.005	ug/L	INAB	
LCMSMS-Pesticide Suite A									
	Simazine-LC		EO 165	0.005		<0.005	ug/L	INAB	
Metals-Dissolved									
	Manganese-Dissolved		EM130	1.0		500	ug/L		
	Boron-Dissolved		EM130	0.02		<0.02	mg/L	INAB	
	Cadmium-Dissolved		EM130	0.1		<0.1	ug/L	INAB	
	Copper-Dissolved		EM130	0.003		<0.003	mg/L	INAB	
	Lead-Dissolved		EM130	0.3		<0.3	ug/L	INAB	
	Magnesium-Dissolved		EM130	0.3		11.3	mg/L	INAB	

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email: info@elsltd.com



Contact Name	Joe Ferry	Report Number	97277 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97277/003
		Date of Receipt	02/06/2016
		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	162501635 GW7		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Metals-Dissolved									
	Nickel-Dissolved		EM130	0.5		5.0	ug/L	INAB	
	Zinc-Dissolved		EM130	1.0		3.1	ug/L	INAB	
	Mercury-Dissolved		EM130	0.02		<0.02	ug/L	INAB	
	Potassium-Dissolved		EM130	0.2		2.0	mg/L	INAB	
	Sodium-Dissolved		EM130	0.5		20.9	mg/L	INAB	
Metals-Total									
	Chromium-Total		EM168	3.0		10.4	ug/L	INAB	
Non-Polar Pesticides (Sub)									
	Dichlobenil	*	Default	0.002		<0.001	ug/L	YES	
PhenolsTotal -Index (Sub1)									
	Phenols-Total	*	Default	0.10		<0.15	mg/L	YES	
SVOC (sub)									
	1,4-Dichlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
	2,4,5-Trichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4,6-Trichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dimethylphenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dinitrotoluene	*	Default	1.0		<1.0	ug/L	YES	
	2,6-Dinitrotoluene	*	Default	1.0		<1.0	ug/L	YES	
	2-Chloronaphthalene	*	Default	1.0		<1.0	ug/L	YES	
	2-Chlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2-Methylnaphthalene	*	Default	1.0		<1.0	ug/L	YES	
	2-Methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	2-Nitrophenol	*	Default	1.0		<1.0	ug/L	YES	
	3&4-Methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	4-Bromophenyl Phenyl Ether	*	Default	1.0		<1.0	ug/L	YES	
	4-Chloro-3-methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	4-Chlorophenyl phenyl ether	*	Default	1.0		<1.0	ug/L	YES	
	4-Nitrophenol	*	Default	5.0		<5.0	ug/L	YES	
	Acenaphthene	*	Default	1.0		<1.0	ug/L	YES	
	Acenaphthylene	*	Default	1.0		<1.0	ug/L	YES	
	Anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(a)anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(a)pyrene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(b)fluoranthene	*	Default	1.0		<1.0	ug/L	YES	

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Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97277/003
Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501635 GW7	Date of Report	27/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
SVOC (sub)									
	Benzo(g,h,i)perylene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(k)fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Benzyl Butyl Phthalate	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroethoxy)methane	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroethyl)ether	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroisopropyl)ether	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-ethylhexyl)phthalate	*	Default	5.0		<5.0	ug/L	YES	
	Chrysene	*	Default	1.0		<1.0	ug/L	YES	
	Dibenz(a,h)anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Dibenzofuran	*	Default	1.0		<1.0	ug/L	YES	
	Diethylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Dimethylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	di-n-Butylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Di-n-octylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Diphenylamine	*	Default	1.0		<1.0	ug/L	YES	
	Fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Fluorene	*	Default	1.0		<1.0	ug/L	YES	
	Hexachlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
	Indeno(1,2,3-c,d)pyrene	*	Default	1.0		<1.0	ug/L	YES	
	Isophorone	*	Default	1.0		<1.0	ug/L	YES	
	n-Nitrosodi-n-propylamine	*	Default	1.0		<1.0	ug/L	YES	
	Pentachlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	Phenanthrene	*	Default	1.0		<1.0	ug/L	YES	
	Phenol	*	Default	1.0		<1.0	ug/L	YES	
	Pyrene	*	Default	1.0		<1.0	ug/L	YES	
Total Cyanide High (Sub)									
	Total Cyanide High	*	Default	10		<10	ug/L	YES	
VOC Full Suite									
	Epichlorohydrin		EO025	0.1		<0.1	ug/L		
	Dichlorodifluoromethane		EO025	10.0		<10.0	ug/L		
	Chloromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Chloride/Chloroethane		EO025	0.5		<0.5	ug/L		
	Vinyl Chloride		EO025	0.1		<0.1	ug/L		
	Bromomethane		EO025	0.5		0.5	ug/L	INAB	
	Trichloromonofluoromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Ether/Diethyl Ether		EO025	0.5		<0.5	ug/L	INAB	

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Brendan Murray-Deputy Technical Manager

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		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	162501635 GW7		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	11 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	Acetone		EO025	2.0		<2.0	ug/L		
	Iodomethane/Methyl Iodide		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Disulphide		EO025	0.5		<0.5	ug/L	INAB	
	Dichloromethane		EO025	5.0		<5.0	ug/L	INAB	
	2-Propanenitrile/Acrylonitrile		EO025	2.0		<2.0	ug/L	INAB	
	Chlormethyl Cyanide/Chloroacetonitrile		EO025	0.5		<0.5	ug/L	INAB	
	Nitrobenzene		EO025	0.5		<0.5	ug/L		
	Propanenitrile		EO025	10		<10	ug/L		
	Hexachlorobutadiene		EO025	0.5		<0.5	ug/L	INAB	
	Trans-1,2 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	MtBE		EO025	0.5		<0.5	ug/L	INAB	
	1,1-dichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	2,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	cis-12 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	2-Butanone		EO025	5.0		<5.0	ug/L		
	Methyl Acrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromochloromethane		EO025	0.5		<0.5	ug/L	INAB	
	Methacrylonitrile		EO025	5.0		<5.0	ug/L		
	Tetrahydrofuran		EO025	0.5		<0.5	ug/L	INAB	
	Chloroform		EO025	1.0		<1.0	ug/L	INAB	
	1,1,1-trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1-Chlorobutane		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Tetrachloride		EO025	0.5		<0.5	ug/L	INAB	
	11 Dichloropropene		EO025	0.5		<0.5	ug/L	INAB	
	Benzene		EO025	0.1		<0.1	ug/L	INAB	
	1,2 dicloroethane		EO025	0.1		<0.1	ug/L	INAB	
	Trichloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	Dibromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Methyl Methacrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromodichloromethane		EO025	2.0		<2.0	ug/L	INAB	
	13 Dichloropropene,cis		EO025	2.0		<2.0	ug/L	INAB	
	MIBK/4 Methyl 2 Pentanone		EO025	2.0		<2.0	ug/L	INAB	
	Toluene		EO025	0.5		<0.5	ug/L	INAB	
	13 Dichloropropene,trans		EO025	2.0		<2.0	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97277 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97277/003
Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501635 GW7	Date of Report	27/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Ethyl Methacrylate		EO025	2.0		<2.0	ug/L	INAB	
	112 Trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	Tetrachloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,3-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	2-Hexanone		EO025	1.0		<1.0	ug/L	INAB	
	Dibromochloromethane		EO025	1.0		<1.0	ug/L	INAB	
	1,2-dibromoethane		EO025	0.5		<0.5	ug/L	INAB	
	Chlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1,2-tetrachloroethane		EO025	2.0		<2.0	ug/L	INAB	
	Ethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Xylene P&M		EO025	0.5		<0.5	ug/L	INAB	
	Xylene -o		EO025	0.5		<0.5	ug/L	INAB	
	Styrene		EO025	2.0		<2.0	ug/L	INAB	
	Bromoform		EO025	1.0		<1.0	ug/L	INAB	
	Isopropylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Bromobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1,2-tetrachloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1,2,3-trichloropropane		EO025	2.0		<2.0	ug/L	INAB	
	Trans 1,4 Dichloro 2 Butene, tran		EO025	2.0		<2.0	ug/L	INAB	
	Propylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	2-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	4-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,3,5-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Tert Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2,4-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	sec-butylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,3-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	P Isopropyltoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,4-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	N Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	Hexachloroethane		EO025	5.0		<5.0	ug/L	INAB	
	1,2-dibromo-3-chloropropane		EO025	2.0		<2.0	ug/L	INAB	
	1,2,4-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	Naphthalene		EO025	2.0		<2.0	ug/L	INAB	
	1,2,3-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	

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Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501636 GW10	Date of Report	27/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
AQ2-UP2									
	Sulphate		EW154M-1	1.0		22	mg/L	INAB	
GCFID TPH Split									
	TPH >C10 - C20 (DRO)		EO063	10		<10	ug/L		
	TPH >C20 - C40 (MO)		EO063	10		75	ug/L		
	TPH >C6 - C10 (PRO)		EO063	10		<10	ug/L		
	TPH >C6-C40 (TPH)		EO063	10		75	ug/L		
LCMSMS-Acid Herbicides									
	236-Trichlorobenzoic Acid (TBA)		EO162	0.005		<0.005	ug/L	INAB	
	2,4,5-T		EO162	0.005		<0.005	ug/L	INAB	
	2,4 D		EO162	0.005		<0.005	ug/L		
	24-DB		EO162	0.005		<0.005	ug/L	INAB	
	Bentazone		EO162	0.005		<0.005	ug/L	INAB	
	Bromacil		EO162	0.005		<0.005	ug/L	INAB	
	Bromoxynil		EO162	0.005		<0.005	ug/L	INAB	
	Clopyralid		EO162	0.005		<0.005	ug/L	INAB	
	Dicamba		EO162	0.005		<0.005	ug/L	INAB	
	Dichloroprop (24DP)		EO162	0.005		<0.005	ug/L	INAB	
	Fluroxypyr		EO162	0.005		<0.005	ug/L	INAB	
	Ioxynil		EO162	0.005		<0.005	ug/L	INAB	
	MCPA		EO162	0.005		<0.005	ug/L	INAB	
	MCPB		EO162	0.005		<0.005	ug/L	INAB	
	Mecoprop (MCP)		EO162	0.005		0.068	ug/L	INAB	
	Pentachlorophenol (PCP)		EO162	0.005		<0.005	ug/L	INAB	
	Picloram		EO162	0.005		<0.005	ug/L	INAB	
	Quinmerac		EO162	0.005		<0.005	ug/L	INAB	
	Trichlopyr		EO162	0.005		<0.005	ug/L	INAB	
LCMSMS-Pesticide Suite A									
	Simazine-LC		EO 165	0.005		<0.005	ug/L	INAB	
Metals-Dissolved									
	Manganese-Dissolved		EM130	1.0		500	ug/L		
	Boron-Dissolved		EM130	0.02		<0.02	mg/L	INAB	
	Cadmium-Dissolved		EM130	0.1		<0.1	ug/L	INAB	
	Copper-Dissolved		EM130	0.003		<0.003	mg/L	INAB	
	Lead-Dissolved		EM130	0.3		<0.3	ug/L	INAB	
	Magnesium-Dissolved		EM130	0.3		7.2	mg/L	INAB	

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Contact Name	Joe Ferry	Report Number	97277 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97277/004
		Date of Receipt	02/06/2016
		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	162501636 GW10		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Metals-Dissolved									
	Nickel-Dissolved		EM130	0.5		1.0	ug/L	INAB	
	Zinc-Dissolved		EM130	1.0		6.3	ug/L	INAB	
	Mercury-Dissolved		EM130	0.02		<0.02	ug/L	INAB	
	Potassium-Dissolved		EM130	0.2		1.9	mg/L	INAB	
	Sodium-Dissolved		EM130	0.5		12.1	mg/L	INAB	
Metals-Total									
	Chromium-Total		EM168	3.0		4.5	ug/L	INAB	
Non-Polar Pesticides (Sub)									
	Dichlobenil	*	Default	0.002		Analyst Comment	ug/L	YES	
<i>No result for Dichlobenil as sample was unsuitable for analysis</i>									
PhenolsTotal -Index (Sub1)									
	Phenols-Total	*	Default	0.10		<0.15	mg/L	YES	
SVOC (sub)									
	1,4-Dichlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
<i>Analyst QC Comment QC:LOQ raised due to nature of sample matrix for all analytes</i>									
	2,4,5-Trichlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4,6-Trichlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4-Dichlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4-Dimethylphenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4-Dinitrotoluene	*	Default	1.0		<2.0	ug/L	YES	
	2,6-Dinitrotoluene	*	Default	1.0		<2.0	ug/L	YES	
	2-Chloronaphthalene	*	Default	1.0		<2.0	ug/L	YES	
	2-Chlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2-Methylnaphthalene	*	Default	1.0		<2.0	ug/L	YES	
	2-Methylphenol	*	Default	1.0		<2.0	ug/L	YES	
	2-Nitrophenol	*	Default	1.0		<2.0	ug/L	YES	
	3&4-Methylphenol	*	Default	1.0		<2.0	ug/L	YES	
	4-Bromophenyl Phenyl Ether	*	Default	1.0		<2.0	ug/L	YES	
	4-Chloro-3-methylphenol	*	Default	1.0		<2.0	ug/L	YES	
	4-Chlorophenyl phenyl ether	*	Default	1.0		<2.0	ug/L	YES	
	4-Nitrophenol	*	Default	5.0		<10.0	ug/L	YES	
	Acenaphthene	*	Default	1.0		<2.0	ug/L	YES	
	Acenaphthylene	*	Default	1.0		<2.0	ug/L	YES	
	Anthracene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(a)anthracene	*	Default	1.0		<2.0	ug/L	YES	

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Contact Name	Joe Ferry	Report Number	97277 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97277/004
Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501636 GW10	Date of Report	27/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
SVOC (sub)									
	Benzo(a)pyrene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(b)fluoranthene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(g,h,i)perylene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(k)fluoranthene	*	Default	1.0		<2.0	ug/L	YES	
	Benzyl Butyl Phthalate	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-chloroethoxy)methane	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-chloroethyl)ether	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-chloroisopropyl)ether	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-ethylhexyl)phthalate	*	Default	5.0		<10.0	ug/L	YES	
	Chrysene	*	Default	1.0		<2.0	ug/L	YES	
	Dibenz(a,h)anthracene	*	Default	1.0		<2.0	ug/L	YES	
	Dibenzofuran	*	Default	1.0		<2.0	ug/L	YES	
	Diethylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	Dimethylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	di-n-Butylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	Di-n-octylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	Diphenylamine	*	Default	1.0		<2.0	ug/L	YES	
	Fluoranthene	*	Default	1.0		<2.0	ug/L	YES	
	Fluorene	*	Default	1.0		<2.0	ug/L	YES	
	Hexachlorobenzene	*	Default	1.0		<2.0	ug/L	YES	
	Indeno(1,2,3-c,d)pyrene	*	Default	1.0		<2.0	ug/L	YES	
	Isophorone	*	Default	1.0		<2.0	ug/L	YES	
	n-Nitrosodi-n-propylamine	*	Default	1.0		<2.0	ug/L	YES	
	Pentachlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	Phenanthrene	*	Default	1.0		<2.0	ug/L	YES	
	Phenol	*	Default	1.0		<2.0	ug/L	YES	
	Pyrene	*	Default	1.0		<2.0	ug/L	YES	
Total Cyanide High (Sub)									
	Total Cyanide High	*	Default	10		<10	ug/L	YES	
VOC Full Suite									
	Epichlorohydrin		EO025	0.1		<0.1	ug/L		
	Dichlorodifluoromethane		EO025	10.0		<10.0	ug/L		
	Chloromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Chloride/Chloroethane		EO025	0.5		<0.5	ug/L		
	Vinyl Chloride		EO025	0.1		<0.1	ug/L		
	Bromomethane		EO025	0.5		<0.5	ug/L	INAB	

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		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	162501636 GW10		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Trichloromonofluoromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Ether/Diethyl Ether		EO025	0.5		<0.5	ug/L	INAB	
	11 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	Acetone		EO025	2.0		<2.0	ug/L		
	Iodomethane/Methyl Iodide		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Disulphide		EO025	0.5		<0.5	ug/L	INAB	
	Dichloromethane		EO025	5.0		<5.0	ug/L	INAB	
	2-Propenenitrile/Acrylonitrile		EO025	2.0		<2.0	ug/L	INAB	
	Chlormethyl Cyanide/Chloroacetonitrile		EO025	0.5		<0.5	ug/L	INAB	
	Nitrobenzene		EO025	0.5		<0.5	ug/L		
	Propanenitrile		EO025	10		<10	ug/L		
	Hexachlorobutadiene		EO025	0.5		<0.5	ug/L	INAB	
	Trans-1,2 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	MtBE		EO025	0.5		1.6	ug/L	INAB	
	1,1-dichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	2,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	cis-12 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	2-Butanone		EO025	5.0		<5.0	ug/L		
	Methyl Acrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromochloromethane		EO025	0.5		<0.5	ug/L	INAB	
	Methacrylonitrile		EO025	5.0		<5.0	ug/L		
	Tetrahydrofuran		EO025	0.5		<0.5	ug/L	INAB	
	Chloroform		EO025	1.0		<1.0	ug/L	INAB	
	1,1,1-trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1-Chlorobutane		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Tetrachloride		EO025	0.5		<0.5	ug/L	INAB	
	11 Dichloropropene		EO025	0.5		<0.5	ug/L	INAB	
	Benzene		EO025	0.1		<0.1	ug/L	INAB	
	1,2 dicloroethane		EO025	0.1		<0.1	ug/L	INAB	
	Trichloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	Dibromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Methyl Methacrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromodichloromethane		EO025	2.0		<2.0	ug/L	INAB	
	13 Dichloropropene,cis		EO025	2.0		<2.0	ug/L	INAB	
	MIBK/4 Methyl 2 Pentanone		EO025	2.0		<2.0	ug/L	INAB	

