

APPENDIX 9.1
Annual Environmental Reports
Bord na Móna (BnM)



Srahmore Waste Licence W199-1
Annual Environmental Report
2005

24th March 2006

Contents:

1. Introduction
 - 1.1. Report Period.
 - 1.2. Waste Licence Register Number.
 - 1.3. Operator & Address of Facility.
 - 1.4. Environmental Policy.
 - 1.5. Current Management Structure.
2. Waste Management Report
 - 2.1. Site Description
 - Waste Management Activities
 - Quantity of Waste accepted to date.
 - Remaining site capacity
 - Economic Contributions of the Activity.
3. Environmental Emissions of the Activity
 - 3.1. Emissions to Atmosphere Summary.
 - 3.2. Emissions to Water Summary.
 - 3.3. Noise Monitoring Report.
 - 3.4. Groundwater Monitoring Summary.
 - 3.5. Resource & Energy Consumption/Efficiency Summary.
4. Environmental Management System
 - 4.1. Schedule of Environmental Objectives & Targets.
 - 4.2. Environmental Management Programme – Report.
 - 4.3. Environmental Management Programme – Proposal.
 - 4.4. Silt pond Inspection & desilting report.

5. Site Development Works. (completed and proposed for 2006).

5.1. Summary of Main changes/developments/works.

5.2. Summary of Planned Works for 2006.

6. Waste Received and Consigned from the Facility.

6.1. Non-hazardous waste received by the facility.

6.2. Hazardous waste received by the facility.

6.3. Non-hazardous waste sent off-site for Recovery/Disposal.

6.4. Hazardous waste sent off-site for Recovery/Disposal

7. Environmental Incidents & Complaints.

7.1. Reported Incidents Summary.

7.2. Reported Complaints Summary

8. Review of Nuisance Controls.

9. Review of Rehabilitation Plan.

9.1 Vegetation Assessment

10. Review of Environmental Liabilities Insurance Cover.

11. Landfill Costs.

12. Other Reports

12.1. Tank & Pipeline Testing & Inspection Report.

12.2. Placed Peat Stability Assessment.

12.3. AER (date of licence issue to 31st Dec 2004)

Appendix 1 Waste Activity Details.

Appendix 2 Remaining Capacity

Appendix 3 Bergerhoff Dust Gauge Results.

Appendix 4 Emissions to Water Results.

Appendix 5 River Water Monitoring Results

Appendix 6 Groundwater Monitoring Results.

Appendix 7 Resource & Energy Consumption Summary.

Appendix 8 Silt Pond Inspections Log.

Appendix 9 Waste Licence Emission & Monitoring Points

1. Introduction

1.1. Report Period

This Annual Environmental Report covers the period of 01/01/05 to 31/12/05 for the Srahmore Peat Repository at Attavally, Bangor-Erris, Co Mayo. In addition this AER contains a report of the period from the licence issue date and the end of that calendar year (29/10/04 – 31/12/04).

This is the first Annual Environmental Report for Bord na Mona's Peat Repository at Srahmore, Attavally, Bangor-Erris, Co Mayo. The structure and contents of this report are based on the requirements of Schedule D Reports & AER Content.

1.2. Waste Licence Register Number - W199-1

1.3. Operator & Address of Facility.

Bord na Mona Energy Ltd
Srahmore,
Attavally
Bangor-Erris
Co Mayo

1.4. Environmental Policy (attached on next page)



Environmental Policy Statement

Bord Na Mona Energy Limited is a commercial semi-state body with responsibility to develop Ireland's peat resources in the national interest.

Bord Na Mona Energy Limited is committed to gather and make available information on all aspects of its environmental impact and to help improve understanding among the public generally of its role and of the importance of Irish peatlands.

Bord Na Mona Energy Limited recognises the importance of peatland conservation.

Bord Na Mona Energy Limited will leave behind all areas it owns as either an economically or socially integrated resource of high environmental value.

Bord Na Mona Energy Limited seeks to conduct all aspects of its business in an environmentally sensitive manner.

Bord Na Mona Energy Limited will establish an environmental management system specifically addressing the following impacts:

- Discharges to water
- Emissions to atmosphere
- Waste disposal
- Use of natural resources
- Noise, vibration, odour, dust and visual effects
- Natural environmental and eco-system

The environmental management system will be monitored, maintained and continually improved.

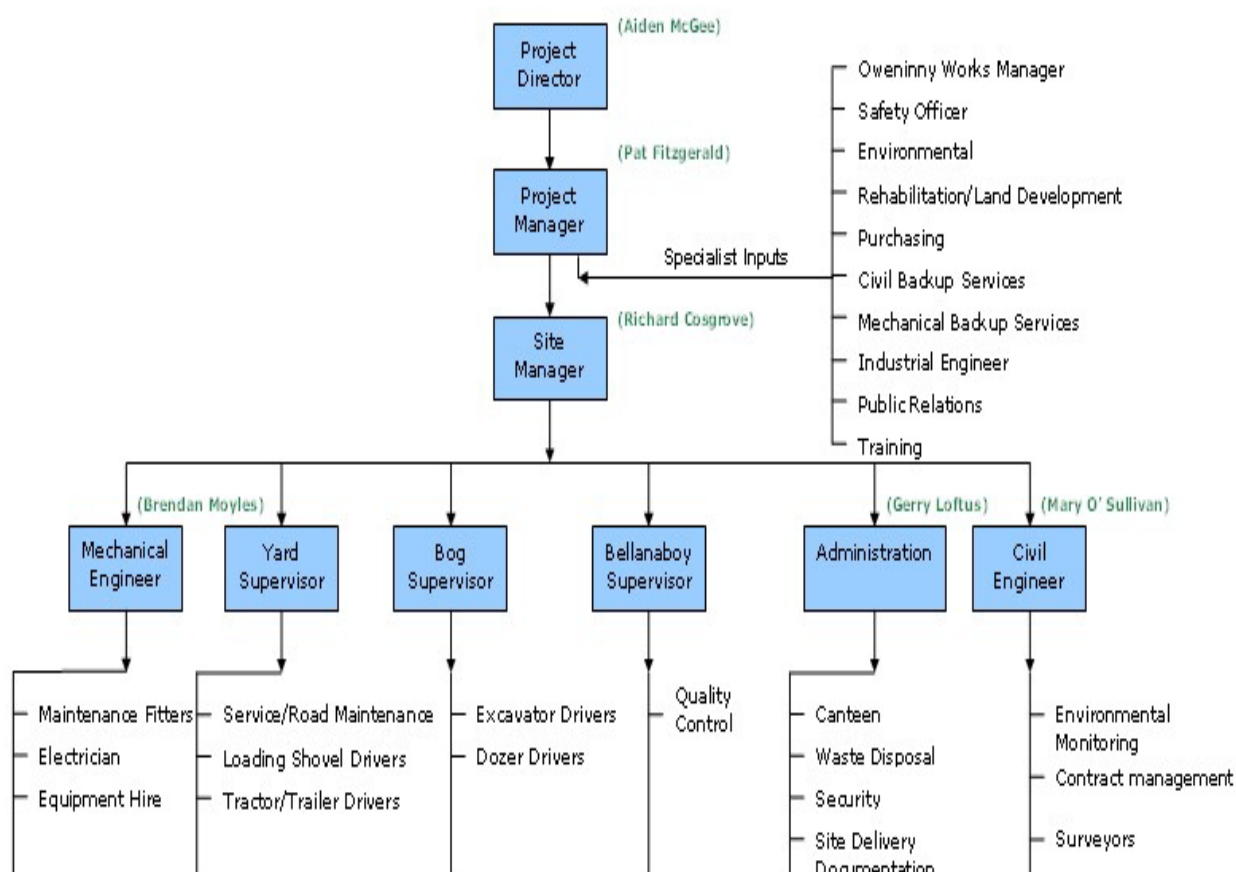
A system of regular environmental audits will be put in place.

Bord Na Mona Energy Limited will continue research and development(R&D) into all aspects of its environmental impact.

This statement is published and is available at all locations within the section and its contents are brought to the attention of all employees

1.5. Current Management Structure

Corrib Project – Peat Deposition Phase



2. Waste Management Report

2.1. Site Description

The site is situated approximately 1km northwest of the village Bangor-Erris and comprises cutover peatland in the Oweninny bog complex. This consists of eight separate areas of cutover peatland, numbered 1 – 8, each of which was assessed for suitability for the development. Area 5 was selected as the peat reception area. Area 6 was selected for the actual deposition of peat and a section of Area 7 is utilised as a “controlled overflow area” in the event of exceedance of the design rainfall. The peat reception area is utilised for off-loading of the peat is the closest area to the public road.

The site is a peat disposal area for the placement of c. 450,000m³ of peat waste excavated from the development of the Shell Corrib Gas Field Terminal at the nearby Bellanaboy Bridge site. The peat, which is from a 3000 to 5000 year old Atlantic Blanket Bog, is transported by road in trucks to the Srahmore deposit area. It was originally anticipated that peat transport and deposit would take place over a 6 month period, spread out over two seasons. However, peat transport and deposit ceased on the 4th July 2005, and as of that date, 112,937tonnes were transported to and deposited at the site. Details of all waste activities, from date of the first waste accepted to cessation of activities on the 4th July 2005 are included in Appendix 1.

As of the preparation of this AER for 2005, the recommencement date of operations at the site is unknown. Therefore it is not possible to estimate when the final capacity is to be reached.

As of the final delivery and deposition of peat to the site on 04/07/05, the remaining capacity is 337,063 tonnes. A map detailing the status of each bay is included in Appendix 2.

During the full operations at the site, up to 126 personnel were employed in the following areas:

BNM (support)	8	General Operatives	24	Security	4
BNM (Engineering)	2	Fitters	5	Environmental	1
Head Office Staff	2	Electricians	1	Archaeological	-
Site Office Staff	2	Site Supervisors	4	Canteen	3
Drivers	70	Contractors	-		
		Total	126		

Plant on site during all operations are as follows:

Machine	Number	Operator
Excavators	20	BNM
Dozers	6	BNM
Tractors	28	BNM
Quads	4	BNM
Loading Shovels	3	BNM

3. Environmental Emissions of the Activity

3.1. Emissions to Atmosphere Summary

The only potential emissions to the atmosphere from the activities on site are dust. As required by Condition 8.8.1, locations for dust monitoring around the site were agreed with the Agency, and Bergerhoff Dust gauges were installed.

During peat deposition activities, which commenced on the 18th April, the dust gauges were monitored every 28 – 32 days. During this period 35 samples were taken from the 5 dust sensitive locations, with 3 of the samples exceeding the Emission Limit Value (350mg/m³/day). These exceedance's were reported to the agency with corrective actions in place. The dust gauges have since been removed, as peat deposition has been suspended. These will be replaced prior to re-commencement of peat deposition.

Results for the 5 dust gauges are included in Appendix 3.

Non-Compliances:

Monitoring Point	Emission (mg/m ³ /day)	Corrective Action
DM-02	422	SR-CA/002
DM-03	894	SR-CA/004
DM-03	1181	SR-CA/006

Procedures regarding dust suppression and dust monitoring are in place on site.

3.2. Emissions to Water Summary

Emissions to water from the site takes place at 3 locations:

Licence Emission Ref. No	SW No
S5-1	SW100
S5-2	SW101
Location 7 (combined from Area 5/6)	SW4

As required by Schedule C (2.2) the following parameters were monitored during peat deposition, from February to October. After this period, when peat deposition was suspended, a revised monitoring regime was agreed with the agency, until peat deposition recommences.

Parameter	Continuous	Daily	Weekly	Monthly	Quarterly
Flow	SW4				
pH			SW4, 100 & 101		
Conductivity	SW4		SW100 & 101		
COD			SW4, 100 & 101		
BOD					SW4
Suspended Solids		SW4	SW100 & 101		
TDS			SW4		
Nitrite (as N)				SW4	
Nitrate (as N)				SW4	
Ammonia (as N)			SW4, 100 & 101		
Total Phosphorus				SW4	
Oils, fats & greases					SW4

Emissions from SW4 are monitored using a flow proportional composite sampler, which operates on a continuous basis. Here a sample bottle is filled over a 24 hour period and sent to Complete Laboratory Services for analysis. The compliance requirements at SW4 are as follows:

8/10 consecutive results, calculated as daily mean concentration or mass emission values on the basis of flow proportional composite sampling, shall not exceed the emission limit value. No individual result similarly calculated shall exceed 1.2 times the emission limit value

Emissions from SW100 & 101 are sampled by grab sample on a weekly basis and sent to the lab for analysis. The compliance requirements at SW100 ^ 101 are as follows:

No grab sample value shall exceed 1.2 times the emission limit value.

The emission limit value (ELV) attached to emissions to water from the site is 35mg/l suspended solids.

Results for the 3 emission points are in Appendix 4.

Non-compliances:

Monitoring Point	Emission (SS mg/l)	ELV (mg/l)	Corrective Action
SW4	65	42	SR-CA/001
SW4	71, 49 & 71	42	SR-CA/003
SW101	72	42	SR-CA/003
SW4	62, 92 & 81	42	SR-CA/005
SW4	210	42	SR-CA/007
SW101	228	42	SR-CA/007
SW4	54	42	SR-CA/009
SW4	45	42	SR-CA/010

3.3 Ambient Monitoring.

River-water Monitoring:

Schedule C (6) requires monthly monitoring for Suspended Solids and Ammonia at two locations on the Munhin River, upstream and down stream of the discharge from Location 7 (SW4). The average suspended solids upstream of the discharge from the site was 9.6 mg/l, while the downstream average was 7.5 mg/l over the 10 month monitoring period.

The average ammonia levels upstream of the discharge are .0114mg/l to .0354 mg/l downstream. These results would be typical of levels found in peatland catchments and are well below the Maximum Allowable Concentration (0.23 mg/l)

This would indicate that the Srahmore Peat Repository activities are having no negative effect on the suspended solids content of the river.

Results of the analysis is attached in Appendix 5.

In addition Biological Quality (Q) rating/Q index is required annually. This was carried out, in agreement with the Agency, on the 17/09/05, by AMGC Environmental Agricultural Consultancy. Assessment was carried out upstream and downstream of the discharge from the site, to establish a Q index for both locations and identify any change in water quality.

The results obtained show an improvement in water quality from the sample location upstream of the discharge and sample location downstream of the discharge. Upstream results indicate a Q3 – Q3/4 (Class C Moderately polluted) while downstream show Q3-4 (Class B Slightly polluted). These results would indicate that the operations have had little or no effect on the Aquatic Ecology of the River. A copy of the report is maintained on file.

Groundwater Monitoring:

Condition 8.10 required the installation of a groundwater monitoring network at the site, in accordance with Agency guidelines. This required one up-hydraulic gradient, one down gradient of the peat reception area, and two down gradient of the peat deposition area.

