



**Environmental Efficiency**  
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# **ANNUAL ENVIRONMENTAL REPORT**

**2008**

**For**

**Bergin Waste Disposal Limited**

**Waste Licence Number: W0163-01**

*Document No: 1160-01 v1.00*

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## QF 1. v2 Document Lead Sheet

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Address	Ballaghaderreen Industrial Estate, Ballaghaderreen, Co.Roscommon

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## 1 Introduction

### 1.1 Company Information

**Table 1-1 Company details**

<b>Company</b>	Bergin Waste Disposal Limited
<b>Address</b>	Ballaghaderreen Industrial Estate, Ballaghaderreen, Co. Roscommon
<b>County / City</b>	Co. Roscommon
<b>Business</b>	Non hazardous waste transfer/recycling facility
<b>Employees</b>	8
<b>Contact Name</b>	Sean Bergin
<b>Position</b>	Managing Director
<b>Telephone</b>	087-2378632
<b>Fax</b>	094-9860814
<b>Waste Licence Register Number</b>	W0163-01

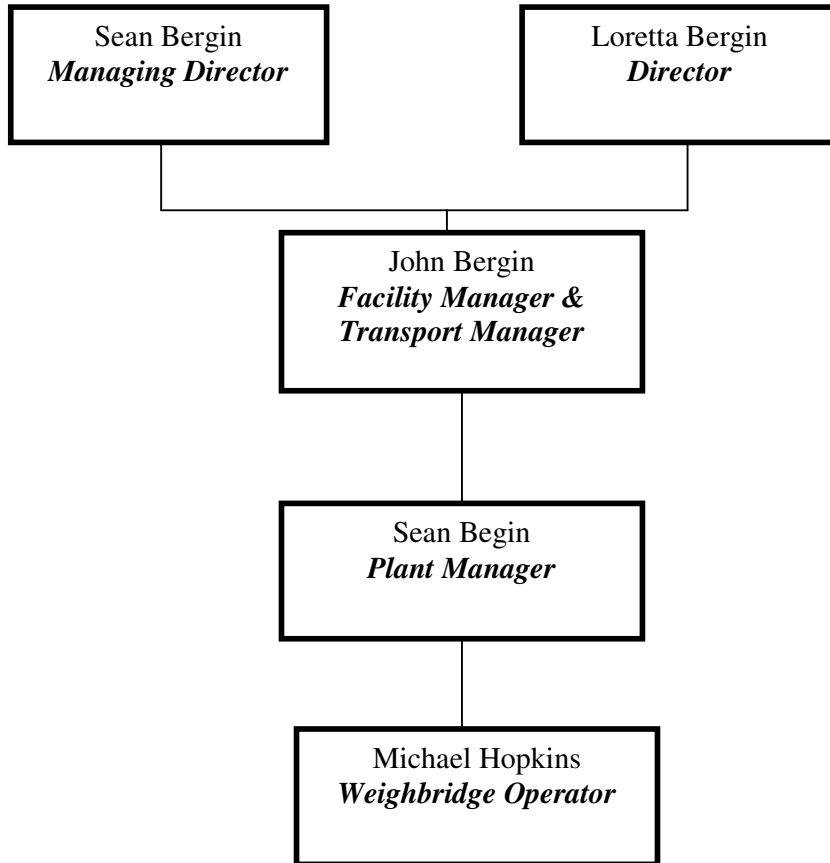
**Table 1-2 Summary of Waste licence**

<i>Waste Licence Reg: No.</i>	<i>Date</i>
W0163-01	Issued on the 24 <sup>th</sup> May 2002
Amendment A to W0163-01	24 <sup>th</sup> May 2006

### 1.2 Reporting Period

The reporting period is from 1<sup>st</sup> January 2008 to 31<sup>st</sup> December 2008.

### 1.3 Company Organisation Chart



## 2 Site Description

### 2.1 Company Profile

Bergin Waste Disposal Ltd. was granted an EPA Waste Licence in 2002 to operate a non-hazardous waste transfer station/recycling facility at Ballaghaderreen Industrial Estate, Ballaghaderreen, Co. Roscommon. The proposed site (c.0.4ha ) is located at the end of a cul de sac to the south of the industrial estate which is located approximately 350m off the N5 (Dublin-Castlebar) on the western side of Ballaghaderreen town. The main waste types to be accepted at the facility are industrial and commercial wastes, household waste, and construction and demolition waste. The company operates its collection services throughout the western and midlands region, including counties Mayo, Galway, Roscommon, Sligo, Longford and Westmeath. There are 8 full time employees working at the company.

## 3 Waste Recovery and Procedure

The company is licensed (waste licence W0163-01) to accept non-hazardous waste at its waste facility situated at Ballaghadeereen, Co. Roscommon. This non-hazardous waste includes:

- Metal
- Paper and Cardboard
- Plastic Packaging
- Wood
- Construction and Demolition Waste
- Mixed Municipal Waste

The total quantity of waste acceptable under the waste licence (W0163-01) conditions at the facility is 19,700 tonnes. The principal wastes processed at the facility are:

### 3.1.1 Metal (EWC 200140)

Mixed waste from construction and demolition/commercial waste skips is tipped on to the floor of the waste transfer building. A grab picks out large pieces of metal, and transfers these into a forklift skip. Subsequently, this segregated metal waste is transferred by forklift from the waste transfer building to a larger skip in the

recyclables storage building. The metal waste is collected from the premises by A1 Metal Recycling Limited and Galway Metal Company Ltd.

### **3.1.2 Paper and Cardboard (EWC 200101)**

These segregated waste types are collected from commercial outlets. Cardboard is further segregated with contaminants removed and passed through the APK baler. Cardboard and paper bales are stored in the recyclables storage building prior to being transferred to Greyhound Recycling for recycling. Segregated newspaper waste received at the facility is shredded and also transferred to Greyhound Recycling.

### **3.1.3 Plastic Packaging (EWC 20 01 39)**

This waste from commercial outlets is segregated and baled in the APK baler in the waste transfer building before being transferred to Advanced Environmental Solutions, Tullamore, Co. Offaly, Barna Waste Ltd. Co. Galway, Panda Waste, Finglas, Co. Dublin and Leinster Environmental.

### **3.1.4 Wood (EWC 20 01 38)**

Wood forms part of the mixed waste from construction and demolition/commercial waste skips, which is tipped on to the floor of the waste transfer building. A grab picks out large pieces of wood, and transfers these into a forklift skip. Following this the segregated waste wood is transferred by forklift from the waste transfer building into a larger skip. Wood waste is transferred to Barna Waste Ltd. Galway or Spanboard, Coleraine for recycling.

### **3.1.5 Construction and Demolition Waste (EWC 17 05 04)**

Mixed waste from construction and demolition/commercial waste skips is tipped on to the floor of the waste transfer building. A grab picks out large items of brick, concrete and stones etc. and transfers these into a forklift skip. The segregated construction and demolition waste is transported by forklift from the waste transfer building into a larger skip. Construction and Demolition waste is transported to JP Bell.

### **3.1.2 Mixed Municipal Waste (EWC 20 03 01)**

This waste and waste unsuitable for recycling is stored in the waste transfer facility prior to removal. Mixed municipal waste is loaded into waste ejector trailers,



approximately twice a day and transported to landfill. Such sites utilised in 2008 included, Ballydonagh Landfill Co. Westmeath, Ballaghadereen landfill Co. Roscommon and Greenstar East Co. Galway.

In addition, all trommel fines were sent to Ballaghadereen Landfill, Co. Roscommon.

A summary of all wastes generated during 2008 is summarised in Table 3-1 as follows.

