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environmental management for business

ANNUAL ENVIRONMENTAL REPORT

GREENSTAR LTD.

INTEGRATED WASTE MANAGEMENT FACILITY

FASSAROE, BRAY,

COUNTY WICKLOW

LICENCE NO. W0053-03

JANUARY – DECEMBER 2013

Prepared For: -

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Fassaroe,
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31st March 2014

Project	Annual Environmental Report 2013			
Client	Greenstar Ltd. W0053-03			
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1. INTRODUCTION

This is the 2013 Annual Environmental Report (AER) for the Greenstar Ltd. (in receivership) (Greenstar), Materials Recovery & Transfer facility (MRF) at Fassaroe, County Wicklow. It covers the period from the 1st January 2013 to the 31st December 2013. During the reporting period, Greenstar was in receivership but ownership of the company and transfer of the licence to Starrus Eco Holdings Ltd (trading as Greenstar) was completed in March 2014.

The content is based on Schedule G of the Waste Licence (Reg. No. W0053-03) and the report format follows guidelines set in the "Guidance Note for Annual Environmental Report" issued by the Environmental Protection Agency (Agency)[1]. Account is also taken of the AER Draft Guidance Document and AER Information Templates issued by the Agency in January 2013[2].

[1] EPA (Environmental Protection Agency) 1999 Waste Licensing – Draft Guidance on Environmental Management Systems and Reporting to the Agency

[2] EPA (Environmental Protection Agency) 2012 Draft AER Guidance Document

2. SITE DESCRIPTION

2.1 Site Location & Layout

The facility is located close to the N11 at Fassaroe, Bray, County Wicklow. The site comprises three main waste processing buildings, the original transfer building located close to the site entrance at the southern side of the site and adjoining Phase 1 & 2 waste processing buildings which are located in the centre of the site. There is also an new administration building incorporating office, canteen and toilet facilities; a vehicle wash; 2 no. weighbridges and a weighbridge office; office type portacabins (formerly used as offices); truck and empty skip parking areas and vehicle maintenance shed which is adjacent the original transfer building.

2.2 Waste Management Activities

The depot is an integrated waste management facility. The licence allows for the following activities:

- bulking of municipal solid waste prior to transfer off-site for disposal;
- in-vessel composting of biodegradable waste;
- wood shredding;
- processing/storage of dry recyclables;
- recovery of construction and demolition waste;
- acceptance of waste at a civic waste facility, which includes hazardous waste such as bonded asbestos waste, WEEE and chlorofluorocarbons.

With the exception of composting, which has not yet started, all of the other activities are on-going. In December 2009, the agency technically amended the licence to allow for a change to the hours of operation so that Greenstar can carry out indoor processing of dry mixed recyclable material on a 24-hour day, 7-day week basis in the Phase 1 processing building.

With the exception of this activity, the facility can be operated only during the hours of 7:30 to 21:00 Monday to Saturday inclusive as conditioned in the Licence.

2.2.1 Waste Type & Processes

The facility is licensed to accept a maximum of 200,000 tonnes of waste annually. This comprises the following waste types and volumes, as specified in Schedule A of the Licence: -

- Household and Commercial (143,560 tonnes),
- Construction & Demolition (54,040 tonnes),
- Hazardous (2,400 tonnes).

The following processes are carried out:

Mixed Municipal Solid Waste (MSW)

All mixed MSW containing a putrescible fraction is handled inside the original Transfer Building. The incoming waste is deposited on the floor of the building and is then either pushed into an open trailer or compacted, for removal and disposal at an approved off-site residual landfill facility.

Dry Mixed Recyclables (DMR)

DMR is deposited onto the floor of the Phase 1 Transfer Building. Mixed DMR is separated, using a sorting line, into paper, cardboard, aluminium, steel, plastic bottles and plastic film fractions, which are then baled separately and stored pending removal for recycling. Source segregated DMR is baled directly and stored pending consignment.

Non Putrescible Commercial and Industrial (C&I)

Non putrescible C&I waste delivered by waste contractors is off-loaded in the Phase 2 building. Non putrescible C&I from the site's civic waste facility (public and commercial enterprises) is transferred to the Phase 2 building.

The processing is carried out indoors. The materials are pre sorted to remove bulky items and the remaining waste is fed into the C&I/C&D processing line. A 3D trommel is used to remove oversize items and the material then passes through a star-screener unit to remove the fine fraction containing subsoil and topsoil. Over-band magnets are used to separate ferrous metals from the waste. Material is passed through a picking station to remove metals, concrete/stone, timber, hard plastics and residual material.

The concrete/stone is sent to the on-site screener for further processing. Timber is sent to the on-site timber shredder. Metals are stored pending consignment from the site to an approved facility.

Construction and Demolition (C&D) Waste

The material is processed inside the Phase 2 building using the same processing line as for the C&I wastes described above. The fines are sent to landfill for use as cover material. The concrete/stone is sent to the on-site screener. Timber is sent to the on-site timber shredder. Metals are stored pending consignment from the site.

Wood, Timber and Green Waste

The wood and timber recovered on-site is shredded externally in the north of the site and sent off-site for disposal or recovery. Untreated timber accepted at the site is classed as A-grade timber and segregated from treated & recovered timber.

Green waste is stored pending transfer to an off-site composting facility. Although the Licence allows for in-vessel composting of biodegradable waste, this has not yet started.

Civic Amenity Area

The civic amenity area is located to the Northwest of the original Transfer Building. There are a number of closed 14 yard skips for MSW and separate bays for timber, green waste, metals and mixed wastes.

Hazardous Wastes

The Licence allows the acceptance of small volumes of hazardous waste at the civic amenity area (WEEE, bonded asbestos materials and chlorofluorocarbons). These wastes are stored in the waste quarantine area in suitable receptacles pending removal off site to approved facilities.

2.2.2 Plant List

A list of the plant in use at the facility is given in Table 2.1. The plant provides 100% duty and 50% standby for waste processing.

Table 2.1 Existing Plant

No.	Plant	Model	Processing Capacity
1	Fuchs Grab F4	MHL340	30t/hr
1	Liebherr Grab/Excavator	R914	60t/hr
1	Volvo Loading Shovel	L70E	20t/hr
1	Liebherr Loading Shovel	564	85t/hr
1	Volvo Loading Shovel	L90	85t/hr
1	Hyster Forklift		40hr/wk
2	Toyota Forklifts		40hr/wk
1	DMR Process line	Turmec	8t/hr
1	DMR Baler	Bollegraaf HBC 60	70t/day
1	Generator		standby
1	C&I/C&D Process Line	Waltec	35t/hr
1	Erin Stone Screener	Fingerscreen	400t/day
1	Hammel Timber Pre Shredder	VB 750 D	30t/hr
1	Beast Timber shredder	3680	40t/hr
1	Tractor	Massey Ferguson 4255	2hr/wk
1	MSW compactor		80t/day
1	Weighbridge 2 Scales	RiteWeigh Aran Series 18 m	62hr/wk

3. EMISSION MONITORING

Greenstar implements a comprehensive environmental monitoring programme to assess the significance of emissions from site activities. The programme for 2013 included groundwater, surface water, leachate, sewer emissions, landfill gas, noise and dust monitoring. The monitoring locations are shown on Figure 3.1. The monitoring results are submitted to the Agency at quarterly intervals. An overview of the monitoring conducted in the reporting period is presented in this Section, with summary data tables in Appendix 1.

3.1 Groundwater

There are four (4) on-site groundwater monitoring wells (BH-2, BH-5, BH-6 and BH-7). Monitoring wells BH-2, BH-5 and BH-7 are positioned downgradient of the former landfill area while BH-6 is upgradient. The upgradient monitoring well (BH-6) was installed in March 2009 to replace the previous well which was removed during construction of the administration building. This location was dry throughout 2013.

3.1.1 Groundwater Levels

Groundwater levels were recorded at quarterly intervals in each of the wells. Based on the level data the direction of groundwater flow is north easterly.

3.1.2 Groundwater Quality

Observation 2 of the Agency's audit report for the Fassaroe Depot (W0053-03) dated the 26th April 2012 relates to the fact that the existing up-gradient well (BH-6) has been dry for a number of monitoring events. The Agency required Greenstar to complete an investigation of the feasibility of using an offsite groundwater well for monitoring purposes. A report was submitted to the Agency in June 2012 following this investigation confirming that there are no offsite upgradient groundwater wells suitable for use. In the absence of a suitable alternative off-site upgradient monitoring point and, for the purposes on interpreting the groundwater monitoring results, the Agency agreed to assume that the groundwater upgradient of the Greenstar facility is typical of unpolluted Irish groundwater.

Groundwater "Warning Levels" were agreed for use by the Agency on the 17th December 2013. These Warning Levels are to be recalculated annually as part of the annual environmental report (AER) and implemented in the following reporting year.

These warning levels were used from Q-4 2013 onwards. The recalculated Warning levels for 2014 are summarised in Table 3.1.

Table 3.1 2014 Groundwater Warning Levels

2014 Revised Warning Levels	EC	Ammonia	Chloride	pH
BH-2	3.400	0.62	96.53	8.26
BH-5	3.312	0.47	74.45	8.13
BH-7	0.990	2.66	33.03	8.53

Groundwater quality was monitored at quarterly intervals. The sampling and analysis was carried out in accordance with recognised quality assurance and control procedures. The range of quarterly and annual analysis was as specified in Schedule C of the Waste Licence and includes pH, electrical conductivity, organic, inorganic and microbiological parameters. The summary of the results is included in Appendix 1.

The water quality in the three wells was generally consistent with that established in the previous monitoring and is generally reflective of the sites historic use as a landfill. The facility operated as both a quarry and landfill between 1947 and 2000. In 2006 Greenstar submitted proposed groundwater trigger levels to the Agency for its approval. The Groundwater warning levels were not exceeded in 2013.

The level of ph detected in the wells has been consistent since 1999. The levels of chloride detected has fallen between 1999 and 2013. The levels of EC and potassium in BH-2 have been relatively consistent between 2006 and 2013. The level of calcium and sulphate increased in BH-2 and BH-5 between 2005 and 2006. The levels of calcium and sulphate have been consistent between 2006 and 2013.

3.1.3 Estimated Annual and Cumulative Quantity of Emissions to Groundwater

There are no direct emissions to groundwater. Indirect emissions include incident rainfall and storm water run-off from some of the paved areas. There were no changes to the site layout and operation during the reporting period that resulted in new or additional sources of direct or indirect discharges to groundwater.

All surface water from the paved areas is diverted away from the filled areas thereby reducing the potential indirect impact of surface water on groundwater quality. Rainwater from roofed areas is now diverted to a water harvesting tank for use in dust suppression. Section 3.2 discusses the quantities of emissions to surface water.

NOTES

LEGEND: MONITORING LOCATIONS

Denotes Monitoring Location
(BH, GAS and LEACHATE)
(SURFACE WATER, SEWER and DUST)

#	I.D.	EASTING	NORTHING
1	SE-1	324309.01	218051.50
2	BH5/GS-01	324311.85	218157.81
3	BH/GS-02	324212.67	218255.62
4	BH-6	324212.67	218266.62
5	BH-7	324330.71	217905.07
6	GS-05	324331.23	218071.80
7	GS-07	324146.36	218021.76
8	GS-08	324118.57	218049.52
9	GS-09	324094.55	218100.07
10	GS-11	324100.93	218272.43
11	L-01	324231.96	218165.23
12	L-02	324108.57	218077.92
13	L-03	324552.44	218035.59
14	SW-1	324132.36	218322.94
15	SW-2	324247.97	218240.29
16	SW-3	324326.38	218166.72
17	SW-4	324359.53	218124.20
18	SW-5	324289.90	218185.10
19	N1	324310.04	217965.54
20	N2	324313.86	218013.03
21	N3	324325.62	218143.04
22	N4	324209.97	218262.19
23	NSL1	324305.76	217858.30
24	NSL2	324299.20	217845.31
25	DS-01	324122.92	218288.56
26	DS-02	324265.71	218205.11
27	DS-03	324315.24	218005.08
28	DS-04	324161.16	218013.86

REV	DATE	DESCRIPTION	DRN	CHKD	APP
A	05.06.2008	LAYOUT	MW	JOC	JOC

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CLIENT

GREENSTAR

TITLE

SITE LAYOUT
FASSAROE
Monitoring Locations

SCALE	FIGURE No.	REV.
1250 A3	3.1	A

3.2 Surface Water

The surface water drainage system in and around the site is dominated by the proximity of the Glenmunder Stream along the north eastern boundary. The Glenmunder ultimately drains to the River Dargle, which is a designated salmonid river. Surface water run-off from the roof of the new administration building and new car park area discharges to the Glenmunder via a silt trap and oil interceptor.