Only one borehole survived from the initial site investigation, so this involved the installation of three additional boreholes, by Irish drilling Ltd between March 21st and 29th.

Sampling of the boreholes was carried out on the 13/04/05 and the 07/06/05, with the results attached in Appendix 6.

As can be noted, the first round of sampling indicated high COD levels from both the shallow and deeper boreholes even before peat deposition commenced. These were taken directly after the boreholes were installed and the sampling produced samples with high sediment levels. The second round of sampling showed significantly lower COD levels, and occurred after the wells had been pumped clear of all fresh sediment.

Groundwater monitoring will be carried out again, bi-annually, in 2006, once peat deposition recommences.

3.4 Noise Monitoring Report.

Condition 8.11 of the licence requires a noise survey to be carried out during weeks 2, 6 & 12. Due to the on-going difficulties at the Bellanaboy Site, peat deposition only took place on weeks 1, 5, 6, 9, 10 & 11. Based on the daily and weekly stop/start nature of the peat deposition, it was not possible to carry out a survey on weeks 2 & 6.

The first noise survey took place on week 10, on the 20th June 2005. This survey was carried out by Bord na Mona Environmental Ltd in accordance with the requirements of the licence and the methodology specified in the 'Environmental Noise Survey Guidance Document'. The noise survey took place at the same three Noise Sensitive Locations used in the EIA.

NRA – At site entrance from the R313.

NRB – North/West of the site on the R313 at a dwelling.

NRC – West of the site, close to Bangor-Erris Village

Results from the noise survey indicate that while noise levels monitored at the three locations were above the emission limits specified in Schedule B of the licence, it was not due to the activities on the site.

The L_{eq} dB(A) levels at the three sites from 18:30 to 21:00, when operations at the site had ceased, were the same as at 07:00 – 09:00, when the site was operating.

The report indicates that the main sources responsible for the high levels were traffic on the R313 and the N59. This was during the morning and evening periods, and while noise was recorded coming from the safety reversing alarms of the site machines, the overall results and observations indicated that the activity does not have any undesirable impacts on the existing neighbouring noise environment.

A copy of the report is available for inspection at the site office.

Map Ref.	Period (mins)	L_{eq} dB(A)	L_{10} dB(A)	L_{90} dB(A)	L_{Max} dB(A)
NRA (07:00 – 09:00)	30	72	72	49	94
NRA (16:30 – 18:30)	30	69	69	53	89
NRA (18:30 – 21:00)	30	72	75	46	90
NRB (07:00 – 09:00)	30	69	72	45	87
NRB (16:30 – 18:30)	30	68	70	49	86
NRB (18:30 – 21:00)	30	69	73	41	89
NRC (07:00 – 09:00)	30	48	51	40	72
NRC (16:30 – 18:30)	30	49	51	45	77
NRC (18:30 – 21:00)	30	48	51	43	64

3.5 Resource & Energy Consumption

A Resource & Energy Consumption Summary is included in Appendix 7.

There were a number of actions in 2005, which assisted in reducing energy consumption. These included:

1. The site lights were fitted with Photocell's which allowed the lights to automatically come on at dusk and turn off at dawn.

Result: A reduction in Electricity usage.

2. The diesel generator used to power the site was replaced with an electricity connection from the ESB.

Result: A reduction in diesel usage.

Actions planned for 2006 include:

1. A new road layout plan has been produced which aims to reduce the travel time of the tractor and trailer units. This, if successful will result in a reduction in diesel use/tonne of peat deposited.
2. Addition resources will be applied to the Maintenance Programme. This will allow for the efficient maintenance of the plant fleet, resulting in more fuel efficiency. All plant in operation at the facility are new, so the fuel efficiencies of the plant are optimised.

4 Environmental Management System

4.1 Management & Reporting Structure

This is included in section 1.5 and details the current management & reporting structure.

4.2 Schedule of Environmental Objectives & Targets

This sets out the schedule of objectives as proposed by Condition 2.2.2.2.

Objective	Target
1. Minimisation of suspended solids	Assessment of suspended solids generation during peat deposition during the first two months and setting a programme for its reduction
2. Reduction of fugitive dust	Establish the levels of dust generation during peat deposition during the first two months and setting a programme for its reduction.
3. Protection of dust sensitive areas	Establish the levels of dust nuisance at the three dust sensitive locations during the first two months of monitoring and setting a programme for the protection of these areas
4. Reuse of silt pond waste	Monitor the levels of silt pond waste cleanings at the 7 silt ponds and swale locations over the peat deposition period and establish a reuse option.
5. Effective spill leak management of Mobile fuelling units	Comply with all of the condition of the licence in relation to operation and maintenance of all mobile fuelling operations, and assess its effectiveness after 3 months operation.
6. Management of dangerous substances	Comply with the conditions of licence relating to oil and diesel storage, bunding and recycling and review after 2 months operation
7. Management of silt pond flow discharges	Comply with the conditions of the licence in relation to the management of silt pond flow discharges during high rainfall events and assess its effectiveness after two months operation.
8. Reuse of stone used in internal haul-road construction	Investigate any potential re-uses for the geotextile and stone used in the construction of the internal; haul-roads, either on site or in the locality.

4.3 Environmental Management Programme Report.

Minimisation of Suspended Solids (EMP1)

Activity/Emission	Objective	Target Date	Target	Persons Responsible
OT1 Emission of suspended Solids	Minimisation of suspended Solids	On-going programme during the life of the project and as part of aftercare & maintenance.	<p>To comply with Conditions 8.9.1, 8.9.3 & 8.9.4. a programme of weekly inspections of all drainage and subsequent waste treatments systems, daily inspections of discharges to receiving waters and the regulation and monitoring of all silt generating activities will be put in-place. This will be used for establishing the cleaning roster.</p> <p>These systems will be assessed on an ongoing basis for the first two months of peat deposition, to assess the degree of suspended solids generation, and this along with the daily results for SS from the Composite Sampler will be used to establish targets for the reduction of Suspended Solids</p> <p>Status: Daily & weekly inspections are being carried out as per the condition of the licence. These along with SS results have yielded a profile of the silt ponds and their effectiveness. Additional silt pond capacity has been provided, with more efficient utilisation of the controlled overflow area (area 7).</p>	Site Manager & Environmental Manager

Reduction of fugitive dust (EMP2)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT2 Fugitive dust emissions	Reduction of fugitive dust emissions during all operations	On-going programme during the life of the project.	<p>This programme will establish the degree of dust generation during the first two months of peat deposition. Peat delivery, tipping on the peat reception area, loading into the trailers and deposition into the bays will be examined along with any dust suppression methods employed and the appropriate Dust Handling Procedure. This will include the first two months of dust monitoring.</p> <p>The results of these assessments will be used to establish targets for reduction of fugitive dust emissions.</p> <p>Status: This programme and condition 8.8.1. has resulted in the provision of dust gauges at dust sensitive locations (see section 3.1 Emissions to Atmosphere). The main sources of dust from the site is the access road and peat deposition roads. The operations to date have resulted in exceedance's in dust levels on three occasions, with an overall compliance rate of 92%. With the current dust suppression measures in place for next year, BNM are confident that the compliance levels will be at 100%</p>	Site Manager & Environmental Manager

Protection of dust sensitive areas. (EMP3)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT3 Fugitive dust emissions	Protection of Dust sensitive areas.	On-going programme during the life of the project.	<p>Based of the results of the initial two months dust monitoring at the five dust sensitive locations, a programme of protection of dust sensitive locations will be examined.</p> <p>This will address any measures to be put in-place, such as the planting of trees, or any special measures to be put in place to protect any areas that exceed the ELV of 350 mg/m²/day.</p> <p>Status: There have been no complaints regarding dust received at the site. This along with the high level of compliance indicate that dust from the site is not a significant nuisance to any neighbours of the operations, and protection of dust sensitive location is not necessary. This programme will be kept under review.</p>	Site Manager & Environmental Manager

Reuse of silt pond wastes (EMP4)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT4 Reuse of Silt Pond Waste	The reuse of all silt pond wastes.	On-going programme during the life of the project.	<p>As the silt wastes generated from the cleaning and maintenance of silt ponds S5-1, S5-2, Area 5 & Area 6 silt ponds are directly as a result of peat deposition, they will either be used in the Bog & Peat Deposition Area rehabilitation & aftercare, or will be incorporated into the existing bays once deposition is complete. Regardless of the final use, all silt wastes will be moved away from the immediate area of the pond following cleaning, within 5 days, to prevent re-entrainment.</p> <p>Status: As all peat wastes accepted and generated at the site are for landfilling purposes, there is no further use for the silt pond cleanings. These will be incorporated into the peat deposited or if off benefit will be used in the final rehabilitation.</p>	<p>Site Manager & Environmental Manager</p> <p>Site Manager & Environmental Manager</p>

Management of mobile fuelling wagons (EMP5)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT5 Management of mobile Fuelling units	Effective spill/leak management of mobile fuelling units.	On-going programme during the life of the project.	<p>To comply with conditions 3.17, 3.19 and 3.20, the two mobile fuelling units will be stored in a bunded location, with an oil spill kit in-place. Fuelling nozzles will be fitted with overflow shut-off mechanisms, auto fill clips will be disabled. All personnel will be made aware through training, of the Oil/Diesel Loading Procedure & the Emergency Response Procedure. Shortened versions of the procedures will be posted on the tanks and at the bunded storage location. All service wagons will be inspected before use and bi-annually there after. Leaks, flaws, necessary repair etc, will be reported to the Site Manager.</p> <p>All the above will be in-place before peat deposition commences, and will be re-assessed as to its effectiveness every 3 months. The outcome of these assessments will determine any improvements to be made and target dates to achieve them.</p> <p>Status: One diesel spillage occurred from one of the mobile bunded fuelling tanks. This was reported to the Agency. This was due to operator error on behalf of the external diesel delivery contractor. Other than this incident, the operation of these bunded mobile fuelling units has been successful. This project will continually assess its effectiveness and propose any</p>	Site Manager & Environmental Manager

			improvements.	
--	--	--	---------------	--

Management of dangerous substances (EMP6)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT6 Management of dangerous substances List I & List II	To manage of any dangerous substances as listed in I & II of the Dangerous Substances Directive 80/68/EEC	On-going programme during the life of the project.	<p>The only substances from Lists I & II of the Dangerous Substances Directive (76/464/EEC and 80/68/EEC and amendments) are List I (7) Mineral Oils and Hydrocarbons. The management of these will include:</p> <p>(1). Pollution Prevention as required by Conditions 3.13 – 3.21. This includes the safe storage of diesels/oil/Filters and protection of ground and surface water during fuelling operations.</p> <p>(2). Pollution Control: Maintenance of diesel/oil interceptors as required by Conditions 8.9.1 & 8.9.2</p> <p>All of these measures will be in-place before peat deposition commences.</p> <p>A review will be carried out after the first two months operation and every 3 months thereafter, to assess the effectiveness of programme OT6.</p> <p>A programme of improvement will be implemented once the operational performance of the management of diesels & oils has been assessed.</p>	Site Manager & Environmental Manager

			Status: The oil interceptors installed at the site include 3 Klargestor units. These units are installed downstream of the grit trap and are operating successfully. They have also been fitted with alarms, which indicate when they require cleaning. The operation and maintenance of these units is on-going.	
--	--	--	--	--

Management of silt pond flow discharges (EMP7)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT7 Effective management of Silt pond flow discharges	Effective management of flow discharges during periods of high precipitation and flooding.	On-going programme during the life of the project.	<p>As is required by Conditions 3.11 & 3.12, all silt ponds must achieve specific design criteria i.e. max flow velocity $<10 \text{ cm}^{-1}$ and min. $75\text{m}^3/\text{nett ha}$ of bog. Flow regulators must also be fitted to ensure the design flow capacity is not exceeded.</p> <p>The drainage system has been designed to a rainfall event of 31 mm, which equates to a 100 year storm event of 1 hours rainfall.</p> <p>As the preferred option for the drainage management was the controlled discharge of water from the drains to the swale to the silt ponds, appropriate flow regulators will be in-place to ensure the design flow of each of the silt ponds is not exceeded during heavy rainfall and that any excess runoff generated is discharged to the overflow area (Area 7).</p>	Site Manager & Environmental Manager

			<p>Condition 3.4 requires a construction quality assurance validation to be completed on the surface water drainage/control/treatment works. This will include an assessment of the performance of the silt ponds and will assess its compliance with the stated maximum flow velocity $< 10 \text{ cms}^{-1}$</p> <p>The drainage system will be monitored over the first two months of operation to assess if it can be improved.</p> <p>Status: Based on SS results from Location 7 (SW4) and from SW100 & 101, silt control during heavy rainfall can be a problem. Based on this, overflow pumps have been installed as part of corrective action.</p>	
--	--	--	--	--

Reuse of road building materials (EMP8)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT8 Road materials re-use	Reuse of stone used in internal haul-road construction.	As stated in the EIS, the decommissioning plan for the internal haul road network would envisage it occurring at the end of the stabilisation period (5 yrs after deposition has been completed). There may also be a requirement to leave these roads in-place as part of the after use of the	<p>All materials used in the internal haul road construction will be either recycled or reused.</p> <p>The Geotextile will be collected for reuse within BNM for under rail lines, or recycled through a licensed contractor.</p> <p>The 300mm of crushed stone will be recycled through one of the following:</p> <ol style="list-style-type: none"> 1. As internal service roads to a Proposed Wind Farm Development at Oweninny. 	Site Manager & Environmental Manager

		deposition area.	<div>2. As construction material on an alternative site.</div> <div>3. Through an appropriate recycling contractor.</div> <div>4. Placement at the base of the toe drains to assist in drainage.</div> <div>Status: This project will commence once peat deposition is completed.</div>	
--	--	------------------	---	--

4.4 Environmental Management Programme Proposal.

The proposal for 2006 is to continue with the existing EMP Objectives and Targets due to the short duration of the remaining peat deposition.

4.5 Silt Pond Inspection & Desilting Report.

The 7 silt ponds treating waste water from the Srahmore site were cleaned once during the peat deposition period. (see table below).

Pond Number	Date Cleaned
SP 1	21/04/05
SP 2a	02/09/05
SP 2b	02/09/05
SP 3a	02/09/05
SP 3b	02/09/05
SP S5-1	02/09/05
SP S5-2	02/09/05

Inspections of the silt ponds are carried out weekly on the log attached in Appendix 7. A full log of all inspections is maintained at the site office, and this along with SS results obtained from the silt ponds form the basis for the cleaning roster. Due to the fact that peat delivery only took place for 6-7 weeks of 2005, the cleaning requirements were significantly reduced.

The monitoring roster is maintained on site.

5 Site Development Works.

5.1 Summary of main changes/developments/works & planned works for 2006.

Post Deposition 2005.