**Table 3-1 Quantity and composition of waste 2008**

Waste	EWC No.	Tonnes In	Tonnes Out	Destination
Metal (Aluminium)	15 01 04	9.00	13.94	Galway Metal Company Ltd. Oramore, Co. Galway
Cardboard	15 01 01	399.29	227.44	Greyhound Recycling, Clondalkin
Construction & Demolition Waste Plaster board	17 09 04	3519.2	-	
	17 08 02	1.9	20.14	Gypsum Recycling Kildare
Dry Mixed Recyclables	15 01 06	754.46	875.92 55.34 152.38	Barna Waste Ltd. Recycling Depot, Headford Road, Co. Galway AES, Tullamore, Co. Offaly. Panda Waste, Finglas, Dublin
Plastic (HDPE)	15 01 02	5.72	36.9	Leinster Environmental Ltd. Claremont Bus Pk Haggardstown Dundalk Co. Louth
Scrap Metal	17 04 07 15 01 04	64.8 26.68	338.92 191.88	Galway Metal Company Ltd, Oranmore, Co. Galway A1 Metal Recycling, Mountmellick, Co. Laois
Mixed Municipal Waste	20 03 01	3571.25	2213.01 (between 3 sites)	Greenstar East Galway (W0178-01) Roscommon Co. Co. Ballagherreen, (W0059-02). Westmeath Co Co Ballydonagh Landfill, Westmeath
Newspaper/Magazines Paper (Shredded)	20 01 01	215.88	245.38	Greyhound Recycling Ireland Ltd, Clondalkin
Plastic Bottles (PET)	15 01 02	58.04	94.18	Leinster Environmental Ltd. Claremont Bus Pk Haggardstown Dundalk Co. Louth
Soil/Stones	17 05 04	9.62	1159.17 (Recycled for re-use)	JP Bell, Barnaboy, Brusna, Ballagherreen, Co. Roscommon (Permit Holder) Cloonierin, Kilmovee, Co. Mayo (Facility Address) (Mayo Co. Co.)
Tetra Cartons	15 01 05	12.76	10.62	Orebrokrtogbrukab (Germany)
Wood (tree roots)	19 12 07	Note 1	9.8	JP Bell, Barnaboy, Brusna, Ballagherreen, Co. Roscommon (Permit Holder) Cloonierin, Kilmovee, Co. Mayo (Facility Address) (Mayo Co. Co.)
Woodchip	20 01 38 & 17 09 04	Note 2	293.76 401.02 630.04	Farmers for bedding Spanboard Coleraine, Co. Derry, Roscommon Co Co (Woodchip for landfill cover) Ballagherreen Landfill.
Trommel fines	19 12 12	N/A	2140.90	Ballagherreen Landfill

Note 1: This is part of C&D waste

Note 2: Woodchip is part of incoming C&D & wood wastes, but is sorted at the facility so a separate outgoing figure is available.

A breakdown of the amount of waste disposed and recovered is provided in Table 3-2 below.

**Table 3-2 Summary of disposed and recovered wastes in 2008**

<b>Total tonnage received</b>	9110.74
<b>Recycled</b>	4756.83
<b>Disposed</b>	4353.91
<b>Recycling Rate</b>	<b>52%</b>

## 4 Summary of Emissions

The company has the following licensed emissions:

- Waste water emissions to sewer
- Surface water emissions
- Dust deposition
- Noise

### 4.1 Waste water emissions

There is one licensed emission point for emissions to sewer; this is referred to as FW-1. The location of FW-1 licensed emission point is highlighted on the site map provided in Appendix 1. Chemical analysis of emission to sewer is carried out quarterly by EEC Ltd. Waste water emissions are required to be monitored on a quarterly basis. A summary of monitoring results for 2008 is provided in Table 4-1 below. No parameters associated with this emission point exceeded the specified limits during 2008. Certificates of analysis are provided in Appendix 2 of this report.

Table 4-1 Waste water emissions to sewer 2008

Parameter	Licence Limit	Q1: March	Q2: June	Q3: August	Q4: October	Units
BOD	350	1	2	2	2	mg/l
COD	500	<15	<15	<15	<15	mg/l
Suspended Solids	300	0	<5	5	<5	mg/l
Total Phosphates (P)	2.000	0.054	<0.05	<0.15	<0.05	mg/l
pH	6-8	7.29	6.94	6.2	7.44	pH units
Temperature	N/S	DNP*	DNP*	15.6	DNP*	Celsius

\* Determination not possible (DNP)

## 4.2 Emissions to surface water

There are three licenced emission points to surface water; SW1, SW2 and SD1. SW1 and SW2 are licenced discharge points situated upstream and downstream of the facility. The monitoring locations for all three emission points are highlighted on the site map provided in Appendix 1. SD1 relates to the surface water discharge point and is sampled at the discharge release point from the facility. Chemical analysis of emissions to surface waters is carried on a quarterly basis by EEC Ltd. The results of analysis for all three licenced emissions to surface water are presented in the following series of tables. Certificates of analysis for SW1, SW2 and SD1 are provided in Appendix 3, Appendix 4 and Appendix 5 respectively.

Table 4-2 Surface Water Monitoring Results (SW1)

Parameter	Licence Limit	Q1: March	Q2: June	Q3: August	Q4: October	Units
BOD	Note 1	3	1	1	1	mg/l
SS		0	<5	5	<5	mg/l
pH		7.25	7.11	6.15	7.9	pH units
Mineral Oil	5mg/l	<10 $\mu$ g/l	<10 $\mu$ g/l	<10 $\mu$ g/l	<10 $\mu$ g/l	-

Note 1: Emission limits not specified for BOD, S.S or pH in waste licence

Table 4-3 Surface Water Monitoring Results (SW2)

Parameter	Licence Limit	Q1: March	Q2: June	Q3: August	Q4: October	Units
BOD	Note 1	2	1	1	1	mg/l
SS		0	5	6	<5	mg/l
pH		7.36	7.36	6.28	7.5	pH units
Mineral Oil	5mg/l	<10 $\mu$ g/l	<10 $\mu$ g/l	<10 $\mu$ g/l	<10 $\mu$ g/l	-

Note 1: Emission limits not specified for BOD, S.S or pH in waste licence

Table 4-4 Surface Water Discharge Monitoring Results (SD1)

Parameter	Licence Limit	Q1: March	Q2: June	Q3: August	Q4: October	Units
BOD	Note 1	98	2	1	2	mg/l
SS		4	<5	<5	<5	mg/l
pH		7.18	7.13	6.43	7.48	pH units
Mineral Oil	5mg/l	<10 $\mu$ g/l	<10 $\mu$ g/l	<10 $\mu$ g/l	<10 $\mu$ g/l	-

Note 1: The waste licence does not specify emission limit values for BOD, S.S or pH

### **4.3 Dust Deposition**

#### **4.3.1 Introduction**

Dust monitoring is carried out at the site three times per year in accordance with Schedule D2 of the licence.

#### **4.3.2 Methodology**

As there are no Irish Statutory standards or EPA guidelines relating specifically to dust deposition thresholds for inert mineral/ aggregate dust, the German TA Luft dust deposition limits values shall be adopted as the threshold values at quarry site boundaries. This is in accordance with recommendations given in the Department of the Environmental publication, Quarries and Ancillary Activities: Guidelines for Planning Authorities, (April 2004).

The TA Luft dust deposition limits values are:

- 350 milligram per square metre per day (when averaged over a 30-day period)

The Standard Method VD2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument, German Institute) was used for this survey. A summary of the dust deposition monitoring results are presented in Table 4-6. The dust deposition on site was measured using a Bergerhoff Dust Deposit Gauge. The gauge construction and aperture size is in accordance with the German standard VDI 2119.

#### **4.3.3 Monitoring locations**

Samples were collected at three sampling locations (D1, D2 and D3) in accordance with Schedule D1 of the licence. Details of the dust monitoring locations are provided in Table 4-5 and illustrated on site map provided in Appendix 1.

Table 4-5 Dust monitoring locations

Emission point reference	Geographical description
D1	Near site entrance
D2	Along the northern boundary of site
D3	Northwest boundary of site

#### 4.3.4 Dust Monitoring Results

The results of dust monitoring programme are presented in Table 4-6 below.

Certificates of analysis are provided in Appendix 6.

Table 4-6 Dust Deposition rates in vicinity of existing operations

Monitoring Point	Licence Limit (mg/m <sup>2</sup> /day)	January (mg/m <sup>2</sup> /day)	August (mg/m <sup>2</sup> /day)	October (mg/m <sup>2</sup> /day)
D1	350	25.45	168.2	74.76
D2	350	188.4	1.150	54.39
D3	350	42.34	150.6	258.7

The results of analysis for dust deposition in 2008 indicate that dust deposition levels are below licence limits and are not a significant environmental impact of the facility.