Surface water quality is monitored at four locations (SW-1, SW-2, SW-3 and SW-4) on the Glenmunder and at one discharge point from the facility to the Glenmunder (SW-5). SW-1 is upstream of the site, SW-2 and SW-3 are along the site boundary and SW-4 is downstream of the site. SW-5 is the discharge point for rainfall runoff from the roof of the administration building and the car park area to the Glenmunder. Quarterly surface water sampling was carried out at all surface water locations in 2013.

The monitoring was conducted at quarterly intervals and included in-situ and laboratory testing. The range of analysis was as specified in Schedule C of the Waste Licence and includes dissolved oxygen, pH, electrical conductivity, and organic and inorganic parameters. The sampling and analysis was carried out in accordance with recognised quality assurance and control procedures. A summary of the monitoring results are included in Appendix 1.

The monitoring has confirmed that the surface water quality is generally consistent with that in a rural area and there is no evidence that site activities or the surface water discharge at SW-5 is impacting on the stream. Ammonia, and total suspended solids were detected at SW-5 throughout the year at levels greater than detected upstream of the discharge to the Glenmunder. The levels of indicator parameters including pH, conductivity, total suspended solids, chloride, ammonia, BOD and COD detected upstream and downstream of SW-5 indicate that the site is not having any impact on the surface water quality downstream of the site.

The last biological assessment of the Glenmunder River was submitted to the Agency on the 11th November 2013. A biological assessment is carried out every two years and will be carried out again in 2015. The 2013 assessment showed a slight drop in water quality since 2011. The Q value is now Q2-3 indicating the stream is moderately polluted. Water quality in 2013 both up and down stream is classed as poor and at risk. There are no significant differences recorded between the upstream and downstream location therefore it is assumed that the drop in quality can be ascribed to an impact occurring upstream of SW-1.

3.3 Wastewater

Wastewater from the facility (floor wash downs, vehicle washing) discharges to the municipal foul sewer. A wastewater sample was collected monthly from monitoring location SE-1. It was not possible to collect samples in July 2013, as there was no flow at the monitoring location. The range of analysis was as specified in Schedule C of the licence and included pH, COD, BOD, suspended solids, sulphates, oils, fats and greases, mineral oils and

detergents. The monitoring results are included in Appendix 1. A technical amendment to the licence was issued on the 16th October 2013 which increased to daily maximum volume of waste water which is permitted to discharge from the site from 23m^3 to 125m^3. Revised ELVs were also specified in the technical amendment. The facility was 100% compliant with the Emission Limit Values (ELVs) set in the Licence in 2013.

3.4 Leachate

Leachate is generated by rainfall in the former landfill area. There are three leachate monitoring wells the locations of which are shown on the drawing in Figure 3.1.

3.4.1 Leachate Levels

Levels were monitored at monthly intervals during the reporting period. In general the wells were either dry or contained very small volumes of liquid at the base which could not be sampled. As these wells have been consistently dry OCM investigated the feasibility of using the on-site gas wells as leachate monitoring points. The gas wells GS-07 and GS-08 were identified as suitable leachate monitoring points.

3.4.2 Leachate Quality

Leachate samples were collected from GS-07 and GS-08 in Q-3 and Q-4. The results are not indicative of either the presence of a typical landfill leachate, or significant leachate contamination at these locations. Both locations are within the waste body but are located at the upgradient side and are close to the interface between the waste body and natural ground. The leachate results are summarised in Appendix 1.

3.5 Landfill Gas

Monitoring was carried out in accordance with Schedule C of the Waste Licence. The monitoring locations specified in the Licence include seven landfill gas wells (GS-05, GS-07, GS-08, GS-09, GS-10 and GS-11), the groundwater monitoring wells (BH-2, BH-5, BH-6 and BH-7) and the leachate boreholes (L-01, L-02 and L-03).

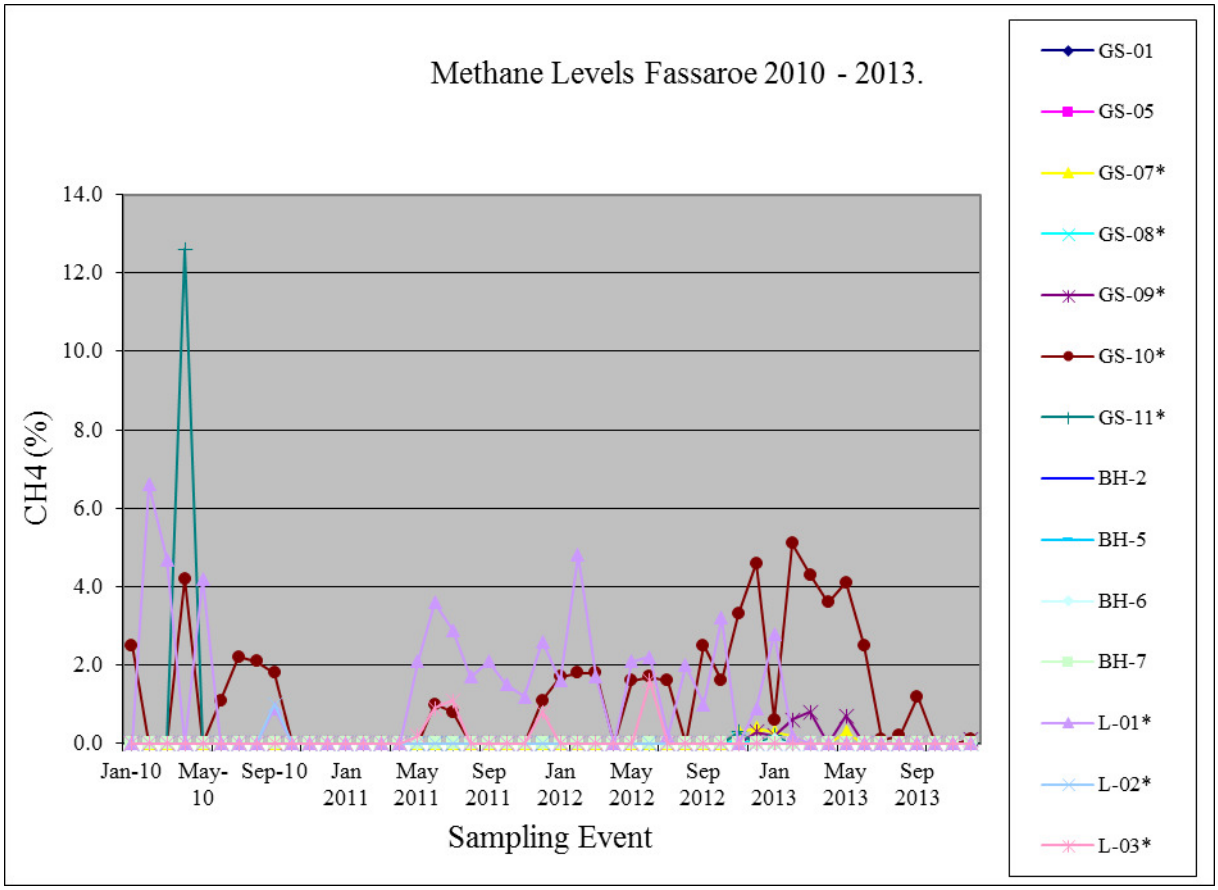
GS-01, GS-05, BH-2, BH-5, BH-6 and BH-7 are located outside the fill area. GS-07, GS-08, GS-09, GS-10, GS-11, L-01, L-02 and L-03 are located in the fill area. The nearest buildings to the filled area are the waste processing buildings and the site offices. OCM conducted gas monitoring in the waste processing buildings and the site offices during all monitoring events and the results are included in Appendix 1. The monitoring did not detect the presence of carbon dioxide or methane in any of the buildings.

Out of one hundred and fifty four landfill gas measurements made during the reporting period, methane was detected on twenty two (22) occasions in wells located in the fill area. The highest levels detected was 5.1% in GS-10 in October 2013. Methane was not detected

above the trigger level in any of the wells outside the waste body. With the exception of GS-10 the levels of methane detected across the site have decreased since 2010 (Figure 3.2). Carbon Dioxide was not measured at levels above the trigger level (1.5% v/v) on one (1) occasion in wells outside the waste body. The highest level detected was 1.7% at BH-6. The monitoring results do not indicate that landfill gas is migrating from the former fill area. Since 2000, the monitoring programme has established that carbon dioxide levels in a number of the gas wells outside the waste body have exceeded trigger levels however methane has never exceeded the trigger levels in any of these wells.

The exceedances of the carbon dioxide trigger levels have neither been immediately reported nor treated as incidents issued as the levels are not unexpected i.e. they are not the result of incidents. Instead, to the Agency's satisfaction and agreement, results have been discussed in each quarterly report submitted for the facility.

Figure 3.2 Methane Levels 2010-2013.



3.5.1 Landfill Gas Volumes

The occasional elevated carbon dioxide concentrations and the occasional presence of methane indicate that some degree of degradation of organic waste is occurring within the fill area. Based on the available information on the site history it appears that some biodegradable material may historically have been deposited at the site. The monitoring results do not indicate that landfill gas is migrating from the former fill area.

Given that the type and quantity of the biodegradable waste deposited on-site is not known, it is impossible to predict the volumes of landfill gas that may be generated. However, the monitoring results indicate that the volume of such degradable material is likely to be small and will reduce over time.

3.5.2 Landfill Gas Control

The design of the recently constructed structures at the site, specifically the Phase 2 processing building and the new administration building, incorporate sub-surface landfill gas protection measures and recent landfill gas monitoring in buildings around the site have not detected methane or elevated levels of carbon dioxide. There is no landfill gas control system on-site. The landfill gas concentrations measured in the routine monitoring programme indicate there is no need for such control measures. However, this will be kept under review based on the results of the on-going landfill gas monitoring programme.

3.6 Noise Survey

Noise monitoring was carried out at the four on-site noise monitoring locations, N-1, N-2, N-3 and N-4 specified in the licence and two off-site noise sensitive locations NSL1 and NSL2 in Q-1 and Q-2 of 2013. The surveys were conducted when the site was fully operational and a summary of the results are included in Appendix 1.

Following agreement with the Agency the frequency of noise monitoring has been reduced to once a year in 2014 with two noise monitoring event required in 2013. The 2014 annual noise monitoring will be carried out in accordance with the Agency's revised Noise Guidance Note (NG4), 2012, *Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities.*

The facility was found to be in compliance with the licence conditions. Although recorded noise levels were on occasions above the 55 dB(A) limit set in the licence, noise emissions from the facility were not audible above this limit. Offsite noise sources particularly traffic contributed significantly to the local noise environment.

3.7 Dust Monitoring

Dust monitoring is carried out monthly at four monitoring locations, DS-01, DS-02, DS-03 and DS-04. DS-01 is located at the northern portion of the facility within the site boundaries and approximately 250 m from the nearest sensitive receptor. DS-02 is located away from operational areas, close to a formerly vegetated area along the northern boundary. This location is at the edge of the car park for the administration building. DS-03 is located within the site boundary close to the car park and to the east of the site weighbridges. DS-04 is located on the southern boundary of the facility at the top of an embankment. The site was 100% compliant with the dust limit (the limit is 350mg/m^2/day).