1. Lining of exposed section of link drain from reception area.
Exposed subsoil covered with 1mm lining to prevent colloidal material entering silt ponds.
2. Lining of exposed section of Swale
Exposed subsoil covered with 1mm lining to prevent colloidal material entering silt ponds
3. Site perimeter fencing.
Sections of site open to public access fenced off.
4. Silt pond access fencing.
Access to silt ponds restricted by 2m chainlink fence due to safety concerns

5. Installation of Water Pumps

To assist with drainage of site and used for flow control into area 7.

Pre Deposition 2006.**1. Drainage of area around wheel wash tanks.**

To prevent buoyancy of tanks during exchanging of water.

6 Waste received and consigned from the Facility**6.1 Non-hazardous waste received by the facility.**

		Non-Hazardous Waste Received			
Waste Description	EWC Code	On-site Disposal		On-site Recovery	
		Method	Tonnes	Method	Tonnes
PEAT Grit Trap Waste Wheel Wash Waste	17 05 04	Deposit on Land	113,227	None	
	13 05 01	Deposit on Land	1.5		
	06 05 03	Deposit on Land	5		

6.2 Hazardous waste received by the facility.

		Hazardous Waste Received			
Waste Description	EWC Code	On-site Disposal		On-site Recovery	
		Method	Tonnes	Method	Tonnes
None					

6.3 Non-hazardous waste sent off-site for Recovery/Disposal.

Waste Description	EWC Code	Tonnes	Details of Haulage Contractor	Recovery /Disposal	Name & Address of recovery/Disposal Site
Canteen Waste	20 01 08	2.82	Mayo County Council	Disposal	Rathroen, Killala Rd, Ballina, Co. Mayo
Paper Waste	15 01 01	0.02	Loftus Recycling	Recovery	Loftus Recycling, Farrandeelion, Ballina, Co. Mayo
Cardboard Waste	15 01 01	0.26	Loftus Recycling	Recovery	Loftus Recycling, Farrandeelion, Ballina, Co. Mayo
Septic Tank	20 03 04	26	Asethetic Services	Disposal	Ballina Wastewater Treatment Works, Belleek, Ballina, Co. Mayo
Site Construction Cleanup	17 09 04	1.5	McGrath Industrial Waste	Disposal	McGrath Industrial Waste Ltd, Turlough, Castlebar, Co. Mayo
Grit Trap Waste	13 05 01	1.5	Bord na Móna Energy ttd	Disposal	Peat Deposition Site, Srahmore, Bangor Eris, Co. Mayo
Wheel Wash Waste	06 05 03	5	Bord na Móna Energy ttd	Disposal	Peat Deposition Site, Srahmore, Bangor Eris, Co. Mayo

6.4 Hazardous waste sent off-site for Recovery/Disposal

Consignment Note/TFS Note Number	Date of Dispatch	Description of Waste	EWC Code	Tonnes	Details of Haulage Contractor	Disposal/ Recovery	Name & Address of Recovery/ Disposal site
2109599	03/01/2006	Waste Oil	13 02 05	0.75	Atlas Oil Ltd	Recovery	Atlas Oil Ltd Portlaoise Co Laois
B 205654	12/07/2005	Oil Filters	16 01 07	0.27	Safety Kleen Ireland Ltd	Recovery/Disposal	Safety Kleen Ireland Ltd Unit 5, Airton Rd, Tallaght, Dublin 24
B 200719	04/05/2005	Oil spill & Peat	13 07 01	1.139	Atlas Oil Ltd	Disposal	Atlas Oil Ltd Portlaoise Co Laois

7 Environmental Incidents & Complaints.

7.1 Reported Incidents Summary.

Date	Nature of Incident	Cause	Corrective Action
22/04/2005	Hydraulic oil spill on concrete reception pad	Rupture of hydraulic hose on tipping lorry.	Spill contained and treated with oil absorbent mats. Contaminated materials disposed off by Atlas oil Ltd. SR-EI/001
02/11/2005	Diesel spill from fuel lorry filling site fuel bowser.	Overfill of fuel bowser and diesel sprayed out from breather cap over bunded tank...	Spill contained in grit trap before oil interceptors. Oil booms and absorbent mats used to contain and capture material for disposal. SR-CA/008

7.2 Reported Complaints Summary

Date	Nature of Complaint	Cause	Corrective Action
19/05/2005	Complaint about dozing work & flooding bog in Area 7.	This work was necessary to control flow in Area 7.	Bord na Móna's Srahmore Project Manager (Pat Fitzgerald) & Site Manager (Richard Cosgrove) met Mr Carey to address his concerns detail why the required work was necessary. SR-CT/001
13/06/2005	Noise levels from reversing beepers on the loading shovels operating on site	A Safety device fitted to these particular types of machine that warns individuals when the machines are reversing.	Noise survey was carried out at noise sensitive location. The results were within limits. Reversing alarms cannot be deactivated. SR-CT/002

8 Review of Nuisance Controls.

The nuisance controls at the site only include dust suppression and pest control.

Pest control is provided by Pestguard Environmental Services, and involves the installation of bait boxes at various locations around the site office and canteen facilities. As the only waste accepted at the facility is peat, there is no other requirements regarding the control of pests e.g. bird control. This service is being retained on site for the 2006 season.

Dust suppression is carried out at the site as inspections and observations dictate. The Dust Handling Procedure (DHP) is used to establish when and where dust suppression is required, and was utilised during 2005. This operation will continue once peat deposition re-commences in 2006.

9 Review of Rehabilitation Plan.

Rehabilitation at the Srahmore site is outlined in the Rehabilitation Plan for the Srahmore Peat Deposition Area and Associated Facilities (Feb 2005). The main criteria¹ defining successful rehabilitation of the Srahmore PDA and associated facility are:

- (i) Stabilisation of the deposited peat²
- (ii) Mitigation of silt run-off

Natural revegetation processes are outlined as the BAT for rehabilitation of the Srahmore site. Results so far indicate that vegetation establishes rapidly on the deposited peat. It is anticipated that the plant roots will bind the introduced peat layer, altering the peat structure to create a homogeneous peat mass thereby stabilising the peat.

9.1 Vegetation assessment

Deposition Area

The deposition area comprises access routes on high fields, peat deposition area and drainage channels. To date, approximately 20% of the deposition area has been covered with peat. The peat was deposited and levelled between high fields using long-reach excavators. The final shaping allows for run-off into drainage channels with the peat remaining undisturbed to facilitate natural revegetation processes.

Within weeks the deposited peat was colonised by a flush of soft rush *Juncus effusus* seedlings. Other plants colonising included bulbous rush *Juncus bulbosus* and sorrel *Rumex acetosella*. The soft rush tussocks form the dominant character of the vegetation with inter-tussock spaces of patchy plant

¹ These are the basic criteria as identified in the consultation process for development of *The Rehabilitation Plan* for the entire Oweninny Works.

² Stabilisation of these areas infers revegetation. Once stabilised there will be no potential peat run-off from the site, which will cover the second criterion for successful rehabilitation.

cover (Fig. 1). The cover of this pioneer vegetation is continuous over the entire area of deposited peat.



Fig. 1. Overview of the vegetation establishing on peat deposited at the Srahmore site. This photo was taken in November 2005.

The establishment of other species between the tussocks of soft rush will further bind the peat together and eventually lead to a complete cover and stabilisation of the introduced peat.

Vegetation cover in the remaining uncovered area is low and comprises patchy growth of bog cotton *Eriophorum angustifolium* and soft rush *Juncus effusus*.

Water over-spill area (Area 7)

This area was rehabilitated in line with the rehabilitation plan for the Oweninny Works, Cutaway Bog Rehabilitation (2003). This involved field drain blocking and it is anticipated that natural revegetation processes will proceed in this area and over the duration of the peat deposition activity. The overflow facility will be maintained for the duration of the peat deposition and also for a number of years following the activity to ensure that there is no build-up of water on site. When the area is no longer required, the site will be re-surveyed to determine the vegetative condition and whether further rehabilitation work is required (unlikely to be more than superficial).

Off-loading facility (Area 5)

Construction work was completed in April 2005. To date, there has been extensive colonisation of the surrounding bare peat, predominantly soft rush *Juncus effusus*.

10 Review of Environmental Liabilities Insurance Cover.

In Accordance with the requirements of Schedule D, Annual Environmental Report Content, a review of the Environmental Liabilities Insurance Cover is required. The initial Environmental Liabilities Risk Assessment (ELRA) was carried out in March 2005. This assessment examined 8 Potential Hazards, including, peat combustion, dust blow, sediment laden run-off, fire etc.

Of the critical potential hazards identified, mobilisation of peat off site and sediment laden run-off have not been highlighted as a potential problem during the operation of the site in 2005. The number of non-compliances occurring has shown a compliance level of 97% for all emissions to water from the site. The risk of peat mobilisation from the site was identified as low in the ELRA, and during peat deposition in 2005, there were no indications that the status of this risk had increased.

The Licence requires the completion of a stability assessment of each bay, once it has been filled. No bays were filled during 2005, so a stability assessment will be carried out in 2006, after each bay is filled.

To date, the natural re-vegetation as specified in the EIS has progressed better than expected (see photo in previous section). The continuous cover of soft rush (*Juncus effusus*) is already well established on the deposited peat, and has progressed its stabilisation.

Based on the experiences of peat deposition during 2005 and the results of environmental monitoring, performance and compliance reported in this AER, the Environmental Liabilities Insurance Cover for 2006 is adequate.

11 Landfill Costs

Condition 12.2.1 requires the licence holder to submit a statement on the determination of charge for the disposal of waste in accordance with the requirements of S.I. No. 337 of 2002 European Communities Regulation 2002.

Following the consultation of this regulation, it is determined that as Srahmore Peat Deposition Site is only accepting waste peat from one permitted contractor, and that this charge has been agreed with the contractor prior to the commencement of the peat deposition and is applicable for the duration of the contract, the provision of this statement does not apply. The price agreed with the contractor is commercially sensitive.

12 Other Reports.

12.1 Fuel Bowser Testing.

Both fuel bowers were supplied by Cashes Engineering Ltd. Both of these bowers were certified and tested by the manufacturer. A copy of the conformity certificates are kept on file in Strathmore.

12.2 Placed Peat Stability Assessment.

Condition 8.7 requires a stability assessment of each bay once filled. As no bays were filled during 2005, the stability assessments will be carried out once each bay is filled when peat deposition recommences.

12.3 AER Report (Date of Licence to 31st December 2004)

The Strathmore Peat Repository licence was issued on the 29th March 2004. Condition 3.2 required the submission of a Construction Plan for the initial development works. This was agreed with the Agency and commenced on the 13th December.

During this period up to 31st December the following environmental works, as specified in the Construction Plan Stage 1, commenced in preparation for the site development works in 2005.

1. Silt ponds 1, 2a, 2b, 3a, & 3b were set out.
2. Silt ponds 1, 2a & 2b were excavated.
3. Silt Ponds 1, 2a & 2b were fitted with weirs on the inlet and outlet

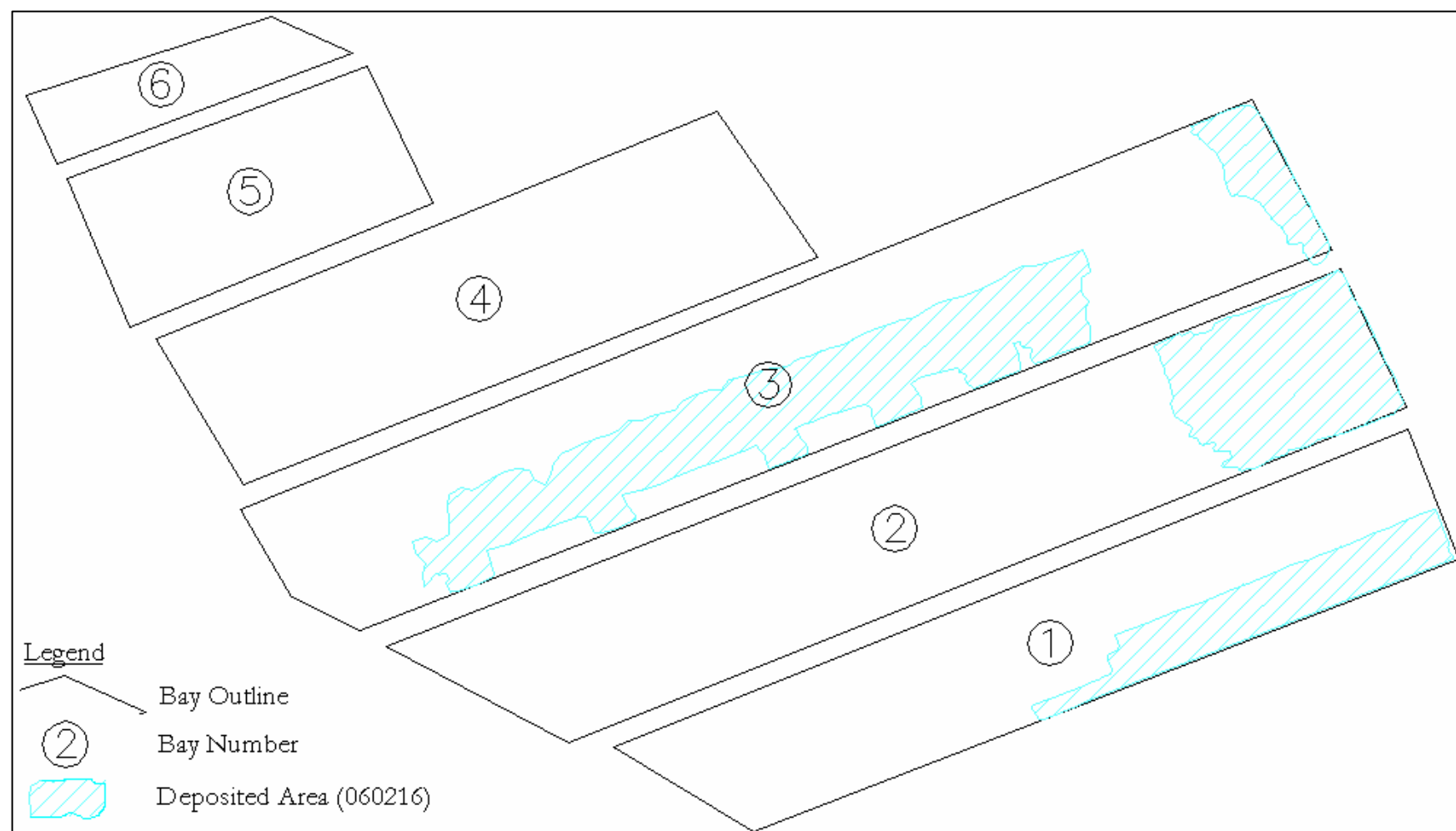
All other works were carried out in the AER reporting period.