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Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97277/004
		Date of Receipt	02/06/2016
		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Ground Waters
Customer Ref	162501636 GW10		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Toluene		EO025	0.5		<0.5	ug/L	INAB	
	13 Dichloropropene,trans		EO025	2.0		<2.0	ug/L	INAB	
	Ethyl Methacrylate		EO025	2.0		<2.0	ug/L	INAB	
	112 Trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	Tetrachloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,3-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	2-Hexanone		EO025	1.0		<1.0	ug/L	INAB	
	Dibromochloromethane		EO025	1.0		<1.0	ug/L	INAB	
	1,2-dibromoethane		EO025	0.5		<0.5	ug/L	INAB	
	Chlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1,2-tetrachloroethane		EO025	2.0		<2.0	ug/L	INAB	
	Ethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Xylene P&M		EO025	0.5		<0.5	ug/L	INAB	
	Xylene -o		EO025	0.5		<0.5	ug/L	INAB	
	Styrene		EO025	2.0		<2.0	ug/L	INAB	
	Bromoform		EO025	1.0		<1.0	ug/L	INAB	
	Isopropylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Bromobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,2,2-tetrachloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1,2,3-trichloropropane		EO025	2.0		<2.0	ug/L	INAB	
	Trans 14 Dichloro 2 Butene, tran		EO025	2.0		<2.0	ug/L	INAB	
	Propylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	2-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	4-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,3,5-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Tert Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2,4-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	sec-butylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,3-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	P Isopropyltoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,4-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	N Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	Hexachloroethane		EO025	5.0		<5.0	ug/L	INAB	
	1,2-dibromo-3-chloropropane		EO025	2.0		<2.0	ug/L	INAB	
	1,2,4-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	

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Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97277/004
Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501636 GW10	Date of Report	27/06/2016
		Sample Type	Ground Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Naphthalene		EO025	2.0		<2.0	ug/L		
	1,2,3-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97276 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/001
		Date of Receipt	02/06/2016
		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Surface Waters
Customer Ref	162501626 SW1		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
AQ2-UP2									
	Sulphate		EW154M-1	1.0		6.0	mg/L	INAB	
GCFID TPH Split									
	TPH >C10 - C20 (DRO)		EO063	10		<10	ug/L		
	TPH >C20 - C40 (MO)		EO063	10		85	ug/L		
	TPH >C 6 - C10 (PRO)		EO063	10		<10	ug/L		
	TPH >C6-C40 (TPH)		EO063	10		85	ug/L		
LCMSMS-Acid Herbicides									
	236-Trichlorobenzoic Acid (TBA)		EO162	0.005		<0.005	ug/L	INAB	
	2,4,5-T		EO162	0.005		<0.005	ug/L	INAB	
	2,4 D		EO162	0.005		<0.005	ug/L	INAB	
	24-DB		EO162	0.005		<0.005	ug/L	INAB	
	Bentazone		EO162	0.005		<0.005	ug/L	INAB	
	Bromacil		EO162	0.005		<0.005	ug/L	INAB	
	Bromoxynil		EO162	0.005		<0.005	ug/L	INAB	
	Clopyralid		EO162	0.005		<0.005	ug/L	INAB	
	Dicamba		EO162	0.005		<0.005	ug/L	INAB	
	Dichloroprop (24DP)		EO162	0.005		<0.005	ug/L	INAB	
	Fluroxypyr		EO162	0.005		<0.005	ug/L	INAB	
	Ioxynil		EO162	0.005		<0.005	ug/L	INAB	
	MCPA		EO162	0.005		<0.005	ug/L	INAB	
	MCPB		EO162	0.005		<0.005	ug/L	INAB	
	Mecoprop (MCP)		EO162	0.005		<0.005	ug/L	INAB	
	Pentachlorophenol (PCP)		EO162	0.005		<0.005	ug/L	INAB	
	Picloram		EO162	0.005		<0.005	ug/L	INAB	
	Quinmerac		EO162	0.005		<0.005	ug/L	INAB	
	Trichlopyr		EO162	0.005		<0.005	ug/L	INAB	
LCMSMS-Pesticide Suite A									
	Simazine-LC		EO 165	0.005		<0.005	ug/L	INAB	
Metals-Dissolved									
	Boron-Dissolved		EM130	0.02		<0.02	mg/L	INAB	
	Cadmium-Dissolved		EM130	0.1		<0.1	ug/L	INAB	
	Copper-Dissolved		EM130	0.003		<0.003	mg/L	INAB	
	Iron-Dissolved		EM130	20		610	ug/L		
	Lead-Dissolved		EM130	0.3		0.5	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97276 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/001
		Date of Receipt	02/06/2016
		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Surface Waters
Customer Ref	162501626 SW1		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Metals-Dissolved									
	Magnesium-Dissolved		EM130	0.3		2.3	mg/L	INAB	
	Manganese-Dissolved		EM130	1.0		150	ug/L	INAB	
	Mercury-Dissolved		EM130	0.02		<0.02	ug/L	INAB	
	Nickel-Dissolved		EM130	0.5		0.8	ug/L	INAB	
	Potassium-Dissolved		EM130	0.2		0.9	mg/L	INAB	
	Sodium-Dissolved		EM130	0.5		9.7	mg/L	INAB	
	Zinc-Dissolved		EM130	1.0		3.0	ug/L	INAB	
Metals-Total									
	Chromium-Total		EM168	3.0		<3.0	ug/L	INAB	
Non-Polar Pesticides (Sub)									
	Dichlobenil	*	Default	0.002		<0.002	ug/L	YES	
<i>LOD raised for Dichlobenil due to analyst error, limited volume for repeat analysis, x2 dilution carried out</i>									
PhenolsTotal -Index (Sub1)									
	Phenols-Total	*	Default	0.10		<0.15	mg/L	YES	
SVOC (sub)									
	1,4-Dichlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
<i>Analyst QC Comment QC:LOQ raised due to nature of sample matrix for all analytes</i>									
	2,4,5-Trichlorophenol	*	Default	1.0		<2.0	0	YES	
	2,4,6-Trichlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4-Dichlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4-Dimethylphenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4-Dinitrotoluene	*	Default	1.0		<2.0	ug/L	YES	
	2,6-Dinitrotoluene	*	Default	1.0		<0.0	ug/L	YES	
	2-Chloronaphthalene	*	Default	1.0		<2.0	ug/L	YES	
	2-Chlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2-Methylnaphthalene	*	Default	1.0		<2.0	ug/L	YES	
	2-Methylphenol	*	Default	1.0		<2.0	ug/L	YES	
	2-Nitrophenol	*	Default	1.0		<2.0	ug/L	YES	
	3&4-Methylphenol	*	Default	1.0		<2.0	ug/L	YES	
	4-Bromophenyl Phenyl Ether	*	Default	1.0		<2.0	ug/L	YES	
	4-Chloro-3-methylphenol	*	Default	1.0		<2.0	ug/L	YES	
	4-Chlorophenyl phenyl ether	*	Default	1.0		<2.0	ug/L	YES	
	4-Nitrophenol	*	Default	5.0		<10.0	ug/L	YES	
	Acenaphthene	*	Default	1.0		<2.0	ug/L	YES	
	Acenaphthylene	*	Default	1.0		<2.0	ug/L	YES	

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Contact Name	Joe Ferry	Report Number	97276 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/001
		Date of Receipt	02/06/2016
		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Surface Waters
Customer Ref	162501626 SW1		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
SVOC (sub)									
	Anthracene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(a)anthracene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(a)pyrene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(b)fluoranthene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(g,h,i)perylene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(k)fluoranthene	*	Default	1.0		<2.0	ug/L	YES	
	Benzyl Butyl Phthalate	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-chloroethoxy)methane	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-chloroethyl)ether	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-chloroisopropyl)ether	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-ethylhexyl)phthalate	*	Default	5.0		<10.0	ug/L	YES	
	Chrysene	*	Default	1.0		<2.0	ug/L	YES	
	Dibenz(a,h)anthracene	*	Default	1.0		<2.0	ug/L	YES	
	Dibenzofuran	*	Default	1.0		<2.0	ug/L	YES	
	Diethylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	Dimethylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	di-n-Butylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	Di-n-octylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	Diphenylamine	*	Default	1.0		<2.0	ug/L	YES	
	Fluoranthene	*	Default	1.0		<2.0	ug/L	YES	
	Fluorene	*	Default	1.0		<2.0	ug/L	YES	
	Hexachlorobenzene	*	Default	1.0		<2.0	ug/L	YES	
	Indeno(1,2,3-c,d)pyrene	*	Default	1.0		<2.0	ug/L	YES	
	Isophorone	*	Default	1.0		<2.0	ug/L	YES	
	n-Nitrosodi-n-propylamine	*	Default	1.0		<2.0	ug/L	YES	
	Pentachlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	Phenanthrene	*	Default	1.0		<2.0	ug/L	YES	
	Phenol	*	Default	1.0		<2.0	ug/L	YES	
	Pyrene	*	Default	1.0		<2.0	ug/L	YES	
VOC Full Suite									
	Dichlorodifluoromethane		EO025	10.0		<10.0	ug/L		
	Chloromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Chloride/Chloroethane		EO025	0.5		<0.5	ug/L		
	Vinyl Chloride		EO025	0.5		<0.5	ug/L		
	Bromomethane		EO025	0.5		0.8	ug/L	INAB	
	Trichloromonofluoromethane		EO025	0.5		<0.5	ug/L		

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Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/001
Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501626 SW1	Date of Report	27/06/2016
		Sample Type	Surface Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Ethyl Ether/Diethyl Ether		EO025	0.5		<0.5	ug/L	INAB	
	11 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	Acetone		EO025	2.0		<2.0	ug/L		
	Iodomethane/Methyl Iodide		EO025	0.5		0.8	ug/L	INAB	
	Carbon Disulphide		EO025	0.5		<0.5	ug/L	INAB	
	Dichloromethane		EO025	5.0		<5.0	ug/L	INAB	
	2-Propenenitrile/Acrylonitrile		EO025	2.0		<2.0	ug/L	INAB	
	Chlormethyl Cyanide/Chloroacetonitrile		EO025	0.5		<0.5	ug/L	INAB	
	Nitrobenzene		EO025	0.5		<0.5	ug/L		
	Propanenitrile		EO025	10.0		<10.0	ug/L		
	Hexachlorobutadiene		EO025	0.5		0.7	ug/L	INAB	
	Trans-1,2 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	MtBE		EO025	0.5		<0.5	ug/L	INAB	
	1,1-dichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	2,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	cis-12 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	2-Butanone		EO025	5.0		<5.0	ug/L		
	Methyl Acrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromochloromethane		EO025	0.5		<0.5	ug/L	INAB	
	Methacrylonitrile		EO025	5.0		<5.0	ug/L		
	Tetrahydrofuran		EO025	0.5		<0.5	ug/L	INAB	
	Chloroform		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1-trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1-Chlorobutane		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Tetrachloride		EO025	0.5		<0.5	ug/L	INAB	
	11 Dichloropropene		EO025	0.5		<0.5	ug/L	INAB	
	Benzene		EO025	0.1		<0.1	ug/L	INAB	
	1,2 dicloroethane		EO025	0.1		<0.1	ug/L	INAB	
	Trichloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	Dibromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Methyl Methacrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromodichloromethane		EO025	2.0		<2.0	ug/L	INAB	
	13 Dichloropropene,cis		EO025	2.0		<2.0	ug/L	INAB	
	MIBK/4 Methyl 2 Pentanone		EO025	2.0		<2.0	ug/L	INAB	
	Toluene		EO025	0.5		<0.5	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97276 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/001
		Date of Receipt	02/06/2016
		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Surface Waters
Customer Ref	162501626 SW1		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	13 Dichloropropene,trans		EO025	2.0		<2.0	ug/L	INAB	
	Ethyl Methacrylate		EO025	2.0		<2.0	ug/L	INAB	
	112 Trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	Tetrachloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,3-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	2-Hexanone		EO025	0.5		<0.5	ug/L	INAB	
	Dibromochloromethane		EO025	0.5		<0.5	ug/L	INAB	
	1,2-dibromoethane		EO025	0.5		<0.5	ug/L	INAB	
	Chlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1,2-tetrachloroethane		EO025	2.0		<2.0	ug/L	INAB	
	Ethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Xylene P&M		EO025	0.5		<0.5	ug/L	INAB	
	Xylene -o		EO025	0.5		<0.5	ug/L	INAB	
	Styrene		EO025	2.0		<2.0	ug/L	INAB	
	Bromoform		EO025	0.5		<0.5	ug/L	INAB	
	Isopropylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Bromobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,2,2-tetrachloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1,2,3-trichloropropane		EO025	2.0		<2.0	ug/L	INAB	
	Trans 1,4 Dichloro 2 Butene, tran		EO025	2.0		<2.0	ug/L	INAB	
	Propylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	2-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	4-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,3,5-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Tert Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2,4-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	sec-butylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,3-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	P Isopropyltoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,4-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	N Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	Hexachloroethane		EO025	5.0		<5.0	ug/L	INAB	
	1,2-dibromo-3-chloropropane		EO025	2.0		<2.0	ug/L	INAB	
	1,2,4-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	Naphthalene		EO025	2.0		<2.0	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97276 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/001
Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501626 SW1	Date of Report	27/06/2016
		Sample Type	Surface Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	1,2,3-trichlorobenzene		EO025	0.5		0.7	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97276 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/002
Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501627 SW2	Date of Report	27/06/2016
		Sample Type	Surface Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
AQ2-UP2									
	Sulphate		EW154M-1	1.0		6.0	mg/L	INAB	
GCFID TPH Split									
	TPH >C10 - C20 (DRO)		EO063	10		<10	ug/L		
	TPH >C20 - C40 (MO)		EO063	10		<10	ug/L		
	TPH >C 6 - C10 (PRO)		EO063	10		<10	ug/L		
	TPH >C6-C40 (TPH)		EO063	10		<10	ug/L		
LCMSMS-Acid Herbicides									
	236-Trichlorobenzoic Acid (TBA)		EO162	0.005		<0.005	ug/L	INAB	
	2,4,5-T		EO162	0.005		<0.005	ug/L	INAB	
	2,4 D		EO162	0.005		<0.005	ug/L	INAB	
	24-DB		EO162	0.005		<0.005	ug/L	INAB	
	Bentazone		EO162	0.005		<0.005	ug/L	INAB	
	Bromacil		EO162	0.005		<0.005	ug/L	INAB	
	Bromoxynil		EO162	0.005		<0.005	ug/L	INAB	
	Clopyralid		EO162	0.005		<0.005	ug/L	INAB	
	Dicamba		EO162	0.005		<0.005	ug/L	INAB	
	Dichloroprop (24DP)		EO162	0.005		<0.005	ug/L	INAB	
	Fluroxypyr		EO162	0.005		<0.005	ug/L	INAB	
	Ioxynil		EO162	0.005		<0.005	ug/L	INAB	
	MCPA		EO162	0.005		<0.005	ug/L	INAB	
	MCPB		EO162	0.005		<0.005	ug/L	INAB	
	Mecoprop (MCP)		EO162	0.005		<0.005	ug/L	INAB	
	Pentachlorophenol (PCP)		EO162	0.005		<0.005	ug/L	INAB	
	Picloram		EO162	0.005		<0.005	ug/L	INAB	
	Quinmerac		EO162	0.005		<0.005	ug/L	INAB	
	Trichlopyr		EO162	0.005		<0.005	ug/L	INAB	
LCMSMS-Pesticide Suite A									
	Simazine-LC		EO 165	0.005		<0.005	ug/L	INAB	
Metals-Dissolved									
	Boron-Dissolved		EM130	0.02		<0.02	mg/L	INAB	
	Cadmium-Dissolved		EM130	0.1		<0.1	ug/L	INAB	
	Copper-Dissolved		EM130	0.003		<0.003	mg/L	INAB	
	Iron-Dissolved		EM130	20		650	ug/L		
	Lead-Dissolved		EM130	0.3		0.7	ug/L	INAB	
	Magnesium-Dissolved		EM130	0.3		1.4	mg/L	INAB	

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Brendan Murray-Deputy Technical Manager

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email: info@elsltd.com



Contact Name	Joe Ferry	Report Number	97276 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/002
Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501627 SW2	Date of Report	27/06/2016
		Sample Type	Surface Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Metals-Dissolved									
	Manganese-Dissolved		EM130	1.0		180	ug/L		
	Mercury-Dissolved		EM130	0.02		<0.02	ug/L	INAB	
	Nickel-Dissolved		EM130	0.5		<0.5	ug/L	INAB	
	Potassium-Dissolved		EM130	0.2		0.4	mg/L	INAB	
	Sodium-Dissolved		EM130	0.5		8.5	mg/L	INAB	
	Zinc-Dissolved		EM130	1.0		5.9	ug/L	INAB	
Metals-Total									
	Chromium-Total		EM168	3.0		<3.0	ug/L	INAB	
Non-Polar Pesticides (Sub)									
	Dichlobenil	*	Default	0.002		<0.002	ug/L	YES	
<i>LOD raised for Dichlobenil due to analyst error, limited volume for repeat analysis, x2 dilution carried out</i>									
PhenolsTotal -Index (Sub1)									
	Phenols-Total	*	Default	0.10		<0.15	mg/L	YES	
SVOC (sub)									
	1,4-Dichlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
	2,4,5-Trichlorophenol	*	Default	1.0		<4.0	ug/L	YES	
<i>Analyst QC Comment QC:LOQ raised due to nature of sample matrix for all analytes</i>									
	2,4,6-Trichlorophenol	*	Default	1.0		<4.0	ug/L	YES	
	2,4-Dichlorophenol	*	Default	1.0		<4.0	ug/L	YES	
	2,4-Dimethylphenol	*	Default	1.0		<4.0	ug/L	YES	
	2,4-Dinitrotoluene	*	Default	1.0		<4.0	ug/L	YES	
	2,6-Dinitrotoluene	*	Default	1.0		<4.0	ug/L	YES	
	2-Chloronaphthalene	*	Default	1.0		<4.0	ug/L	YES	
	2-Chlorophenol	*	Default	1.0		<4.0	ug/L	YES	
	2-Methylnaphthalene	*	Default	1.0		<4.0	ug/L	YES	
	2-Methylphenol	*	Default	1.0		<4.0	ug/L	YES	
	2-Nitrophenol	*	Default	1.0		<4.0	ug/L	YES	
	3&4-Methylphenol	*	Default	1.0		<4.0	ug/L	YES	
	4-Bromophenyl Phenyl Ether	*	Default	1.0		<4.0	ug/L	YES	
	4-Chloro-3-methylphenol	*	Default	1.0		<4.0	ug/L	YES	
	4-Chlorophenyl phenyl ether	*	Default	1.0		<4.0	ug/L	YES	
	4-Nitrophenol	*	Default	5.0		<20.0	ug/L	YES	
	Acenaphthene	*	Default	1.0		<4.0	ug/L	YES	
	Acenaphthylene	*	Default	1.0		<4.0	ug/L	YES	
	Anthracene	*	Default	1.0		<4.0	ug/L	YES	