4. SITE DEVELOPMENT WORKS

4.1 Specified Engineering Works

There were no specified engineering works carried out in 2013.

4.2 Site Restoration

No site restoration works were carried out in 2013.

4.3 Site Development

No site development was undertaken in 2013.

4.4 Summary of Resource & Energy Consumption

Table 4.1 presents an estimate of the resources used on-site during the reporting period.

Table 4.1 Estimates of Resources Used On-Site 2013

Resources	2012	2013
Diesel	217,582 litres	138,530 litres
Hydraulic, Transmission and Engine Oil	3,500 litres	8,371 litres
Gear Oil	120	40
Electricity	966,452 kWh	901,388 kWh
Gas	566,460 kWh	85,741 kWh

5. WASTE RECEIVED AND CONSIGNED FROM THE FACILITY

Table 5.1 shows the quantities of wastes accepted and consigned for the reporting period. A more detailed description of the wastes received and consigned in 2013 is presented in the PRTR submission in Appendix 3.

The total quantity of waste received was 92,433.67 tonnes and the total amount consigned was 91,018.94 tonnes. The waste received and consigned in 2012 and 2013 are presented in Tables 5.1 and 5.2. For comparative purposes the amounts of waste received and consigned from 2006 to 2013 are presented in Table 5.3. As per Condition 11.12 of the Licence all the wastes consigned from the site went to authorised recovery and disposal facilities and a copy of the relevant Facility Permit or Waste Licences retained on site for Agency inspection.

The records show that less waste was consigned from the site than accepted. The difference was 1,414.73 tonnes. This is due to material being stored in the facility prior to consignment in Q-1 2014.

Table 5.1 Waste Received and Consigned 2013

EWC	Description	Waste In	Waste Out
020104	waste plastics (except packaging)	12.20	-
070514	solid wastes other than those mentioned in 07 05 13	53.60	-
080399	wastes not otherwise specified	0.25	-
100101	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)	4.28	-
101008	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07	-	28.62
110110	sludges and filter cakes other than those mentioned in 11 01 09	28.24	-
130208	other engine, gear and lubricating oils	-	2.40
150101	paper and cardboard packaging	4966.82	9,050.56
150102	plastic packaging	417.84	2,569.61
150103	wooden packaging	1306.36	43.40
150104	metallic packaging	44.95	468.10
150105	composite packaging	11.60	-
150106	mixed packaging	25662.88	-
150107	glass packaging	7.97	27.10
150109	textile packaging	0.22	-
160504	gases in pressure containers (including halons) containing dangerous substances	-	1.34
160601	lead batteries	-	1.16
170201	wood	3.32	-
170203	plastic	28.76	-
170402	aluminium	-	6.36
170904	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	3118.16	-
190112	bottom ash and slag other than those mentioned in 19 01 11	-	4.28
190801	screenings	236.01	460.46
190802	waste from desanding	219.62	-
191201	paper and cardboard	-	9,533.04
191202	ferrous metal	-	1,551.93
191207	wood other than that mentioned in 19 12 06	60.76	2,441.18
191209	minerals (for example sand, stones)	1612.68	16,416.14
191212	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	8389.86	38,913.46
200101	paper and cardboard	556.80	-
200102	glass	1.75	-
200108	biodegradable kitchen and canteen waste	752.41	391.92
200111	textiles	31.14	-
200136	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	11.85	3.36
200138	wood other than that mentioned in 20 01 37	945.26	1.60
200139	plastics	52.72	98.32
200140	metals	148.25	-
200201	biodegradable waste	1367.98	3,358.92

200301	mixed municipal waste	20343.24	3,230.52
200303	street-cleaning residues	138.84	22.10
200307	bulky waste	21854.49	2,319.58
200135*	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components (6)	42.56	73.48
	Total Received	**92,433.67**	
	Total Consigned		**91,018.94**
	Total Disposed		**36,312.43**
	Total Recovered		**54,706.51**
	Recovery Rate (%)		**60.10**

Table 5.2 Waste Received & Consigned 2012

EWC	Description	Waste In	Waste Out
07 05 14	LD Filter Cake	21.58	
08 03 99	Cartridges	0.25	
10 02 11	Oil Filters		0.18
13 02 08	Waste Oil		0.74
15 01 01	Segregated cardboard & paper packaging (e.g. corrugated cardboards, paper wrapping & bags)	8,241.77	11,982.77
15 01 02	Segregated plastic packaging (e.g. PVC, PET & PE bottles & jars, plastic bags, food wrappers)	403.76	3,107.07
15 01 03	Segregated wood packaging (e.g. crates, cartons, cheese boxes, fruit trays)	1,332.01	21.52
15 01 04	Segregated metal packaging - aluminium cans	73.81	267.66
15 01 05	Segregated tetrapacks	85.41	
15 01 06	Segregated mixed packaging	6,430.00	
15 01 07	Segregated glass packaging (e.g. bottles, jars)		26.94
15 01 09	Reused IBC	0.12	
16 01 03	Tyres		18.10
16 05 04	Haz Gas Cylinders		0.92
16 06 01	Lead Battery		4.94
17 04 11	Cable	1.92	
17 05 04	Soil & Stones	5.95	
17 09 04	Mixed C&D waste	33,28.22	
19 05 99	Stabilised MSW fines	2,564.02	2,589.38
19 12 04	Plastics and rubber from mechanical treatment	4.84	
19 12 07	Processed wood (e.g. chipped/shredded wood)		7,023.96
19 12 09	Minerals from mechanical treatment (e.g. inorganic fines, sand, stones)		17,900.42
19 12 12	Mixed Municipal Waste	218.89	19,949.82
20 01 01	Paper & cardboard from municipal sources	818.99	17,522.61
20 01 02	Glass from municipal sources	5.56	11.65
20 01 08	Commercial food waste e.g. canteens, restaurants	906.61	372.68
20 01 11	Textiles	33.32	2.34
20 01 25	Fats	8.84	
20 01 23	Haz Fridge Freezer		2.26
20 01 35	WEEE	34.62	12.72
20 01 38	Wood waste from municipal sources (e.g. furniture)	1,445.86	
20 01 39	Plastic from municipal sources	45.16	139.88
20 01 40	Metals from municipal waste e.g. light iron	178.41	1,531.26
20 01 99	Grease Trap Collection	0.01	
20 02 01	Green Waste	1,445.83	1,271.48
20 03 01	Mixed residual waste (typically black bin)	66,711.91	41,491.21
20 03 03	Street-cleaning residues	21.90	21.90
20 03 07	Bulky waste	26,997.75	387.46
	Total Received	**121,367.30**	
	Total Consigned		**125,661.87**
	Recovered		**84,454.83**
	Disposed		**41,207.30**
	Recovery Rate		**67%**

Table 5.3 Total Tonnages Received, Consigned & Recovered in 2005-2013

Year	Total Received	Total Consigned	Total Recovered	Recovery Rate
2013	92,433.67	91,018.94	54,706.51	66.10%
2012	121,367.30	125,661.87	84,454.83	67.02%
2011	13,8048	155,995	92,492.16	67%
2010	142,365.00	143,248.24	64,494.98	45.02%
2009	135,386.12	122,331.95	61,297.98	50.10%
2008	152,695.89	138,814.22	10,828.00	54.34%
2007	192,679.93	198,371.37	39,186.00	54.90%
2006	170,600.44	119,836.93	80,328.43	72%
2005	178,735.42	110,077.96	60,504	50%

6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS

6.1 Incidents

The routine monitoring programme identified one incident during the reporting period associated with exceedance of the landfill gas emission limit for carbon dioxide on one occasion as described in Section 3. Landfill gas concentrations are monitored on a monthly basis at the facility. Up until to now, the minor exceedances of the carbon dioxide trigger levels have neither been immediately reported nor treated as incidents issued as the levels are not unexpected i.e. they are not the result of incidents. Instead, to the Agency's satisfaction and agreement, results have been discussed in each quarterly report submitted for the facility. A summary of the incidents is shown on Table 6.1.

There were no other reportable incidents in 2013.

Table 6.1 Summary of Incidents and Exceedance of Gas Emission Limits

Nature of Incidents	Cause	Corrective Action
Carbon dioxide exceeded the trigger limit at monitoring borehole: GS-06.	Possible anaerobic degradation of small quantities of organic waste.	Continue routine monitoring to determine if landfill gas is being produced in significant quantities and is migrating off-site.

6.2 Register of Complaints

Greenstar maintains a register of complaints received in accordance with Condition 11.7 of the waste licence. One complaint was received on the 8th November 2013 related to odour. Greenstar immediately investigated the complaint and traced the odour to an odorous skip. The material was removed and the floor of the MRF building cleaned following which the odour dissipated. Greenstar visited the complainant and apologised and advised them of the investigation and outcome.

7. ENVIRONMENTAL DEVELOPMENT & CONTROL

7.1 Environmental Management Programme Report

Greenstar have implemented an Integrated Management System (IMS) in accordance with the requirements of Occupational Health and Safety Assessment Series (OHSAS) 18001:2007 and International Standard Organisation (ISO) 14001:2004 in order to manage the Health, Safety and Environmental performance of their business and to control health and safety risk and to minimise their environmental aspects and impacts.

The IMS has been developed for the achievement of continual improvement taking into the requirements of the Waste Licence Conditions. Greenstar has prepared and effectively implement documented procedures and instructions in accordance with the requirements of both the OHSAS 18001:2007 and ISO 14001:2004 and the site has been certified to these standards since 2010.

As part of this IMS, Greenstar has developed a list of environmental, management, operating and maintenance procedures, details of which are outlined in Appendix 2. The schedule of Objectives and Targets, including their status for 2013 (Table 7.1), as well as the proposed Objectives and Targets for 2014 (Table 7.2) are presented below.

7.1.1 Site Management Structure

Details of the site management structure are given below.

Name: Sara Smyth **Title:** Operations Manager

Training & Experience: FAS Waste Management Course. 14 years waste management experience

Responsibilities: Responsibility and accountability for Greenstar processing division in Bray. Overseeing ISO systems including environmental and H&S procedures.

Name: Stephen Wilson **Title:** Site Operations Manager

Training & Experience: BA Business & Finance, ACCA. Has completed FAS Waste Management Course. 10 years industrial experience, all in the waste industry.

Responsibilities: Daily responsibility and accountability for all aspects of Greenstar's processing divisions in Bray. Managing the waste flow process. Implementing ISO systems including environmental and H&S procedures and also meeting all KPIs.

Name: Ger O'Reilly **Title:** Operations Supervisor

Training & Experience: Certificate in Safety & Health at Work (UCD), Certificate in Training and Continuing Education (NUI). Has completed FAS Waste Management Course. 30 years industrial experience, 8 in the waste industry.

Responsibilities: Day to day operations including direct supervision to ensure appropriate handling, processing & throughput of material in accordance with environmental and H&S procedures, and also meeting all KPIs. Providing Manual Handling & Safety Training.

7.1.2 Staff Training

Environmental Awareness training was carried out for all staff in June 2013.

7.2 Environmental Management Programme Proposal

7.2.1 Schedule of Objectives 2013

The objectives that were achieved during this reporting period are outlined in Table 7.1.

7.2.2 Schedule of Objectives 2014

The schedule of targets and objectives for 2014 are presented in Table 7.2.