Appendix 1

-

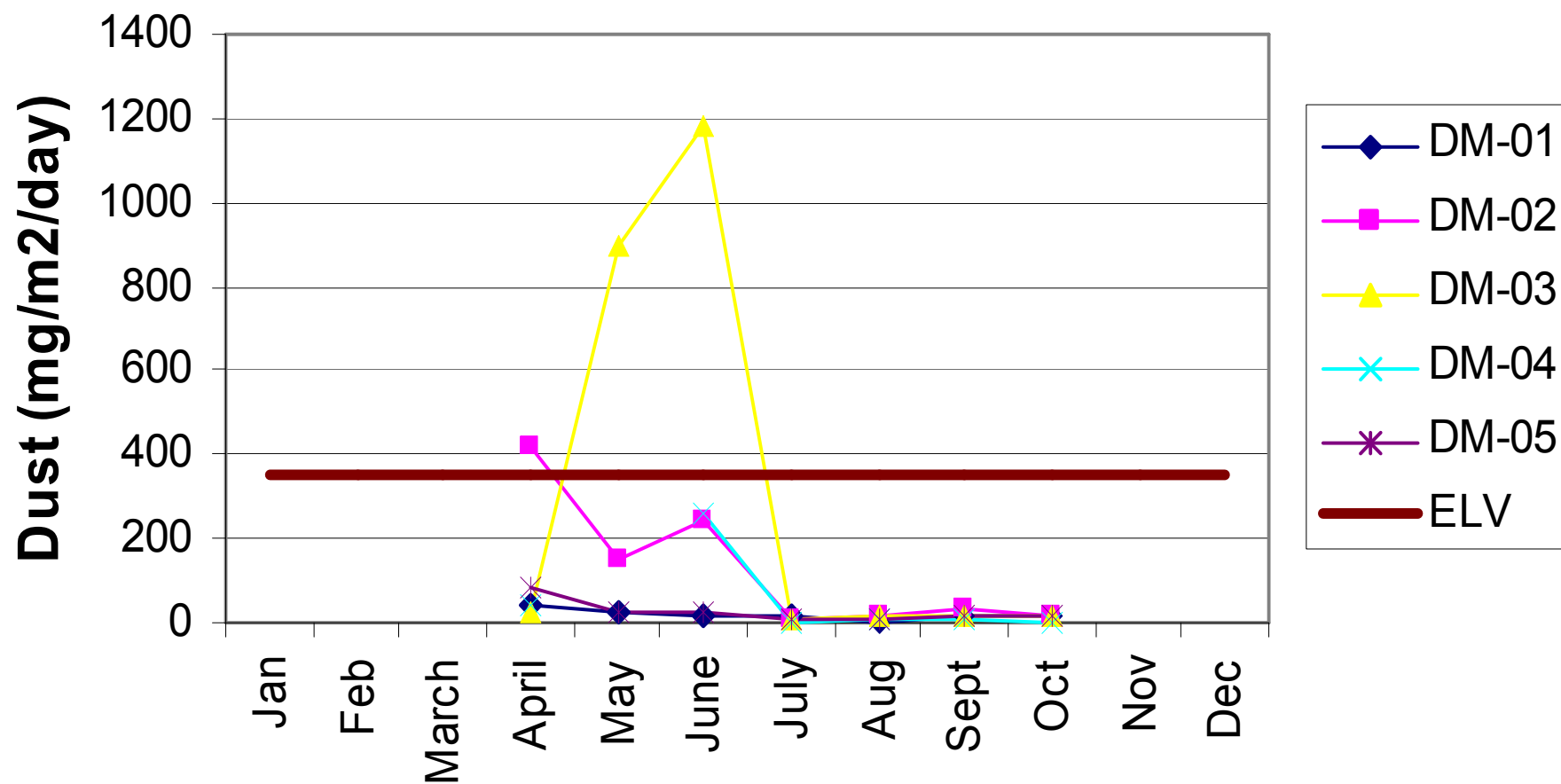
Opr. Week	Date	Deliveries In	Tonnes Delivered	Week	Date	Deliveries In	Tonnes Delivered	Opr. Week	Date	Deliveries In	Tonnes Delivered
Week 1	Mon 18 Apr 05	57	1,362	Week 5	Mon 16 May 05	7	127	Week 9	Mon 13 Jun 05	98	2,492
	Tue 19 Apr 05	90	2,150		Tue 17 May 05	98	2,170		Tue 14 Jun 05	113	2,821
	Wed 20 Apr 05	39	932		Wed 18 May 05	131	2,850		Wed 15 Jun 05	189	4,302
	Thu 21 Apr 05	51	1,218		Thu 19 May 05	151	3,347		Thu 16 Jun 05	220	5,028
	Fri 22 Apr 05	103	2,461		Fri 20 May 05	155	3,592		Fri 17 Jun 05	225	5,134
	Sat 23 Apr 05	0	No Peat		Sat 21 May 05	79	1,749		Sat 18 Jun 05	0	No Peat
		340	8,123			621	13,835			845	19,776
Week 2	Mon 25 Apr 05	58	1,322	Week 6	Mon 23 May 05	169	3,835	Week 10	Mon 20 Jun 05	218	5,044
	Tue 26 Apr 05	0	No Peat		Tue 24 May 05	169	3,923		Tue 21 Jun 05	221	5,024
	Wed 27 Apr 05	0	No Peat		Wed 25 May 05	183	4,195		Wed 22 Jun 05	228	5,274
	Thu 28 Apr 05	0	No Peat		Thu 26 May 05	165	3,779		Thu 23 Jun 05	153	3,588
	Fri 29 Apr 05	0	No Peat		Fri 27 May 05	130	3,059		Fri 24 Jun 05	191	4,473
	Sat 30 Apr 05	0	No Peat		Sat 28 May 05	0	No Peat		Sat 25 Jun 05	0	No Peat
		58	1,322			816	18,791			1,011	23,402
Week 3	Mon 02 May 05	0	B.H.	Week 7	Mon 30 May 05	99	2,423	Week 11	Mon 27 Jun 05	226	5,294
	Tue 03 May 05	0	No Peat		Tue 31 May 05	0	No Peat		Tue 28 Jun 05	237	5,491
	Wed 04 May 05	0	No Peat		Wed 01 Jun 05	0	No Peat		Wed 29 Jun 05	242	5,854
	Thu 05 May 05	0	No Peat		Thu 02 Jun 05	0	No Peat		Thu 30 Jun 05	205	4,777
	Fri 06 May 05	0	No Peat		Fri 03 Jun 05	0	No Peat		Fri 01 Jul 05	113	2,495
	Sat 07 May 05	0	No Peat		Sat 04 Jun 05	0	No Peat		Sat 02 Jul 05	0	No Peat
		0	0			99	2,423			1,023	23,909
Week 4	Mon 09 May 05	0	No Peat	Week 8	Mon 06 Jun 05	0	B.H.	Week 12	Mon 04 Jul 05	62	1,357
	Tue 10 May 05	0	No Peat		Tue 07 Jun 05	0	No Peat		Tue 05 Jul 05	0	No Peat
	Wed 11 May 05	0	No Peat		Wed 08 Jun 05	0	No Peat		Wed 06 Jul 05	0	No Peat
	Thu 12 May 05	0	No Peat		Thu 09 Jun 05	0	No Peat		Thu 07 Jul 05	0	No Peat
	Fri 13 May 05	0	No Peat		Fri 10 Jun 05	0	No Peat		Fri 08 Jul 05	0	No Peat
	Sat 14 May 05	0	No Peat		Sat 11 Jun 05	0	No Peat		Sat 09 Jul 05	0	No Peat
		0	0			0	0			62	1,357
			9,445				35,049				68,444
						Total Tonnes:				112,937	

Appendix 2



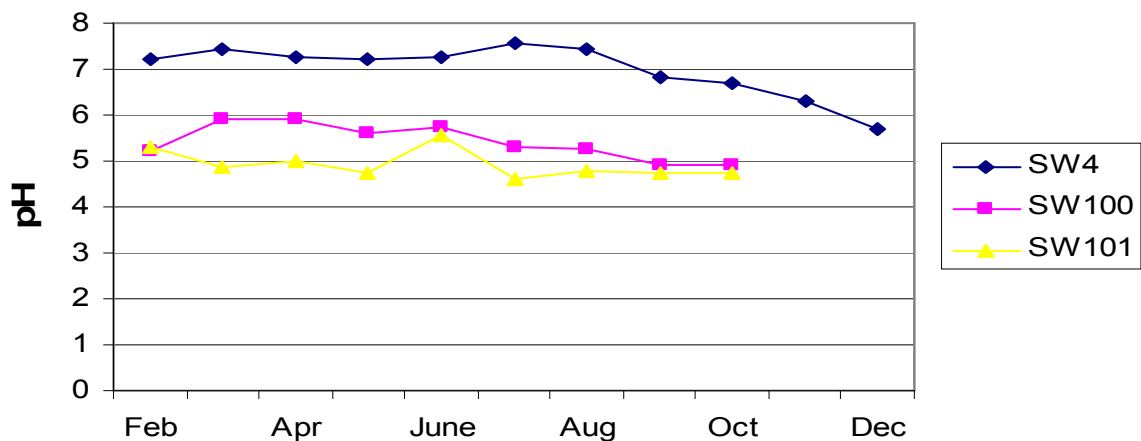
Appendix 3

Srahmore Waste Licence - (Dust Deposition)

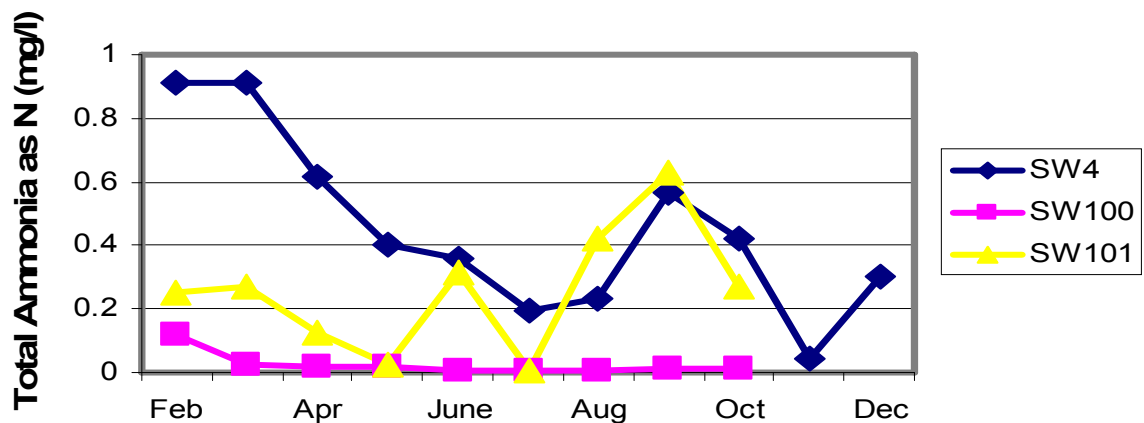


Appendix 4

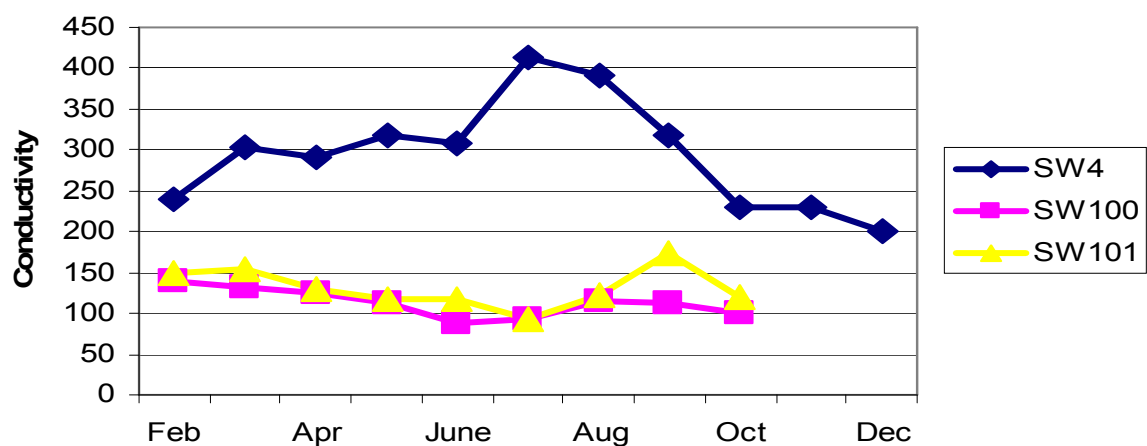
Srahmore Waste Licence - (Average pH)



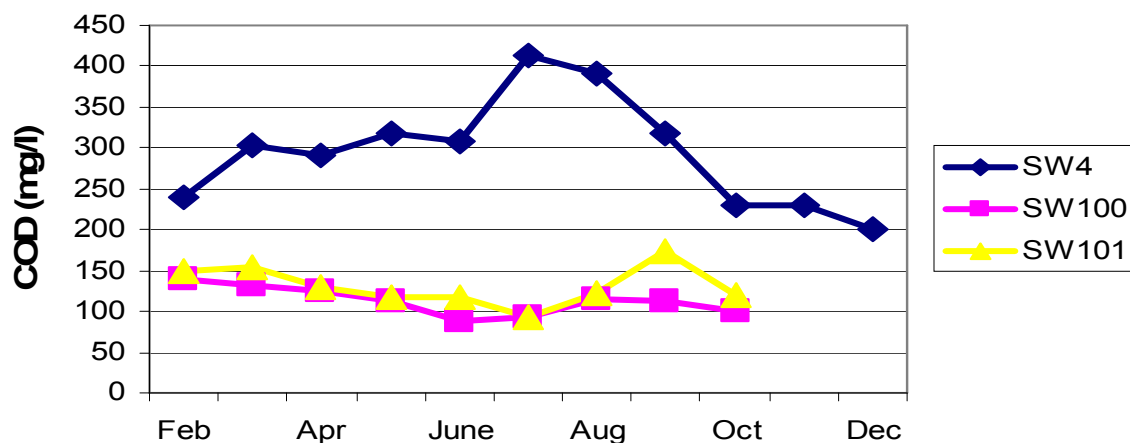
Srahmore Waste Licence - (Average Total Ammonia)