## 4.4 Noise Monitoring

### 4.4.1 Summary

Schedule D: Monitoring requires annual noise monitoring to be conducted at the facility (D1 & D4). In accordance with Schedule D4, broadband and frequency analysis (1/3 octave band analysis) noise surveys were carried out at the site on the 27<sup>th</sup> July. This is a requirement of Bergin waste's waste licence so as to determine the

tonal element of noise emanating from the site (if any). The results of the noise surveys are presented in Appendix 7.

## **Results**

### *Broadband survey*

The results indicate that noise levels at all noise monitoring locations (all noise sensitive locations) are within EPA day time limits.

### *Octave band analysis*

The results of octave band analysis of noise monitoring carried out at the site indicate that there is no tonal element in the noise generated by the facility. The company is in compliance with Condition 6.4 of the licence which states:

*'There shall be no clearly audible tonal component or impulsive component in the noise emissions from the activity at the noise sensitive locations'.*

## **5 Resource and Energy Consumption**

This section of the report details the total annual usage levels of energy.

### **5.1 Energy Consumption**

Energy is provided by four sources at the company namely:

- Diesel
- Petrol
- Oil
- Electricity

A summary of energy consumption in 2008, in terms of the above, is shown in the Table 5-1 below.

Diesel, unleaded and oil usage was determined by examining invoices from the supplier. Total electricity usage was determined and estimated by examining bills from 2008, the reporting year.



Table 5-1 Energy Consumption 2008

Resource	Time Period	Quantity	Units
Diesel	Jan – Dec 2008	129624.7 <sup>Note 1</sup>	Litres
Engine Oil	Jan – Dec 2008	45.4	Litres
Hydraulic Fluid	Jan – Dec 2008	817	Litres
Electricity	Jan – Nov 2008	Note 2	kWh

Note 1 This is based on the average price of a litre of diesel being 90 cent.

Note 2 A cost of €10,631.59 was the amount spent on electricity consumption in 2008.

## 6 Development and Infrastructural Works

Development works carried out at Bergin Waste Disposal in 2008 included the following:

- The erection of a metal palisade fencing around the perimeter of the site.

### 6.1 Plant Capacity

Bergin Waste Disposal Ltd. carries out its waste recycling and transfer operations through a number of processes such as shredding, baling and compaction of segregated waste. A wood shredder was purchased early in 2008.

Table 6-1 Plant and Equipment

Equipment	Machinery Numbers	Tonnes processed per hour	Tonnes processed in 12 hour day
Mobile Shredder (Wilibald 4600)	1	12	144
Compactor (Gradeall)	1	0.42	5
Picking Station (Viper)	1	2.5	30
Forklift	1	n/a	n/a
Grab (Hitachi)	1	n/a	n/a
Conveyor	1	n/a	n/a
Bobcat	1	n/a	n/a
Baler (APK)	1	5	60
Trommel	1	3-9	36-108

Equipment	Machinery Numbers	Tonnes processed per hour	Tonnes processed in 12 hour day
Trucks	11	n/a	n/a

Some changes to waste transfer and client/customers relations were also made in 2008:

- Galway Metal Company Ltd. collected aluminium and scrap metal from the site in 2008.
- Fewer landfill locations were used in 2008 and was kept to Ballaghaderreen landfill (Roscommon County Council.), Ballydonagh landfill (Westmeath County Council) and Greenstar East Galway.
- For the dry mixed recyclables waste transfers went to AES and Panda Waste.
- All plastic (HDPE) went to Leinster Environmental.
- Cardboard, newspapers/magazines paper (shredded) in 2008 were transferred to Greyhound Recycling in Clondalkin, Co. Dublin.
- Woodchip was sent primarily as landfill cover to Ballaghaderreen landfill as well as to various farmers for bedding and to Spanboard in Coleraine, Co. Derry.

## **7 Environmental Management of Activity**

The company operates an Environmental Management System in accordance with the waste licence. As part of this system an environmental management programme (EMP) is documented each year which outlines specific environmental objectives and targets for the company. This section of this report summarises the objectives and targets proposed for the upcoming year (2009). A progress report on the EMP in place during (2008) is also provided. The schedule of Environmental objectives and targets has been established taking into account instruction within Condition 2.3.2.2 of the Waste Licence (*W0163-01*).

### **7.1 Progress report on environmental objectives and targets 2008**

Details of the implementation of 2008 objectives and targets as outlined in 2007 AER is provided in Table 7-1 below.

Table 7-1 Progress Report on Objectives and targets for 2008

Objective ref. no.	Objective	Target/Outcome	Achievement
1	Waste Licence Compliance; maintain regulatory compliance with various agencies and with Waste licence requirements	<ul style="list-style-type: none"> <li>No external non-conformances during 2008</li> </ul>	Non-conformances raised through quarterly site audit inspections in 2008 by EEC were addressed and closed out.
2	Improve record keeping, document control and reporting	<ul style="list-style-type: none"> <li>Establishment of clear, concise and readily accessible administrative system for operation of EMS and waste licence</li> </ul>	Complete
3	Site development – improve storage facilities for segregated waste (EPA observations)	<ul style="list-style-type: none"> <li>Construct a wood processing storage facility (subject to planning)</li> </ul>	Ongoing
		<ul style="list-style-type: none"> <li>Construct a building for storage of recyclables indoors</li> </ul>	Ongoing
		<ul style="list-style-type: none"> <li>Erect fencing around new extended part of site</li> </ul>	Complete
4	Provision of environmental training to staff	<ul style="list-style-type: none"> <li>Arrange for training to be carried out with relevant staff on specific EMS and waste licence procedures</li> </ul>	Environmental training carried out on site mid 2008
5	Emergency response procedures	<ul style="list-style-type: none"> <li>Ensure both Accident Prevention Policy and Emergency Response Procedures updated and reviewed. Conduct 2 emergency drills conducted during 2008</li> </ul>	Ongoing
6	Increase recycling rate for waste accepted at facility	<ul style="list-style-type: none"> <li>Continue to source new/better outlets for recycling of materials Source at least one additional recycling contractor.</li> </ul>	Establish more contacts in the recycling industry. Wood shredder invested in early 2008.
7	Improve general housekeeping around the site	<ul style="list-style-type: none"> <li>Compliance with Condition 7: Nuisance Control</li> </ul>	Yes

**7.2 Environmental Management Programme 2009**

**Table 7-2 Summary of Environmental Management Programme for 2009**

Objective reference number	Objective	Target	Responsibility	Method	Target completion date
1	Awareness and Training Programme	Ensure there is a defined awareness and training programme maintained at the site.	Facility Manager	Ensure all training records of staff are kept on site and updated as training is undertaken. Designate a day to run through EMS & waste licence operational procedures with key staff.	Ongoing
2	Improve general housekeeping around the site	Compliance with Condition 7: Nuisance Control	Facility Manager	Ensure floors are cleared down at the end of each working day Ensure all waste handling/processing equipment is cleaned on a weekly basis (fill out log) to prevent the build up of odorous waste debris Ensure that waste stockpiles do not accumulated in the site yard or inside the building	Ongoing
3	Implement EEC Site Audit recommendations	Carry out recommendations made by EEC as part of their site inspection audits	Facility Manager	Implement the recommendations highlighted and follow up to ensure any recommendations implemented are successfully and efficiently working	Autumn 2009