Table 7.1 Schedule of Objective and Targets 2013

No.	Objective	Target	Timescale	Responsibility
1	**Awareness and Training**	Complete appropriate environmental training for all site personnel as per the Company's established Training Matrix.	**Ongoing**	**Site Management**
2	**Energy & Resource Consumption**	Assess the impacts of the new water harvesting system on water consumption.	**Analysis to be conducted in 2014 along with drainage upgrade project**	**Site Management**
3	**Pollution Prevention**	Strive to ensure that monitoring results comply with the licence limits and investigate any exceedances of emission limit values.	**Ongoing**	**Site Management**
4	**Waste Storage**	Review waste wood processing & storage practices taking account of the recent Agency Position Paper on the Management of Wood Waste	**Continuing into 2014**	**Site Management**
5	**Odour Management**	Compile an Odour Management Plan for the facility and include it on the training matrix referred to in Objective 1	**Continuing into 2014**	**Site Management**
6	**Infrastructural Development**	Progress the agreed diversion of surface water from the marshalling area (which currently discharge to percolation system) to the foul water system and ultimately the municipal foul sewer.	**To be completed in 2014**	**Site Management**
7	**ISO 14001 Certification**	To achieve ISO re-certification.	**Achieved**	**Site Management**

Table 7.2 Schedule of Objective and Targets 2014

No.	Objective	Target	Timescale	Responsibility
1	**Environmental Training of Facility Staff**	Update training presentation and ensure training of key managerial staff	**Q-2/Q-3**	**Site Management**
2	**Pollution Prevention**	Strive to ensure that monitoring results comply with the licence limits and investigate any exceedances of emission limit values.	**Q1-Q4**	**Site Management**
3	**Waste Storage**	Review waste wood processing & storage practices taking account of the recent Agency Position Paper on the Management of Wood Waste	**Q1-Q4**	**Site Management**
4	**Odour Management**	Compile an Odour Management Plan for the facility and include it on the training matrix referred to in Objective 1	**Q1-Q4**	**Site Management**

5	**Development and adoption of Fire Prevention Procedure at the facility**	Reduce risk of fire and enable early detection	**Q-2**	**Site Management**
6	**Development and adoption of Fire Prevention Procedure at the facility**	Reduce risk of fire and enable early detection	**Q-2**	**Site Management/EHS**
7	**Review of Emergency Response Plan to incorporate fire prevention procedure and new structure**	Revision of Plan and additional training for site personnel	**Q-2**	**Site Management**
8	**Achieve re-certification to ISO 14001 and OHSAS 18001 standard**	3 year certification period expires in 2014. The facility requires re-certification.	**Q-3/Q-4**	**Site Management/EHS**
9	**Develop and maintain traffic management plan at the facility**	Review of all on-site traffic management	**Q-2/Q-3**	**Site Management/EHS**
10	**Site Signage**	Facility Notice Boards to be replaced to reflect new ownership	**Q1**	**Site Management/EHS**

7.3 Reduction of Water Demand

Greenstar upgraded the surface water drainage system as agreed with the Agency in March 2012. The works included the installation of an attenuation tank to collect the roof water from the processing building and this will be reused for dust suppression on site. This has lead to a further reduction in water usage at the facility in 2013.

7.4 Volume of Wastewater Produced and Transported off site

The total amount of wastewater produced during the reporting period was 2,421 m^3 which was discharged to the municipal sewer.

7.5 Pollution Emission Register

The Pollution Emission Register (PER) has been replaced by the European Pollutant Release and Transfer Register Regulation (EC) No. 166/2006. A copy of the information submitted to the Agency via the web-based data reporting system is included in Appendix 3.

7.6 Nuisance Controls

Greenstar has contracted a vermin control company Eastern Pest Control to carry out nuisance control at the facility. Eastern Pest Control undertake a six weekly review of the vermin activity on-site along with an inspection of the bait traps that are located throughout the facility.

7.7 Tank & Pipeline Testing

Bund testing was carried out in 2013 and was confirmed to be fit for purpose. Testing will be required again in 2016. The bund report was submitted via Alder.

Pipeline integrity testing of the foul and surface water networks was carried out in July 2013 by Boyne Waste Services and the pipelines found to be watertight. Written records of this inspection are maintained on site. As previously discussed a major drainage upgrade project is planned for 2014.

7.8 Slope Stability Assessment

An assessment of the stability of the slopes was carried out in compliance with Condition 6.10 of the licence in April 2008 and was reported to the Agency as part of the 2008 AER. No

further site restoration work was carried out and therefore it was not necessary to carry out a further stability assessment.

7.9 Programme for Public Information

Greenstar is committed to setting the standard in waste management and ensuring environmental compliance in all operations. In addition, Greenstar's Environmental, Health & Safety Policy makes a specific commitment to make the policy and records available to the public and interested parties. To this end Greenstar has drawn up a Communications Programme, which details how members of the public are facilitated in accessing environmental information at the facility. Records available for public inspection on site include:-

- Environmental, Health & Safety Policy,
- Waste Licence,
- Licence Application and Review documentation,
- Monitoring Records,
- Complaints File,
- EPA Correspondence File.

Visits to the site should be arranged in advance by ringing the Facility Manager or Supervisor at 1890 600 900.

7.10 ELRA & Report on Financial Provision

A Decommissioning Management Plan (DMP) and Environmental Liabilities Risk Assessment (ELRA) including Financial Provision (FP) were submitted to the Agency in 2013 as part of the transfer of the licence which occurred in Q1 2014. Both the DMP and ELRA have been approved by the Agency.

7.11 Waste Recovery Report

The facility, which is designed to increase the recycling of biodegradable materials and reduce the volume of waste disposed to landfill, meets the needs identified in EU and national waste policy statements and contributed to the achievement of these goals as out of approximately 92,433 tonnes of waste accepted approximately 60% was sent for recovery.

7.12 Revised Closure, Restoration & Aftercare Management Plan

A revised Closure, Restoration & Aftercare Management Plan (CRAMP) was prepared and submitted to the Agency on November 25th 2011.

8. OTHER REPORTS

8.1 European Pollutant Release and Transfer Register Regulation

Under the European Pollutant Release and Transfer Register Regulation (EC) No. 166/2006 Greenstar are required to submit information annually to the Agency. A copy of the information submitted to the Agency via the web-based data reporting system is included in Appendix 1.

APPENDIX 1

Environmental Monitoring Summary Tables

GROUNDWATER SUMMARY TABLES

Groundwater Results 2014 Fassaroe W0053-03: BH-2

Parameter	Units	1st Quarter 2013 03/03/2013	2nd Quarter 2013 02/05/2013	3rd Quarter 2013 07/08//2013	4th Quarter 2013 04/12/2013
Temperature	°C	9.6	9.3	9.1	10.4
Chloride	mg/l	40.8	37.5	40.2	40.1
Ammoniacal Nitrogen -N	mg/l	0.08	0.05	0.05	0.04
Conductivity	mS/cm	2.878	2.361	2.322	2.715
Dissolved Oxygen	mg/l	10	9	5	5
pH	pH Units	7.74	7.69	7.33	7.35
Nitrate	mg/l				<0.2
Boron	mg/l				0.999
Calcium	mg/l				641.2
Potassium	mg/l				36.2
Sodium	mg/l				49.7
Magnesium	mg/l				50.2
Orthophosphate	mg/l				<0.06
Sulphate	mg/l				1491.25
Mercury	mg/l				<0.001
Cadmium	µg/l				<0.5
Chromium	mg/l				<0.0015
Copper	µg/l				<7
Iron	µg/l				<20
Manganese	µg/l				<2
Lead	µg/l				7
Nickel	µg/l				4
Zinc	µg/l				8
VOC	µg/l				ND
SVOC	µg/l				ND
Pesticides	µg/l				ND
Total Coliforms	cfu/100ml				74
Faecal Coliforms	cfu/100ml				1

Groundwater Results 2014 Fassaroe W0053-03: BH-5

Parameter	Units	1st Quarter 2013 03/03/2013	2nd Quarter 2013 02/05/2013	3rd Quarter 2013 07/08//2013	4th Quarter 2013 04/12/2013
Temperature	°C	9.7	9.6	9.3	11.1
Chloride	mg/l	23	25.3	38.3	30.3
Ammoniacal Nitrogen -N	mg/l	0.08	0.02	0.05	0.05
Conductivity	mS/cm	1.713	1.793	2.047	1.737
Dissolved Oxygen	mg/l	6	5	5	8
pH	pH Units	7.23	7.12	6.97	6.99
Nitrate	mg/l				5.4
Boron	mg/l				0.152
Calcium	mg/l				387
Potassium	mg/l				7.5
Sodium	mg/l				38.3
Magnesium	mg/l				19.7
Orthophosphate	mg/l				<0.06
Sulphate	mg/l				617.14
Mercury	mg/l				<0.001
Cadmium	µg/l				<0.5
Chromium	mg/l				<0.0015
Copper	µg/l				<7
Iron	µg/l				<20
Manganese	µg/l				<2
Lead	µg/l				<5
Nickel	µg/l				<2
Zinc	µg/l				<3
VOC	µg/l				ND
SVOC	µg/l				ND
Pesticides	µg/l				ND
Total Coliforms	cfu/100ml				<1
Faecal Coliforms	cfu/100ml				<1

Groundwater Results 2014 Fassaroe W0053-03: BH-7

Parameter	Units	1st Quarter 2013 03/03/2013	2nd Quarter 2013 02/05/2013	3rd Quarter 2013 07/08//2013	4th Quarter 2013 04/12/2013
Temperature	°C	10	9.1	9	10.6
Chloride	mg/l	27.3	27.3	28	28.8
Ammoniacal Nitrogen -N	mg/l	2.7	2.1	1.06	0.88
Conductivity	mS/cm	0.716	0.799	0.764	0.74
Dissolved Oxygen	mg/l	2	3	3	5
pH	pH Units	7.42	7.06	6.89	6.99
Nitrate	mg/l				<0.2
Boron	mg/l				0.031
Calcium	mg/l				122.5
Potassium	mg/l				2.4
Sodium	mg/l				18.3
Magnesium	mg/l				10.3
Orthophosphate	mg/l				<0.06
Sulphate	mg/l				76.02
Mercury	mg/l				<0.001
Cadmium	µg/l				<0.5
Chromium	mg/l				<0.0015
Copper	µg/l				<7
Iron	µg/l				299
Manganese	µg/l				764
Lead	µg/l				<5
Nickel	µg/l				<2
Zinc	µg/l				<3
VOC	µg/l				ND
SVOC	µg/l				ND
Pesticides	µg/l				ND
Total Coliforms	cfu/100ml				108
Faecal Coliforms	cfu/100ml				1

SURFACE WATER SUMMARY TABLES

Surfacewater Results 2014 Fassaroe W0053-03: SW-1

Parameter	Units	1st Quarter 2013 03/03/2013	2nd Quarter 2013 02/05/2013	3rd Quarter 2013 07/10/2013	4th Quarter 2013 04/12/2013
Temperature	°C	6.7	7.6	7.6	7.6
Chloride	mg/l	27.1	28.5	27.3	27.8
COD	mg/l	9	<7	<7	<7
BOD	mg/l	1	<1	<1	<1
Ammoniacal Nitrogen -N	mg/l	0.03	0.02	0.02	0.02
Tot. Susp. Solids	mg/l	<10	<10	<10	<10
Conductivity	mS/cm	0.582	0.586	0.584	0.639
Dissolved Oxygen	mg/l	11	11	9	11
pH	pH Units	8.42	8.28	8	8.3
Nitrate	mg/l				17.8
Calcium	mg/l				106.8
Magnesium	mg/l				9.1
Orthophosphate	mg/l				<0.06
Sulphate	mg/l				27.21
Mercury	µg/l				<1
Potassium	mg/l				1.9
Sodium	mg/l				16.2
Boron	mg/l				0.025
Cadmium	µg/l				<0.5
Chromium	mg/l				<0.0015
Copper	µg/l				<7
Iron	µg/l				<20
Manganese	µg/l				4
Nickel	µg/l				<2
Lead	µg/l				<5
Zinc	µg/l				<3
VOC	µg/l				nd
SVOC	µg/l				nd
Pesticides	µg/l				nd
Total Coliforms	cfu/100ml				609
Faecal Coliforms	cfu/100ml				30