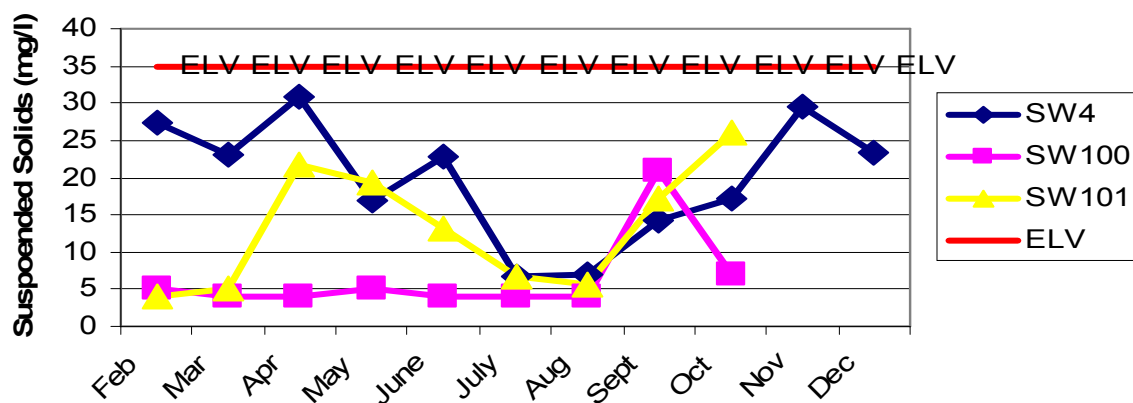
Srahmore Waste Licence - (Average Conductivity)



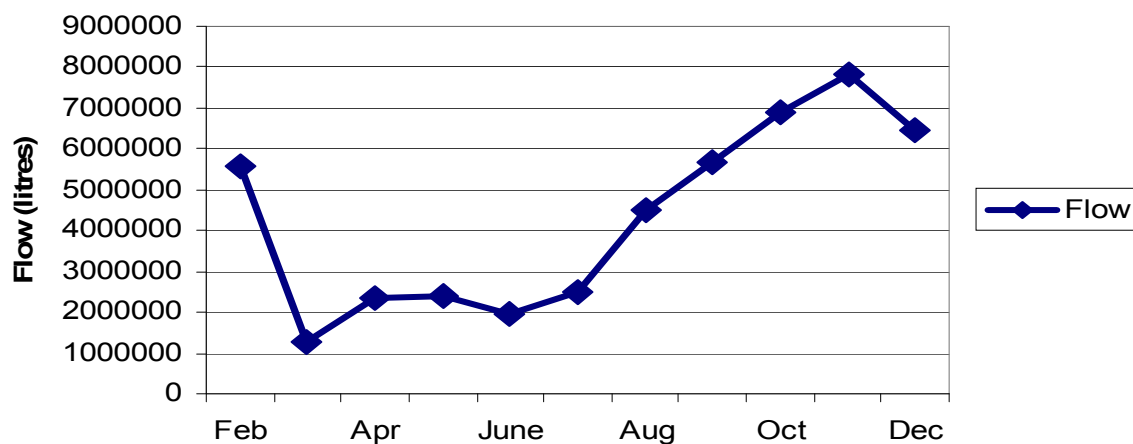
Srahmore Waste Licence - (Average COD)

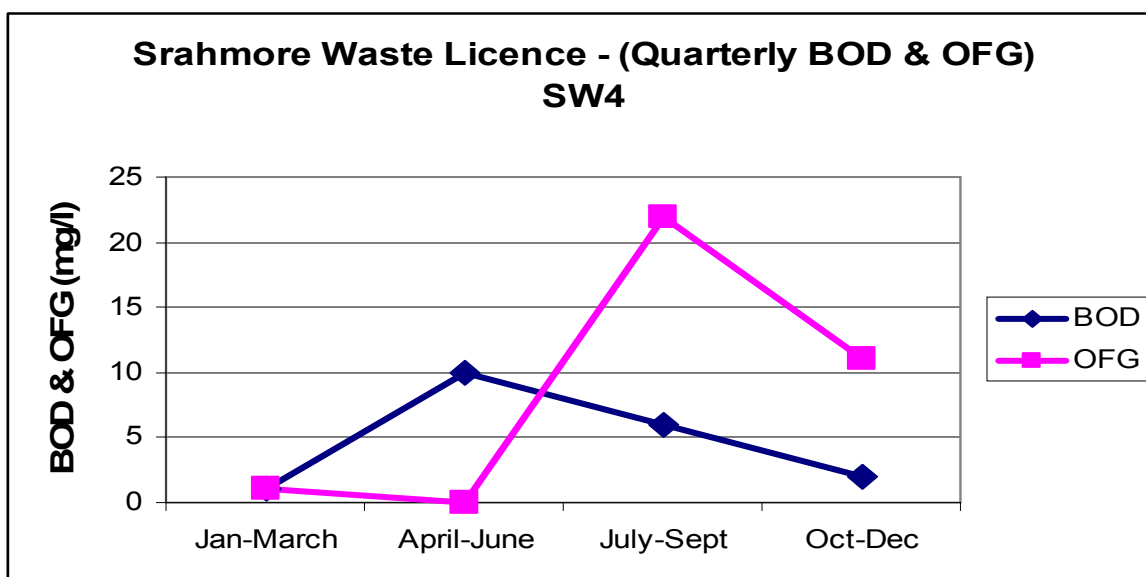
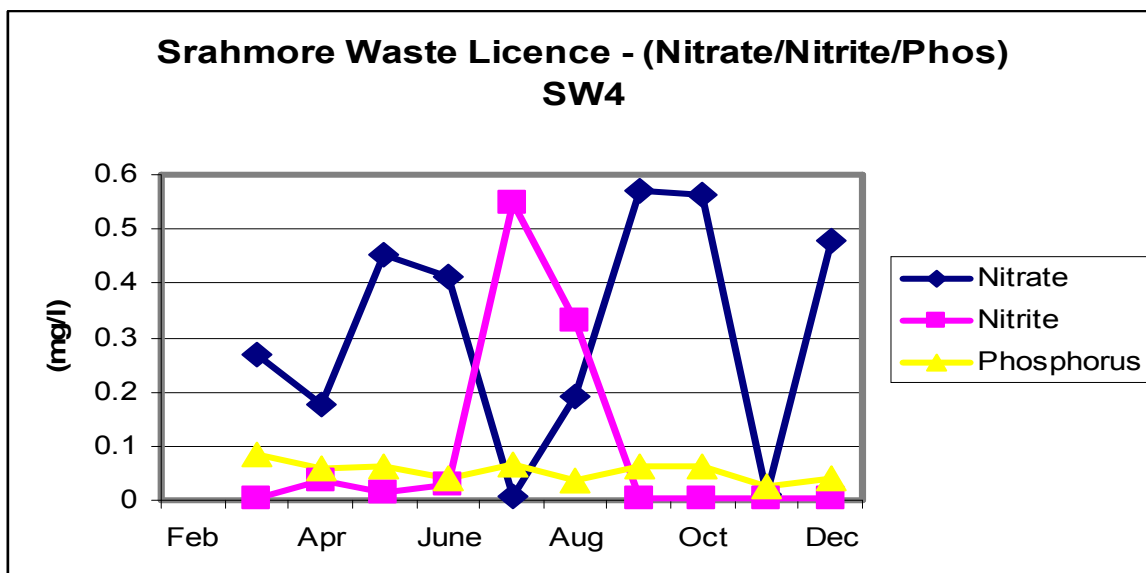
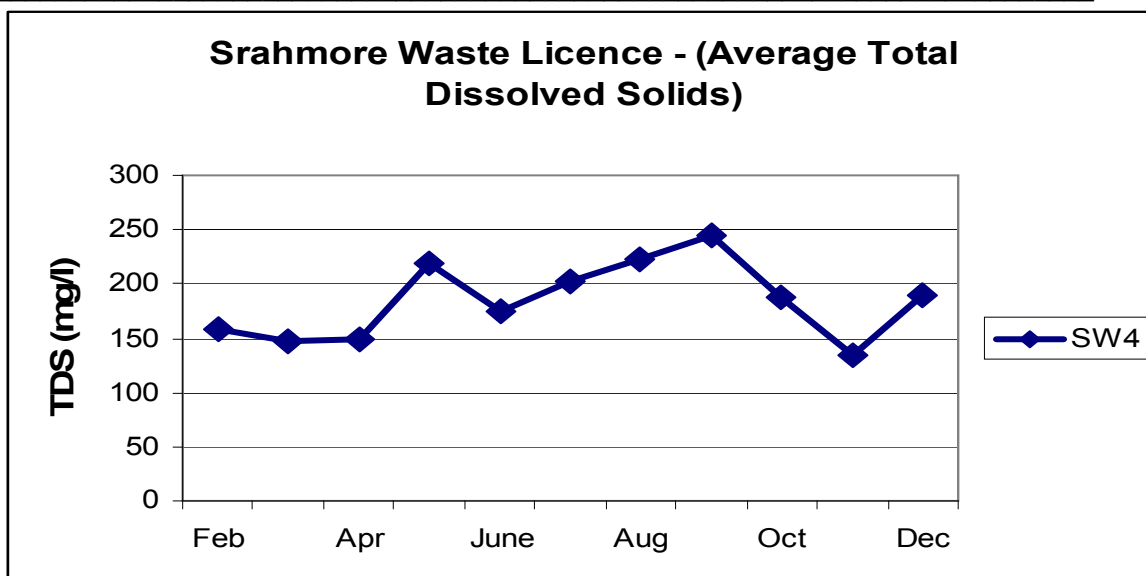


Srahmore Waste Licence - (Average Suspended Solids)



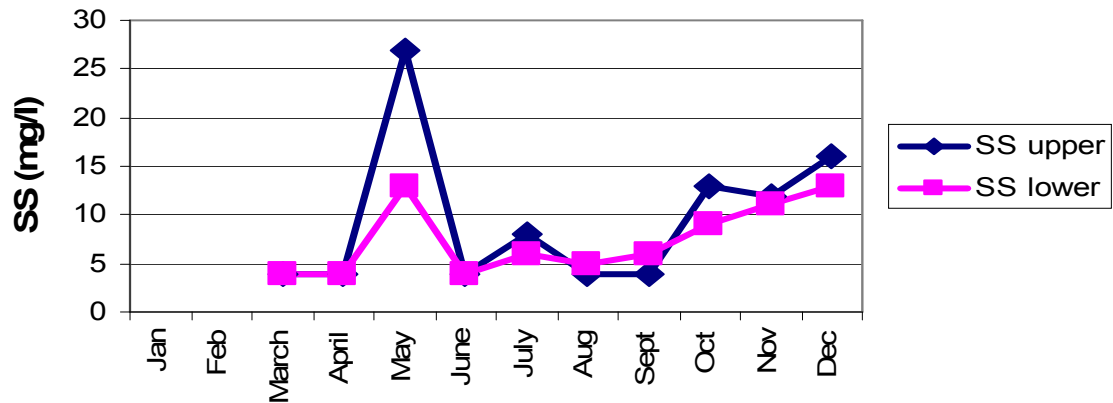
Srahmore Waste Licence - (Average Flow) SW4



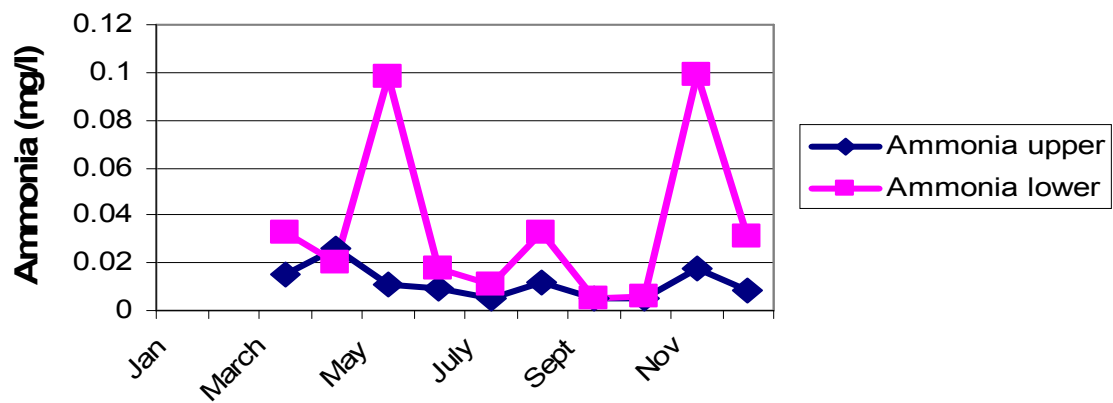


Appendix 5

Srahmore Waste Licence - (Monthly Suspended Solids Munhin River)



Srahmore Waste Licence - (Monthly Ammonia Munhin River)



Appendix 6

Srahmore Waste Licence W199-1						Groundwater		
Month: February 2005 - First Quarter								
Date	BH 1A	BH 1B	BH 2A	BH 2B	BH 3A	BH 3B	BH 4A	BH4B
Apr-05								
13/04/2005								
COD	39	33	1200	122	775	79	458	475
Nitrate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Ammonia	2.242	2.08	2.38	3.168	2.455	1.754	1.883	2.861
Conductivity	600	614	232	398	195.4	254	373	256
Diesel Range	<10	<10	<10	<10	<10	<10	<10	<10
Organics								
June 05'								
07/06/2005								
COD	21	16	34	80	16	97	358	45
Nitrate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.379	<0.1
Total Ammonia	2.533	3.977	2.408	3.352	1.652	2.554	1.988	2.852
Conductivity	555	261	550	255	253	187	259	212
Diesel Range	<10	<10	<10	<10	<10	<10	<10	<10
Organics								

Appendix 7

Energy Usage

Energy Usage

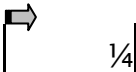

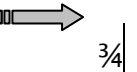
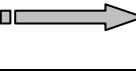
Total Litres: —→

Electrical

Total Units: —→	27,671
-----------------	--------

Kw/Hrs	27,671	27.67
--------	--------	-------

Appendix 8

Bord na Mona Energy Ltd							
Weekly Silt Pond Inspection Log							
Srahmore Peat Repository Site WL. 0199-01							
Silt Pond No.	Checked By.	Date.	Silt ✓			Comments	Date Cleaned
			 1/4	 1/2	 3/4	 Full	
SP 1							
SP 2a							
SP 2b							
SP 3a							
SP 3b							
SP S5-1							
SP S5-2							
SP 1							
SP 2a							
SP 2b							
SP 3a							
SP 3b							
SP S5-1							
SP S5-2							

Appendix 9

LEGEND

REDLINE BOUNDARY

PIPED DRAIN/OUTFALL

HAUL ROAD

HIGH FIELD

FIELD DRAIN

HIGH FIELD TOE DRAIN

SURFACE WATER FLOW DIRECTION

PERIMETER SWALE

DUST MONITORING POINT

NOISE MONITORING POINT

SURFACE WATER EMISSION POINT

BOREHOLES

E = EMISSION POINT, M = MONITORING/SAMPLING POINT

DM-01 M

DUST MONITORING POINT

NR-A M

NOISE MONITORING POINT

SW1 E

SURFACE WATER EMISSION POINT

BH-1A&B M

BOREHOLES

NOTES

DUST MONITORING POINTS: DM-01 to DM-05

NOISE MONITORING POINTS: NR-A to NR-C

SURFACE WATER POINTS: SW1-4 & SW100-101

BOREHOLES: BH1 to BH4 (A & B)

DUST MONITORING POINT DM-01 and NOISE MONITORING POINT NR-C NOT VISIBLE IN A1 (1:2500) LAYOUT.