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Contact Name	Joe Ferry	Report Number	97276 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/002
Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501627 SW2	Date of Report	27/06/2016
		Sample Type	Surface Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
SVOC (sub)									
	Benzo(a)anthracene	*	Default	1.0		<4.0	ug/L	YES	
	Benzo(a)pyrene	*	Default	1.0		<4.0	ug/L	YES	
	Benzo(b)fluoranthene	*	Default	1.0		<4.0	ug/L	YES	
	Benzo(g,h,i)perylene	*	Default	1.0		<4.0	ug/L	YES	
	Benzo(k)fluoranthene	*	Default	1.0		<4.0	ug/L	YES	
	Benzyl Butyl Phthalate	*	Default	1.0		<4.0	ug/L	YES	
	Bis(2-chloroethoxy)methane	*	Default	1.0		<4.0	ug/L	YES	
	Bis(2-chloroethyl)ether	*	Default	1.0		<4.0	ug/L	YES	
	Bis(2-chloroisopropyl)ether	*	Default	1.0		<4.0	ug/L	YES	
	Bis(2-ethylhexyl)phthalate	*	Default	5.0		<20.0	ug/L	YES	
	Chrysene	*	Default	1.0		<4.0	ug/L	YES	
	Dibenz(a,h)anthracene	*	Default	1.0		<4.0	ug/L	YES	
	Dibenzofuran	*	Default	1.0		<4.0	ug/L	YES	
	Diethylphthalate	*	Default	1.0		<4.0	ug/L	YES	
	Dimethylphthalate	*	Default	1.0		<4.0	ug/L	YES	
	di-n-Butylphthalate	*	Default	1.0		<4.0	ug/L	YES	
	Di-n-octylphthalate	*	Default	1.0		<4.0	ug/L	YES	
	Diphenylamine	*	Default	1.0		<4.0	ug/L	YES	
	Fluoranthene	*	Default	1.0		<4.0	ug/L	YES	
	Fluorene	*	Default	1.0		<4.0	ug/L	YES	
	Hexachlorobenzene	*	Default	1.0		<4.0	ug/L	YES	
	Indeno(1,2,3-c,d)pyrene	*	Default	1.0		<4.0	ug/L	YES	
	Isophorone	*	Default	1.0		<4.0	ug/L	YES	
	n-Nitrosodi-n-propylamine	*	Default	1.0		<4.0	ug/L	YES	
	Pentachlorophenol	*	Default	1.0		<4.0	ug/L	YES	
	Phenanthrene	*	Default	1.0		<4.0	ug/L	YES	
	Phenol	*	Default	1.0		<4.0	ug/L	YES	
	Pyrene	*	Default	1.0		<4.0	ug/L	YES	
VOC Full Suite									
	Dichlorodifluoromethane		EO025	10.0		<10.0	ug/L		
	Chloromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Chloride/Chloroethane		EO025	0.5		<0.5	ug/L		
	Vinyl Chloride		EO025	0.5		<0.5	ug/L		
	Bromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Trichloromonofluoromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Ether/Diethyl Ether		EO025	0.5		<0.5	ug/L	INAB	

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Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/002
		Date of Receipt	02/06/2016
		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Surface Waters
Customer Ref	162501627 SW2		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	11 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	Acetone		EO025	2.0		<2.0	ug/L		
	Iodomethane/Methyl Iodide		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Disulphide		EO025	0.5		<0.5	ug/L	INAB	
	Dichloromethane		EO025	5.0		<5.0	ug/L	INAB	
	2-Propanenitrile/Acrylonitrile		EO025	2.0		<2.0	ug/L	INAB	
	Chlormethyl Cyanide/Chloroacetonitrile		EO025	0.5		<0.5	ug/L	INAB	
	Nitrobenzene		EO025	0.5		<0.5	ug/L		
	Propanenitrile		EO025	10.0		<10.0	ug/L		
	Hexachlorobutadiene		EO025	0.5		<0.5	ug/L	INAB	
	Trans-1,2 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	MtBE		EO025	0.5		0.8	ug/L	INAB	
	1,1-dichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	2,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	cis-12 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	2-Butanone		EO025	5.0		<5.0	ug/L		
	Methyl Acrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromochloromethane		EO025	0.5		<0.5	ug/L	INAB	
	Methacrylonitrile		EO025	5.0		<5.0	ug/L		
	Tetrahydrofuran		EO025	0.5		<0.5	ug/L	INAB	
	Chloroform		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1-trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1-Chlorobutane		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Tetrachloride		EO025	0.5		<0.5	ug/L	INAB	
	11 Dichloropropene		EO025	0.5		<0.5	ug/L	INAB	
	Benzene		EO025	0.1		<0.1	ug/L	INAB	
	1,2 dicloroethane		EO025	0.1		<0.1	ug/L	INAB	
	Trichloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	Dibromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Methyl Methacrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromodichloromethane		EO025	2.0		<2.0	ug/L	INAB	
	13 Dichloropropene,cis		EO025	2.0		<2.0	ug/L	INAB	
	MIBK/4 Methyl 2 Pentanone		EO025	2.0		<2.0	ug/L	INAB	
	Toluene		EO025	0.5		<0.5	ug/L	INAB	
	13 Dichloropropene,trans		EO025	2.0		<2.0	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97276 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/002
		Date of Receipt	02/06/2016
		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Surface Waters
Customer Ref	162501627 SW2		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Ethyl Methacrylate		EO025	2.0		<2.0	ug/L	INAB	
	112 Trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	Tetrachloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,3-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	2-Hexanone		EO025	0.5		<0.5	ug/L	INAB	
	Dibromochloromethane		EO025	0.5		<0.5	ug/L	INAB	
	1,2-dibromoethane		EO025	0.5		<0.5	ug/L	INAB	
	Chlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1,2-tetrachloroethane		EO025	2.0		<2.0	ug/L	INAB	
	Ethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Xylene P&M		EO025	0.5		<0.5	ug/L	INAB	
	Xylene -o		EO025	0.5		<0.5	ug/L	INAB	
	Styrene		EO025	2.0		<2.0	ug/L	INAB	
	Bromoform		EO025	0.5		<0.5	ug/L	INAB	
	Isopropylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Bromobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1,2-tetrachloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1,2,3-trichloropropane		EO025	2.0		<2.0	ug/L	INAB	
	Trans 1,4 Dichloro 2 Butene, tran		EO025	2.0		<2.0	ug/L		
	Propylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	2-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	4-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,3,5-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Tert Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2,4-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	sec-butylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,3-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	P Isopropyltoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,4-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	N Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	Hexachloroethane		EO025	5.0		<5.0	ug/L	INAB	
	1,2-dibromo-3-chloropropane		EO025	2.0		<2.0	ug/L	INAB	
	1,2,4-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	Naphthalene		EO025	2.0		<2.0	ug/L	INAB	
	1,2,3-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97276 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/003
Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501628 SW3	Date of Report	27/06/2016
		Sample Type	Surface Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
AQ2-UP2									
	Sulphate		EW154M-1	1.0		8.6	mg/L	INAB	
GCFID TPH Split									
	TPH >C10 - C20 (DRO)		EO063	10		<10	ug/L		
	TPH >C20 - C40 (MO)		EO063	10		<10	ug/L		
	TPH >C 6 - C10 (PRO)		EO063	10		<10	ug/L		
	TPH >C6-C40 (TPH)		EO063	10		<10	ug/L		
LCMSMS-Acid Herbicides									
	236-Trichlorobenzoic Acid (TBA)		EO162	0.005		<0.005	ug/L	INAB	
	2,4,5-T		EO162	0.005		<0.005	ug/L	INAB	
	2,4 D		EO162	0.005		<0.005	ug/L	INAB	
	24-DB		EO162	0.005		<0.005	ug/L	INAB	
	Bentazone		EO162	0.005		<0.005	ug/L	INAB	
	Bromacil		EO162	0.005		<0.005	ug/L	INAB	
	Bromoxynil		EO162	0.005		<0.005	ug/L	INAB	
	Clopyralid		EO162	0.005		<0.005	ug/L	INAB	
	Dicamba		EO162	0.005		<0.005	ug/L	INAB	
	Dichloroprop (24DP)		EO162	0.005		<0.005	ug/L	INAB	
	Fluroxypyr		EO162	0.005		<0.005	ug/L	INAB	
	Ioxynil		EO162	0.005		<0.005	ug/L	INAB	
	MCPA		EO162	0.005		<0.005	ug/L	INAB	
	MCPB		EO162	0.005		<0.005	ug/L	INAB	
	Mecoprop (MCP)		EO162	0.005		0.034	ug/L	INAB	
	Pentachlorophenol (PCP)		EO162	0.005		<0.005	ug/L	INAB	
	Picloram		EO162	0.005		<0.005	ug/L	INAB	
	Quinmerac		EO162	0.005		<0.005	ug/L	INAB	
	Trichlopyr		EO162	0.005		<0.005	ug/L	INAB	
LCMSMS-Pesticide Suite A									
	Simazine-LC		EO 165	0.005		<0.005	ug/L	INAB	
Metals-Dissolved									
	Boron-Dissolved		EM130	0.02		<0.02	mg/L	INAB	
	Cadmium-Dissolved		EM130	0.1		<0.1	ug/L	INAB	
	Copper-Dissolved		EM130	0.003		<0.003	mg/L	INAB	
	Iron-Dissolved		EM130	20		210	ug/L	INAB	
	Lead-Dissolved		EM130	0.3		<0.3	ug/L	INAB	
	Magnesium-Dissolved		EM130	0.3		3.6	mg/L	INAB	

Brendan Murray

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Brendan Murray-Deputy Technical Manager

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email: info@elsltd.com



Contact Name	Joe Ferry	Report Number	97276 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/003
		Date of Receipt	02/06/2016
		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Surface Waters
Customer Ref	162501628 SW3		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Metals-Dissolved									
	Manganese-Dissolved		EM130	1.0		27	ug/L	INAB	
	Mercury-Dissolved		EM130	0.02		<0.02	ug/L	INAB	
	Nickel-Dissolved		EM130	0.5		1.3	ug/L	INAB	
	Potassium-Dissolved		EM130	0.2		1.9	mg/L	INAB	
	Sodium-Dissolved		EM130	0.5		11.5	mg/L	INAB	
	Zinc-Dissolved		EM130	1.0		2.2	ug/L	INAB	
Metals-Total									
	Chromium-Total		EM168	3.0		<3.0	ug/L	INAB	
Non-Polar Pesticides (Sub)									
	Dichlobenil	*	Default	0.002		<0.001	ug/L	YES	
PhenolsTotal -Index (Sub1)									
	Phenols-Total	*	Default	0.10		<0.15	mg/L	YES	
SVOC (sub)									
	1,4-Dichlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
	2,4,5-Trichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4,6-Trichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dimethylphenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dinitrotoluene	*	Default	1.0		<1.0	ug/L	YES	
	2,6-Dinitrotoluene	*	Default	1.0		<1.0	ug/L	YES	
	2-Chloronaphthalene	*	Default	1.0		<1.0	ug/L	YES	
	2-Chlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2-Methylnaphthalene	*	Default	1.0		<1.0	ug/L	YES	
	2-Methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	2-Nitrophenol	*	Default	1.0		<1.0	ug/L	YES	
	3&4-Methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	4-Bromophenyl Phenyl Ether	*	Default	1.0		<1.0	ug/L	YES	
	4-Chloro-3-methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	4-Chlorophenyl phenyl ether	*	Default	1.0		<1.0	ug/L	YES	
	4-Nitrophenol	*	Default	5.0		<5.0	ug/L	YES	
	Acenaphthene	*	Default	1.0		<1.0	ug/L	YES	
	Acenaphthylene	*	Default	1.0		<1.0	ug/L	YES	
	Anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(a)anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(a)pyrene	*	Default	1.0		<1.0	ug/L	YES	

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27/06/2016

Brendan Murray-Deputy Technical Manager

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Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/003
		Date of Receipt	02/06/2016
		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Surface Waters
Customer Ref	162501628 SW3		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
SVOC (sub)									
	Benzo(b)fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(g,h,i)perylene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(k)fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Benzyl Butyl Phthalate	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroethoxy)methane	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroethyl)ether	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroisopropyl)ether	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-ethylhexyl)phthalate	*	Default	5.0		<5.0	ug/L	YES	
	Chrysene	*	Default	1.0		<1.0	ug/L	YES	
	Dibenz(a,h)anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Dibenzofuran	*	Default	1.0		<1.0	ug/L	YES	
	Diethylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Dimethylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	di-n-Butylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Di-n-octylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Diphenylamine	*	Default	1.0		<1.0	ug/L	YES	
	Fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Fluorene	*	Default	1.0		<1.0	ug/L	YES	
	Hexachlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
	Indeno(1,2,3-c,d)pyrene	*	Default	1.0		<1.0	ug/L	YES	
	Isophorone	*	Default	1.0		<1.0	ug/L	YES	
	n-Nitrosodi-n-propylamine	*	Default	1.0		<1.0	ug/L	YES	
	Pentachlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	Phenanthrene	*	Default	1.0		<1.0	ug/L	YES	
	Phenol	*	Default	1.0		<1.0	ug/L	YES	
	Pyrene	*	Default	1.0		<1.0	ug/L	YES	
VOC Full Suite									
	Dichlorodifluoromethane		EO025	10.0		<10.0	ug/L		
	Chloromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Chloride/Chloroethane		EO025	0.5		<0.5	ug/L		
	Vinyl Chloride		EO025	0.5		<0.5	ug/L		
	Bromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Trichloromonofluoromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Ether/Diethyl Ether		EO025	0.5		<0.5	ug/L	INAB	
	1,1 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	Acetone		EO025	2.0		<2.0	ug/L		

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		Date of Receipt	02/06/2016
		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Surface Waters
Customer Ref	162501628 SW3		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Iodomethane/Methyl Iodide		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Disulphide		EO025	0.5		<0.5	ug/L	INAB	
	Dichloromethane		EO025	5.0		<5.0	ug/L	INAB	
	2-Propenenitrile/Acrylonitrile		EO025	2.0		<2.0	ug/L	INAB	
	Chlormethyl Cyanide/Chloroacetonitrile		EO025	0.5		<0.5	ug/L	INAB	
	Nitrobenzene		EO025	0.5		<0.5	ug/L	INAB	
	Propanenitrile		EO025	10.0		<10.0	ug/L	INAB	
	Hexachlorobutadiene		EO025	0.5		<0.5	ug/L	INAB	
	Trans-1,2 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	MtBE		EO025	0.5		<0.5	ug/L	INAB	
	1,1-dichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	2,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	cis-12 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	2-Butanone		EO025	5.0		<5.0	ug/L	INAB	
	Methyl Acrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromochloromethane		EO025	0.5		<0.5	ug/L	INAB	
	Methacrylonitrile		EO025	5.0		<5.0	ug/L	INAB	
	Tetrahydrofuran		EO025	0.5		<0.5	ug/L	INAB	
	Chloroform		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1-trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1-Chlorobutane		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Tetrachloride		EO025	0.5		<0.5	ug/L	INAB	
	11 Dichloropropene		EO025	0.5		<0.5	ug/L	INAB	
	Benzene		EO025	0.1		<0.1	ug/L	INAB	
	1,2 dicloroethane		EO025	0.1		<0.1	ug/L	INAB	
	Trichloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	Dibromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Methyl Methacrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromodichloromethane		EO025	2.0		<2.0	ug/L	INAB	
	13 Dichloropropene,cis		EO025	2.0		<2.0	ug/L	INAB	
	MIBK/4 Methyl 2 Pentanone		EO025	2.0		<2.0	ug/L	INAB	
	Toluene		EO025	0.5		<0.5	ug/L	INAB	
	13 Dichloropropene,trans		EO025	2.0		<2.0	ug/L	INAB	
	Ethyl Methacrylate		EO025	2.0		<2.0	ug/L	INAB	
	112 Trichloroethane		EO025	0.5		<0.5	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97276 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/003
		Date of Receipt	02/06/2016
		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Surface Waters
Customer Ref	162501628 SW3		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Tetrachloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,3-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	2-Hexanone		EO025	0.5		<0.5	ug/L	INAB	
	Dibromochloromethane		EO025	0.5		<0.5	ug/L	INAB	
	1,2-dibromoethane		EO025	0.5		<0.5	ug/L	INAB	
	Chlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1,2-tetrachloroethane		EO025	2.0		<2.0	ug/L	INAB	
	Ethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Xylene P&M		EO025	0.5		<0.5	ug/L	INAB	
	Xylene -o		EO025	0.5		<0.5	ug/L	INAB	
	Styrene		EO025	2.0		<2.0	ug/L	INAB	
	Bromoform		EO025	0.5		<0.5	ug/L	INAB	
	Isopropylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Bromobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,2,2-tetrachloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1,2,3-trichloropropane		EO025	2.0		<2.0	ug/L	INAB	
	Trans 1,4 Dichloro 2 Butene, tran		EO025	2.0		<2.0	ug/L	INAB	
	Propylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	2-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	4-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,3,5-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Tert Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2,4-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	sec-butylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,3-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	P Isopropyltoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,4-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	N Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	Hexachloroethane		EO025	5.0		<5.0	ug/L	INAB	
	1,2-dibromo-3-chloropropane		EO025	2.0		<2.0	ug/L	INAB	
	1,2,4-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	Naphthalene		EO025	2.0		<2.0	ug/L	INAB	
	1,2,3-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	