- Not Required

Surfacewater Results 2014 Fassaroe W0053-03: SW-2

Parameter	Units	1st Quarter 2013 03/03/2013	2nd Quarter 2013 02/05/2013	3rd Quarter 2013 07/10/2013	4th Quarter 2013 04/12/2013
Temperature	°C	6.7	7.5	7.6	7.4
Chloride	mg/l	27.2	28.6	29.9	27.5
COD	mg/l	<7	<7	<7	8
BOD	mg/l	1	<1	<1	<1
Ammoniacal Nitrogen -N	mg/l	0.03	<0.01	0.02	<0.01
Tot. Susp. Solids	mg/l	<10	<10	<10	<10
Conductivity	mS/cm	0.587	0.611	0.596	0.651
Dissolved Oxygen	mg/l	12	11	9	11
pH	pH Units	8.41	8.32	8.04	8.1
Nitrate	mg/l				18.3
Calcium	mg/l				107.8
Magnesium	mg/l				9.2
Orthophosphate	mg/l				<0.06
Sulphate	mg/l				27.97
Mercury	µg/l				<1
Potassium	mg/l				1.9
Sodium	mg/l				16.3
Boron	mg/l				0.026
Cadmium	µg/l				<0.5
Chromium	mg/l				0.0022
Copper	µg/l				<7
Iron	µg/l				<20
Manganese	µg/l				<2
Nickel	µg/l				<2
Lead	µg/l				<5
Zinc	µg/l				<3
VOC	µg/l				nd
SVOC	µg/l				nd
Pesticides	µg/l				nd
Total Coliforms	cfu/100ml				9208
Faecal Coliforms	cfu/100ml				4900

- Not Required

Surfacewater Results 2014 Fassaroe W0053-03: SW-3

Parameter	Units	1st Quarter 2013 03/03/2013	2nd Quarter 2013 02/05/2013	3rd Quarter 2013 07/10/2013	4th Quarter 2013 04/12/2013
Temperature	°C	6.7	7.6	7.6	7.4
Chloride	mg/l	27	28.9	29.9	27.7
COD	mg/l	<7	<7	<7	<7
BOD	mg/l	<1	<1	<1	<1
Ammoniacal Nitrogen -N	mg/l	0.35	<0.01	0.02	0.02
Tot. Susp. Solids	mg/l	<10	<10	<10	<10
Conductivity	mS/cm	0.594	0.611	0.615	0.636
Dissolved Oxygen	mg/l	12	11	9	11
pH	pH Units	8.38	8.36	8.1	8.28
Nitrate	mg/l				18.3
Calcium	mg/l				104.9
Magnesium	mg/l				9
Orthophosphate	mg/l				<0.06
Sulphate	mg/l				30.68
Mercury	µg/l				<1
Potassium	mg/l				2
Sodium	mg/l				15.8
Boron	mg/l				0.027
Cadmium	µg/l				<0.5
Chromium	mg/l				<0.0015
Copper	µg/l				<7
Iron	µg/l				<20
Manganese	µg/l				4
Nickel	µg/l				<2
Lead	µg/l				<5
Zinc	µg/l				<3
VOC	µg/l				nd
SVOC	µg/l				nd
Pesticides	µg/l				nd
Total Coliforms	cfu/100ml				2012
Faecal Coliforms	cfu/100ml				940

- Not Required

Surfacewater Results 2014 Fassaroe W0053-03: SW-4

Parameter	Units	1st Quarter 2013 03/03/2013	2nd Quarter 2013 02/05/2013	3rd Quarter 2013 07/10/2013	4th Quarter 2013 04/12/2013
Temperature	°C	6.7	7.6	7.5	7.6
Chloride	mg/l	27.1	28.9	29.9	27.7
COD	mg/l	<7	<7	<7	8
BOD	mg/l	<1	<1	<1	<1
Ammoniacal Nitrogen -N	mg/l	0.09	0.02	0.02	<0.01
Tot. Susp. Solids	mg/l	11	<10	<10	<10
Conductivity	mS/cm	0.586	0.606	0.634	0.64
Dissolved Oxygen	mg/l	12	11	9	11
pH	pH Units	8.4	8.28	8.12	8.27
Nitrate	mg/l				18.3
Calcium	mg/l				110.6
Magnesium	mg/l				9.4
Orthophosphate	mg/l				<0.06
Sulphate	mg/l				32.57
Mercury	µg/l				<1
Potassium	mg/l				2
Sodium	mg/l				16.6
Boron	mg/l				0.025
Cadmium	µg/l				<0.5
Chromium	mg/l				<0.0015
Copper	µg/l				<7
Iron	µg/l				<20
Manganese	µg/l				6
Nickel	µg/l				<2
Lead	µg/l				<5
Zinc	µg/l				<3
VOC	µg/l				nd
SVOC	µg/l				nd
Pesticides	µg/l				nd
Total Coliforms	cfu/100ml				805
Faecal Coliforms	cfu/100ml				50

- Not Required

Surfacewater Results 2014 Fassaroe W0053-03: SW-5

Parameter	Units	1st Quarter 2013 03/03/2013	2nd Quarter 2013 02/05/2013	3rd Quarter 2013 07/10/2013	4th Quarter 2013 04/12/2013
Temperature	°C	6	7.7	7.8	7.3
Chloride	mg/l	27.1	28.8	27.4	27.8
COD	mg/l	<7	<7	<7	<7
BOD	mg/l	1	<1	<1	<1
Ammoniacal Nitrogen -N	mg/l	0.18	0.02	0.02	<0.01
Tot. Susp. Solids	mg/l	<10	<10	223	<10
Conductivity	mS/cm	0.587	0.607	0.583	0.629
Dissolved Oxygen	mg/l	12	11	9	11
pH	pH Units	8.41	8.19	7.96	8.27
Nitrate	mg/l				18.2
Calcium	mg/l				107.5
Magnesium	mg/l				9.2
Orthophosphate	mg/l				<0.06
Sulphate	mg/l				27.1
Mercury	µg/l				<1
Potassium	mg/l				1.9
Sodium	mg/l				16.3
Boron	µg/l				<0.012
Cadmium	µg/l				<0.5
Chromium	mg/l				<0.0015
Copper	µg/l				<7
Iron	µg/l				<20
Manganese	µg/l				<2
Nickel	µg/l				<2
Lead	µg/l				<5
Zinc	µg/l				<3
VOC	µg/l				nd
SVOC	µg/l				nd
Pesticides	µg/l				nd
Total Coliforms	cfu/100ml				24195
Faecal Coliforms	cfu/100ml				5700

- Not Required

WASTEWATER SUMMARY TABLES

Wastewater Results 2013 Fassaroe W0053-03: SE-1

Parameter	units	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13
pH	pH Units	7.35	7.27	9.35	6.67	7.62	6.13	Dry	7.11	7.27	7.26	7.34	6
Temperature	°C	9.1	4.9	6	6	7.2	8.6	Dry	8.9	7.6	8.6	7.2	8.2
BOD	mg/l	5	185	<1	130	<1	937	Dry	<1	31	7	52	41
COD	mg/l	N/A	344	N/A	451	N/A	N/A	Dry	14	N/A	60	N/A	N/A
Sulphate	mg/l	N/A	396.2	N/A	0.23	N/A	N/A	Dry	719.21	N/A	584.6	N/A	N/A
TSS	mg/l	N/A	120	N/A	<10	N/A	N/A	Dry	210	N/A	13	N/A	N/A
Surfactants	mg/l	N/A	1.7	N/A	<0.2	N/A	N/A	Dry	<0.2	N/A	0.13	N/A	N/A
Oils, Fats & Greases	mg/l	N/A	<0.01	N/A	<0.01	N/A	N/A	Dry	<0.01	N/A	<1	N/A	N/A
Mineral Oil	mg/l	N/A	<0.01	N/A	<0.01	N/A	N/A	Dry	<0.01	N/A	<0.001	N/A	N/A

LANDFILL GAS SUMMARY TABLES

Landfill Gas Results 2013 Fassaroe W0053-03

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sample Station Number	**CH_4**	**CH_4**	**CH_4**	**CH_4**	**CH_4**	**CH_4**	**CH_4**	**CH_4**	**CH_4**	**CH_4**	**CH_4**	**CH_4**
	(% v/v)	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**
GS-01	0	0	0	0	0	0	0	0	0	0	0	0
GS-05	0	0	0	0	0	0	0	0	0	0	0	0
GS-07*	0.3	0.2	0	0	0.3	0	0	0	0	0	0	0
GS-08*	0	0	0	0	0	0	0	0	0	0	0	0
GS-09*	0.2	0.6	0.8	0	0.7	0	0	0	0	0	0	0.1
GS-10*	0.6	5.1	4.3	3.6	4.1	2.5	0.1	0.2	1.2	0	0	0.1
GS-11*	0.2	0	0	0	0	0	0	0	0	0	0	0
BH-2	0	0	0	0	0	0	0	0	0	0	0	0
BH-5	0	0	0	0	0	0	0	0	0	0	0	0
BH-6	0.1	0	0	0	0	0	0	0	0	0	0	0
BH-7	0	0	0	0	0	0	0	0	0	0	0	0
L-01*	2.8	0.2	0	0	0	0	0	0	0	0	0	0
L-02*	0	0	0	0	0	0	0	0	0	0	0	0
L-03*	0	0	0	0	0	0	0	0	0	0	0	0

- Problem with gas meter therefore it was not possible to take measurement

Landfill Gas Results 2013 Fassaroe W0053-03

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sample Station Number	**CO_2**	**CO_2**	**CO_2**	**CO_2**	**CO_2**	**CO_2**	**CO_2**	**CO_2**	**CO_2**	**CO_2**	**CO_2**	**CO_2**
	(% v/v)	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**
GS-01	0	0	0	0	0	0	0.2	0.1	0	0	0	0
GS-05	0	0	0	0	0	0.6	0.4	0.6	0	0.2	0.3	0.1
GS-07*	5.1	6.8	4.6	6.2	6.6	3.7	1.8	2.4	5.6	2.3	2.1	3.4
GS-08*	0	4.6	3.1	5.1	5.1	3.2	0.6	0	4.1	3.8	4.1	3
GS-09*	0.4	2.7	3.1	0	3.2	0	4.6	6.1	0	3.9	3.8	7.5
GS-10*	11	7.8	6.3	4.3	8.1	6.9	7.29	6.9	3.6	9.7	8	13
GS-11*	5.2	3.1	2.1	6.8	1.6	0.9	0	0	5.2	7.3	6.1	4
BH-2	0	0	0	0	0	0	0.6	0.7	0	0.3	0.4	0.5
BH-5	0	0	0	0	0	0	0	0	0	1.4	0.9	0
BH-6	1.4	1.1	0.3	0.3	0.6	0	1.1	1.5	0.8	1.7	1.2	1.5
BH-7	0.3	0	0	0.1	0	0.3	0.9	1.3	0.2	0.6	0.3	0.7
L-01*	3	6.1	5.3	0	2.1	1.1	0	0	0	0	0	0
L-02*	0	0	0	2.4	0	1.3	0	0	1.1	0.2	0.1	0
L-03*	0	0	0.2	0	0	0	0	0	0	0	0	0