<b>Objective reference number</b>	<b>Objective</b>	<b>Target</b>	<b>Responsibility</b>	<b>Method</b>	<b>Target completion date</b>
4	Improve and maintain record keeping, document control and reporting	Establishment of clear, concise and readily accessible administrative system for all documentation pertaining to the licence.	Facility Manager	Sort out all documents relating to waste licence and environmental management at the facility. Ensure that all environmental monitoring data is suitably on file and kept on site, and is readily presentable upon request. Store all EMS/Waste licence folders/files together in an easily accessible location in the site office.	August 2009
5	Site development – improve storage facilities for segregated waste (EPA observations)	Construct a wood processing storage facility (subject to planning)	Facility Manager	Upon receipt of planning permission secure the services of building contractors for completion of all proposed construction works on site. Ensure EPA is notified & kept up to date of all site development infrastructural developments.	December 2009
		Construct a building for storage of recyclables indoors	Facility Manager		
6	Emergency response procedures and Accident Prevention Policy	Conduct drills and ensure both Accident Prevention Policy and Emergency Response Procedures are reviewed.	Facility Manager	Conduct drills and reviews during year. Ensure outcomes off all drills and reviews are logged and any corrective action arising implemented.	Summer 2009
7	Maintain and increase (if and where possible) current recycling rate for waste accepted at the facility.	Continue to source new/better outlets for recycling of materials.	Facility Manager	Continue to liaise and establish more contacts in the recycling industry.	Ongoing

<b>Objective Number</b>	<b>OT1</b>
<b>Objective Title</b>	Awareness and Training Programme
<b>Rationale</b>	Maintain regulatory compliance with Waste licence requirements
<b>Target date</b>	Ongoing
<b>Target</b>	Ensure there is a defined awareness and training programme maintained at the site.
<b>Responsibility</b>	Facility Manager

<b>Step OT1</b>	<b>Target date</b>
Review operational procedures and establish what staff are specifically involved with those procedures	Immediately
Ensure all staff are familiar with all relevant operational procedures and aware of their responsibilities to comply with and carry out procedures. Engage in discussions with staff regarding procedures and carry out on site training where it is felt necessary.	Immediately
Review specific environmental protection procedures and what staff are responsible for ensuring compliance with each specific procedure	Immediately
Ensure all staff are familiar with all relevant environmental procedures & aware of their responsibilities to comply with & carry out procedures. Engage in discussions with staff regarding environmental protection procedures and carry out on site training where it is felt necessary. E.g. spill response training	Ongoing
Ensure all new staff hired receive adequate induction training and are made aware of the facility requirements under the waste licence and associated EMS environmental protection procedures applicable to the site.	Ongoing

<b>Objective Number</b>	<b>OT2</b>
<b>Objective Title</b>	<b>Improve housekeeping at facility</b>
<b>Rationale</b>	To improve the overall appearance of the site & to ensure compliance with Condition 7: Nuisance Control
<b>Target date</b>	Ongoing
<b>Target</b>	No non compliance or noted observations in 2008
<b>Responsibility</b>	Facility Manager

<b>Step OT2</b>	<b>Target date</b>
Ensure floors are cleared down at the end of each working day	Ongoing
Ensure all waste handling/processing equipment is cleaned on a weekly basis (fill out log) to prevent the build up of odorous waste debris	Ongoing
Ensure that waste stockpiles do not accumulated in the site yard or inside the building	Ongoing

<b>Objective Number</b>	<b>OT3</b>
<b>Objective Title</b>	<b>Implement EEC Site Audit recommendations</b>
<b>Rationale</b>	In order to maintain regulatory compliance with Waste licence requirements
<b>Target date</b>	Autumn 2009
<b>Target</b>	Carry out recommendations made by EEC as part of their site inspection audits
<b>Responsibility</b>	Facility Manager

<b>Step OT3</b>	<b>Target date</b>
Evaluate quarterly site inspection audit reports compiled by EEC	Ongoing
Identify, implement and follow up recommendations outlined	Autumn 2009



<b>Objective Number</b>	<b>OT4</b>
<b>Objective Title</b>	<b>Improve and maintain record keeping, document control and reporting</b>
<b>Rationale</b>	Maintain compliance with condition 10 of waste licence
<b>Target date</b>	August 2009
<b>Target</b>	Maintenance of up an up to date and easily accessible record & document keeping system with the establishment of a clear, concise and readily accessible administrative system for all documentation pertaining to the licence.
<b>Responsibility</b>	Facility Manager

<b>Step OT4</b>	<b>Target date</b>
Review and update file containing current waste licence, current EMS, previous years AER and all written waste licence procedures.	Ongoing from March 2009
Correspondence: Ensure all correspondence received relating to waste licence is logged and filed in the waste licence correspondence file.	Ongoing from January 2009
Environmental Monitoring: Ensure all certificates of analysis received from external consultants are held in a specific environmental monitoring folder. Folder is also to contain a schedule for all monitoring carried out at the site	Ongoing from February 2009

<b>Objective Number</b>	<b>OT5</b>
<b>Objective Title</b>	<b>Site development – improve storage facilities for segregated waste (EPA observations)</b>
<b>Rationale</b>	To provide additional storage space on site, to increase efficiency of plant
<b>Target date</b>	December 2009
<b>Target</b>	Construct a wood processing storage facility (subject to planning). Construct a building for storage of recyclables indoors.
<b>Responsibility</b>	Facility Manager

<b>Steps OT5</b>	<b>Target date</b>
Inform the Agency by letter of all construction projects planned to be carried out at the site when receipt of permission of planning works	On receipt of planning
Review all conditions of planning and ensure conditions are complied with. If there are specific conditions relating to environmental protection, ensure any compliance actions are carried out in conjunction with existing waste licence requirements.	On receipt of planning

<b>Objective Number</b>	<b>OT6</b>
<b>Objective Title</b>	<b>Emergency response procedures and Accident Prevention Policy</b>
<b>Rationale</b>	Ensure Compliance with Condition 9: Contingency Arrangements
<b>Target date</b>	Summer 2009
<b>Target</b>	Compliance with Condition 9: Contingency Arrangements
<b>Responsibility</b>	Facility Manager

<b>Step OT6</b>	<b>Target date</b>
<p>Ensure appropriate Environmental Incidence Forms procedures/form are in place to be consulted/completed in the event of an accident</p> <p>Ensure appropriate Environmental Incidence Forms are available for completion in the event of an environmental incident occurring on site. Details to be recorded on the form are specified in Condition 9.1 of the licence.</p> <p>Review current Accident Prevention Policy</p>	Ongoing
<p>Review &amp; update (if necessary) the Emergency Response Procedure (ERP). Ensure any updates are communicated to staff as part of environmental training</p> <p>Review Existing Emergency Response Procedure</p>	Ongoing
<p>Conduct drills and reviews during the year. Ensure outcomes off all drills and reviews are logged and any corrective action arising implemented.</p>	Summer 2009
<p>Carry out spill response training for all site personnel</p>	Summer 2009

<b>Objective Number</b>	<b>OT7</b>
<b>Objective Title</b>	<b>Maintain and increase (if and where possible) current recycling rate for waste accepted at the facility.</b>
<b>Rationale</b>	To contribute to national recycling rates, to foster the principals of waste hierarchy
<b>Target date</b>	Ongoing
<b>Target</b>	Continue to source new/better outlets for recycling of materials.
<b>Responsibility</b>	Facility Manager

<b>Step OT6</b>	<b>Target date</b>
Continue to source new/better outlets for recycling of materials Continue to establish more contacts in the recycling industry	Ongoing
Seek to increase upon the recycling rate established in 2007	December 2009

## **8 Bund Inspection Report**

In accordance with Condition 3.12 a Bund Integrity Assessment was conducted in 2007.

A copy of the Bund Integrity Assessment Report is provided in Appendix 8. The results of the bund tests indicated compliance with the requirements of the waste licence.

## **9 Environmental Incidents and Complaints**

### **9.1 Reported Incidents Summary**

There were no reported environmental incidents during 2008.

### **9.2 Complaints Summary**

There were no complaints from employees or any member of the public during 2008 in relation to environmental matters on site.

### **9.3 Site Inspections**

The Agency carried out no site inspection in 2008.