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Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/004
Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501629 SW4	Date of Report	27/06/2016
		Sample Type	Surface Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
AQ2-UP2									
	Sulphate		EW154M-1	1.0		9.7	mg/L	INAB	
GCFID TPH Split									
	TPH >C10 - C20 (DRO)		EO063	10		<10	ug/L		
	TPH >C20 - C40 (MO)		EO063	10		<10	ug/L		
	TPH >C 6 - C10 (PRO)		EO063	10		<10	ug/L		
	TPH >C6-C40 (TPH)		EO063	10		<10	ug/L		
LCMSMS-Acid Herbicides									
	236-Trichlorobenzoic Acid (TBA)		EO162	0.005		<0.005	ug/L	INAB	
	2,4,5-T		EO162	0.005		<0.005	ug/L	INAB	
	2,4 D		EO162	0.005		<0.005	ug/L	INAB	
	24-DB		EO162	0.005		<0.005	ug/L	INAB	
	Bentazone		EO162	0.005		<0.005	ug/L	INAB	
	Bromacil		EO162	0.005		<0.005	ug/L	INAB	
	Bromoxynil		EO162	0.005		<0.005	ug/L	INAB	
	Clopyralid		EO162	0.005		<0.005	ug/L	INAB	
	Dicamba		EO162	0.005		<0.005	ug/L	INAB	
	Dichloroprop (24DP)		EO162	0.005		<0.005	ug/L	INAB	
	Fluroxypyr		EO162	0.005		<0.005	ug/L	INAB	
	Ioxynil		EO162	0.005		<0.005	ug/L	INAB	
	MCPA		EO162	0.005		<0.005	ug/L	INAB	
	MCPB		EO162	0.005		<0.005	ug/L	INAB	
	Mecoprop (MCP)		EO162	0.005		0.031	ug/L	INAB	
	Pentachlorophenol (PCP)		EO162	0.005		<0.005	ug/L	INAB	
	Picloram		EO162	0.005		<0.005	ug/L	INAB	
	Quinmerac		EO162	0.005		<0.005	ug/L	INAB	
	Trichlopyr		EO162	0.005		<0.005	ug/L	INAB	
LCMSMS-Pesticide Suite A									
	Simazine-LC		EO 165	0.005		<0.005	ug/L	INAB	
Metals-Dissolved									
	Boron-Dissolved		EM130	0.02		<0.02	mg/L	INAB	
	Cadmium-Dissolved		EM130	0.1		<0.1	ug/L	INAB	
	Copper-Dissolved		EM130	0.003		<0.003	mg/L	INAB	
	Iron-Dissolved		EM130	20		290	ug/L	INAB	
	Lead-Dissolved		EM130	0.3		<0.3	ug/L	INAB	
	Magnesium-Dissolved		EM130	0.3		3.5	mg/L	INAB	

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Tel No	074-9122787 / 9176274	Date of Receipt	02/06/2016
Customer PO	240571981	Date Started	02/06/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	162501629 SW4	Date of Report	27/06/2016
		Sample Type	Surface Waters

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Metals-Dissolved									
	Manganese-Dissolved		EM130	1.0		38	ug/L	INAB	
	Mercury-Dissolved		EM130	0.02		<0.02	ug/L	INAB	
	Nickel-Dissolved		EM130	0.5		1.3	ug/L	INAB	
	Potassium-Dissolved		EM130	0.2		1.8	mg/L	INAB	
	Sodium-Dissolved		EM130	0.5		12.2	mg/L	INAB	
	Zinc-Dissolved		EM130	1.0		1.6	ug/L	INAB	
Metals-Total									
	Chromium-Total		EM168	3.0		<3.0	ug/L	INAB	
Non-Polar Pesticides (Sub)									
	Dichlobenil	*	Default	0.002		<0.001	ug/L	YES	
PhenolsTotal -Index (Sub1)									
	Phenols-Total	*	Default	0.10		<0.15	mg/L	YES	
SVOC (sub)									
	1,4-Dichlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
	2,4,5-Trichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4,6-Trichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dimethylphenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dinitrotoluene	*	Default	1.0		<1.0	ug/L	YES	
	2,6-Dinitrotoluene	*	Default	1.0		<1.0	ug/L	YES	
	2-Chloronaphthalene	*	Default	1.0		<1.0	ug/L	YES	
	2-Chlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2-Methylnaphthalene	*	Default	1.0		<1.0	ug/L	YES	
	2-Methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	2-Nitrophenol	*	Default	1.0		<1.0	ug/L	YES	
	3&4-Methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	4-Bromophenyl Phenyl Ether	*	Default	1.0		<1.0	ug/L	YES	
	4-Chloro-3-methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	4-Chlorophenyl phenyl ether	*	Default	1.0		<1.0	ug/L	YES	
	4-Nitrophenol	*	Default	5.0		<5.0	ug/L	YES	
	Acenaphthene	*	Default	1.0		<1.0	ug/L	YES	
	Acenaphthylene	*	Default	1.0		<1.0	ug/L	YES	
	Anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(a)anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(a)pyrene	*	Default	1.0		<1.0	ug/L	YES	

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Contact Name	Joe Ferry	Report Number	97276 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/004
		Date of Receipt	02/06/2016
		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Surface Waters
Customer Ref	162501629 SW4		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
SVOC (sub)									
	Benzo(b)fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(g,h,i)perylene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(k)fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Benzyl Butyl Phthalate	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroethoxy)methane	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroethyl)ether	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroisopropyl)ether	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-ethylhexyl)phthalate	*	Default	5.0		<5.0	ug/L	YES	
	Chrysene	*	Default	1.0		<1.0	ug/L	YES	
	Dibenz(a,h)anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Dibenzofuran	*	Default	1.0		<1.0	ug/L	YES	
	Diethylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Dimethylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	di-n-Butylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Di-n-octylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Diphenylamine	*	Default	1.0		<1.0	ug/L	YES	
	Fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Fluorene	*	Default	1.0		<1.0	ug/L	YES	
	Hexachlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
	Indeno(1,2,3-c,d)pyrene	*	Default	1.0		<1.0	ug/L	YES	
	Isophorone	*	Default	1.0		<1.0	ug/L	YES	
	n-Nitrosodi-n-propylamine	*	Default	1.0		<1.0	ug/L	YES	
	Pentachlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	Phenanthrene	*	Default	1.0		<1.0	ug/L	YES	
	Phenol	*	Default	1.0		<1.0	ug/L	YES	
	Pyrene	*	Default	1.0		<1.0	ug/L	YES	
VOC Full Suite									
	Dichlorodifluoromethane		EO025	10.0		<10.0	ug/L		
	Chloromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Chloride/Chloroethane		EO025	0.5		<0.5	ug/L		
	Vinyl Chloride		EO025	0.5		<0.5	ug/L		
	Bromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Trichloromonofluoromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Ether/Diethyl Ether		EO025	0.5		<0.5	ug/L	INAB	
	1,1 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	Acetone		EO025	2.0		<2.0	ug/L		

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Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/004
		Date of Receipt	02/06/2016
		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Surface Waters
Customer Ref	162501629 SW4		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Iodomethane/Methyl Iodide		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Disulphide		EO025	0.5		<0.5	ug/L	INAB	
	Dichloromethane		EO025	5.0		<5.0	ug/L	INAB	
	2-Propenenitrile/Acrylonitrile		EO025	2.0		<2.0	ug/L	INAB	
	Chlormethyl Cyanide/Chloroacetonitrile		EO025	0.5		<0.5	ug/L	INAB	
	Nitrobenzene		EO025	0.5		<0.5	ug/L	INAB	
	Propanenitrile		EO025	10.0		<10.0	ug/L		
	Hexachlorobutadiene		EO025	0.5		<0.5	ug/L	INAB	
	Trans-1,2 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	MtBE		EO025	0.5		<0.5	ug/L	INAB	
	1,1-dichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	2,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	cis-12 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	2-Butanone		EO025	5.0		<5.0	ug/L		
	Methyl Acrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromochloromethane		EO025	0.5		<0.5	ug/L	INAB	
	Methacrylonitrile		EO025	5.0		<5.0	ug/L		
	Tetrahydrofuran		EO025	0.5		<0.5	ug/L	INAB	
	Chloroform		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1-trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1-Chlorobutane		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Tetrachloride		EO025	0.5		<0.5	ug/L	INAB	
	11 Dichloropropene		EO025	0.5		<0.5	ug/L	INAB	
	Benzene		EO025	0.1		<0.1	ug/L	INAB	
	1,2 dicloroethane		EO025	0.1		<0.1	ug/L	INAB	
	Trichloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	Dibromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Methyl Methacrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromodichloromethane		EO025	2.0		<2.0	ug/L	INAB	
	13 Dichloropropene,cis		EO025	2.0		<2.0	ug/L	INAB	
	MIBK/4 Methyl 2 Pentanone		EO025	2.0		<2.0	ug/L	INAB	
	Toluene		EO025	0.5		<0.5	ug/L	INAB	
	13 Dichloropropene,trans		EO025	2.0		<2.0	ug/L	INAB	
	Ethyl Methacrylate		EO025	2.0		<2.0	ug/L	INAB	
	112 Trichloroethane		EO025	0.5		<0.5	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97276 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97276/004
		Date of Receipt	02/06/2016
		Date Started	02/06/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240571981	Date of Report	27/06/2016
Quotation No	QN005678	Sample Type	Surface Waters
Customer Ref	162501629 SW4		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Tetrachloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,3-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	2-Hexanone		EO025	0.5		<0.5	ug/L	INAB	
	Dibromochloromethane		EO025	0.5		<0.5	ug/L	INAB	
	1,2-dibromoethane		EO025	0.5		<0.5	ug/L	INAB	
	Chlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1,2-tetrachloroethane		EO025	2.0		<2.0	ug/L	INAB	
	Ethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Xylene P&M		EO025	0.5		<0.5	ug/L	INAB	
	Xylene -o		EO025	0.5		<0.5	ug/L	INAB	
	Styrene		EO025	2.0		<2.0	ug/L	INAB	
	Bromoform		EO025	0.5		<0.5	ug/L	INAB	
	Isopropylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Bromobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,2,2-tetrachloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1,2,3-trichloropropane		EO025	2.0		<2.0	ug/L	INAB	
	Trans 1,4 Dichloro 2 Butene, tran		EO025	2.0		<2.0	ug/L	INAB	
	Propylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	2-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	4-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,3,5-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Tert Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2,4-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	sec-butylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,3-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	P Isopropyltoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,4-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	N Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	Hexachloroethane		EO025	5.0		<5.0	ug/L	INAB	
	1,2-dibromo-3-chloropropane		EO025	2.0		<2.0	ug/L	INAB	
	1,2,4-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	Naphthalene		EO025	2.0		<2.0	ug/L	INAB	
	1,2,3-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	

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DETAILED IN SCOPE REG NO.1117

Contact Name	Joe Ferry	Report Number	97132 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97132/001
		Date of Receipt	30/05/2016
		Date Started	30/05/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240572669	Date of Report	30/06/2016
Quotation No	QN005678	Sample Type	Waste Water
Customer Ref	1637 L1		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Acid Herbicides (Sub)									
	Pentachlorophenol	*	Default	0.050		<2.0	ug/L	YES	
<i>Acid Herbicides reporting limits raised due to nature of sample matrix</i>									
	2,3,6-TBA	*	Default	0.050		<0.10	ug/L	YES	
	2,4 D	*	Default	0.050		<0.10	ug/L	YES	
	2,4,5-T	*	Default	0.050		<0.10	ug/L	YES	
	2,4-DB	*	Default	0.050		<0.10	ug/L	YES	
	Bentazone	*	Default	0.050		<0.10	ug/L	YES	
	Bromoxynil	*	Default	0.050		<0.10	ug/L	YES	
	Clopyralid	*	Default	0.050		<0.10	ug/L	YES	
	Dicamba	*	Default	0.050		<0.10	ug/L	YES	
	Dichlorprop	*	Default	0.050		<0.10	ug/L	YES	
	Fluroxypyr	*	Default	0.050		<0.10	ug/L	YES	
	Ioxynil	*	Default	0.050		<0.10	ug/L	YES	
	MCPA	*	Default	0.050		<0.10	ug/L	YES	
	MCPB	*	Default	0.050		<0.10	ug/L	YES	
	Mecoprop (Total)	*	Default	0.050		33.900	ug/L	YES	
	Triclopyr	*	Default	0.050		<0.10	ug/L	YES	
AQ2-UP2									
	Sulphate		EW154M-1	5.0		7.3	mg/L		
GCFID TPH Split									
	TPH >C10 - C20 (DRO)		EO063	10		123	ug/L		
	TPH >C20 - C40 (MO)		EO063	10		54	ug/L		
	TPH >C6 - C10 (PRO)		EO063	10		<10	ug/L		
	TPH >C6-C40 (TPH)		EO063	10		177	ug/L		
Metals-Dissolved									
	Boron-Dissolved		EM130	0.02		0.57	ug/L		
	Iron-Dissolved		EM130	20		270	ug/L		
	Magnesium-Dissolved		EM130	0.3		27.7	mg/L		
	Manganese-Dissolved		EM130	1.0		660	ug/L		
	Potassium-Dissolved		EM130	0.2		63.0	mg/L		
	Sodium-Dissolved		EM130	0.5		111.0	mg/L		
	Cadmium-Dissolved		EM130	0.1		0.1	ug/L		
	Copper-Dissolved		EM130	0.003		<0.003	mg/L		
	Lead-Dissolved		EM130	0.3		<0.3	ug/L		

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Contact Name	Joe Ferry	Report Number	97132 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97132/001
Tel No	074-9122787 / 9176274	Date of Receipt	30/05/2016
Customer PO	240572669	Date Started	30/05/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	1637 L1	Date of Report	30/06/2016
		Sample Type	Waste Water

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Metals-Dissolved									
	Nickel-Dissolved		EM130	0.5		4.3	ug/L		
	Zinc-Dissolved		EM130	1.0		22	ug/L		
	Mercury-Dissolved		EM130	0.02		<0.02	ug/L		
Metals-Total									
	Chromium-Total		EM168	3.0		11.6	ug/L	INAB	
Organochlorine Pesticides (Sub)									
	Dichlobenil	*	Default	0.05		30.000	ug/L		
PhenolsTotal -Index (Sub1)									
	Phenols-Total	*	Default	0.10		<0.10	mg/L	YES	
SVOC (sub)									
	1,4-Dichlorobenzene	*	Default	1.0		<2.0	ug/L	YES	
<i>SVOC Waters: Reporting limits raised due to the nature of the sample matrix.</i>									
	2,4,5-Trichlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4,6-Trichlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4-Dichlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4-Dimethylphenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4-Dinitrotoluene	*	Default	1.0		<2.0	ug/L	YES	
	2,6-Dinitrotoluene	*	Default	1.0		<2.0	ug/L	YES	
	2-Chloronaphthalene	*	Default	1.0		<2.0	ug/L	YES	
	2-Chlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2-Methylnaphthalene	*	Default	1.0		<2.0	ug/L	YES	
	2-Methylphenol	*	Default	1.0		<2.0	ug/L	YES	
	2-Nitrophenol	*	Default	1.0		<2.0	ug/L	YES	
	3&4-Methylphenol	*	Default	1.0		<2.0	ug/L	YES	
	4-Bromophenyl Phenyl Ether	*	Default	1.0		<2.0	ug/L	YES	
	4-Chloro-3-methylphenol	*	Default	1.0		<2.0	ug/L	YES	
	4-Chlorophenyl phenyl ether	*	Default	1.0		<2.0	ug/L	YES	
	4-Nitrophenol	*	Default	5.0		<10.0	ug/L	YES	
	Acenaphthene	*	Default	1.0		<2.0	ug/L	YES	
	Acenaphthylene	*	Default	1.0		<2.0	ug/L	YES	
	Anthracene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(a)anthracene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(a)pyrene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(b)fluoranthene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(g,h,i)perylene	*	Default	1.0		<2.0	ug/L	YES	

Signed : 

30/06/2016

Brendan Murray-Deputy Technical Manager

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Web: www.elsltd.com
email: info@elsltd.com



Contact Name	Joe Ferry	Report Number	97132 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97132/001
		Date of Receipt	30/05/2016
		Date Started	30/05/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240572669	Date of Report	30/06/2016
Quotation No	QN005678	Sample Type	Waste Water
Customer Ref	1637 L1		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
SVOC (sub)									
	Benzo(k)fluoranthene	*	Default	1.0		<2.0	ug/L	YES	
	Benzyl Butyl Phthalate	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-chloroethoxy)methane	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-chloroethyl)ether	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-chloroisopropyl)ether	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-ethylhexyl)phthalate	*	Default	5.0		<10.0	ug/L	YES	
	Chrysene	*	Default	1.0		<2.0	ug/L	YES	
	Dibenz(a,h)anthracene	*	Default	1.0		<2.0	ug/L	YES	
	Dibenzofuran	*	Default	1.0		<2.0	ug/L	YES	
	Diethylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	Dimethylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	di-n-Butylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	Di-n-octylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	Diphenylamine	*	Default	1.0		<2.0	ug/L	YES	
	Fluoranthene	*	Default	1.0		<2.0	ug/L	YES	
	Fluorene	*	Default	1.0		<2.0	ug/L	YES	
	Hexachlorobenzene	*	Default	1.0		<2.0	ug/L	YES	
	Indeno(1,2,3-c,d)pyrene	*	Default	1.0		<2.0	ug/L	YES	
	Isophorone	*	Default	1.0		<2.0	ug/L	YES	
	n-Nitrosodi-n-propylamine	*	Default	1.0		<2.0	ug/L	YES	
	Pentachlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	Phenanthrene	*	Default	1.0		<2.0	ug/L	YES	
	Phenol	*	Default	1.0		<2.0	ug/L	YES	
	Pyrene	*	Default	1.0		<2.0	ug/L	YES	
Triazine fungicide (Sub)									
	Simazine	*	Default	0.040		<0.020	ug/L	YES	
VOC Full Suite									
	Epichlorohydrin		EO025	0.1		<0.1	ug/L		
	Dichlorodifluoromethane		EO025	10.0		<10.0	ug/L		
	Chloromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Chloride/Chloroethane		EO025	0.5		<0.5	ug/L		
	Vinyl Chloride		EO025	0.5		<0.5	ug/L		
	Bromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Trichloromonofluoromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Ether/Diethyl Ether		EO025	0.5		8.8	ug/L	INAB	
	1,1 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	