Project:

Srahmore Peat Deposition Site

Title:

Waste Licence Emission&MonitoringPoints

Drawn by:

MO'S

Scale:

1:2500

Checked by:

Drawing No.:

CW-SR-EPA

Date:

23/08/05

Sheet No.:

1 of 1

No.	Issue	Date
1	Original	23/08/05
2	Revision 1	06/03/06



Srahmore Waste Licence W199-1
Annual Environmental Report
2006

29th March 2007

Contents:

1. Introduction

1.1. Report Period.

1.2. Waste Licence Register Number.

1.3. Operator & Address of Facility.

1.4. Environmental Policy.

1.5. Current Management Structure.

2. Waste Management Report

2.1. Site Description

Waste Management Activities

Quantity of Waste accepted to date.

Remaining site capacity

Economic Contributions of the Activity.

3. Environmental Emissions of the Activity

3.1. Emissions to Atmosphere Summary.

3.2. Emissions to Water Summary.

3.3. Noise Monitoring Report.

3.4. Groundwater Monitoring Summary.

3.5. Resource & Energy Consumption/Efficiency Summary.

4. Environmental Management System

4.1. Schedule of Environmental Objectives & Targets.

4.2. Environmental Management Programme – Report.

4.3. Environmental Management Programme – Proposal.

4.4. Silt pond Inspection & desilting report.

5. Site Development Works. (completed and proposed for 2007).

5.1. Summary of Main changes/developments/works.

5.2. Summary of Planned Works for 2007.

6. Waste Received and Consigned from the Facility.
 - 6.1. Non-hazardous waste received by the facility.
 - 6.2. Hazardous waste received by the facility.
 - 6.3. Non-hazardous waste sent off-site for Recovery/Disposal.
 - 6.4. Hazardous waste sent off-site for Recovery/Disposal
 7. Environmental Incidents & Complaints.
 - 7.1. Reported Incidents Summary.
 - 7.2. Reported Complaints Summary
 8. Review of Nuisance Controls.
 9. Review of Rehabilitation Plan.
 - 9.1 Vegetation Assessment
 10. Review of Environmental Liabilities Insurance Cover.
 11. Landfill Costs.
 12. Other Reports
 - 12.1. Tank & Pipeline Testing & Inspection Report.
 - 12.2. Placed Peat Stability Assessment.
- Appendix 1 Remaining Capacity
- Appendix 2 Emissions to Water Results.
- Appendix 3 River Water Monitoring Results
- Appendix 4 Resource & Energy Consumption Summary.
- Appendix 5 Srahmore Revegetation Photo Inspection
- Appendix 6 Waste Licence Emission & Monitoring Points

1. Introduction

1.1. Report Period

This Annual Environmental Report covers the period of 01/01/06 to 31/12/06 for the Srahmore Peat Repository at Attavally, Bangor-Erris, Co Mayo.

This is the second Annual Environmental Report for Bord na Mona's Peat Repository at Srahmore, Attavally, Bangor-Erris, Co Mayo. The structure and contents of this report are based on the requirements of Schedule D Reports & AER Content.

1.2. Waste Licence Register Number - W199-1

1.3. Operator & Address of Facility.

Bord na Mona Energy Ltd
Srahmore,
Attavally
Bangor-Erris
Co Mayo

1.4. Environmental Policy (attached on next page)



Environmental Policy Statement

Bord Na Mona Energy Limited is a commercial semi-state body with responsibility to develop Ireland's peat resources in the national interest.

Bord Na Mona Energy Limited is committed to gather and make available information on all aspects of its environmental impact and to help improve understanding among the public generally of its role and of the importance of Irish peatlands.

Bord Na Mona Energy Limited recognises the importance of peatland conservation.

Bord Na Mona Energy Limited will leave behind all areas it owns as either an economically or socially integrated resource of high environmental value.

Bord Na Mona Energy Limited seeks to conduct all aspects of its business in an environmentally sensitive manner.

Bord Na Mona Energy Limited will establish an environmental management system specifically addressing the following impacts:

- Discharges to water
- Emissions to atmosphere
- Waste disposal
- Use of natural resources
- Noise, vibration, odour, dust and visual effects
- Natural environmental and eco-system

The environmental management system will be monitored, maintained and continually improved.

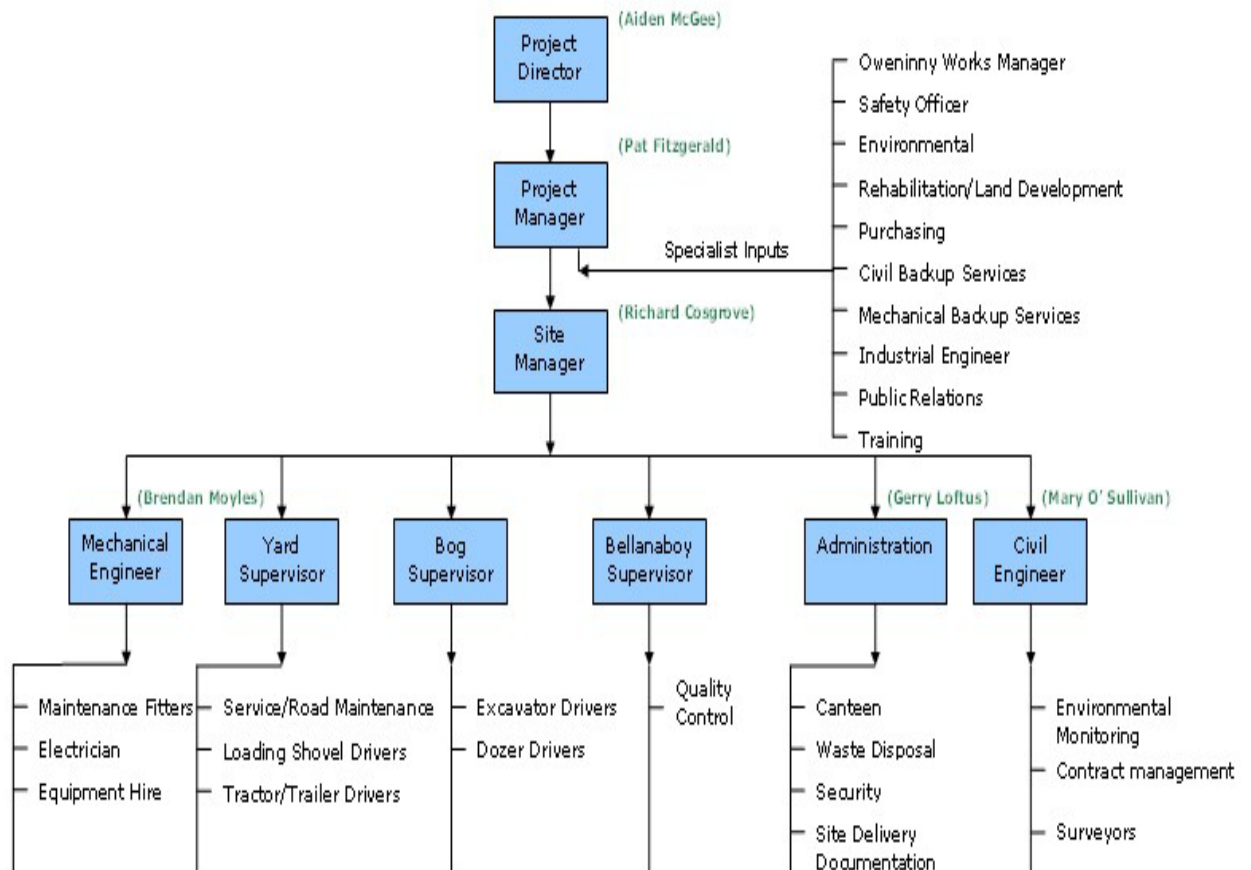
A system of regular environmental audits will be put in place.

Bord Na Mona Energy Limited will continue research and development (R&D) into all aspects of its environmental impact.

This statement is published and is available at all locations within the section and its contents are brought to the attention of all employees

1.5. Current Management Structure

Corrib Project – Peat Deposition Phase



2. Waste Management Report

2.1. Site Description

The site is situated approximately 1km northwest of the village Bangor-Erris and comprises cutover peatland in the Oweninny bog complex. This consists of eight separate areas of cutover peatland, numbered 1 – 8, each of which was assessed for suitability for the development. Area 5 was selected as the peat reception area. Area 6 was selected for the actual deposition of peat and a section of Area 7 is utilised as a “controlled overflow area” in the event of exceedance of the design rainfall. The peat reception area is utilised for off-loading of the peat is the closest area to the public road.

The site is a peat disposal area for the placement of c. 450,000m³ of peat waste excavated from the development of the Shell Corrib Gas Field Terminal at the nearby Bellanaboy Bridge site. The peat, which is from a 3000 to 5000 year old Atlantic Blanket Bog, is transported by road in trucks to the Srahmore deposit area. It was originally anticipated that peat transport and deposit would take place over a 6 month period, spread out over two seasons. However, peat transport and deposit ceased on the 4th July 2005, and as of that date, 112,937tonnes were transported to and deposited at the site.

Peat deposition at the site did not resume during 2006, so therefore no peat was deposited at the Srahmore site during 2006.

As of the preparation of this AER for 2006, the recommencement date of operations at the site is proposed for April 2007. Therefore it is not possible to estimate when the final capacity is to be reached.

As of the final delivery and deposition of peat to the site on 04/07/05, the remaining capacity was 337,063 tonnes. A map detailing the status of each bay is included in Appendix 1.

During the full operations at the site, up to 126 personnel were employed in the following areas:

BNM (support)	8	General Operatives	24	Security	4
BNM (Engineering)	2	Fitters	5	Environmental	1
Head Office Staff	2	Electricians	1	Archaeological	-
Site Office Staff	2	Site Supervisors	4	Canteen	3
Drivers	70	Contractors	-		
		Total			126

Plant on site during all operations is as follows:

Machine	Number	Operator
Excavators	20	BNM
Dozers	6	BNM
Tractors	28	BNM
Quads	4	BNM
Loading Shovels	3	BNM

3. Environmental Emissions of the Activity

3.1. Emissions to Atmosphere Summary

The only potential emissions to the atmosphere from the activities on site are dust. As required by Condition 8.8.1, locations for dust monitoring around the site were agreed with the Agency, and Bergerhoff Dust gauges were installed.

Due to the fact that there was no peat deposition or activity during 2006, dust monitoring was suspended, in agreement with the EPA. This monitoring will recommence prior to resumption of peat deposition.

Procedures regarding dust suppression and dust monitoring are in place on site.

3.2. Emissions to Water Summary

Emissions to water from the site takes place at 3 locations:

Licence Emission Ref. No	SW No
S5-1	SW100
S5-2	SW101
Location 7 (combined from Area 5/6)	SW4

As required by Schedule C (2.2) the following parameters were monitored during peat deposition, from February to October 2005. After this period, when peat deposition was suspended, a revised monitoring regime was agreed with the Agency, until peat deposition recommences.

Monitoring during peat deposition suspension (Jan – Dec 2006)

Monitoring during peat deposition suspension (October 2005 to December 2006)	Continuous	Daily	Weekly	Monthly	Quarterly
Flow	SW4				
pH			SW4		SW 100 & 101
Conductivity	SW4				SW 100 & 101
COD			SW4		SW 100 & 101
BOD					SW4
Suspended Solids			SW4		SW100 & 101

TDS			SW4		SW 100 & 101
Nitrite (as N)				SW4	
Nitrate (as N)				SW4	
Ammonia (as N)			SW4		
Total Phosphorus				SW4	
Oils, fats & greases					SW4

Emissions from SW4 are monitored using a flow proportional composite sampler, which operates on a continuous basis. Here a sample bottle is filled over a 24 hour period and sent to Complete Laboratory Services for analysis.

The compliance requirements at SW4 are as follows:

8/10 consecutive results, calculated as daily mean concentration or mass emission values on the basis of flow proportional composite sampling, shall not exceed the emission limit value. No individual result similarly calculated shall exceed 1.2 times the emission limit value

Emissions from SW100 & 101 are sampled by grab sample on a Quarterly basis and sent to the lab for analysis. The compliance requirements at SW100 & 101 are as follows:

No grab sample value shall exceed 1.2 times the emission limit value.

The emission limit value (ELV) attached to emissions to water from the site is 35mg/l suspended solids.

Results for the 3 emission points are in Appendix 2.

Non-compliances:

Monitoring Point	Emission (SS mg/l)	ELV (mg/l)	Corrective Action
None			

As can be observed from the results, specifically Suspended Solids at SW4, 100 & 101, the average SS is 8.6, 4 and 7 mg/l respectively. This compares with 20, 6 and 13 mg/l for 2005. As there was no activity at the site for 2006, this could be attributed to the significant reduction in SS.

Monitoring in 2005 included the latter part the construction phase of the facility, and this excavation and groundwork's activities would have contributed to the average SS. Given that the site has had an opportunity to stabilise during 2006, BNM are confident that the operation and management of the silt ponds and activities at the site during 2007 will not result in significant non-compliances.

3.3 Ambient Monitoring.

River-water Monitoring:

Schedule C (6) requires monthly monitoring for Suspended Solids and Ammonia at two locations on the Munhin River, upstream and down stream of the discharge from Location 7 (SW4). The average suspended solids upstream of the discharge from the site were 5.3 mg/l, while the downstream average was 7.2 mg/l over the 12 month monitoring period.

The average ammonia levels upstream of the discharge are .0117 mg/l to .0223 mg/l downstream. These results would be typical of levels found in peatland catchments and are well below the Maximum Allowable Concentration (0.23 mg/l)

These results would indicate that the Srahmore Peat Repository activities are having no negative effect on the suspended solids content of the river during peat suspension in 2006.

Results of the analysis are attached in Appendix 3.

In addition Biological Quality (Q) rating/Q index is required annually. This was carried out, in agreement with the Agency, on the 17/09/05, by AMGC Environmental Agricultural Consultancy. Assessment was carried out upstream and downstream of the discharge from the site, to establish a Q index for both locations and identify any change in water quality.

Due to the cessation of peat deposition and activities at the site during 2006, and the environmental monitoring upstream and downstream of the site (see above), it was decided not to carry out another round of Biological Quality Rating. This will be carried out in June – September 2007, in accordance with Schedule C (6), when it is hoped peat deposition will have recommenced.

Groundwater Monitoring:

Condition 8.10 required the installation of a groundwater monitoring network at the site, in accordance with Agency guidelines. This required one up-hydraulic gradient, one down gradient of the peat reception area, and two down gradient of the peat deposition area.