- Problem with gas meter therefore it was not possible to take measurement

Landfill Gas Results 2013 Fassaroe W0053-03

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sample Station Number	**O_2**	**O_2**	**O_2**	**O_2**	**O_2**	**O_2**	**O_2**	**O_2**	**O_2**	**O_2**	**O_2**	**O_2**
	(% v/v)	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**	**(% v/v)**
GS-01	21.3	20.9	19.9	21.1	21.1	21.2	21.2	21.8	21.3	21.7	20.8	21.6
GS-05	21.2	20.6	20.3	20.5	20.9	19.1	21.4	21	20.9	21.5	19.9	22.2
GS-07*	15.5	11.6	13.1	12.5	12.1	14.9	18.4	18	12.8	18.2	17.9	17.8
GS-08*	21.1	15.6	14.6	14.9	14.6	16.2	9.8	21.5	15.1	16.6	16.9	17.7
GS-09*	20.1	13.1	14.2	21	12.9	19.6	15.2	12	21.3	17.1	17	12.9
GS-10*	2.9	2.2	4.6	3.7	3	8.6	10.1	11	5.1	7	7.3	13.6
GS-11*	13.6	13.2	14.9	11.4	18.2	18	21.2	21.1	12.9	13.8	14	19
BH-2	21.1	20.6	21.1	21.3	20.5	19.6	19.9	19.3	21	21.3	20.5	21.2
BH-5	21.4	20.4	20.8	20.1	20.1	20.1	20.8	21.7	20.2	19.3	20.1	21.1
BH-6	18.2	18.6	19.6	21.2	20.1	20.9	19.6	19.3	19.2	18.8	19.8	19.3
BH-7	20.8	21	21	21.2	21.1	19.2	18.9	19.6	19.2	20.6	20.1	21.7
L-01*	10.5	12.6	11.2	21.7	18.6	18.3	21.2	21.9	21	21.3	20.8	21.3
L-02*	21.2	20.3	20.1	15.5	20.6	19.1	21.8	21.2	16.2	20.9	21	21.3
L-03*	21.1	20.2	20.1	21.6	21	21.1	21.3	21	21.2	21.8	20.6	19.9

- Problem with gas meter therefore it was not possible to take measurement

Landfill Gas Results 2013 Fassaroe W0053-03

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sample Station Number	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**	**Barometric Pressure (mb)**
GS-01	996	1002	992	956	1001	1013	1002	1009	998	998	956	1000
GS-05	996	1002	992	956	1001	1013	1002	1009	998	998	956	1000
GS-07*	996	1002	992	956	1001	1013	1002	1009	998	998	956	1000
GS-08*	996	1002	992	956	1001	1013	1002	1009	998	998	956	1000
GS-09*	996	1002	992	956	1001	1013	1002	1009	998	998	956	1000
GS-10*	996	1002	992	956	1001	1013	1002	1009	998	998	956	1000
GS-11*	996	1002	992	956	1001	1013	1002	1009	998	998	956	1000
BH-2	996	1002	992	956	1001	1013	1002	1009	998	998	956	1000
BH-5	996	1002	992	956	1001	1013	1002	1009	998	998	956	1000
BH-6	996	1002	992	956	1001	1013	1002	1009	998	998	956	1000
BH-7	996	1002	992	956	1001	1013	1002	1009	998	998	956	1000
L-01*	996	1002	992	956	1001	1013	1002	1009	998	998	956	1000
L-02*	996	1002	992	956	1001	1013	1002	1009	998	998	956	1000
L-03*	996	1002	992	956	1001	1013	1002	1009	998	998	956	1000

- Problem with gas meter therefore it was not possible to take measurement

DUST SUMMARY TABLES

Dust Results 2013 Fassaroe W0053-03

	DS-01	DS-02	DS-03	DS-04
Dec – Jan '13	15.8	22.4	17.7	10.6
Jan – Feb '13	2.2	35.3	16.3	13.5
Feb – Mar '13	12.2	25.6	6.8	4.9
Mar - Apr '13	23.5	54.1	20.4	23.6
Apr - May '13	26.6	*	8.1	8.4
May - June '13	105.48	10.7	97.6	104.9
Jun-13	27.2	*	20.4	12
Jul-13	18.9	38.3	3	11.5
Aug-13	2.1	2.7	3.2	2.5
Sep-13	17.7	40.2	19.1	12.3
Oct-13	14.2	12.9	21.4	20.9
Nov-13	6.5	29.3	14.5	2.1
Dec-13	15.3	26.8	**	18.1

* Sample contaminated with bird excrement

** Dust jar broken

NOISE SUMMARY TABLES

Noise Results 2013 Fassaroe W0053-03 Q1

Location	Time	Measured Noise Levels (dB re. 2x10-5 Pa)				Comments
		L_{Aeq}	L_{A10}	L_{A90}	Specific level*	
N1	0835-0905	57	58	52	56	Occasional vehicle movements through Greenstar entrance and weighbridge area dominant when present. No emissions audible from within site apart from wheelie bin power washing noise, continuously audible at low level. Road traffic through roundabout outside entrance and on Thornhill Road frequently dominant. N11 traffic continuously significant in background. Bird song/calls and aircraft.
N2	0854-0924	56	57	51	55	Occasional vehicle movements through Greenstar entrance, weighbridge area and into carpark dominant when present. From within site, continuous emissions from wheelie bin power washing clearly audible and significant, masking other site emissions including facade fans. N11 traffic slightly audible in background. Bird song/calls.
N3	0935-1005	48	50	45	<45	Sporadic truck and skip movements within site audible at low level. Other site emissions entirely masked by continuously audible N11 traffic noise. Bird song/calls, dog barking outside boundary and aircraft audible.
N4	0932-1002	46	47	45	<45	No site emissions audible. Water flow through valley floor and local birdsong continuously dominant. N11 traffic slightly audible in background.
NSL1	0821-0851	55	58	50	49	Occasional vehicle movements through Greenstar entrance significant when present. No noise audible from within site apart from continuous emissions audible at low level from wheelie bin power washing operation, except when entirely masked by frequent Thornhill Road traffic outside boundary. N11 traffic continuously significant to NE. Bird song/calls and aircraft.
NSL2	1103-1133	58	55	47	<47	No site emissions audible apart from faintly audible truck movements on occasion. Intermittent local road traffic dominant when present. N11 traffic continuously audible in background. Repeated dog barking at nearby dwelling significant. Bird song/calls and aircraft.

*Specific level: Sound pressure level contribution considered attributable to facility, determined using real time assessment, field notes, time history profiles, statistical analysis, frequency spectra, near field correction if applicable, and other parameters.

Noise Results 2013 Fassaroe W0053-03 Q2

Location	Time	Measured Noise Levels (dB re. 2x10-5 Pa)				Comments
		L_{Aeq}	L_{A10}	L_{A90}	Specific level*	
N1	0855-0925	57	59	49	56	Intermittent traffic through site gate and weighbridge area dominant when present. Trucks occasionally idling at weighbridge for up to 1 min. Truck movements on yard, bin power washing near MSW building, and facade fans all audible at low level. Offsite road traffic through roundabout outside gate significant when present. Thornhill Road traffic also audible at low level. N11 traffic continuously audible at low level. Bird song/calls, aircraft and occasional dog barking at nearby dwelling.
N2	0842-0912	55	57	50	54	Intermittent facility traffic through gate and weighbridge area dominant when present. Front end loader around S yard audible. Bin power washing near MSW building also audible at low level. Facade fans slightly audible continuously in background, largely masked by continuous N11 traffic audible at low level continuously. Bird song/calls, aircraft and occasional dog barking at nearby dwelling.
N3	0955-1025	46	48	43	<43	No site emissions audible other than occasional truck movements in nearest yard areas. Bird song/calls in valley significant. N11 traffic continuously audible at low level. Aircraft. Distant dog barking occasionally audible.
N4	0951-1021	45	46	41	<41	No site emissions audible. Bird song/calls and water flow in valley significant. N11 traffic audible continuously at low level. Aircraft.
NSL1	0915-0945	49	50	45	<49	Intermittent truck movements through site entrance clearly audible. No other site emissions audible other than facade fans, slightly audible only and largely masked by continuously audible N11 traffic. Intermittent Thornhill Road traffic dominant when present. Birdsong and aircraft.
NSL2	0806-0836	62	62	47	<47	No facility emissions audible. Intermittent local traffic dominant when present. N11 traffic continuously audible, although quieter than usual. Bird song/calls and aircraft. Occasional vehicle movements through gates of several nearby dwellings. Occasional dog barking within 50 m.

*Specific level: Sound pressure level contribution considered attributable to facility, determined using real time assessment, field notes, time history profiles, statistical analysis,

LEACHATE SUMMARY TABLES

Leachate Level Results 2013 Fassaroe W0053-03

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
L-01	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
L-02	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
L-03	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
L-03	-	-	-	-	-	-	-	7.5	7.65	7.7	7.86	7.87
GS-08	-	-	-	-	-	-	-	9.17	9.36	9.32	9.15	9.22

Leachate Analysis Q-3 2013

Parameters	Units	GS-07	GS-08
Boron	ug/l	95	51
Cadmium	ug/l	<0.5	<0.5
Calcium	mg/l	262.5	192.8
Chromium	ug/l	<1.5	<1.5
Copper	ug/l	<7	<7
Iron	ug/l	<20	<20
Lead	ug/l	15	10
Magnesium	mg/l	19.7	16
Manganese	ug/l	271	11
Mercury	ug/l	<1	<1
Nickel	ug/l	<2	<2
Potassium	mg/l	7.5	3.9
Sodium	mg/l	25.3	12.3
Zinc	ug/l	53	<3
Fluoride	mg/l	<0.3	<0.3
Sulphate	mg/l	108.1	117.23
Chloride	mg/l	20.9	18.6
Ortho Phosphate	mg/l	<0.06	<0.06
Total Oxidised Nitrogen	mg/l	0.3	1.2
Total Cyanide	mg/l	<0.01	<0.01
Ammonia	mg/l	0.42	0.08
BOD	mg/l	<1	<1
COD	mg/l	13	<7
Electrical Conductivity	uS/cm	1238	1055
pH	pH units	7.13	7.11
VOC	ug/l	*	ND
sVOC	ug/l	*	ND
Pesticides	ug/l	*	ND

ND – denotes not present at levels greater than the detection limit

* - not analysed

Leachate Analysis Q-4 2013

Parameters	Units	GS-07	GS-08
BOD	mg/l	2	1
COD	mg/l	25	22
VOC	ug/l	ND	*
sVOC	ug/l	ND	*
Pesticides	ug/l	ND	*

ND – denotes not present at levels greater than the detection limit

* - not analysed

APPENDIX 2

Procedures Index

Integrated Procedures - IP		
IP-01	Document & Record Control Procedure	Rev 01, 05/07/10
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IP-03	Environmental Aspects & Impacts Procedure	Rev 02, 09/09/13
IP-04	Legal & Regulatory Requirements Procedure	Rev 02, 09/09/13
IP-05	Objectives, Targets & Management Programmes Procedure	Rev 02, 09/09/13
IP-06	Competence, Training & Awareness Procedure	Rev 03, 15/04/13
IP-07	Communication & Consultation Procedure	Rev 01, 05/07/10
IP-08	Monitoring, Measurement & Improvement Procedure	Rev 01, 05/07/10
IP-09	Evaluation of Compliance Procedure	Rev 02, 15/09/11
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IP-11	Internal Audit Procedure	Rev 03, 28/05/12
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SP-10	Weighbridge & Tipping Procedure (SCGT)	Rev 01, 01/12/11
SP-11	Cleaning of Washing Bay (Greenogue)	Rev 01, 05/05/12
SP-12	Ballymount CRF Safe Systems of Work	Rev 01, 23/09/13

Environmental Procedures - EP		
EP-01	Office Waste & Energy Management Procedure	Rev 01, 05/07/10
EP-02	Decommissioning and Aftercare Procedure	Rev 02, 14/09/11
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EP-04	Waste Permits & Licences Procedure	Rev 01, 05/07/10
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EP-06	Unacceptable Waste Procedure	Rev 01, 05/07/10
EP-07	Waste & Material Storage Procedure	Rev 01, 05/07/10
EP-08	Waste Processing Procedure	Rev 01, 05/07/10
EP-09	Site Infrastructure Procedure	Rev 01, 05/07/10
EP-10	Nuisance Management Procedure (Site Specific)	(Site Specific)
EP-11	Civic Amenity Site Procedure	Rev 01, 05/07/10