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30/06/2016

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Customer PO	240572669	Date of Report	30/06/2016
Quotation No	QN005678	Sample Type	Waste Water
Customer Ref	1637 L1		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Acetone		EO025	2.0		<2.0	ug/L		
	Iodomethane/Methyl Iodide		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Disulphide		EO025	0.5		2.0	ug/L	INAB	
	Dichloromethane		EO025	5.0		<5.0	ug/L	INAB	
	2-Propenenitrile/Acrylonitrile		EO025	2.0		<2.0	ug/L	INAB	
	Chlormethyl Cyanide/Chloroacetonitrile		EO025	0.5		<0.5	ug/L	INAB	
	Nitrobenzene		EO025	0.5		<0.5	ug/L		
	Propanenitrile		EO025	10.0		<10.0	ug/L		
	Hexachlorobutadiene		EO025	0.5		<0.5	ug/L	INAB	
	Trans-1,2 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	MtBE		EO025	0.5		<0.5	ug/L	INAB	
	1,1-dichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	2,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	cis-1,2 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	2-Butanone		EO025	5.0		<5.0	ug/L		
	Methyl Acrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromochloromethane		EO025	0.5		<0.5	ug/L	INAB	
	Methacrylonitrile		EO025	5.0		<5.0	ug/L		
	Tetrahydrofuran		EO025	5.0		<5.0	ug/L	INAB	
	Chloroform		EO025	1.0		<1.0	ug/L	INAB	
	1,1,1-trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1-Chlorobutane		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Tetrachloride		EO025	0.5		<0.5	ug/L	INAB	
	11 Dichloropropene		EO025	0.5		<0.5	ug/L	INAB	
	Benzene		EO025	0.1		0.7	ug/L	INAB	
	1,2 dichloroethane		EO025	0.1		<0.1	ug/L	INAB	
	Trichloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	Dibromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Methyl Methacrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromodichloromethane		EO025	2.0		<2.0	ug/L	INAB	
	13 Dichloropropene,cis		EO025	2.0		<2.0	ug/L	INAB	
	MIBK/4 Methyl 2 Pentanone		EO025	2.0		<2.0	ug/L	INAB	
	Toluene		EO025	0.5		<0.5	ug/L	INAB	
	13 Dichloropropene,trans		EO025	2.0		<2.0	ug/L	INAB	
	Ethyl Methacrylate		EO025	2.0		<2.0	ug/L	INAB	

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		Date Started	30/05/2016
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Customer PO	240572669	Date of Report	30/06/2016
Quotation No	QN005678	Sample Type	Waste Water
Customer Ref	1637 L1		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	1,1,2-trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	Tetrachloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,3-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	2-Hexanone		EO025	1.0		<1.0	ug/L	INAB	
	Dibromochloromethane		EO025	1.0		<1.0	ug/L	INAB	
	1,2-dibromoethane		EO025	0.5		<0.5	ug/L	INAB	
	Chlorobenzene		EO025	0.5		1.5	ug/L	INAB	
	1,1,1,2-tetrachloroethane		EO025	2.0		<2.0	ug/L	INAB	
	Ethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Xylene P&M		EO025	0.5		<0.5	ug/L	INAB	
	Xylene -o		EO025	0.5		<0.5	ug/L	INAB	
	Styrene		EO025	2.0		<2.0	ug/L	INAB	
	Bromoform		EO025	1.0		<1.0	ug/L	INAB	
	Isopropylbenzene		EO025	0.5		0.8	ug/L	INAB	
	Bromobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,2,2-tetrachloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1,2,3-trichloropropane		EO025	2.0		<2.0	ug/L	INAB	
	Trans 1,4 Dichloro 2 Butene, tran		EO025	2.0		<2.0	ug/L	INAB	
	Propylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	2-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	4-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,3,5-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Tert Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2,4-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	sec-butylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,3-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	P Isopropyltoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,4-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	N Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	Hexachloroethane		EO025	5.0		<5.0	ug/L	INAB	
	1,2-dibromo-3-chloropropane		EO025	2.0		<2.0	ug/L	INAB	
	1,2,4-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	Naphthalene		EO025	2.0		<2.0	ug/L	INAB	
	1,2,3-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	

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Tel No	074-9122787 / 9176274	Date of Receipt	30/05/2016
Customer PO	240572669	Date Started	30/05/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	1638 L6	Date of Report	30/06/2016
		Sample Type	Waste Water

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Acid Herbicides (Sub)									
	Pentachlorophenol	*	Default	0.050		<0.2	ug/L	YES	
	<i>Acid Herbicides reporting limits raised due to nature of sample matrix.</i>								
	2,3,6-TBA	*	Default	0.050		<0.10	ug/L	YES	
	2,4 D	*	Default	0.050		<0.10	ug/L	YES	
	2,4,5-T	*	Default	0.050		<0.10	ug/L	YES	
	2,4-DB	*	Default	0.050		<0.10	ug/L	YES	
	Bentazone	*	Default	0.050		<0.10	ug/L	YES	
	Bromoxynil	*	Default	0.050		<0.10	ug/L	YES	
	Clopyralid	*	Default	0.050		<0.10	ug/L	YES	
	Dicamba	*	Default	0.050		<0.10	ug/L	YES	
	Dichlorprop	*	Default	0.050		<0.10	ug/L	YES	
	Fluroxypyr	*	Default	0.050		<0.10	ug/L	YES	
	Ioxynil	*	Default	0.050		<0.10	ug/L	YES	
	MCPA	*	Default	0.050		<0.10	ug/L	YES	
	MCPB	*	Default	0.050		<0.10	ug/L	YES	
	Mecoprop (Total)	*	Default	0.050		1.170	ug/L	YES	
	Triclopyr	*	Default	0.050		<0.10	ug/L	YES	
AQ2-UP2									
	Sulphate		EW154M-1	5.0		62	mg/L		
GCFID TPH Split									
	TPH >C10 - C20 (DRO)		EO063	10		76	ug/L		
	TPH >C20 - C40 (MO)		EO063	10		43	ug/L		
	TPH >C6 - C10 (PRO)		EO063	10		<10	ug/L		
	TPH >C6-C40 (TPH)		EO063	10		119	ug/L		
Metals-Dissolved									
	Boron-Dissolved		EM130	0.02		0.39	ug/L		
	Iron-Dissolved		EM130	20		74	ug/L		
	Magnesium-Dissolved		EM130	0.3		21.3	mg/L		
	Manganese-Dissolved		EM130	1.0		45	ug/L		
	Potassium-Dissolved		EM130	0.2		59.0	mg/L		
	Sodium-Dissolved		EM130	0.5		138.4	mg/L		
	Cadmium-Dissolved		EM130	0.1		0.1	ug/L		
	Copper-Dissolved		EM130	0.003		0.021	mg/L		
	Lead-Dissolved		EM130	0.3		<0.3	ug/L		
	Nickel-Dissolved		EM130	0.5		13.2	ug/L		

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Customer Ref	1638 L6	Date of Report	30/06/2016
		Sample Type	Waste Water

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Metals-Dissolved									
	Zinc-Dissolved		EM130	1.0		26	ug/L		
	Mercury-Dissolved		EM130	0.02		<0.02	ug/L		
Metals-Total									
	Chromium-Total		EM168	3.0		8.3	ug/L	INAB	
Organochlorine Pesticides (Sub)									
	Dichlobenil	*	Default	0.05		10.000	ug/L		
PhenolsTotal -Index (Sub1)									
	Phenols-Total	*	Default	0.10		<0.10	mg/L	YES	
SVOC (sub)									
	1,4-Dichlorobenzene	*	Default	1.0		<2.0	ug/L	YES	
<i>SVOC Waters: Reporting limits raised due to the nature of the sample matrix.</i>									
	2,4,5-Trichlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4,6-Trichlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4-Dichlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4-Dimethylphenol	*	Default	1.0		<2.0	ug/L	YES	
	2,4-Dinitrotoluene	*	Default	1.0		<2.0	ug/L	YES	
	2,6-Dinitrotoluene	*	Default	1.0		<2.0	ug/L	YES	
	2-Chloronaphthalene	*	Default	1.0		<2.0	ug/L	YES	
	2-Chlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	2-Methylnaphthalene	*	Default	1.0		<2.0	ug/L	YES	
	2-Methylphenol	*	Default	1.0		<2.0	ug/L	YES	
	2-Nitrophenol	*	Default	1.0		<2.0	ug/L	YES	
	3&4-Methylphenol	*	Default	1.0		<2.0	ug/L	YES	
	4-Bromophenyl Phenyl Ether	*	Default	1.0		<2.0	ug/L	YES	
	4-Chloro-3-methylphenol	*	Default	1.0		<2.0	ug/L	YES	
	4-Chlorophenyl phenyl ether	*	Default	1.0		<2.0	ug/L	YES	
	4-Nitrophenol	*	Default	5.0		<10.0	ug/L	YES	
	Acenaphthene	*	Default	1.0		<2.0	ug/L	YES	
	Acenaphthylene	*	Default	1.0		<2.0	ug/L	YES	
	Anthracene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(a)anthracene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(a)pyrene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(b)fluoranthene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(g,h,i)perylene	*	Default	1.0		<2.0	ug/L	YES	
	Benzo(k)fluoranthene	*	Default	1.0		<2.0	ug/L	YES	

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		Sample Type	Waste Water

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
SVOC (sub)									
	Benzyl Butyl Phthalate	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-chloroethoxy)methane	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-chloroethyl)ether	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-chloroisopropyl)ether	*	Default	1.0		<2.0	ug/L	YES	
	Bis(2-ethylhexyl)phthalate	*	Default	5.0		<10.0	ug/L	YES	
	Chrysene	*	Default	1.0		<2.0	ug/L	YES	
	Dibenz(a,h)anthracene	*	Default	1.0		<2.0	ug/L	YES	
	Dibenzofuran	*	Default	1.0		<2.0	ug/L	YES	
	Diethylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	Dimethylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	di-n-Butylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	Di-n-octylphthalate	*	Default	1.0		<2.0	ug/L	YES	
	Diphenylamine	*	Default	1.0		<2.0	ug/L	YES	
	Fluoranthene	*	Default	1.0		<2.0	ug/L	YES	
	Fluorene	*	Default	1.0		<2.0	ug/L	YES	
	Hexachlorobenzene	*	Default	1.0		<2.0	ug/L	YES	
	Indeno(1,2,3-c,d)pyrene	*	Default	1.0		<2.0	ug/L	YES	
	Isophorone	*	Default	1.0		<2.0	ug/L	YES	
	n-Nitrosodi-n-propylamine	*	Default	1.0		<2.0	ug/L	YES	
	Pentachlorophenol	*	Default	1.0		<2.0	ug/L	YES	
	Phenanthrene	*	Default	1.0		<2.0	ug/L	YES	
	Phenol	*	Default	1.0		<2.0	ug/L	YES	
	Pyrene	*	Default	1.0		<2.0	ug/L	YES	
Triazine fungicide (Sub)									
	Simazine	*	Default	0.040		<0.020	ug/L	YES	
VOC Full Suite									
	Epichlorohydrin		EO025	0.1		<0.1	ug/L		
	Dichlorodifluoromethane		EO025	10.0		<10.0	ug/L		
	Chloromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Chloride/Chloroethane		EO025	0.5		<0.5	ug/L		
	Vinyl Chloride		EO025	0.5		<0.5	ug/L		
	Bromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Trichloromonofluoromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Ether/Diethyl Ether		EO025	0.5		<0.5	ug/L	INAB	
	1,1 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	Acetone		EO025	2.0		<2.0	ug/L		

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Contact Name	Joe Ferry	Report Number	97132 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97132/002
Tel No	074-9122787 / 9176274	Date of Receipt	30/05/2016
Customer PO	240572669	Date Started	30/05/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	1638 L6	Date of Report	30/06/2016
		Sample Type	Waste Water

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Iodomethane/Methyl Iodide		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Disulphide		EO025	0.5		<0.5	ug/L	INAB	
	Dichloromethane		EO025	5.0		<5.0	ug/L	INAB	
	2-Propenenitrile/Acrylonitrile		EO025	2.0		<2.0	ug/L	INAB	
	Chlormethyl Cyanide/Chloroacetonitrile		EO025	0.5		<0.5	ug/L	INAB	
	Nitrobenzene		EO025	0.5		<0.5	ug/L	INAB	
	Propanenitrile		EO025	10.0		<10.0	ug/L	INAB	
	Hexachlorobutadiene		EO025	0.5		<0.5	ug/L	INAB	
	Trans-1,2 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	MtBE		EO025	0.5		<0.5	ug/L	INAB	
	1,1-dichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	2,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	cis-12 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	2-Butanone		EO025	5.0		<5.0	ug/L	INAB	
	Methyl Acrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromochloromethane		EO025	0.5		<0.5	ug/L	INAB	
	Methacrylonitrile		EO025	5.0		<5.0	ug/L	INAB	
	Tetrahydrofuran		EO025	5.0		<5.0	ug/L	INAB	
	Chloroform		EO025	1.0		<1.0	ug/L	INAB	
	1,1,1-trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1-Chlorobutane		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Tetrachloride		EO025	0.5		<0.5	ug/L	INAB	
	11 Dichloropropene		EO025	0.5		<0.5	ug/L	INAB	
	Benzene		EO025	0.1		<0.1	ug/L	INAB	
	1,2 dicloroethane		EO025	0.1		<0.1	ug/L	INAB	
	Trichloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	Dibromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Methyl Methacrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromodichloromethane		EO025	2.0		<2.0	ug/L	INAB	
	13 Dichloropropene,cis		EO025	2.0		<2.0	ug/L	INAB	
	MIBK/4 Methyl 2 Pentanone		EO025	2.0		<2.0	ug/L	INAB	
	Toluene		EO025	0.5		<0.5	ug/L	INAB	
	13 Dichloropropene,trans		EO025	2.0		<2.0	ug/L	INAB	
	Ethyl Methacrylate		EO025	2.0		<2.0	ug/L	INAB	
	1,1,2-trichloroethane		EO025	0.5		<0.5	ug/L	INAB	

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Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97132/002
		Date of Receipt	30/05/2016
		Date Started	30/05/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240572669	Date of Report	30/06/2016
Quotation No	QN005678	Sample Type	Waste Water
Customer Ref	1638 L6		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Tetrachloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,3-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	2-Hexanone		EO025	1.0		<1.0	ug/L	INAB	
	Dibromochloromethane		EO025	1.0		<1.0	ug/L	INAB	
	1,2-dibromoethane		EO025	0.5		<0.5	ug/L	INAB	
	Chlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1,2-tetrachloroethane		EO025	2.0		<2.0	ug/L	INAB	
	Ethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Xylene P&M		EO025	0.5		<0.5	ug/L	INAB	
	Xylene -o		EO025	0.5		<0.5	ug/L	INAB	
	Styrene		EO025	2.0		<2.0	ug/L	INAB	
	Bromoform		EO025	1.0		<1.0	ug/L	INAB	
	Isopropylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Bromobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,2,2-tetrachloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1,2,3-trichloropropane		EO025	2.0		<2.0	ug/L	INAB	
	Trans 1,4 Dichloro 2 Butene, tran		EO025	2.0		<2.0	ug/L	INAB	
	Propylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	2-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	4-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,3,5-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Tert Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2,4-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	sec-butylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,3-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	P Isopropyltoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,4-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	N Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	Hexachloroethane		EO025	5.0		<5.0	ug/L	INAB	
	1,2-dibromo-3-chloropropane		EO025	2.0		<2.0	ug/L	INAB	
	1,2,4-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	Naphthalene		EO025	2.0		<2.0	ug/L	INAB	
	1,2,3-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	

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Contact Name	Joe Ferry	Report Number	97132 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97132/003
Tel No	074-9122787 / 9176274	Date of Receipt	30/05/2016
Customer PO	240572669	Date Started	30/05/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	1639 L8	Date of Report	30/06/2016
		Sample Type	Waste Water

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Acid Herbicides (Sub)									
	Pentachlorophenol	*	Default	0.050		<0.1	ug/L	YES	
	<i>Acid Herbicides reporting limits raised due to nature of sample matrix.</i>								
	2,3,6-TBA	*	Default	0.050		<0.10	ug/L	YES	
	2,4 D	*	Default	0.050		<0.10	ug/L	YES	
	2,4,5-T	*	Default	0.050		<0.10	ug/L	YES	
	2,4-DB	*	Default	0.050		<0.10	ug/L	YES	
	Bentazone	*	Default	0.050		<0.10	ug/L	YES	
	Bromoxynil	*	Default	0.050		<0.10	ug/L	YES	
	Clopyralid	*	Default	0.050		<0.10	ug/L	YES	
	Dicamba	*	Default	0.050		<0.10	ug/L	YES	
	Dichlorprop	*	Default	0.050		<0.10	ug/L	YES	
	Fluroxypyr	*	Default	0.050		<0.10	ug/L	YES	
	Ioxynil	*	Default	0.050		<0.10	ug/L	YES	
	MCPA	*	Default	0.050		<0.10	ug/L	YES	
	MCPB	*	Default	0.050		<0.10	ug/L	YES	
	Mecoprop (Total)	*	Default	0.050		0.350	ug/L	YES	
	Triclopyr	*	Default	0.050		<0.10	ug/L	YES	
AQ2-UP2									
	Sulphate		EW154M-1	5.0		63	mg/L		
GCFID TPH Split									
	TPH >C10 - C20 (DRO)		EO063	10		<10	ug/L		
	TPH >C20 - C40 (MO)		EO063	10		<10	ug/L		
	TPH >C6 - C10 (PRO)		EO063	10		<10	ug/L		
	TPH >C6-C40 (TPH)		EO063	10		<10	ug/L		
Metals-Dissolved									
	Boron-Dissolved		EM130	0.02		0.12	ug/L		
	Iron-Dissolved		EM130	20		110	ug/L		
	Magnesium-Dissolved		EM130	0.3		14.7	mg/L		
	Manganese-Dissolved		EM130	1.0		180	ug/L		
	Potassium-Dissolved		EM130	0.2		12.7	mg/L		
	Sodium-Dissolved		EM130	0.5		37.5	mg/L		
	Cadmium-Dissolved		EM130	0.1		0.2	ug/L		
	Copper-Dissolved		EM130	0.003		0.029	mg/L		
	Lead-Dissolved		EM130	0.3		<0.3	ug/L		
	Nickel-Dissolved		EM130	0.5		5.7	ug/L		