Only one borehole survived from the initial site investigation, so this involved the installation of three additional boreholes, by Irish drilling Ltd between March 21st and 29th 2005

As per AER 2005, Groundwater monitoring was to take place once peat deposition recommenced. Again due to the fact that deposition has not started again to date, groundwater monitoring did not occur. If peat deposition starts again as planned in 2007, bi-annual monitoring will take place.

3.4 Noise Monitoring Report.

Condition 8.11 of the licence requires a noise survey to be carried out during weeks 2, 6 & 12 at the following locations:

NRA – At site entrance from the R313.

NRB – North/West of the site on the R313 at a dwelling.

NRC – West of the site, close to Bangor-Erris Village

Again this was suspended, in agreement with the EPA, until peat deposition starts again.

A map of the Waste Licence Emission & Monitoring Points is included in Appendix 6.

3.5 Resource & Energy Consumption

A Resource & Energy Consumption Summary is included in Appendix 4.

Actions planned for 2006 include:

1. A new road layout plan has been produced which aims to reduce the travel time of the tractor and trailer units. This, if successful will result in a reduction in diesel use/tonne of peat deposited.
2. Addition resources will be applied to the Maintenance Programme. This will allow for the efficient maintenance of the plant fleet, resulting in more fuel efficiency. All plant in operation at the facility are new, so the fuel efficiencies of the plant are optimised.

Due to the inactivity in the site during 2006, these projects are being undertaken in 2007.

4 Environmental Management System

4.1 Management & Reporting Structure

This is included in section 1.5 and details the current management & reporting structure.

4.2 Schedule of Environmental Objectives & Targets

This sets out the schedule of objectives as proposed by Condition 2.2.2.2.

Objective	Target
1. Minimisation of suspended solids	Assessment of suspended solids generation during peat deposition during the first two months and setting a programme for its reduction
2. Reduction of fugitive dust	Establish the levels of dust generation during peat deposition during the first two months and setting a programme for its reduction.
3. Protection of dust sensitive areas	Establish the levels of dust nuisance at the three dust sensitive locations during the first two months of monitoring and setting a programme for the protection of these areas
4. Reuse of silt pond waste	Monitor the levels of silt pond waste cleanings at the 7 silt ponds and swale locations over the peat deposition period and establish a reuse option.
5. Effective spill leak management of Mobile fuelling units	Comply with all of the condition of the licence in relation to operation and maintenance of all mobile fuelling operations, and assess its effectiveness after 3 months operation.
6. Management of dangerous substances	Comply with the conditions of licence relating to oil and diesel storage, bunding and recycling and review after 2 months operation
7. Management of silt pond flow discharges	Comply with the conditions of the licence in relation to the management of silt pond flow discharges during high rainfall events and assess its effectiveness after two months operation.
8. Reuse of stone used in internal haul-road construction	Investigate any potential re-uses for the geotextile and stone used in the construction of the internal; haul-roads, either on site or in the locality.

4.3 Environmental Management Programme Report.

Minimisation of Suspended Solids (EMP1)

Activity/Emission	Objective	Target Date	Target	Persons Responsible
OT1 Emission of suspended Solids	Minimisation of suspended Solids	On-going programme during the life of the project and as part of aftercare & maintenance.	<p>To comply with Conditions 8.9.1, 8.9.3 & 8.9.4. a programme of weekly inspections of all drainage and subsequent waste treatments systems, daily inspections of discharges to receiving waters and the regulation and monitoring of all silt generating activities will be put in-place. This will be used for establishing the cleaning roster.</p> <p>These systems will be assessed on an ongoing basis for the first two months of peat deposition, to assess the degree of suspended solids generation, and this along with the daily results for SS from the Composite Sampler will be used to establish targets for the reduction of Suspended Solids</p> <p>Status: In agreement with the EPA, all inspections of silt ponds, emission points, oil interceptors, etc have been moved out to Monthly during peat suspension. These records are available for inspection at the site office.</p>	Site Manager & Environmental Manager

Reduction of fugitive dust (EMP2)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT2 Fugitive dust emissions	Reduction of fugitive dust emissions during all operations	On-going programme during the life of the project.	<p>This programme will establish the degree of dust generation during the first two months of peat deposition. Peat delivery, tipping on the peat reception area, loading into the trailers and deposition into the bays will be examined along with any dust suppression methods employed and the appropriate Dust Handling Procedure. This will include the first two months of dust monitoring.</p> <p>The results of these assessments will be used to establish targets for reduction of fugitive dust emissions.</p> <p>Status: This programme and condition 8.8.1. has resulted in the provision of dust gauges at dust sensitive locations (see section 3.1 Emissions to Atmosphere). The main potential sources of dust from the site are the access road and peat deposition roads. The operations in 2005 have resulted in exceedances in dust levels on three occasions, with an overall compliance rate of 92%. With all deposition and machine movement stopped for 2006, the same suppression measures will be in place for 2007, if deposition recommences. BNM are confident that the compliance levels will be maintained.</p>	Site Manager & Environmental Manager

Protection of dust sensitive areas. (EMP3)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT3 Fugitive dust emissions	Protection of Dust sensitive areas.	On-going programme during the life of the project.	<p>Based on the results of the initial two months dust monitoring at the five dust sensitive locations, a programme of protection of dust sensitive locations will be examined.</p> <p>This will address any measures to be put in place, such as the planting of trees, or any special measures to be put in place to protect any areas that exceed the ELV of 350 mg/m²/day.</p> <p>Status: There have been no complaints regarding dust received at the site during 2006. This along with the high level of compliance indicate that dust from the site is not a significant nuisance to any neighbours of the operations, and protection of any potential dust sensitive location is not necessary. This programme will be kept under review for 2007 and will be based on the results of the 5 dust gauges and any complaint that may arise.</p>	Site Manager & Environmental Manager

Reuse of silt pond wastes (EMP4)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT4 Reuse of Silt Pond Waste	The reuse of all silt pond wastes.	On-going programme during the life of the project.	<p>As the silt wastes generated from the cleaning and maintenance of silt ponds S5-1, S5-2, Area 5 & Area 6 silt ponds are directly as a result of peat deposition, they will either be used in the Bog & Peat Deposition Area rehabilitation & aftercare, or will be incorporated into the existing bays once deposition is complete.</p> <p>Status: As all peat wastes accepted and generated at the site are for landfilling purposes, there is no further use for the silt pond cleanings. These will be incorporated into the peat deposited or if off benefit will be used in the final rehabilitation.</p>	<p>Site Manager & Environmental Manager</p> <p>Site Manager & Environmental Manager</p>

Management of mobile fuelling wagons (EMP5)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT5 Management of mobile Fuelling units	Effective spill/leak management of mobile fuelling units.	On-going programme during the life of the project.	<p>To comply with conditions 3.17, 3.19 and 3.20, the two mobile fuelling units are stored in a bunded location, with an oil spill kit in-place. Fuelling nozzles will be fitted with overflow shut-off mechanisms and auto fill clips will be disabled. All personnel will be made aware through training, of the Oil/Diesel Loading Procedure & the Emergency Response Procedure. Shortened versions of the procedures are posted on the tanks and at the bunded storage location. All service wagons have been inspected before use and bi-annually there after. Leaks, flaws, necessary repair etc, will be reported to the Site Manager. All the above will be in-place before peat deposition re-commences, and will be re-assessed as to their effectiveness every 3 months. The out come of these assessments will determine any improvements to be made and target dates to achieve them.</p> <p>Status: All of the above measures are in-place during suspension and will be maintained as per the licence for 2007.</p>	Site Manager & Environmental Manager

Management of dangerous substances (EMP6)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT6 Management of dangerous substances List I & List II	To manage of any dangerous substances as listed in I & II of the Dangerous Substances Directive 80/68/EEC	On-going programme during the life of the project.	<p>The only substances from Lists I & II of the Dangerous Substances Directive (76/464/EEC and 80/68/EEC and amendments) are List I (7) Mineral Oils and Hydrocarbons. The management of these will include:</p> <p>(1). Pollution Prevention as required by Conditions 3.13 – 3.21. This includes the safe storage of diesels/oil/Filters and protection of ground and surface water during fuelling operations.</p> <p>(2). Pollution Control: Maintenance of diesel/oil interceptors as required by Conditions 8.9.1 & 8.9.2</p> <p>All of these measures will be in-place before peat deposition commences.</p> <p>A review will be carried out after the first two months operation and every 3 months thereafter, to assess the effectiveness of programme OT6.</p> <p>A programme of improvement will be implemented once the operational performance</p>	Site Manager & Environmental Manager

			<p>of the management of diesels & oils has been assessed.</p> <p>Status: The oil interceptors installed at the site include 3 Klargestor units. These units are installed downstream of the grit trap and are operating successfully. They have also been fitted with alarms, which indicate when they require cleaning. The operation and maintenance of these units is on-going. During 2006, due to no activity at the site, the units did not require any maintenance. They were however inspected during this time and are on record. Sampling for COD at SW2 during the year showed an average of 27 mg/l.</p> <hr/>	
--	--	--	---	--

Management of silt pond flow discharges (EMP7)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT7 Effective management of Silt pond flow discharges	Effective management of flow discharges during periods of high precipitation and flooding.	On-going programme during the life of the project.	<p>As is required by Conditions 3.11 & 3.12, all silt ponds must achieve specific design criteria i.e. max flow velocity $<10 \text{ cm}^{-1}$ and min. $75\text{m}^3/\text{nett ha}$ of bog. Flow regulators must also be fitted to ensure the design flow capacity is not exceeded.</p> <p>The drainage system has been designed to a rainfall event of 31 mm, which equates to a 100 year storm event of 1 hours rainfall.</p>	Site Manager & Environmental Manager

			<p>As the preferred option for the drainage management was the controlled discharge of water from the drains to the swale to the silt ponds, appropriate flow regulators will be in-place to ensure the design flow of each of the silt ponds is not exceeded during heavy rainfall and that any excess runoff generated is discharged to the overflow area (Area 7).</p> <p>Condition 3.4 requires a construction quality assurance validation to be completed on the surface water drainage/control/treatment works. This will include an assessment of the performance of the silt ponds and will assess its compliance with the stated maximum flow velocity $< 10 \text{ cms}^{-1}$</p> <p>The drainage system will be monitored over the first two months of operation to assess if it can be improved.</p> <p>Status: As activities at the site ceased for 2006, the SS results are as expected, low. However rainfall during August to December was 810 mm measured at the Srahmore Site, which was nearly 200 mm above the equivalent 2005 levels. Because of this the overflow area (area 7). This was achieved by installing overflow pumps to pump this excess runoff from the swale to this overflow area.</p>	
--	--	--	--	--

Reuse of road building materials (EMP8)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT8 Road materials re-use	Reuse of stone used in internal haul-road construction.	As stated in the EIS, the decommissioning plan for the internal haul road network would envisage it occurring at the end of the stabilisation period (5 yrs after deposition has been completed). There may also be a requirement to leave these roads in-place as part of the after use of the deposition area.	<p>All materials used in the internal haul road construction will be either recycled or reused.</p> <p>The Geotextile will be collected for reuse within BNM for under rail lines, or recycled through a licensed contractor.</p> <p>The 300mm of crushed stone will be recycled through one of the following:</p> <ol style="list-style-type: none"> 1. As internal service roads to a Proposed Wind Farm Development at Oweninny. 2. As construction material on an alternative site. 3. Through an appropriate recycling contractor. 4. Placement at the base of the toe drains to assist in drainage. <p>Status: This project will commence once peat deposition is completed.</p>	Site Manager & Environmental Manager

4.4 Environmental Management Programme Proposal.

The proposal for 2007 is to continue with the existing EMP Objectives and Targets as set out in the 2005 AER for 2006, due to the short duration of the remaining peat deposition.

4.5 Silt Pond Inspection & Desilting Report.

Inspections of the silt ponds are carried out weekly. A full log of all inspections is maintained at the site office and this along with SS results obtained from the silt ponds form the basis for the cleaning roster. Due to the fact that peat deposition did not occur in 2006, the silt ponds did not require maintenance, based on inspections. The silt ponds have since been cleaned during February 2007.

5 Site Development Works.

5.1 Summary of main changes/developments/works & planned works for 2006.

Inactive Site 2006.

A sump pump was installed around the wheel wash tanks to lower the flooding in this area. During tank maintenance, the positive buoyancy caused the tanks to float. This pumping system now prevents this occurring.

Pre Deposition 2007

- Installation of bog mat road network
- Upgrade of road to workshop to facilitate traffic movement.
- Installation of temporary haul road in bay 5.
- Cleaning and maintenance of site drainage network.
- Resurfacing of main access road and deposition haul link road.

6 Waste received and consigned from the Facility

6.1 Non-hazardous waste received by the facility.

		Non-Hazardous Waste Received			
Waste Description	EWC Code	On-site Disposal		On-site Recovery	
		Method	Tonnes	Method	Tonnes
Grit Trap Waste	13 05 01	Deposit on Land	0.75		
				None	

6.2 Hazardous waste received by the facility.

		Hazardous Waste Received			
Waste Description	EWC Code	On-site Disposal		On-site Recovery	
		Method	Tonnes	Method	Tonnes
None					

6.3 Non-hazardous waste sent off-site for Recovery/Disposal.

Waste Description	EWC Code	Tonnes	Details of Haulage Contractor	Recovery /Disposal	Name & Address of recovery/Disposal Site
Canteen Waste	20 01 08	3.5	Mayo County Council	Disposal	Rathroeen, Killala Rd, Ballina, Co. Mayo
Septic Tank	20 03 04	20	Asethetic Services	Disposal	Ballina Wastewater Treatment Works, Belleek, Ballina, Co. Mayo

6.4 Hazardous waste sent off-site for Recovery/Disposal

Consignment Note/TFS Note Number	Date of Dispatch	Description of Waste	EWC Code	Tonnes	Details of Haulage Contractor	Disposal/ Recovery	Name & Address of Recovery/ Disposal site
200865	04/10/2006	Oil Interceptor Waste	15 03 06	12.00	Envva Ireland Ltd	Recovery	Envva Ireland Ltd Portlaoise Co Laois
336862	04/10/2006	Oily Rag bin	15 02 02	0.60	Envva Ireland Ltd	Disposal	Envva Ireland Ltd Portlaoise Co Laois

7 Environmental Incidents & Complaints.

7.1 Reported Incidents Summary.

Date	Nature of Incident	Cause	Corrective Action
	NONE		

7.2 Reported Complaints Summary

Date	Nature of Complaint	Cause	Corrective Action
	NONE		

8 Review of Nuisance Controls.

The nuisance controls at the site only include dust suppression and pest control.

Pest control is provided by Pestguard Environmental Services, and involves the installation of bait boxes at various locations around the site office and canteen facilities. As the only waste accepted at the facility is peat, there is no other requirements regarding the control of pests e.g. bird control.

Dust suppression is carried out at the site as inspections and observations dictate. The Dust Handling Procedure (DHP) is used to establish when and where dust suppression is required. This operation will continue once peat deposition re-commences in 2006.