## **10 Review of Nuisance Controls**

Condition 7 of the licence outlines strict requirements for nuisance control at the facility. Bergin Waste is committed to ensuring compliance with the terms of its licence. Specific nuisance controls carried out at the site include:

- The results of dust monitoring carried out in 2008 indicate that dust deposition levels are not sufficient to cause nuisance.
- At the end of each working day, a bobcat is used to clean down the site yard, where an adequate time (30 minutes) is reserved to ensure sufficient cleaning.
- During periods of dry weather, all hardstanding areas of the site, including the site access road are sprayed down with water to minimise dust dispersal.
- The waste transfer building has a mist sprayer installed that is activated when required in order to minimise airborne dust nuisance.
- Any odorous waste loads are processed as fast as possible within the transfer building before being transported off site for disposal to landfill.
- Daily and weekly site inspections are conducted by the plant or facility manager. Potential nuisances that are observed are noted and corrective actions are put in place early the next working day.
- The access and the public road around the site entrance is maintained and kept clear of site debris.
- Regular and rigorous spot checks are conducted by the plant or facility manager to ensure vehicles delivering waste to the site or transporting waste off-site are appropriately covered and the waste arriving at the site is waste that the facility is only permitted to handle in accordance with its waste licence.

## 11 Financial Provision, Staffing and Provision of Public Information

### 11.1 Financial Provision

Financial provision for the facility is covered by the company insurance policy. Public and products liability insurance provides for a limit indemnity of €6,500,000. Employers Liability increased to €13,000,000.

### 11.2 Management and staffing structure

The management and staffing structure at Bergin Waste Disposal Ltd. is as follows:

Table 11-1 Staff

Name	Position	Duties	Experience
Sean Bergin	Managing Director	Overall responsibility for site management	16 years experience in waste management
Lorreta Bergin	Director	Financial management & administration	16 years experience in waste management
John Bergin	Plant & Facility Manager	Day to day management of plant & equipment	4.5 years experience in waste management
John Bergin	Transport Manager	Day to day management of the facility	3 years experience in waste management
Michael Hopkins	Weighbridge Operator	Weighing & recording incoming & outgoing loads	1.5 years experience in waste management

### 11.3 Programme for public information

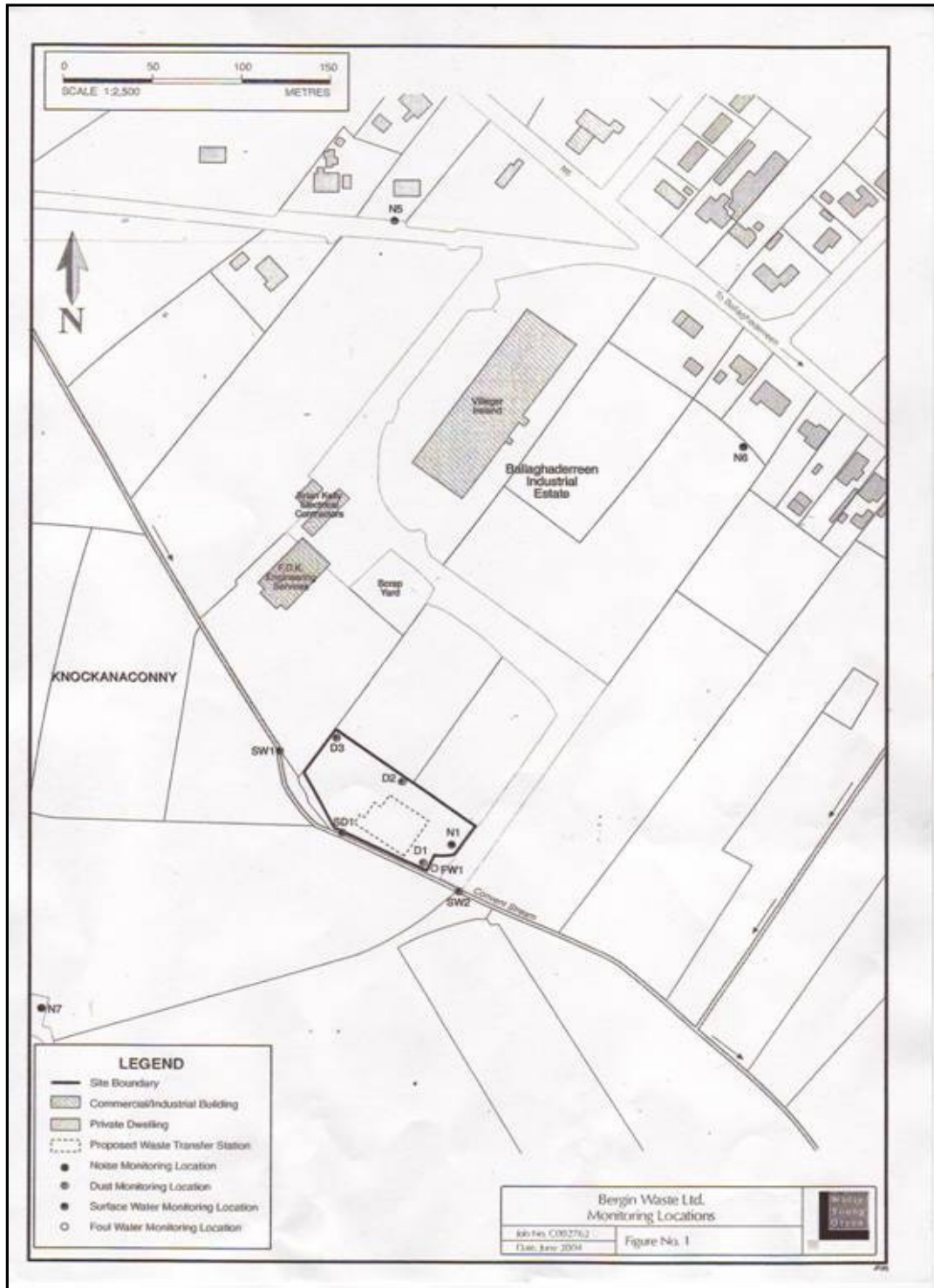
A programme for public information has been implemented. This programme is subject to continual review and regular updating to ensure it is fully comprehensive and representative of all relevant measures and environmental effects/issues. The measures contained in the programme are outlined in Table 11-2 below:

**Table 11-2 Programme for public information**

Measures	Progress to date
<p><b>Notice/Bulletin boards</b></p> <p>Maintenance of information notice board to include:</p> <ul style="list-style-type: none"> <li>▪ Name &amp; telephone number of facility</li> <li>▪ Opening &amp; operational hours</li> <li>▪ Emergency out of hours contact number</li> <li>▪ Names of various relevant personnel responsible for environmental matters</li> <li>▪ Licence reference number</li> </ul>	<ul style="list-style-type: none"> <li>▪ Completed</li> </ul>
<p><b>Communications programme</b></p> <p>Ensure all environmental information is available on request to public:</p> <ul style="list-style-type: none"> <li>▪ Monitoring Results</li> <li>▪ Pollution Emissions Register</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ongoing – all information is documented and stored in public access folders in the site office.</li> </ul>
<p><b>Public Complaints procedure</b></p> <ul style="list-style-type: none"> <li>▪ Ensure complaints record form is available at site office</li> </ul>	<ul style="list-style-type: none"> <li>▪ Complaints record form is available from site office.</li> </ul>




Appendix 1 Location of monitoring points



## Appendix 2 Certificates of analysis: Foul Water

Q1



**Environmental Efficiency**  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/29**

Emission point data

Client	Bergin waste disposal
Site	Ballaghderreen
Emission point	FW1
Licence type	Waste licence
Licence No.	W0163-01
Project Manager	Maria Rochford

Sampling data

Results for three monthly monitoring period starting 01/01/2008

Date sample collected	25/03/2008
Time sample collected	10:08
Sample collection	Method statement 812-03
Sample type	Sewer
Sample received at EEC	25/03/2008

Results


SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
13.07	COD	12111	02/04/2008	<15	500.0	15	mg/litre
06.67	BOD	n/a	30/03/2008	1.000	350.0	0	mg/litre
13.04	Suspended Solids	n/a	08/04/2008	0.000	300.0	0	mg/litre
03.00	pH	n/a	26/03/2008	7.290	6 to 8	0.01	pH
03.02	temperature		10/04/2008	DNP	N/K	-30	Celcius
06.52	Total Phosphates	not known	11/04/2008	0.054	2.000	0.03	mg/litre

DNP - Determination not possible. N/K - ELV not known. N/S - ELV not specified.  
LabManager Analysis v3.16.2