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Contact Name	Joe Ferry	Report Number	97132 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97132/003
		Date of Receipt	30/05/2016
		Date Started	30/05/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240572669	Date of Report	30/06/2016
Quotation No	QN005678	Sample Type	Waste Water
Customer Ref	1639 L8		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Metals-Dissolved									
	Zinc-Dissolved		EM130	1.0		45	ug/L		
	Mercury-Dissolved		EM130	0.02		<0.02	ug/L		
Metals-Total									
	Chromium-Total		EM168	3.0		<3.0	ug/L	INAB	
Organochlorine Pesticides (Sub)									
	Dichlobenil	*	Default	0.05		<0.2	ug/L	YES	
PhenolsTotal -Index (Sub1)									
	Phenols-Total	*	Default	0.10		<0.10	mg/L	YES	
SVOC (sub)									
	1,4-Dichlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
	2,4,5-Trichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4,6-Trichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dichlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dimethylphenol	*	Default	1.0		<1.0	ug/L	YES	
	2,4-Dinitrotoluene	*	Default	1.0		<1.0	ug/L	YES	
	2,6-Dinitrotoluene	*	Default	1.0		<1.0	ug/L	YES	
	2-Chloronaphthalene	*	Default	1.0		<1.0	ug/L	YES	
	2-Chlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	2-Methylnaphthalene	*	Default	1.0		<1.0	ug/L	YES	
	2-Methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	2-Nitrophenol	*	Default	1.0		<1.0	ug/L	YES	
	3&4-Methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	4-Bromophenyl Phenyl Ether	*	Default	1.0		<1.0	ug/L	YES	
	4-Chloro-3-methylphenol	*	Default	1.0		<1.0	ug/L	YES	
	4-Chlorophenyl phenyl ether	*	Default	1.0		<1.0	ug/L	YES	
	4-Nitrophenol	*	Default	5.0		<5.0	ug/L	YES	
	Acenaphthene	*	Default	1.0		<1.0	ug/L	YES	
	Acenaphthylene	*	Default	1.0		<1.0	ug/L	YES	
	Anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(a)anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(a)pyrene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(b)fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(g,h,i)perylene	*	Default	1.0		<1.0	ug/L	YES	
	Benzo(k)fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Benzyl Butyl Phthalate	*	Default	1.0		<1.0	ug/L	YES	

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Tel No	074-9122787 / 9176274	Date of Receipt	30/05/2016
Customer PO	240572669	Date Started	30/05/2016
Quotation No	QN005678	Received or Collected	Courier
Customer Ref	1639 L8	Date of Report	30/06/2016
		Sample Type	Waste Water

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
SVOC (sub)									
	Bis(2-chloroethoxy)methane	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroethyl)ether	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-chloroisopropyl)ether	*	Default	1.0		<1.0	ug/L	YES	
	Bis(2-ethylhexyl)phthalate	*	Default	5.0		<5.0	ug/L	YES	
	Chrysene	*	Default	1.0		<1.0	ug/L	YES	
	Dibenz(a,h)anthracene	*	Default	1.0		<1.0	ug/L	YES	
	Dibenzofuran	*	Default	1.0		<1.0	ug/L	YES	
	Diethylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Dimethylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	di-n-Butylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Di-n-octylphthalate	*	Default	1.0		<1.0	ug/L	YES	
	Diphenylamine	*	Default	1.0		<1.0	ug/L	YES	
	Fluoranthene	*	Default	1.0		<1.0	ug/L	YES	
	Fluorene	*	Default	1.0		<1.0	ug/L	YES	
	Hexachlorobenzene	*	Default	1.0		<1.0	ug/L	YES	
	Indeno(1,2,3-c,d)pyrene	*	Default	1.0		<1.0	ug/L	YES	
	Isophorone	*	Default	1.0		<1.0	ug/L	YES	
	n-Nitrosodi-n-propylamine	*	Default	1.0		<1.0	ug/L	YES	
	Pentachlorophenol	*	Default	1.0		<1.0	ug/L	YES	
	Phenanthrene	*	Default	1.0		<1.0	ug/L	YES	
	Phenol	*	Default	1.0		<1.0	ug/L	YES	
	Pyrene	*	Default	1.0		<1.0	ug/L	YES	
Triazine fungicide (Sub)									
	Simazine	*	Default	0.040		<0.020	ug/L	YES	
VOC Full Suite									
	Epichlorohydrin		EO025	0.1		<0.1	ug/L		
	Dichlorodifluoromethane		EO025	10.0		<10.0	ug/L		
	Chloromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Chloride/Chloroethane		EO025	0.5		<0.5	ug/L		
	Vinyl Chloride		EO025	0.5		<0.5	ug/L		
	Bromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Trichloromonofluoromethane		EO025	0.5		<0.5	ug/L		
	Ethyl Ether/Diethyl Ether		EO025	0.5		<0.5	ug/L	INAB	
	1,1 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	Acetone		EO025	2.0		<2.0	ug/L		
	Iodomethane/Methyl Iodide		EO025	0.5		<0.5	ug/L	INAB	

Signed : 

30/06/2016

Brendan Murray-Deputy Technical Manager

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email: info@elsltd.com



Contact Name	Joe Ferry	Report Number	97132 - 1
Address	Donegal County Council Donegal County Council Central Laboratory.	Sample Number	97132/003
		Date of Receipt	30/05/2016
		Date Started	30/05/2016
Tel No	074-9122787 / 9176274	Received or Collected	Courier
Customer PO	240572669	Date of Report	30/06/2016
Quotation No	QN005678	Sample Type	Waste Water
Customer Ref	1639 L8		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	Carbon Disulphide		EO025	0.5		<0.5	ug/L	INAB	
	Dichloromethane		EO025	5.0		<5.0	ug/L	INAB	
	2-Propenenitrile/Acrylonitrile		EO025	2.0		<2.0	ug/L	INAB	
	Chlormethyl Cyanide/Chloroacetonitrile		EO025	0.5		<0.5	ug/L	INAB	
	Nitrobenzene		EO025	0.5		<0.5	ug/L		
	Propanenitrile		EO025	10.0		<10.0	ug/L		
	Hexachlorobutadiene		EO025	0.5		<0.5	ug/L	INAB	
	Trans-1,2 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	MtBE		EO025	0.5		<0.5	ug/L	INAB	
	1,1-dichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	2,2-dichloropropane		EO025	0.5		0.5	ug/L	INAB	
	cis-12 Dichloroethene		EO025	0.5		<0.5	ug/L	INAB	
	2-Butanone		EO025	5.0		<5.0	ug/L		
	Methyl Acrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromochloromethane		EO025	0.5		<0.5	ug/L	INAB	
	Methacrylonitrile		EO025	5.0		<5.0	ug/L		
	Tetrahydrofuran		EO025	5.0		<5.0	ug/L	INAB	
	Chloroform		EO025	1.0		<1.0	ug/L	INAB	
	1,1,1-trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1-Chlorobutane		EO025	0.5		<0.5	ug/L	INAB	
	Carbon Tetrachloride		EO025	0.5		<0.5	ug/L	INAB	
	11 Dichloropropene		EO025	0.5		<0.5	ug/L	INAB	
	Benzene		EO025	0.1		<0.1	ug/L	INAB	
	1,2 dicloroethane		EO025	0.1		<0.1	ug/L	INAB	
	Trichloroethene		EO025	0.1		<0.1	ug/L	INAB	
	1,2-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	Dibromomethane		EO025	0.5		<0.5	ug/L	INAB	
	Methyl Methacrylate		EO025	0.5		<0.5	ug/L	INAB	
	Bromodichloromethane		EO025	2.0		<2.0	ug/L	INAB	
	13 Dichloropropene,cis		EO025	2.0		<2.0	ug/L	INAB	
	MIBK/4 Methyl 2 Pentanone		EO025	2.0		<2.0	ug/L	INAB	
	Toluene		EO025	0.5		<0.5	ug/L	INAB	
	13 Dichloropropene,trans		EO025	2.0		<2.0	ug/L	INAB	
	Ethyl Methacrylate		EO025	2.0		<2.0	ug/L	INAB	
	1,1,2-trichloroethane		EO025	0.5		<0.5	ug/L	INAB	
	Tetrachloroethene		EO025	0.1		<0.1	ug/L	INAB	

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30/06/2016

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Contact Name	Joe Ferry	Report Number	97132 - 1
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Customer Ref	1639 L8	Date of Report	30/06/2016
		Sample Type	Waste Water

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
VOC Full Suite									
	1,3-dichloropropane		EO025	0.5		<0.5	ug/L	INAB	
	2-Hexanone		EO025	1.0		<1.0	ug/L	INAB	
	Dibromochloromethane		EO025	1.0		<1.0	ug/L	INAB	
	1,2-dibromoethane		EO025	0.5		<0.5	ug/L	INAB	
	Chlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,1,2-tetrachloroethane		EO025	2.0		<2.0	ug/L	INAB	
	Ethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Xylene P&M		EO025	0.5		<0.5	ug/L	INAB	
	Xylene -o		EO025	0.5		<0.5	ug/L	INAB	
	Styrene		EO025	2.0		<2.0	ug/L	INAB	
	Bromoform		EO025	1.0		<1.0	ug/L	INAB	
	Isopropylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Bromobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,1,2,2-tetrachloroethane		EO025	0.5		<0.5	ug/L	INAB	
	1,2,3-trichloropropane		EO025	2.0		<2.0	ug/L	INAB	
	Trans 14 Dichloro 2 Butene, tran		EO025	2.0		<2.0	ug/L	INAB	
	Propylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	2-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	4-chlorotoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,3,5-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	Tert Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2,4-trimethylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	sec-butylbenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,3-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	P Isopropyltoluene		EO025	0.5		<0.5	ug/L	INAB	
	1,4-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	1,2-dichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	N Butyl Benzene		EO025	0.5		<0.5	ug/L	INAB	
	Hexachloroethane		EO025	5.0		<5.0	ug/L	INAB	
	1,2-dibromo-3-chloropropane		EO025	2.0		<2.0	ug/L	INAB	
	1,2,4-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	
	Naphthalene		EO025	2.0		<2.0	ug/L	INAB	
	1,2,3-trichlorobenzene		EO025	0.5		<0.5	ug/L	INAB	

Signed : 

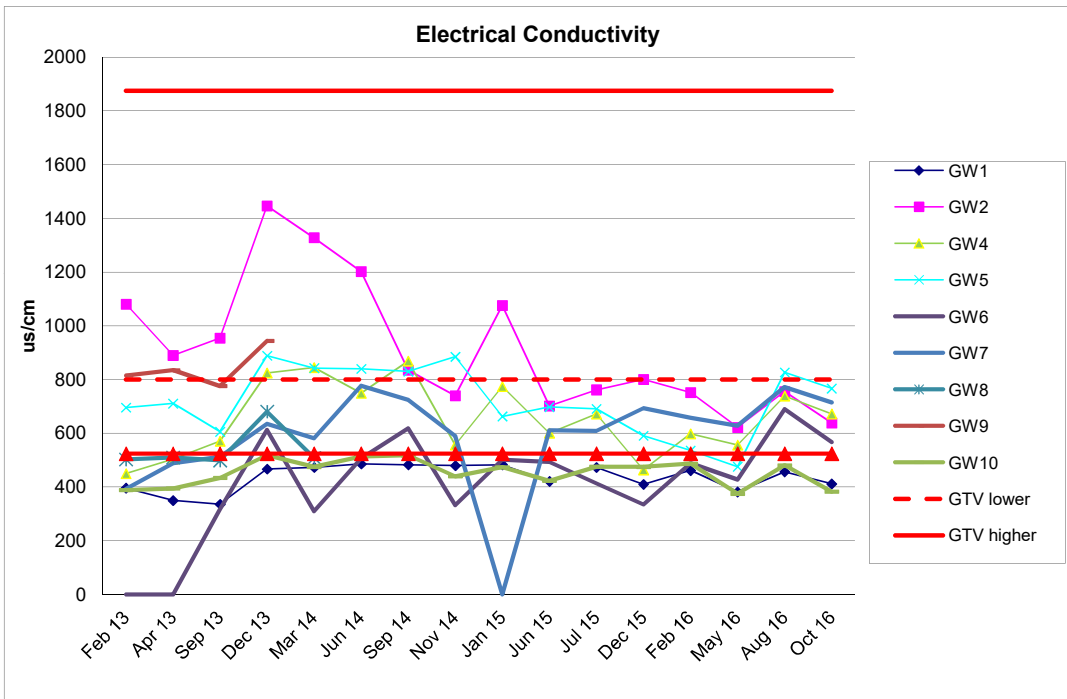
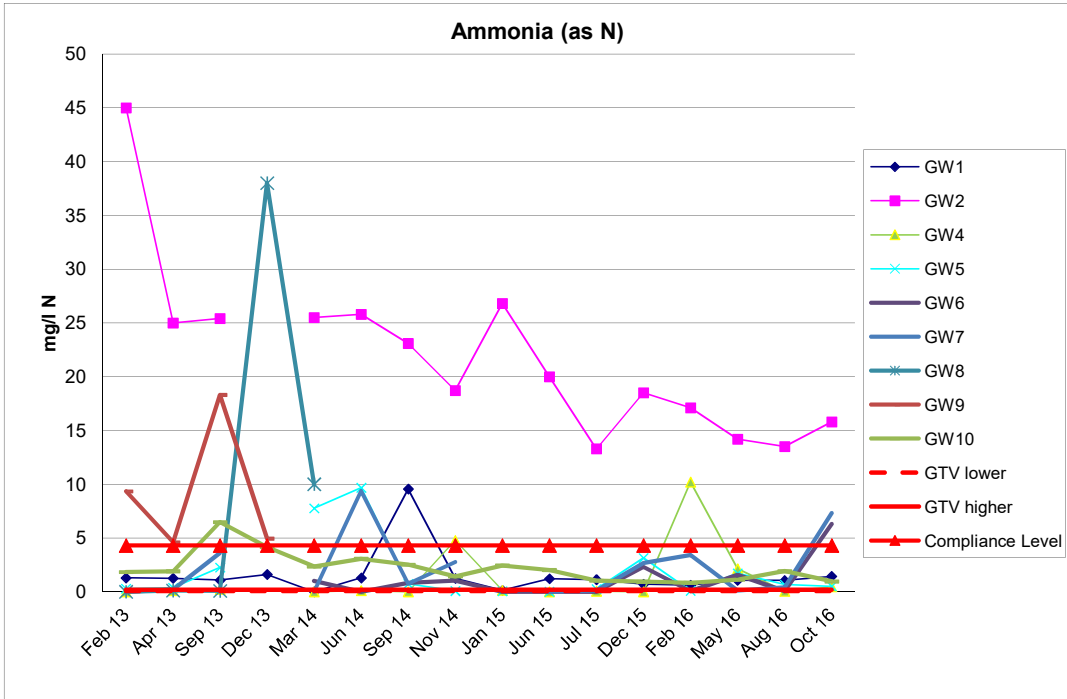
30/06/2016