Amendment History

Date	Amendment No.	Procedure No:	Revision No:	Comment	Authorised By
05.07.10	01	All	01	Initial Issue	M.D & O.C
13.09.10	02	EP-03	02	Issue of Incident Reports	M.D
20.09.10	03	IP-10	02	Env issues not logged on WIMS Database	M.D
29.10.10	04	IP-13	02	Use of M&M equipment by contractors	M.D & O.C
29.10.10	05	IP-14	02	Use of M&M equipment by contractors	M.D & O.C
29.10.10	06	SP-02	02	Inclusion of Maintenance Schedule	M.D & O.C
05.11.10	07	IP-04	02	Inclusion of other requirements	S.B & O.C
01.02.11	08	SP-08	01	Inclusion of new procedure	O.C
01.02.11	09	IP-10	03	Inclusion of SP-08	O.C
01.02.11	10	IP-15	02	Removal of SF-022	O.C
01.02.11	11	Contents	As shown	EP-10 Site Specific	M.D & O.C
01.02.11	12	IP-06	02	Addressing Agency Staff needs	M.D & O.C
01.02.11	13	Circ List	02	Amendment to document control	M.D & O.C
04.04.11	14	SP-02	03	Inclusion of Site Specific Maintenance schedules	O.C
07.06.11	15	IP-11	02	Inclusion of H&S & Env Internal Audit Schedules	M.D & O.C
14/09/11	16	EP-02	02	Inclusion of decommissioning of plant/equipment	S.B
15/09/11	17	IP-09	02	Inclusion of Statutory Inspections	O.C
01/12/11	18	SP-09	01	Inclusion of new procedure for SCGT	O.C
01/12/11	19	SP-10	01	Inclusion of new procedure for SCGT	O.C
03/05/12	20	SP-01	02	Amendment to remove SF 028	O.C
05/05/12	21	SP-11	01	Inclusion of a new procedure for Greenogue	O.C
28/05/12	22	IP-11	03	General Amendments to internal audit procedure	M.D & O.C
08/06/12	23	IP-13	03	Grammatical amendment	M.D & O.C
15/04/13	24	IP-06	03	Agency staff – sign-off record sufficient proof of training. TMS optional	M.D & O.C

Date	Amendment No.	Procedure No:	Revision No:	Comment	Authorised By
30/06/13	25	IP-16	1	Inclusion of new procedure	M.D.
09/09/13	26	IP-03	2	Use of Scannell Software Solutions (Enviromanager) instead of IF-03A	M.D & O.C
09/09/13	27	IP-04	3	Use of Scannell Software Solutions (Enviromanager) instead of IF-03A	M.D & O.C
09/09/13	28	IP-05	2	Use of Scannell Software Solutions (Enviromanager) instead of IF-03A	M.D & O.C
16/10/13	29	EP-03	3	Introduction of EPA ALDER Portal	K.B
23/09/13	30	SP-12	1	Introduction of SP-12O.C	

Circulation List

The Integrated Procedures Manual is a controlled document. Copies of the Integrated Procedures Manual are available as follows;

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2	Greenstar Limited Intranet – Electronic Copy

APPENDIX 3

European Pollutant Release and Transfer Register

Environmental Protection Agency

Guidance to completing the PRTR workbook

AER Returns Workbook

Version 1.1.17

REFERENCE YEAR	2013

1. FACILITY IDENTIFICATION

Parent Company Name	Greenstar Limited
Facility Name	Greenstar Limited (Fassaroe)
PRTR Identification Number	W0053
Licence Number	W0053-03

Waste or IPPC Classes of Activity

No.	class_name
3.12	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.11	Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.13	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.
4.11	Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.
4.12	Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule.
4.13	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.
4.2	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
4.3	Recycling or reclamation of metals and metal compounds.
4.4	Recycling or reclamation of other inorganic materials.

Address 1	Bray Depot
Address 2	La Vallee House
Address 3	Fassaroe
Address 4	Bray, Co. Wicklow
	Wicklow
Country	Ireland
Coordinates of Location	-6.141357577 53.19976882
River Basin District	IEEA
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Malcolm Dowling
AER Returns Contact Email Address	malcolm.dowling@greenstar.ie
AER Returns Contact Position	Group Compliance Manager
AER Returns Contact Telephone Number	012947976
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	10
User Feedback/Comments	In releases to wastewater section the level of COD is more than 50% lower than last year and the levels of sulphate are greater than 50% higher. There is no clear reason to explain this variation. As the samples are grab samples there can be a variation in concentrations throughout the year. All ELVs were complied with during the year at the discharge point.
Web Address	

2. PRTR CLASS ACTIVITIES

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

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

Is it applicable?	no
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

Guidance on waste imported/accepted onto site

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

This question is only applicable if you are an IPPC or Quarry site

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

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

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

Additional Data Requested from Landfill operators

For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T(total) KG/yr for Section A: Sector specific PRTR pollutants above. Please complete the table below:

Landfill: Greenstar Limited (Fassaroe)

Please enter summary data on the quantities of methane flared and / or utilised			Method Used			
	T (Total) kg/Year	**M/C/E**	**Method Code**	**Designation or Description**	**Facility Total Capacity m3 per hour**	
Total estimated methane generation (as per site model)	0.0				N/A	
Methane flared	0.0				0.0	(Total Flaring Capacity)
Methane utilised in engine/s	0.0				0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section A above)	0.0				N/A	

4.2 RELEASES TO WATERS

Link to previous years emissions data

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

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

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

SECTION A : PRTR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
		Method Used						
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

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

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

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
		Method Used						
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
303	BOD	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited.	420.0	420.0	0.0	0.0
306	COD	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited.	525.0	525.0	0.0	0.0
343	Sulphate	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited.	1029.0	1029.0	0.0	0.0
240	Suspended Solids	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited.	276.0	276.0	0.0	0.0
308	Detergents (as MBAS)	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited.	2.2	2.2	0.0	0.0
314	Fats, Oils and Greases	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited.	0.0	0.0	0.0	0.0
324	**Mineral oils**	C	PER	Calculated based on annual flow rate. Analysis is ISO accredited.	0.0	0.0	0.0	0.0