Signed (Lab Mgr) P. Sullivan (Project Mgr) Maria Rochford

Certificate of Analysis LF11 v1.18 Printed 15/04/2008 09:17:00
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Q2



**Environmental Efficiency**  
Consulting Engineers

Parrell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland

**Certificate of Analysis for Sample Number 812/32**

**Emission point data**

Client	Bergin waste disposal
Site	Ballaghderreen
Emission point	FW1
Licence type	Waste licence
Licence No.	W0163-01
Project Manager	Padraig O Shea

**Sampling data**

Results for three monthly monitoring period starting 01/04/2008

Date sample collected	23/06/2008
Time sample collected	14:00
Sample collection	Method statement 812-03
Sample type	Sewer
Sample received at EEC	25/06/2008

**Results**


SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
13.07	COD	1426	03/07/2008	<15	500.0	15	mg/litre
06.67	BOD	n/a	02/07/2008	2.000	350.0	0	mg/litre
13.04	Suspended Solids	n/a	02/07/2008	<5	300.0	5	mg/litre
03.00	pH	n/a	27/06/2008	6.940	6 to 8	0.01	pH
03.02	temperature	n/a	26/06/2008	DNP	N/K	-30	Celcius
13.14	Total Phosphates	14131	28/07/2008	<0.05	2.000	0.05	mg/litre

DNP - Determination not possible. N/K - ELV not known. N/S - ELV not specified.  
LabManager Analysis v3.19.1

Signed (Lab Mgr) P. Anoniffa (Project Mgr) Padraig O Shea

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Q3



**Environmental Efficiency**  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/36**

**Emission point data**

Client	Bergin waste disposal
Site	Ballaghderreen
Emission point	FW1
Licence type	Waste licence
Licence No.	W0163-01
Project Manager	Padraig O Shea

**Sampling data**

Results for three monthly monitoring period starting 01/07/2008

Date sample collected	13/08/2008
Time sample collected	12:00
Sample collection	Method statement 812-03
Sample type	Sewer
Sample received at EEC	14/08/2008

**Results**


SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
13.07	COD	1426	19/08/2008	<15	500.0	15	mg/litre
06.67	BOD	n/a	19/08/2008	2.000	350.0	N/K	mg/litre
13.04	Suspended Solids	n/a	19/08/2008	5.000	300.0	5	mg/litre
03.00	pH	n/a	16/08/2008	6.210	6 to 8	0.01	pH
03.02	temperature	N/A	13/08/2008	15.60	N/K	-30	Celcius
13.14	Total Phosphates	14131	18/08/2008	<0.15	2.000	0.05	mg/litre

N/K - ELV not known. N/S - ELV not specified.  
LabManager Analysis v3.21.1

Signed (Lab Mgr) *R. Duffin* (Project Mgr) *Padraig O Shea*

Certificate of Analysis LF11 v1.18 Printed 20/08/2008 10:28:00
Page 1 of 1

Q4



**Environmental Efficiency**  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/44**

Emission point data

Client	Bergin waste disposal
Site	Ballaghderreen
Emission point	FW1
Licence type	Waste licence
Licence No.	W0163-01
Project Manager	Padraig O Shea

Sampling data

Results for three monthly monitoring period starting 01/10/2008

Date sample collected	30/10/2008
Sample collection	Method statement 812-03
Sample type	Sewer
Sample received at EEC	31/10/2008

Results

SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
13.07	COD	1426	07/11/2008	<15	500.0	15	mg/litre
06.67	BOD	n/a	05/11/2008	2.000	350.0	N/K	mg/litre
13.04	Suspended Solids	n/a	11/11/2008	<5	300.0	5	mg/litre
03.00	pH	n/a	06/11/2008	7.440	6 to 8	0.01	pH
03.02	temperature		07/11/2008	DNP	N/K	-30	Celcius
13.14	Total Phosphates	14131	11/11/2008	<0.05	2.000	0.05	mg/litre

DNP - Determination not possible. N/K - ELV not known. N/S - ELV not specified.  
LabManager Analysis v3.25.0


Signed (Lab Mgr) *R. S. O'Shea* (Project Mgr) *Padraig O Shea*

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## Q2

	<b>Environmental Efficiency</b>	Parnell House, 19 Quinsboro Road, Bray Co. Wicklow, Ireland.
	Consulting Engineers	

**Certificate of Analysis for Sample Number 812/30**

Emission point data

Client	Bergin waste disposal
Site	Ballaghderreen
Emission point	SW1
Licence type	Waste licence
Licence No.	W0163-01
Project Manager	Padraig O Shea

Sampling data

Results for three monthly monitoring period starting 01/04/2008

Date sample collected	23/06/2008
Time sample collected	14:15
Sample collection	Method statement 812-02
Sample type	Surface water
Sample received at EEC	25/06/2008

Results

SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
03.00	pH	n/a	27/06/2008	7.110	N/K	0.01	pH
06.67	BOD	n/a	02/07/2008	1.000	N/K	0	mg/litre
13.04	Suspended Solids	n/a	02/07/2008	<5	N/K	5	mg/litre
99.42	Mineral oil	AI Control		<10	5.000	10	µg/litre

N/K - ELV not known. N/S - ELV not specified. Where a parameter is sub contracted: (1) the lab abbreviation is shown instead of a batch number (2) where date analysis or MDL is blank, then data not supplied by lab.

LabManager Analysis v3.19.0

Signed (Lab Mgr) *A. L. O'Shea* (Project Mgr) *Padraig O Shea*

Certificate of Analysis LF11 v1.18 Printed 16/07/2008 10:54:00 Page 1 of 1

Q3



**Environmental Efficiency**  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/34**

Emission point data

Client Bergin waste disposal  
Site Ballaghderreen  
Emission point SW1  
Licence type Waste licence  
Licence No. W0163-01  
Project Manager Padraig O Shea

Sampling data

Results for three monthly monitoring period starting 01/07/2008

Date sample collected 13/08/2008  
Time sample collected 11:30  
Sample collection Method statement 812-02  
Sample type Surface water  
Sample received at EEC 14/08/2008

Results

SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
03.00	pH	n/a	16/08/2008	6.150	N/K	0.01	pH
06.67	BOD	n/a	19/08/2008	1.000	N/K	N/K	mg/litre
13.04	Suspended Solids	n/a	19/08/2008	5.000	N/K	5	mg/litre
99.42	Mineral oil	*		<10	5000	10	µg/litre

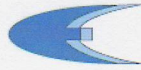
N/K - ELV not known. N/S - ELV not specified. Where a parameter is sub contracted: (1) \* is shown instead of a batch number (2) where date analysis or MDL is blank, then data not supplied by lab.  
LabManager Analysis v3.22.0

Signed (Lab Mgr) *R. S. S. S. S.*

(Project Mgr) *Padraig O Shea*



Q4



**Environmental Efficiency**  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/41**

Emission point data

Client Bergin waste disposal now trading as Barna Waste  
Site Ballaghderreen  
Emission point SW1  
Licence type Waste licence  
Licence No. W0163-01  
Project Manager Padraig O Shea

Sampling data

Results for three monthly monitoring period starting 01/10/2008  
Date sample collected 30/10/2008  
  
Sample collection Method statement 812-02  
Sample type Surface water  
Sample received at EEC 31/10/2008

Results


SOP	Parameter	Batch No.	Analysed	Result	ELV	Units
03.00	pH	n/a	06/11/2008	7.900	N/K	pH
06.67	BOD	n/a	05/11/2008	1.000	N/K	mg/litre
13.04	Suspended Solids	n/a	11/11/2008	<5.000	N/K	mg/litre
99.42	Mineral oil	*	17/11/2008	<10.00	5000	µg/litre

N/K - ELV not known. N/S - ELV not specified. Where a parameter is sub contracted; (1) \* is shown instead of a batch number (2) where date analysis or MDL is blank, then data not supplied by lab.  
LabManager Analysis v3.29.0

Signed (Lab Mgr).....*P. O'Shea*..... (Project Mgr).....*Padraig O'Shea*.....