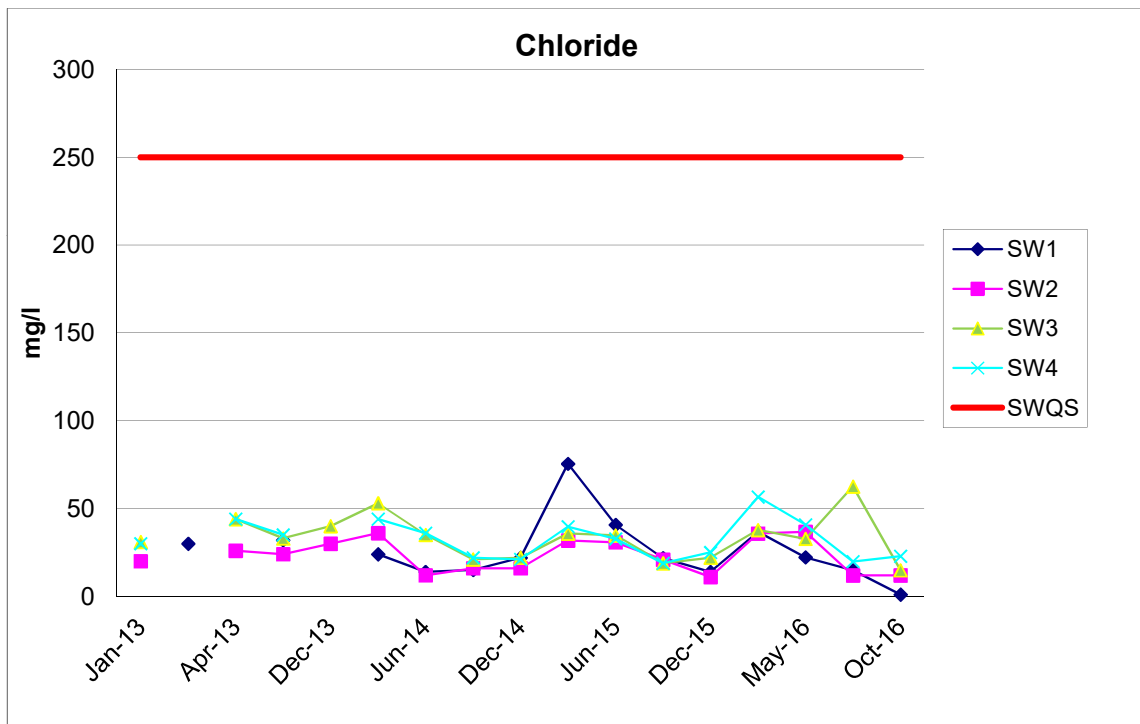
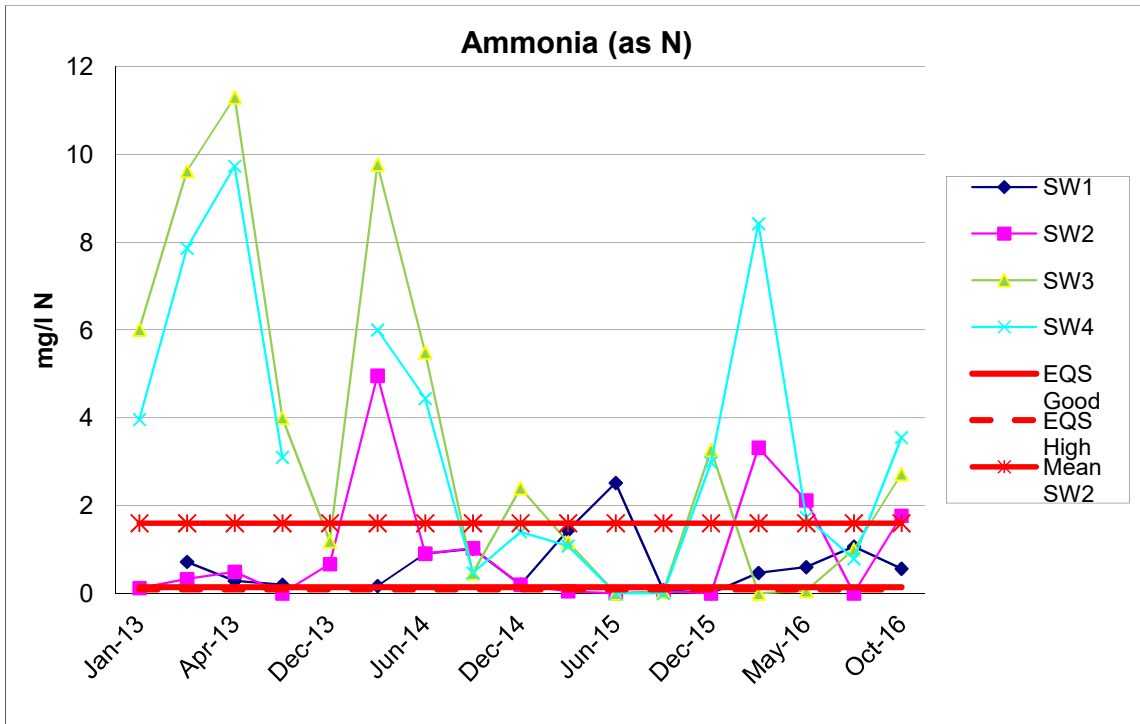
Brendan Murray-Deputy Technical Manager

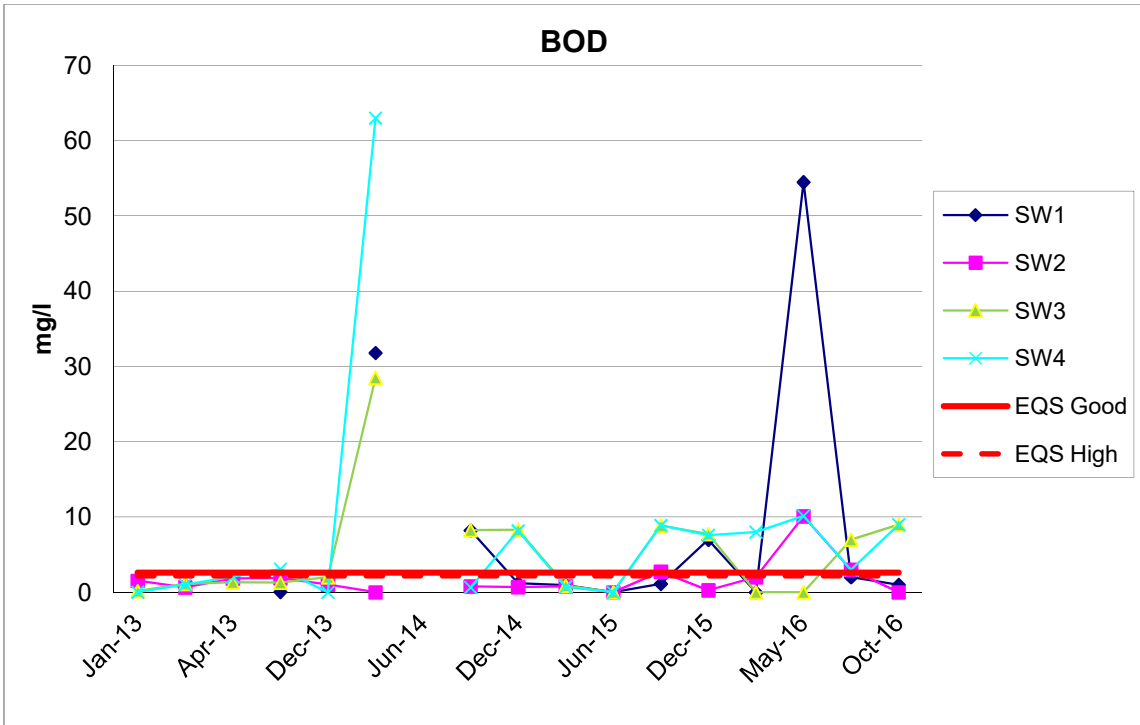
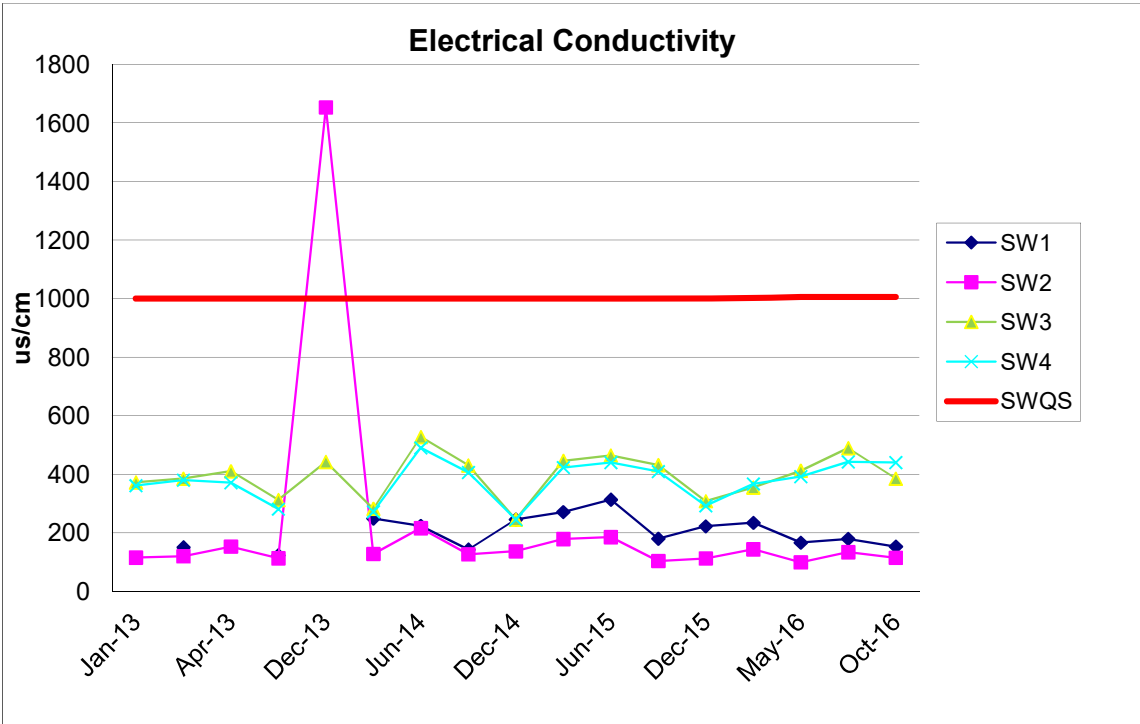
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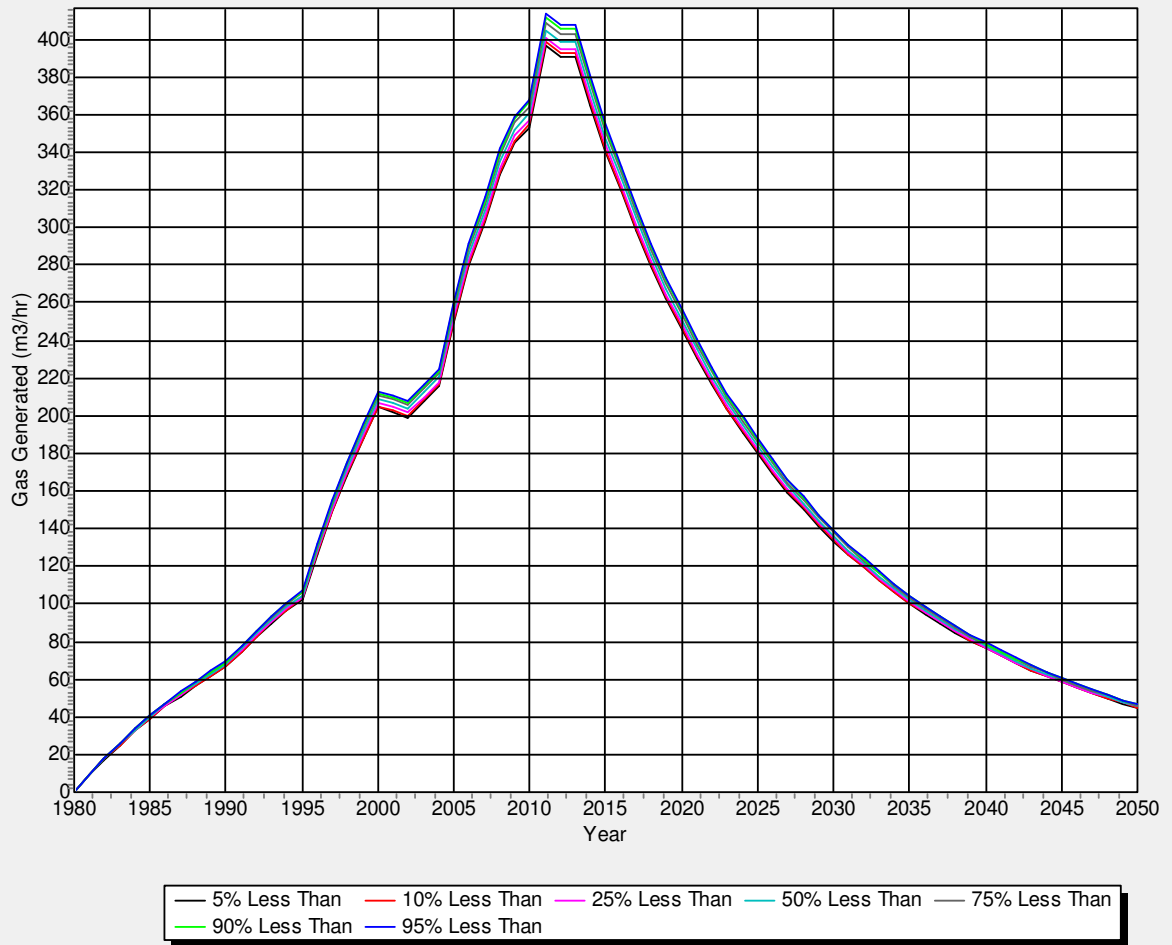




Appendix E

Gas Modelling

Total LFG



Appendix F

Biological Assessment

Biotic Index of Water Quality (BIWP)
Q Value assessment of watercourse adjacent to
Ballynacarrick Landfill Site on behalf of
Donegal County Council



November 2016

www.willow-environmental.com

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Executive Summary

An assessment of the biotic index of water quality was undertaken at Ballynacarrick Landfill Site, County Donegal. This involved the analysis of samples at locations identified as SW3 and approximately 500m downstream of SW4. Site SW3 produced a biotic score of Q3 as did SW4, both classified as moderately polluted.

Details of the sites, methodology adopted, macroinvertebrate species identified, and biotic scoring determination are presented in the main text of this report.

1.0 Introduction

In November 2016 Willow Environmental were appointed by Donegal County Council to complete Biotic Index of Water Quality (BIWP) assessment of a watercourse in proximity to Ballynacarrick landfill site in Co. Donegal.

2.0 Site locations

Table 1: Site Details

	Site Name	Grid Reference (X)	Grid Reference (Y)	Watercourse Name
Site 1	Ballynacarrick SW3 (U/S)	193276	367728	Foyagh
Site 2	Blalynacarrick SW4 (D/S)	193213	367797	Foyagh

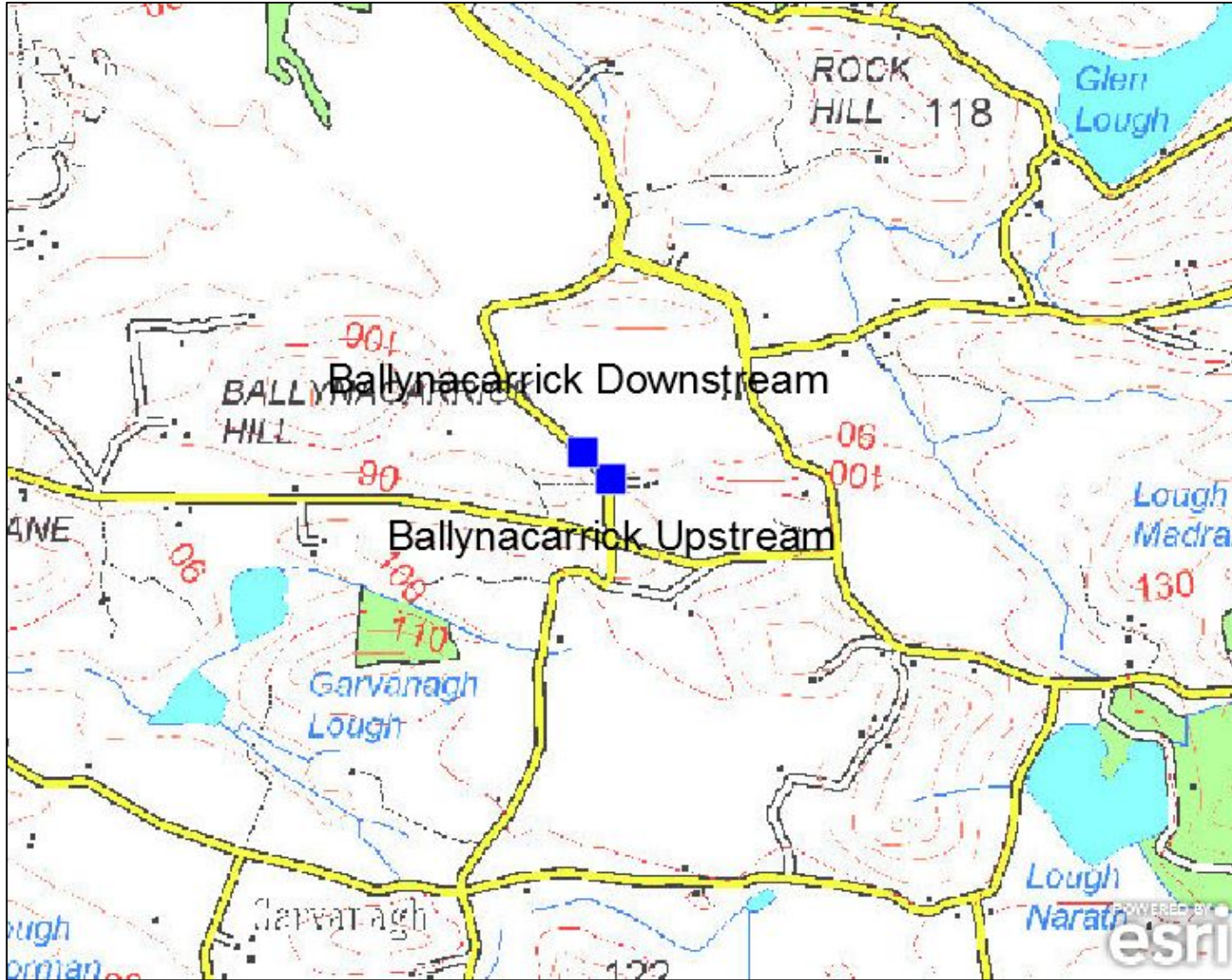


Figure 1: Overview of site locations

3.0 Methodology

Macro invertebrates are the most widely utilised organisms for biological assessment within freshwater systems as they are found in virtually all freshwater systems, they do not migrate far and due to a relatively long life-cycle, they respond to changes in water quality such as inputs of organic pollution, as well as changes in the physical habitat. Research has shown that aquatic macro invertebrate diversity declines in the presence of pollution and that sensitive species are progressively replaced by more tolerant forms as pollution increases.

Macro invertebrate samples for assessment were obtained by Willow Environmental personnel on 13th of November 2016 by kick sampling in shallow, faster-flowing riffles within each sample location. The standardised kick sampling method involved a three minute kick/sweep sample using a standard 1 mm mesh pond (hand) net, obtaining both upstream and downstream samples. Samples were placed in sealable plastic sample containers and preserved in 70% Ethanol solution prior to transportation for identification and laboratory analysis. Macroinvertebrates were sorted and identified to family level. The relative abundance of each taxon identified was recorded and an EPA Q-value rating was applied each site sampled as an indication of water quality.