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

4.4 RELEASES TO LAND

Link to previous years emissions data

SECTION A : PRTR POLLUTANTS

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

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

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

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

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

Please enter all quantities on this sheet in Tonnes

0

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used: M/C/E	Method Used	Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
Within the Country	10 10 08	No	29.0	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07	D5	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,.,Ireland		
Within the Country	13 02 08	Yes	2.0	other engine, gear and lubricating oils	R3	M	Weighed	Offsite in Ireland	Enva Ltd.,W0184-01	Clonminam Industrial Estate,Portlaoise,Co. Laois,.,Ireland	Enva Ltd.,W0184-01,Clonminam Industrial Estate,Portlaoise,Co. Laois,.,Ireland	Clonminam Industrial Estate,Portlaoise,Co. Laois,.,Ireland
Within the Country	15 01 01	No	43.0	paper and cardboard packaging	R3	M	Weighed	Offsite in Ireland	Bailey Waste Recycling,WFP-FG-08-0002-01	Rosemount Business Park,Ballycoolin Road,Blanchardstown ,Dublin 16 ,Ireland		
To Other Countries	15 01 01	No	297.1	paper and cardboard packaging	R3	M	Weighed	Abroad	Agnail ,TFS Broker IRE/AG117/11	.,.,Ballycoolin,Dublin,Ireland		
To Other Countries	15 01 01	No	1083.9	paper and cardboard packaging	R3	M	Weighed	Abroad	Cellmark USA,IRE/G180/11	200 Tamal Plaza,California,.,95245,United States		
To Other Countries	15 01 01	No	25.46	paper and cardboard packaging	R3	M	Weighed	Abroad	International Recycling Ltd.,IRE/G050/08	Heath House,5 Woogate Court,Norwich,NR2 4AP,United Kingdom		
To Other Countries	15 01 01	No	3075.42	paper and cardboard packaging	R3	M	Weighed	Abroad	MLM (ACN Europe) Ltd ,TFS Broker IRE/G022/11	.,.,.,.,United Kingdom		
Within the Country	15 01 01	No	598.52	paper and cardboard packaging	R3	M	Weighed	Offsite in Ireland	Materia Environmental Ltd,IRE/AG161/11,The Kipper House ,Scilly,Scilly,Kinsale,Co Cork	The Kipper House ,Scilly,Scilly,Kinsale,Co Cork		
To Other Countries	15 01 01	No	3390.34	paper and cardboard packaging	R3	M	Weighed	Abroad	Mark Lyndon Paper Enterprises,IRE/G021/12,12 The Triangle ,Nottingham ,Nottinghamshire NG2 1AE,.,United Kingdom	12 The Triangle ,Nottingham ,Nottinghamshire NG2 1AE,.,United Kingdom		
To Other Countries	15 01 01	No	536.82	paper and cardboard packaging	R3	M	Weighed	Abroad	Peute Papier Recycling BV,IRE/G006/08	Veeplaat 40,3313 LJ Dordrecht,.,.,Netherlands		
To Other Countries	15 01 02	No	365.66	plastic packaging	R3	M	Weighed	Abroad	Boost Recycling, IRE/G082/11	47 Swaffham Road, Burwell, Cambridge, CB25 0AN,United Kingdom		
To Other Countries	15 01 02	No	133.56	plastic packaging	R3	M	Weighed	Abroad	Greenway Group ,-	Greenway Group ,11 Porthill Road,Mountnorris ARMAGH ,BT60 2TY ,United Kingdom		
To Other Countries	15 01 02	No	367.95	plastic packaging	R3	M	Weighed	Abroad	Cherry Pipes,IRE/G037/08	Unit 5 Nutts Corner Business Park,Dundrod Road,Crumlin,Co. Antrim BT29 4SR,United Kingdom		
To Other Countries	15 01 02	No	269.3	plastic packaging	R3	M	Weighed	Abroad	J & A Young ,TFS Broker IRE/G058/11	.,.,.,.,United Kingdom		
Within the Country	15 01 02	No	298.28	plastic packaging	R3	M	Weighed	Offsite in Ireland	Leinster Environmentals,WP 2008/06	Clermont Business Park,Haggardstown,Dundalk, Co. Louth,Ireland		
Within the Country	15 01 02	No	48.9	plastic packaging	R3	M	Weighed	Offsite in Ireland	Materia Environmental Ltd,IRE/AG161/11 The Kipper House Scilly Scilly Kinsale Co Cork	The Kipper House ,Scilly,Scilly,Kinsale,Co Cork		
To Other Countries	15 01 02	No	375.96	plastic packaging	R3	M	Weighed	Abroad	Peute Papier Recycling BV,IRE/G006/08	Veeplaat 40,3313 LJ Dordrecht,.,.,Netherlands		
Within the Country	15 01 02	No	39.99	plastic packaging	R3	M	Weighed	Offsite in Ireland	Polymer Recovery Ltd,WFP-LS-09-0007-01 Polymer Recovery Ltd East Canal road Portarlington Business Park Portarlington Co. Laois.	Polymer Recovery Ltd ,East Canal road ,Portarlington Business Park ,Portarlington ,Co. Laois.		
To Other Countries	15 01 02	No	19.22	plastic packaging	R3	M	Weighed	Abroad	RDB PLASTICS GMBH,-	Nortorfer Str. 2,Aukrug,S-H,-,Germany		
Within the Country	15 01 02	No	622.12	plastic packaging	R3	M	Weighed	Offsite in Ireland	Shabra Recycling,WFP-MN-08-0022-01	Killycard Industrial Estate,Castleblayney,Co. Monaghan,.,Ireland		
Within the Country	15 01 02	No	5.3	plastic packaging	R3	M	Weighed	Offsite in Ireland	Shabra Recycling,WFP-MN-08-0022-01	Killycard Industrial Estate,Castleblayney,Co. Monaghan,.,Ireland		
Within the Country	15 01 02	No	23.36	plastic packaging	R3	M	Weighed	Offsite in Ireland	WERS Waste,WFP-G-09-0002-01	Tuam BP , Weir Rd ,Tuam , Co Galway,Ireland		
Within the Country	15 01 03	No	11.2	wooden packaging	R3	M	Weighed	Offsite in Ireland	Chep Pallets,NA	Jamestown Business Park ,Jamestown Road ,Finglas ,Dublin 11,Ireland		
Within the Country	15 01 03	No	32.2	wooden packaging	R3	M	Weighed	Offsite in Ireland	Max Pallet Services,Not Required	Colemanstown,Rathcoole,Co. Dublin,.,Ireland		
Within the Country	15 01 04	No	468.1	metallic packaging	R4	M	Weighed	Offsite in Ireland	Green Dragon Recycling, WFP-CK-10-0060-02 CORBALLY NORTH GLANMIRE CO. CORK Cork Ireland	CORBALLY NORTH ,GLANMIRE ,CO. CORK,Cork,Ireland		
Within the Country	15 01 07	No	27.1	glass packaging	R5	M	Weighed	Offsite in Ireland	Rehab Glassco,WFP-KE-08-0957-01	Nass,Kildare,.,.,ireland		
Within the Country	16 05 04	Yes	1.34	gases in pressure containers (including halons) containing dangerous substances	R4	M	Weighed	Offsite in Ireland	Calor Teoranta,NA	Long Mile Road ,Dublin 12,-,- ,Ireland	Calor Teoranta,NA,Long Mile Road,Dublin 12,-,-,Ireland	Long Mile Road,Dublin 12,-,- ,Ireland
Within the Country	16 06 01	Yes	1.16	lead batteries	R4	M	Weighed	Offsite in Ireland	Enva Ltd.,W0184-01	Clonminam Industrial Estate,Portlaoise,Co. Laois,.,Ireland	Enva Ltd.,W0184-01,Clonminam Industrial Estate,Portlaoise,Co. Laois,.,Ireland	Clonminam Industrial Estate,Portlaoise,Co. Laois,.,Ireland
Within the Country	17 04 02	No	6.36	aluminium	R4	M	Weighed	Offsite in Ireland	Green Dragon Recycling, WFP-CK-10-0060-02 CORBALLY NORTH GLANMIRE CO. CORK Cork Ireland	CORBALLY NORTH ,GLANMIRE ,CO. CORK,Cork,Ireland		
Within the Country	19 01 12	No	4.28	bottom ash and slag other than those mentioned in 19 01 11	D5	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,.,Ireland		
Within the Country	19 08 01	No	460.46	screenings	D5	M	Weighed	Offsite in Ireland	Bord na Mona. Drehid Landfill,W0201-03 Carbury Co Kildare - - Ireland	Carbury ,Co Kildare ,-,- ,Ireland		
To Other Countries	19 12 01	No	3177.68	paper and cardboard	R3	M	Weighed	Abroad	MLM (ACN Europe) Ltd ,TFS Broker IRE/G022/11	.,.,.,.,United Kingdom		
To Other Countries	19 12 01	No	3177.68	paper and cardboard	R3	M	Weighed	Abroad	Mark Lyndon Paper Enterprises,IRE/G021/12 12 The Triangle Nottingham Nottinghamshire NG2 1AE . United Kingdom	12 The Triangle ,Nottingham ,Nottinghamshire NG2 1AE,.,United Kingdom		
To Other Countries	19 12 01	No	3177.68	paper and cardboard	R3	M	Weighed	Abroad	Peute Papier Recycling BV,IRE/G006/08	Veeplaat 40,3313 LJ Dordrecht,.,.,Netherlands		
Within the Country	19 12 02	No	517.31	ferrous metal	R4	M	Weighed	Offsite in Ireland	Davis Recycling Ltd,W0134-01	10 The Anchorage Business Park,Charlotte Quay,Dublin 4,.,Ireland		
Within the Country	19 12 02	No	517.31	ferrous metal	R4	M	Weighed	Offsite in Ireland	Clearcirlce,WCP-LK-08-589-01	ClearCircle Metals (Limerick) Ltd ,Ballysimon Road ,Limerick,.,ireland		
Within the Country	19 12 02	No	517.31	ferrous metal	R4	M	Weighed	Offsite in Ireland	Multi Metals ,WFP-WW-09-0014-01	Blessington ,Co Wicklow ,.,.,ireland		
Within the Country	19 12 07	No	988.54	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	Bord na Mona. Drehid Landfill,W0201-03 Carbury Co Kildare - - Ireland	Carbury ,Co Kildare ,-,- ,Ireland		
Within the Country	19 12 07	No	109.84	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	Acorn Recycling ,W0249-01	Littleton ,Co Tipperary ,.,.,ireland		
Within the Country	19 12 07	No	19.26	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	Waddocks Composting,WP11/04 & WP 01/02	Killamaster,Co. Carlow,.,.,Ireland		
Within the Country	19 12 07	No	21.26	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	Greenstar Ltd Knockharley Landfill ,W0146-02 Kentstown Co. Meath - - Ireland	Kentstown ,Co. Meath ,-,- ,Ireland		
Within the Country	19 12 07	No	1302.28	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,.,Ireland		
Within the Country	19 12 09	No	24.4	minerals (for example sand, stones)	R3	M	Weighed	Offsite in Ireland	Bord na Mona. Drehid Landfill,W0201-03 Carbury Co Kildare - - Ireland	Carbury ,Co Kildare ,-,- ,Ireland		
Within the Country	19 12 09	No	8.3	minerals (for example sand, stones)	R3	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd ,WP-008-02	Lawlesstown , Clonmel , Co. Tipperary ,-,ireland		
Within the Country	19 12 09	No	197.72	minerals (for example sand, stones)	R3	M	Weighed	Offsite in Ireland	Limerick CoCo Gortnadroma Landfill,W0017-04	Gortadroma ,Ballyhahill ,Co. Limerick ,Limerick,Ireland		
Within the Country	19 12 09	No	2626.92	minerals (for example sand, stones)	R3	M	Weighed	Offsite in Ireland	Marrakesh Landfill,W0048-01	Kilmurry South ,Bray ,Co Wicklow ,.,ireland		
Within the Country	19 12 09	No	96.14	minerals (for example sand, stones)	R3	M	Weighed	Offsite in Ireland	Greenstar Ltd Knockharley Landfill ,W0146-02 Kentstown Co. Meath - - Ireland	Kentstown ,Co. Meath ,-,- ,Ireland		
Within the Country	19 12 09	No	13462.66	minerals (for example sand, stones)	R3	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,.,Ireland		
Within the Country	19 12 12	No	6627.96	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	D5	M	Weighed	Offsite in Ireland	Bord na Mona. Drehid Landfill,W0201-03 Carbury Co Kildare - - Ireland	Carbury ,Co Kildare ,-,- ,Ireland		
Within the Country	19 12 12	No	2351.82	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R5	M	Weighed	Offsite in Ireland	Greyhound Recycling & Recovery Limited,W0205-01	Crag Avenue,Clondalkin Industrial Estate,Clondalkin ,Dublin 22,Ireland		
Within the Country	19 12 12	No	1273.86	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R1	M	Weighed	Offsite in Ireland	Indaver IWMF ,W0167-02	Carlanstown , Duleek , Co Meath ,.,ireland		
Within the Country	19 12 12	No	86.52	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R5	M	Weighed	Offsite in Ireland	Oxigen Environmental Limited,W-0208-1	Ballymount Industrial Estate ,Ballymount Road Lower ,Clondalkin ,Dublin 22,ireland		
Within the Country	19 12 12	No	110.78	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R5	M	Weighed	Offsite in Ireland	Panda,W039-02	Ballymount Cross,Tallaght,Dublin 24,- ,ireland		
Within the Country	19 12 12	No	26556.21	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	D5	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,.,Ireland		
Within the Country	19 12 12	No	1906.31	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R5	M	Weighed	Offsite in Ireland	Greenstar Limited,W0183-01	Millennium Business Park,Grange,Ballycoolin,Dublin 11,Ireland		
Within the Country	20 01 08	No	364.34	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Acorn Recycling ,W0249-01	Littleton ,Co Tipperary ,.,.,ireland		
Within the Country	20 01 08	No	27.58	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Waddocks Composting,WP11/04 & WP 01/02	Killamaster,Co. Carlow,.,.,Ireland		
To Other Countries	20 01 36	No	3.36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	R4	M	Weighed	Abroad	NWP Recycling ,NWP Recycling Portadown Co Armagh . . United Kingdom	Portadown ,Co Armagh ,.,.,United Kingdom		
Within the Country	20 01 38	No	1.6	wood other than that mentioned in 20 01 37	R3	M	Weighed	Offsite in Ireland	Davis Recycling Ltd,W0134-01	10 The Anchorage Business Park,Charlotte Quay,Dublin 4,.,Ireland		
Within the Country	20 01 39	No	98.32	plastics	R3	M	Weighed	Offsite in Ireland	Polymer Recovery Ltd,WFP-LS-09-0007-01 Polymer Recovery Ltd East Canal road Portarlington Business Park Portarlington Co. Laois.	Polymer Recovery Ltd ,East Canal road ,Portarlington Business Park ,Portarlington ,Co. Laois.		
Within the Country	20 02 01	No	750.26	biodegradable waste	R3	M	Weighed	Offsite in Ireland	Bord na Mona. Drehid Landfill,W0201-03 Carbury Co Kildare - - Ireland	Carbury ,Co Kildare ,-,- ,Ireland		
Within the Country	20 02 01	No	531.62	biodegradable waste	R3	M	Weighed	Offsite in Ireland	Enrich Environmental,WMP 2004/57	Kilcock Co. Kildare,.,.,.,Ireland		
Within the Country	20 02 01	No	1911.38	biodegradable waste	R3	M	Weighed	Offsite in Ireland	Ormonde Organics,W0237-01	Unit 643 Greenogue Industrial Estate,Rathcoole,Co. Dublin,.,Ireland		
Within the Country	20 02 01	No	165.66	biodegradable waste	R3	M	Weighed	Offsite in Ireland	Waddocks Composting,WP11/04 & WP 01/02	Killamaster,Co. Carlow,.,.,Ireland		
Within the Country	20 03 01	No	94.94	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Bord na Mona. Drehid Landfill,W0201-03 Carbury Co Kildare - - Ireland	Carbury ,Co Kildare ,-,- ,Ireland		
Within the Country	20 03 01	No	259.04	mixed municipal waste	R1	M	Weighed	Offsite in Ireland	Indaver IWMF ,W0167-02	Carlanstown , Duleek , Co Meath ,.,ireland		
Within the Country	20 03 01	No	2662.28	mixed municipal waste	R3	M	Weighed	Offsite in Ireland	Panda,W039-02	Ballymount Cross,Tallaght,Dublin 24,- ,ireland		
Within the Country	20 03 01	No	214.26	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,.,Ireland		
Within the Country	20 03 03	No	22.1	street-cleaning residues	D5	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,.,Ireland		
Within the Country	20 03 07	No	2248.02	bulky waste	D5	M	Weighed	Offsite in Ireland	Bord na Mona. Drehid Landfill,W0201-03 Carbury Co Kildare - - Ireland	Carbury ,Co Kildare ,-,- ,Ireland		
Within the Country	20 03 07	No	55.2	bulky waste	D5	M	Weighed	Offsite in Ireland	Greenstar Holdings Ltd.,W0165-02	Ballynagran,Coolbeg & Kilcandra,Co. Wicklow,.,Ireland		
Within the Country	20 03 07	No	16.36	bulky waste	R3	M	Weighed	Offsite in Ireland	Greenstar Limited,W0183-01	Millennium Business Park,Grange,Ballycoolin,Dublin 11,Ireland		
Within the Country	20 01 35	Yes	73.48	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and and 20 01 23 containing hazardous components	R4	M	Weighed	Offsite in Ireland	NWP Recycling ,NWP Recycling Portadown Co Armagh . . United Kingdom	Portadown ,Co Armagh ,.,.,United Kingdom		

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