## Appendix 4 Certificates of Analysis: SW2

Q1



**Environmental Efficiency**  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/27**

Emission point data

Client	Bergin waste disposal
Site	Ballaghderreen
Emission point	SW2
Licence type	Waste licence
Licence No.	W0163-01
Project Manager	Maria Rochford

Sampling data

Results for three monthly monitoring period starting 01/01/2008

Date sample collected	25/03/2008
Time sample collected	10:10
Sample collection	Method statement 812-02
Sample type	Surface water
Sample received at EEC	25/03/2008

Results

SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
03.00	pH	n/a	26/03/2008	7.360	N/K	0.01	pH
06.67	BOD	n/a	30/03/2008	2.000	N/K	0	mg/litre
13.04	Suspended Solids	n/a	08/04/2008	0.000	N/K	0	mg/litre
99.42	Mineral oil	AI Control		<10	5.000	10	µg/litre


N/K - ELV not known. N/S - ELV not specified. Where a parameter is sub contracted: (1) the lab abbreviation is shown instead of a batch number (2) where date analysis or MDL is blank, then data not supplied by lab.

LabManager Analysis v3.16.2

Signed (Lab Mgr) *K. Sutcliffe* (Project Mgr) *Maria Rochford*

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Q2



**Environmental Efficiency**  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/31**

Emission point data

Client	Bergin waste disposal
Site	Ballaghderreen
Emission point	SW2
Licence type	Waste licence
Licence No.	W0163-01
Project Manager	Padraig O Shea

Sampling data

Results for three monthly monitoring period starting 01/04/2008

Date sample collected	23/06/2008
Time sample collected	14:30
Sample collection	Method statement 812-02
Sample type	Surface water
Sample received at EEC	25/06/2008

Results

SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
03.00	pH	n/a	27/06/2008	7.360	N/K	0.01	pH
06.67	BOD	n/a	02/07/2008	1.000	N/K	0	mg/litre
13.04	Suspended Solids	n/a	02/07/2008	5.000	N/K	5	mg/litre
99.42	Mineral oil	AI Control		<10	5.000	10	µg/litre


N/K - ELV not known. N/S - ELV not specified. Where a parameter is sub contracted: (1) the lab abbreviation is shown instead of a batch number (2) where date analysis or MDL is blank, then data not supplied by lab.

LabManager Analysis v3.19.0

Signed (Lab Mgr) R. Anteauffe (Project Mgr) Padraig O Shea

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## Q3



**Environmental Efficiency**  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/35**

Emission point data

Client	Bergin waste disposal
Site	Ballaghderreen
Emission point	SW2
Licence type	Waste licence
Licence No.	W0163-01
Project Manager	Padraig O Shea

Sampling data

Results for three monthly monitoring period starting 01/07/2008

Date sample collected	13/08/2008
Time sample collected	11:40
Sample collection	Method statement 812-02
Sample type	Surface water
Sample received at EEC	14/08/2008

Results

SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
03.00	pH	n/a	16/08/2008	6.280	N/K	0.01	pH
06.67	BOD	n/a	19/08/2008	1.000	N/K	N/K	mg/litre
13.04	Suspended Solids	n/a	19/08/2008	6.000	N/K	5	mg/litre
99.42	Mineral oil	*		<10	5000	10	µg/litre

N/K - ELV not known. N/S - ELV not specified. Where a parameter is sub contracted: (1) \* is shown instead of a batch number (2) where date analysis or MDL is blank, then data not supplied by lab.  
LabManager Analysis v3.22.0

Signed (Lab Mgr) *R. A. ...* (Project Mgr) *Padraig O Shea*

Certificate of Analysis LF11 v1.18 Printed 12/09/2008 09:43:00 Page 1 of 1



Q4



**Environmental Efficiency**  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/42**

Emission point data

Client Bergin waste disposal now trading as Barna Waste  
Site Ballaghderreen  
Emission point SW2  
Licence type Waste licence  
Licence No. W0163-01  
Project Manager Padraig O Shea

Sampling data

Results for three monthly monitoring period starting 01/10/2008  
Date sample collected 30/10/2008  
  
Sample collection Method statement 812-02  
Sample type Surface water  
Sample received at EEC 31/10/2008

Results


SOP	Parameter	Batch No.	Analysed	Result	ELV	Units
03.00	pH	n/a	06/11/2008	7.560	N/K	pH
06.67	BOD	n/a	05/11/2008	1.000	N/K	mg/litre
13.04	Suspended Solids	n/a	11/11/2008	<5.000	N/K	mg/litre
99.42	Mineral oil	*	17/11/2008	<10.00	5000	µg/litre

N/K - ELV not known. N/S - ELV not specified. Where a parameter is sub contracted: (1) \* is shown instead of a batch number (2) where date analysis or MDL is blank, then data not supplied by lab. LabManager Analysis v3.29.0

Signed (Lab Mgr) *R. D. O'Shea* (Project Mgr) *Padraig O'Shea*



Q2



**Environmental Efficiency**  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/33**

Emission point data

Client                      Bergin waste disposal  
 Site                        Ballaghderreen  
 Emission point           SD1  
 Licence type              Waste licence  
 Licence No.                W0163-01  
 Project Manager          Pdraig O Shea

Sampling data

Results for three monthly monitoring period starting 01/04/2008

Date sample collected    23/06/2008  
 Time sample collected    15:00  
 Sample collection          Method statement 812-02  
 Sample type                Surface water  
 Sample received at EEC    25/06/2008

Results

SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
03.00	pH	n/a	27/06/2008	7.130	N/K	0.01	pH
06.67	BOD	n/a	02/07/2008	2.000	N/K	0	mg/litre
13.04	Suspended Solids	n/a	02/07/2008	<5	N/K	5	mg/litre
99.42	Mineral oil	AI Control		<10	5.000	10	µg/litre

N/K - ELV not known. N/S - ELV not specified. Where a parameter is sub contracted: (1) the lab abbreviation is shown instead of a batch number (2) where date analysis or MDL is blank, then data not supplied by lab.

LabManager Analysis v3.19.0

Signed (Lab Mgr) *K. Duggan* (Project Mgr) *Pdraig O Shea*

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O3



**Environmental Efficiency**  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/37**

Emission point data

Client Bergin waste disposal  
Site Ballaghderreen  
Emission point SD1  
Licence type Waste licence  
Licence No. W0163-01  
Project Manager Padraig O Shea

Sampling data

Results for three monthly monitoring period starting 01/07/2008  
Date sample collected 13/08/2008  
Time sample collected 12:15  
Sample collection Method statement 812-02  
Sample type Surface water  
Sample received at EEC 14/08/2008

Results

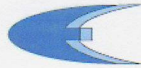
SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
03.00	pH	n/a	16/08/2008	6.430	N/K	0.01	pH
06.67	BOD	n/a	19/08/2008	1.000	N/K	N/K	mg/litre
13.04	Suspended Solids	n/a	19/08/2008	37.00	N/K	5	mg/litre
99.42	Mineral oil	*		<10	5000	10	µg/litre

N/K - ELV not known. N/S - ELV not specified. Where a parameter is sub contracted: (1) \* is shown instead of a batch number (2) where date analysis or MDL is blank, then data not supplied by lab.  
LabManager Analysis v3.22.0

Signed (Lab Mgr) *R. A. ...* (Project Mgr) *Padraig O'Shea*



Q4



**Environmental Efficiency**  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/43**

Emission point data

Client Bergin waste disposal now trading as Barna Waste  
 Site Ballaghderreen  
 Emission point SD1  
 Licence type Waste licence  
 Licence No. W0163-01  
 Project Manager Padraig O Shea

Sampling data

Results for three monthly monitoring period starting 01/10/2008  
 Date sample collected 30/10/2008  
 Sample collection Method statement 812-02  
 Sample type Surface water  
 Sample received at EEC 31/10/2008

Results

SOP	Parameter	Batch No.	Analysed	Result	ELV	Units
03.00	pH	n/a	06/11/2008	7.480	N/K	pH
06.67	BOD	n/a	05/11/2008	2.000	N/K	mg/litre
13.04	Suspended Solids	n/a	11/11/2008	<5.000	N/K	mg/litre
99.42	Mineral oil	*	17/11/2008	<10.00	5000	µg/litre