4.0 Biotic Index of Water Quality (Q Value) Rating

Various metrics and indices can be employed to interpret macro invertebrate sample data. In this analysis the Environmental Protection Agency (EPA) Biotic Index of Water Quality (BIWP) or 'Q Value' assessment procedure has been followed. In Ireland, the 'Q Value' procedure has been used to monitor the ecological quality of streams and rivers since 1971 (Flanagan and Toner, 1972¹; McGarrigle et al., 2002²). The 'Q Value' rating system is based on the sensitivity of aquatic macro invertebrates to organic pollution. Having determined the relative proportions of the various aquatic macro invertebrates within the sample, water

¹ Flanagan, P.J., Toner, P.F., 1972. The National Survey of Irish Rivers: A Report on Water Quality. An Foras Forbartha, Dublin, Ireland

² McGarrigle, M.L., Lucey, J., Clabby, K.J., 1992. Biological assessment of river water quality in Ireland. In: Newman, P.J., Piavaux, M.A., Sweeting, R.A. (Eds.), *River Water Quality: Ecological Assessment and Control*. Commission of the European Communities, Luxembourg, pp. 371–393.

quality is inferred by a comparison of this data with that which might be expected from unpolluted habitats of the type under investigation.

For the purposes of the EPA 'Q Value' assessment procedure, benthic macro invertebrates have been divided into five 'Indicator Groups' as follows:

- Group A, species most sensitive to pollution
- Group B, species less sensitive
- Group C, species more tolerant to pollution
- Group D, species very tolerant, and;
- Group E, the most tolerant species.

The various taxonomic groups present in freshwater systems in Ireland, and their ratings within the Biotic Index (Q values) are presented in Table 2 below.

Table 2: Q Value Groups

Group A	Group B	Group C	Group C	Group C
Sensitive	Less Sensitive	Tolerant	Very Tolerant	Most Tolerant
Isoperla Perla Chloroperla Ecdyonurus Rithrogena Heptagenia Siphonuridae	Leuctra Protonemura Amphinemura Ephemerella Ephemera Baetidae Pschomyidae Sericostomatidae Odontoceridae Lepidostomatidae Goeridea Molannidae Beraeidae Odonata Aphelocheirus Rheotanytarsus	Caenis Baetis rhodani Limnephilidae Hydroptilidae Glossosomatidae Gammaridae Rhyacophilidae Philopotamidae Polycentropidae Hydropsychidae Coenagridae Hemiptera Tricladida Coleoptera Hydracarina Gammaridae Sialidae Tipulidae Simuliidae Ancyliidae Neritidae Viviparidae	Hirudinae Valvatidae Hydrobiidae Lymnea Physidae Planorbidae Sphaeriidae Asellidae Chironomidae	Tubificidae Chironomus

Within the EPA Biotic Index of Water Quality assessment, scores range from Q1-5, with Q1 representing the least favourable conditions. Intermediate indices Q1-2, 2-3, 3-4 and 4-5 are used to denote transitional conditions. 'Q Values' are related to four Water Quality Classes (Unpolluted, Slightly Polluted, Moderately Polluted and Seriously Polluted) and to Water Framework Directive (WFD) water status as outlined in Table 3:

Table 3: Q Value relationship to water quality and WFD (Toner et al. 2005)³

Biotic Index	EPA Quality Status	Water Quality Class	WFD Status
Q5	Unpolluted	Good	High
Q4-5	Unpolluted	Fair-to-Good	High
Q4	Unpolluted	Fair	Good
Q3-4	Slightly Polluted	Doubtful-to-Fair	Moderate
Q3	Moderately Polluted	Doubtful	Poor
Q2-3	Moderately Polluted	Poor-to-Doubtful	Poor
Q2	Seriously Polluted	Poor	Bad
Q1-2	Seriously Polluted	Bad-to-Poor	Bad
Q1	Seriously Polluted	Bad	Bad

³ Toner, P., Bowman, J., Clabby, K., Lucey, J., McGarrigle, M., Concannon, C., Clenaghan, C., Cunningham, P., Delaney, J., O'Boyle, S., MacCarthaigh, M., Craig M. and Quinn, R., 2005, Water Quality in Ireland 2001 – 2003. Environmental Protection Agency, Wexford.

5.0 Results

Sample Site 1 – SW3 Upstream

Site Code:	Ballynacarrick SW3 (U/S)
Watercourse:	Foyagh
Date of sampling:	13 th November 2016
Grid Reference:	193213 367797
Width (m):	0.3
Depth (m):	0.3
Substrate Type:	Cobble 10%, Gravel 30%, Mud/Silt 60%
Flow Type:	Glide 100%
Dissolved Oxygen (mg/l):	10.46
Overhead Shade (%):	0
Macrophyte Presence:	No

Table 4: Sample Site 1 SW4 Upstream Field Data

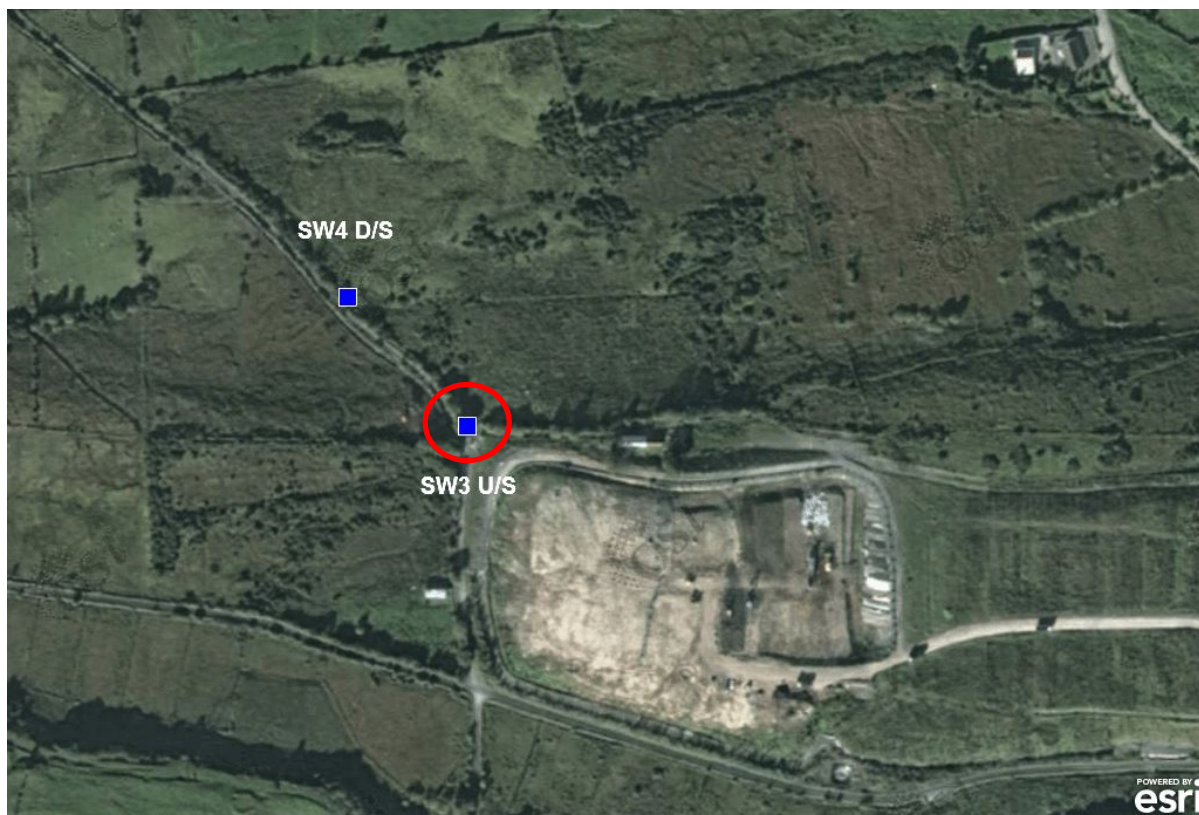


Figure 2: Sample Site 1 SW3 Upstream Map

Indicator Group	Taxon	Number
Group A - Very Pollution Sensitive	-	
Group B - Moderately Pollution Sensitive	-	
Group C - Moderately Pollution Tolerant	<i>Gammaridae</i>	12
	<i>Baetidae</i>	6
	<i>Limnephilidae</i>	2
	<i>Chironomidae</i>	8
	<i>Tipulidae</i>	2
Group D - Very Pollution Tolerant	-	
Group E - Most Pollution Tolerant	<i>Oligochaeta</i>	4

- **Summary**

Sample Site 1 SW3 (Upstream) contained 6 individual taxa, dominated by Group C taxa which accounted for 88% of the total sample. Within this there was an abundance of *Gammaridae* and *Chironomidae*. Of the most pollution tolerant groups, there was no Group A and no Group B taxa present. Group E represented 12% of the total sample population.

A Q Value of Q3 has been assigned to Site 1 SW3 Upstream.

- Rationale

Q3 Moderately polluted, is assigned if;

- i. Group A absent
- ii. Group B fair numbers, scarce or absent
- iii. Group C usually excessive
- iv. Group D may be common, scarce or absent
- v. Group E may be scarce or absent
- vi. Substrata may be heavily silted

- Sample Site 2 – SW4 Downstream

Site Code:	Ballynacarrick SW4 (D/S)
Watercourse:	Foyagh
Date of sampling:	13 th November 2016
Grid Reference:	193176 367837
Width (m):	0.4
Depth (m):	0.3
Substrate Type:	Gravel 30%, Mud/Silt 70%
Flow Type:	Glide 100%
Dissolved Oxygen (mg/l):	10.22
Overhead Shade (%):	20%
Macrophyte Presence:	No

Table 5: Sample Site 2 SW4 Downstream Field Data

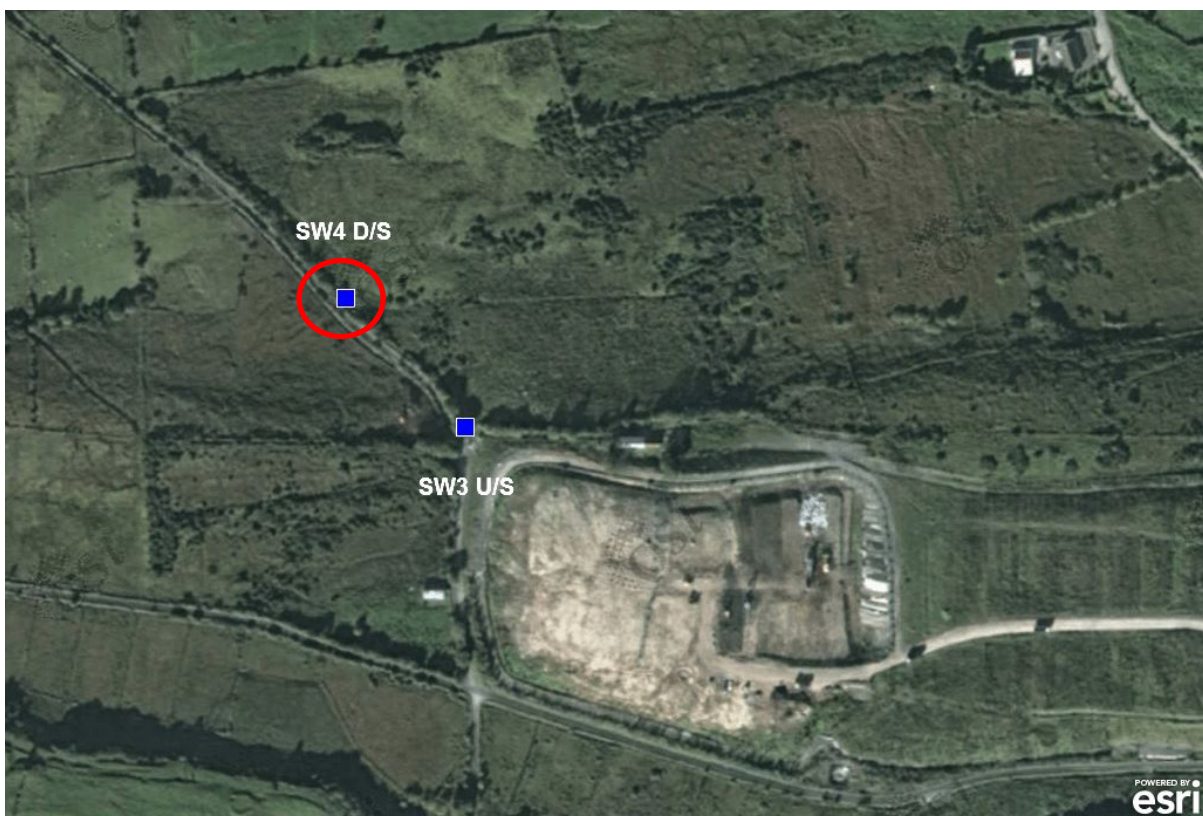


Figure 3: Sample Site 2 SW4 Downstream Map

Indicator Group	Taxon	Number
Group A - Very Pollution Sensitive	-	
Group B - Moderately Pollution Sensitive	-	
Group C - Moderately Pollution Tolerant	<i>Gammaridae</i>	9
	<i>Limnephilidae</i>	2
	<i>Lymnaeidae</i>	2
	<i>Planorbidae</i>	3
	<i>Hydrobiidae</i>	7
Group D - Very Pollution Tolerant	-	
Group E - Most Pollution Tolerant	<i>Oligochaeta</i>	4

- **Summary**

Sample Site 2 SW4 (Downstream) contained 6 individual taxa, dominated by Group C taxa which accounted for 85% of the total sample. Within this there was an abundance of *Gammaridae*. Of the most pollution tolerant groups, there was no Group A and no Group B taxa. Group E represented 15% of the total sample population.

A Q Value of Q3 has been assigned to Site 2 SW4 Downstream.

- Rationale

Q3 Moderately polluted, is assigned if;

- i. Group A absent
- ii. Group B fair numbers, scarce or absent
- iii. Group C usually excessive
- iv. Group D may be common, scarce or absent
- v. Group E may be scarce or absent
- vi. Substrata may be heavily silted

Appendix G

Monitoring Information

Appendix G - Monitoring Information

Table A1 Grid References of Monitoring Points

Station Purpose	Station Name	Northing	Easting
Landfill Monitoring - Groundwater	Ballynacarrick GW 1	367719	193887
Landfill Monitoring - Groundwater	Ballynacarrick GW 2	367532	193480
Landfill Monitoring - Groundwater	Ballynacarrick GW 3	0	0
Landfill Monitoring - Groundwater	Ballynacarrick GW 4	367581	193301
Landfill Monitoring - Groundwater	Ballynacarrick GW 5	367720	193283
Landfill Monitoring - Groundwater	GW 10	367523	193545
Landfill Monitoring - Groundwater	GW 6	357717	193480
Landfill Monitoring - Groundwater	GW 7	347697	193648
Landfill Monitoring - Groundwater	GW 8	367702	193730
Landfill Monitoring - Groundwater	GW 9	367538	193649
Landfill Monitoring – Surface Water	Ballynacarrick SW 1	367534	193476
Landfill Monitoring – Surface Water	Ballynacarrick SW 2	367564	193865
Landfill Monitoring – Surface Water	Ballynacarrick SW 3	367728	193276
Landfill Monitoring – Surface Water	Ballynacarrick SW 4	367797	193213
Landfill Monitoring - Leachates	Ballynacarrick L 1	367547	193656
Landfill Monitoring - Leachates	Ballynacarrick L 4	0	0
Landfill Monitoring - Leachates	Ballynacarrick L 6 (Tank)	367564	193802
Landfill Monitoring - Leachates	L8	0	0
Landfill Monitoring – Air Quality	Ballynacarrick @ caravan (Gas)	367712	193852
Landfill Monitoring – Air Quality	Ballynacarrick LG1	367620	193711
Landfill Monitoring – Air Quality	Ballynacarrick LG10	367570	193336
Landfill Monitoring – Air Quality	Ballynacarrick LG11	367635	193285
Landfill Monitoring – Air Quality	Ballynacarrick LG12	367712	193354
Landfill Monitoring – Air Quality	Ballynacarrick LG13	367728	193417
Landfill Monitoring – Air Quality	Ballynacarrick LG14	367701	193553
Landfill Monitoring – Air Quality	Ballynacarrick LG15	367697	193652
Landfill Monitoring – Air Quality	Ballynacarrick LG16	367693	193842
Landfill Monitoring – Air Quality	Ballynacarrick LG17	367712	193852
Landfill Monitoring – Air Quality	Ballynacarrick LG2	367582	193774
Landfill Monitoring – Air Quality	Ballynacarrick LG4	367673	193649
Landfill Monitoring – Air Quality	Ballynacarrick LG5	367670	193720
Landfill Monitoring – Air Quality	Ballynacarrick LG6	367685	193780
Landfill Monitoring – Air Quality	Ballynacarrick LG7	0	0
Landfill Monitoring – Air Quality	Ballynacarrick LG8	367535	193480
Landfill Monitoring – Air Quality	Ballynacarrick LG9	367543	193426

Table A2 Groundwater Parameters and Monitoring Frequencies

Quarterly		Annually	
Temperature	Chloride	Cadmium	Magnesium
TON	Ammoniacal Nitrogen	Cyanide	Manganese
Visual Inspection/ Odour	Electrical Conductivity	Total Phosphorous/ Orthophosphate	Mercury
Iron	pH	Chromium	Lead
		Copper	Zinc
		List I/II substances	Dissolved Oxygen
		Sulphate	Nickel
		Total Alkalinity	Potassium
		Phenols	

Monthly Groundwater Level monitoring

Table A3 Surface Water Parameters and Monitoring Frequencies

Quarterly		Annually	
Temperature	Chloride	Iron	Magnesium
pH	Dissolved Oxygen	Cadmium	Manganese
Ammoniacal Nitrogen	COD	Chromium	Mercury
BOD		Copper	Total Phosphorus/ Orthophosphate
Electrical Conductivity		Sulphate	Zinc
TSS		Total Alkalinity	Potassium
		Lead	TON

Weekly Visual Inspection/Odour monitoring

Bi-annual Biological Assessment

Table A4 Landfill Gas Parameters and Monitoring Frequencies

Monthly
Atmospheric Pressure
Carbon Dioxide
Methane
Oxygen
Temperature

Table A5 Leachate Parameters and Monitoring Frequencies

Quarterly		Annually	
Temperature	Chloride	Iron	Magnesium
pH	COD	Cadmium	Manganese
Ammoniacal Nitrogen	Leachate level	Chromium	Mercury
BOD	Visual Inspection/ Odour	Copper	Total Phosphorus/ Orthophosphate
Electrical Conductivity	TON	Sulphate	Zinc
		Lead	Potassium
			Nickel