N/K - ELV not known. N/S - ELV not specified. Where a parameter is sub contracted: (1) \* is shown instead of a batch number (2) where date analysis or MDL is blank, then data not supplied by lab.  
 LabManager Analysis v3.29.0

Signed (Lab Mgr).....*P. J. ...*

(Project Mgr).....*Padraig O'Shea*

## Appendix 6 Certificate of analysis: Dust deposition

Tri-annual 1



ENVIRONMENTAL EFFICIENCY  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/23**

Emission point data

Client	Bergin waste disposal
Site	Ballaghderreen
Emission point	D1
Licence type	Waste licence
Licence No.	W0163-01
Project Manager	Maria Rochford

Sampling data

Results for four monthly monitoring period starting 01/01/2008

Date sample collected	22/01/2008
Sample collection	Method statement 812-01
Sample type	other
Sample received at EEC	22/01/2008

Results

SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
99.12	Total Dust Deposition	n/a	23/01/2008	25.45	350.0	1	mg/m2/day

LabManager Analysis v3.15.1

Signed (Lab Mgr).....*R. Antaipte*..... (Project Mgr).....*Maria Rochford*.....

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**Environmental Efficiency**  
Consulting Engineers

Farnell House,  
19 Quinsboro Road,  
Enny Co. Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/24**

Emission point data

Client Bergin waste disposal  
Site Ballaghderreen  
Emission point D2  
Licence type Waste licence  
Licence No. W0163-01  
Project Manager Maria Rochford

Sampling data

Results for four monthly monitoring period starting 01/01/2008  
Date sample collected 22/01/2008  
Sample collection Method statement 812-01  
Sample type other  
Sample received at EEC 22/01/2008

Results

SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
99.12	Total Dust Deposition	n/a	23/01/2008	188.4	350.0	1	mg/m <sup>2</sup> /day

LabManager Analysis v3.15.1

Signed (Lab Mgr) *A. Antaijfe* (Project Mgr) *M. Rochford*



**Environmental Efficiency**  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/25**

Emission point data

Client Bergin waste disposal  
Site Ballaghderreen  
Emission point D3  
Licence type Waste licence  
Licence No. W0163-01  
Project Manager Maria Rochford

Sampling data

Results for four monthly monitoring period starting 01/01/2008  
Date sample collected 22/01/2008

Sample collection Method statement 812-01  
Sample type other  
Sample received at EEC 22/01/2008

Results

SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
99.12	Total Dust Deposition	n/a	23/01/2008	42.34	350.0	1	mg/m2/day

LabManager Analysis v3.15.1

Signed (Lab Mgr) *R. Sutcliffe* (Project Mgr) *Maria Rochford*







**Environmental Efficiency**  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/39**

Emission point data

Client Bergin waste disposal  
Site Ballaghderreen  
Emission point D2  
Licence type Waste licence  
Licence No. W0163-01  
Project Manager Padraig O Shea

Sampling data

Results for four monthly monitoring period starting 01/05/2008  
Date sample collected 13/08/2008  
Sample collection Method statement 812-01  
Sample type other  
Sample received at EEC 14/08/2008

Results

SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
99.12	Total Dust Deposition	n/a	10/09/2008	1.150	350.0	1	mg/m <sup>2</sup> /day

LabManager Analysis v3.22.0

Signed (Lab Mgr) *R. A. O'Shea* (Project Mgr) *Padraig O'Shea*



**Environmental Efficiency**  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/40**

Emission point data

Client Bergin waste disposal  
Site Ballaghderreen  
Emission point D3  
Licence type Waste licence  
Licence No. W0163-01  
Project Manager Padraig O Shea

Sampling data

Results for four monthly monitoring period starting 01/05/2008  
Date sample collected 13/08/2008  
Sample collection Method statement 812-01  
Sample type other  
Sample received at EEC 14/08/2008

Results

SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
99.12	Total Dust Deposition	n/a	10/09/2008	150.6	350.0	1	mg/m2/day

LabManager Analysis v3.22.0

Signed (Lab Mgr).....*R. Subeiffa* (Project Mgr).....*Padraig O Shea*

Tri-annual 3

**Environmental Efficiency**  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland.

Certificate of Analysis for Sample Number 812/45Emission point data

Client Bergin waste disposal  
Site Ballaghderreen  
Emission point D1  
Licence type Waste licence  
Licence No. W0163-01  
Project Manager Padraig O Shea

Sampling data

Results for four monthly monitoring period starting 01/09/2008  
Date sample collected 31/10/2008

Sample collection Method statement 812-01  
Sample type other  
Sample received at EEC 03/11/2008

Results

SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
99.12	Total Dust Deposition	n/a	12/11/2008	74.76	350.0	1	mg/m2/day

LabManager Analysis v3.25.0

Signed (Lab Mgr) *R. Sutcliffe* (Project Mgr) *Padraig O Shea*





**Environmental Efficiency**  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/46**

Emission point data

Client Bergin waste disposal  
Site Ballaghderreen  
Emission point D2  
Licence type Waste licence  
Licence No. W0163-01  
Project Manager Pdraig O Shea

Sampling data

Results for four monthly monitoring period starting 01/09/2008  
Date sample collected 31/10/2008  
Sample collection Method statement 812-01  
Sample type other  
Sample received at EEC 03/11/2008

Results

SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
99.12	Total Dust Deposition	n/a	12/11/2008	54.39	350.0	1	mg/m2/day

LabManager Analysis v3.25.0

Signed (Lab Mgr) *R. Sweeney*

(Project Mgr) *P. O'Shea*



**Environmental Efficiency**  
Consulting Engineers

Parnell House,  
19 Quinsboro Road,  
Bray Co. Wicklow,  
Ireland.

**Certificate of Analysis for Sample Number 812/47**

Emission point data

Client Bergin waste disposal  
Site Ballaghderreen  
Emission point D3  
Licence type Waste licence  
Licence No. W0163-01  
Project Manager Padraig O Shea

Sampling data

Results for four monthly monitoring period starting 01/09/2008  
Date sample collected 31/10/2008  
Sample collection Method statement 812-01  
Sample type other  
Sample received at EEC 03/11/2008

Results

SOP	Parameter	Batch No.	Analysed	Result	ELV	MDL	Units
99.12	Total Dust Deposition	n/a	12/11/2008	258.7	350.0	1	mg/m2/day

LabManager Analysis v3.25.0

Signed (Lab Mgr) *R. Sweeney* (Project Mgr) *Padraig O Shea*

## **Appendix 7 Environmental Noise Survey**

**Appendix 8 Bund Integrity Assessment 2007**

Appendix 9: AER/PRTR Emission Data Information

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

RELEASES TO AIR										
POLLUTANT		METHOD			QUANTITY					
Pollutant No.	Name	M/C/E	Method Used		D1	D2	D3	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description	Emission Point 1	Emission Point 2	Emission Point 3			
210	Dust	M	PER	Bergerhoff TA Luft VD2119 method	5368.2	4878.8	9032.8	19279.8	0.0	0.0

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

RELEASES TO WATERS										
POLLUTANT		METHOD			QUANTITY					
Pollutant No.	Name	M/C/E	Method Used		SW1	SW2		T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description	Emission Point 1	Emission Point 2	Emission Point 3			
303	BOD	M	PER		90.0	75.0	0.0	165.0	0.0	0.0
240	Suspended Solids	M	PER	Gravimetric	225.0	240.0	0.0	465.0	0.0	0.0
324	Mineral oils	M	PER	analysed by an accredited lab	0.6	0.6	0.0	1.2	0.0	0.0

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

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE- WATER TREATMENT OR SEWER								
POLLUTANT		METHOD			QUANTITY			
Pollutant No.	Name	M/C/E	Method Used		FW1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description	Emission Point 1			
303	BOD	M	PER		105.0	105.0	0.0	0.0
306	COD	M	PER		900.0	900.0	0.0	0.0
240	Suspended Solids	M	PER	Gravimetric	225.0	225.0	0.0	0.0