9 Review of Rehabilitation Plan.

Rehabilitation at the Srahmore site is outlined in the Rehabilitation Plan for the Srahmore Peat Deposition Area and Associated Facilities (Feb 2005). The main criteria¹ defining successful rehabilitation of the Srahmore PDA and associated facility are:

- (i) Stabilisation of the deposited peat²
- (ii) Mitigation of silt run-off

Natural revegetation processes are outlined as the BAT for rehabilitation of the Srahmore site. Results so far indicate that vegetation establishes rapidly on the deposited peat. It is anticipated that the plant roots will bind the introduced peat layer, altering the peat structure to create a homogeneous peat mass thereby stabilising the peat.

¹ These are the basic criteria as identified in the consultation process for development of *The Rehabilitation Plan* for the entire Oweninny Works.

² Stabilisation of these areas infers revegetation. Once stabilised there will be no potential peat run-off from the site, which will cover the second criterion for successful rehabilitation.

9.1 Vegetation assessment

Deposition Area

The deposition area comprises access routes on high fields, peat deposition area and drainage channels. To date, approximately 20% of the deposition area has been covered with peat. The peat was deposited and levelled between high fields using long-reach excavators. The final shaping allows for run-off into drainage channels with the peat remaining undisturbed to facilitate natural revegetation processes.

Within weeks the deposited peat was colonised by a flush of soft rush *Juncus effusus* seedlings. Other plants colonising included bulbous rush *Juncus bulbosus* and sorrel *Rumex acetosella*. The soft rush tussocks form the dominant character of the vegetation with inter-tussock spaces of patchy plant cover. The cover of this pioneer vegetation is continuous over the entire area of deposited peat.

The establishment of other species between the tussocks of soft rush will further bind the peat together and eventually lead to a complete cover and stabilisation of the introduced peat.

Vegetation cover in the remaining uncovered area is low and comprises patchy growth of bog cotton *Eriophorum angustifolium* and soft rush *Juncus effusus*.

A walkover survey of the Srahmore PDA in August 2006 indicates that the vegetation that had established on the deposited peat is developing further. Inter-tussock spaces of the soft rush are becoming further colonised by herbs, grasses and mosses with intermittent pools. The initial pioneer vegetation is maturing a developing a denser growth pattern.

The vegetation will continue to develop over time and Bord na Móna will continue to monitor the changes in structure and composition.

A Photo inspection of the deposited peat area in Appendix 6 shows how well the natural revegetation has occurred.

10 Review of Environmental Liabilities Insurance Cover.

In Accordance with the requirements of Schedule D, Annual Environmental Report Content, a review of the Environmental Liabilities Insurance Cover is required. The initial Environmental Liabilities Risk Assessment (ELRA) was carried out in March 2005. This assessment examined 8 Potential Hazards, including, peat combustion, dust blow, sediment laden run-off, fire etc.

Of the critical potential hazards identified, mobilisation of peat off site and sediment laden run-off have not been highlighted as a potential problem during the operation of the site in 2005. The number of non-compliances occurring has shown a compliance level of 97% for all emissions to water from

the site in 2005, and 100% compliance in 2006. The risk of peat mobilisation from the site was identified as low in the ELRA, and during peat deposition in 2005, there were no indications that the status of this risk had increased.

The Licence requires the completion of a stability assessment of each bay, once it has been filled. No bays were filled during 2005, so a stability assessment will be carried out once peat deposition recommences in 2006, after each bay is filled.

To date, the natural re-vegetation as specified in the EIS has progressed better than expected (see photo in previous section and Appendix 5). The continuous cover of soft rush (*Juncus effusus*) is already well established on the deposited peat, and has progressed its stabilisation.

Based on the experiences of peat deposition during 2005 and the results of environmental monitoring, performance and compliance as reported in the 2005 and 2006 AER, the Environmental Liabilities Insurance Cover is considered to be adequate.

11 Landfill Costs

Condition 12.2.1 requires the licence holder to submit a statement on the determination of charge for the disposal of waste in accordance with the requirements of S.I. No. 337 of 2002 European Communities Regulation 2002.

Following the consultation of this regulation, it is determined that as Srahmore Peat Deposition Site is only accepting waste peat from one permitted contractor, and that this charge has been agreed with the contractor prior to the commencement of the peat deposition and is applicable for the duration of the contract, the provision of this statement does not apply. The price agreed with the contractor is commercially sensitive.

12 Other Reports.

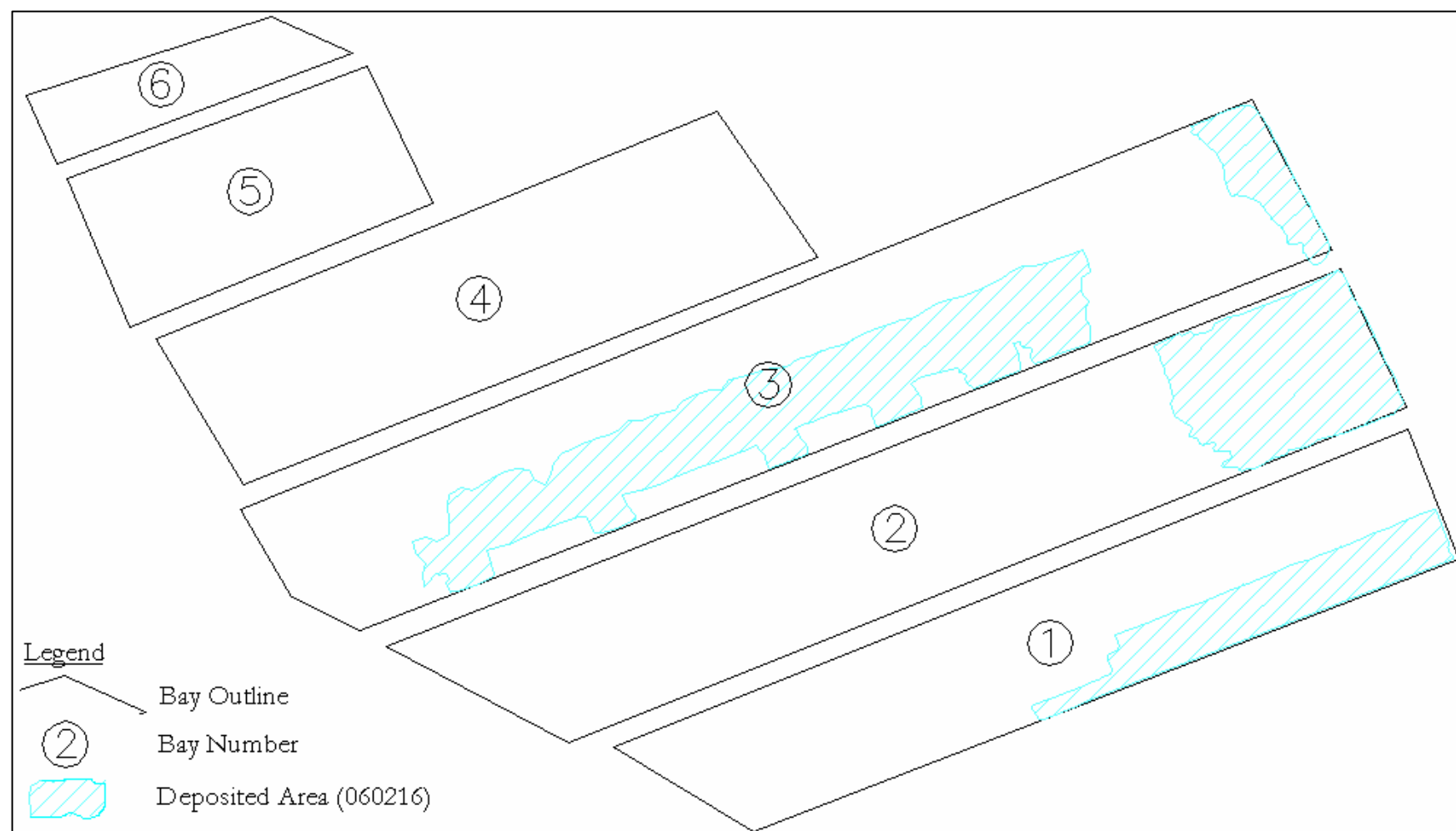
12.1 Fuel Bowser Testing.

Both fuel bowers were supplied by Cashes Engineering Ltd. Both of these bowers were certified and tested by the manufacturer. A copy of the conformity certificates are kept on file in Srahmore.

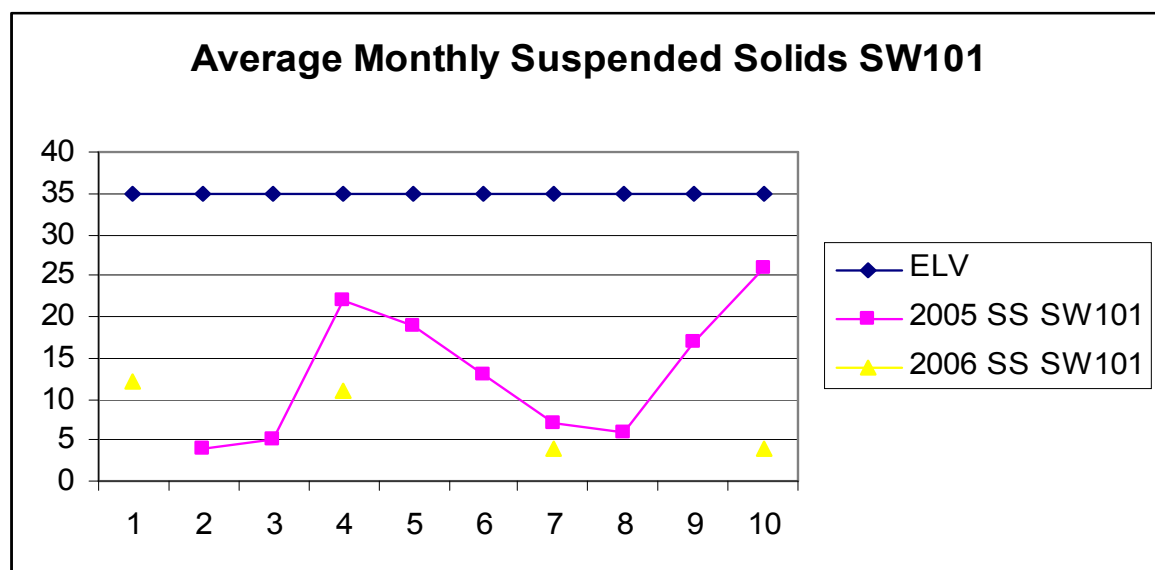
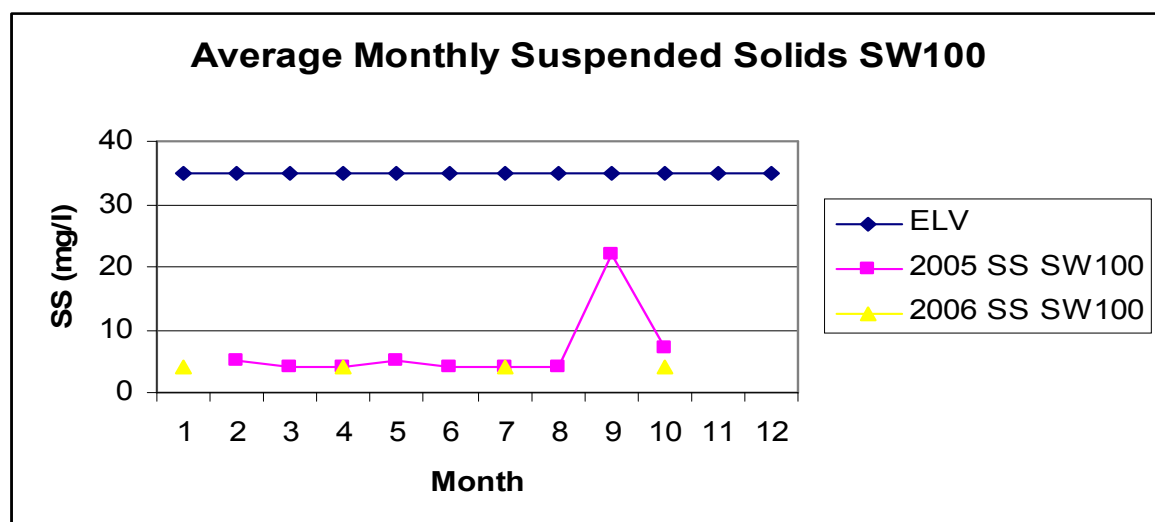
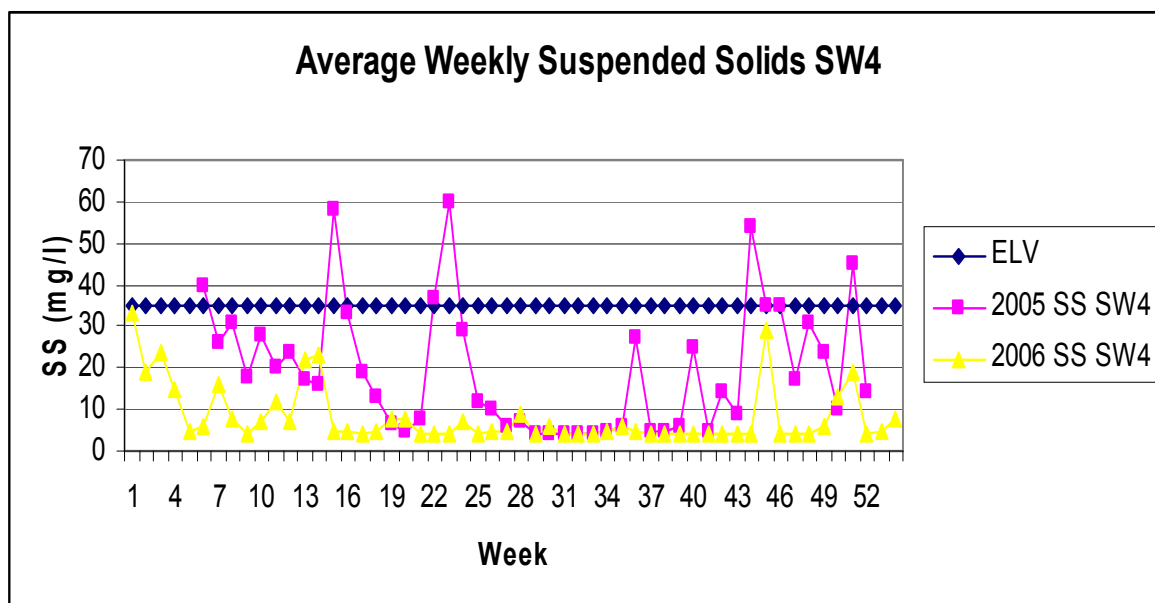
12.2 Placed Peat Stability Assessment.

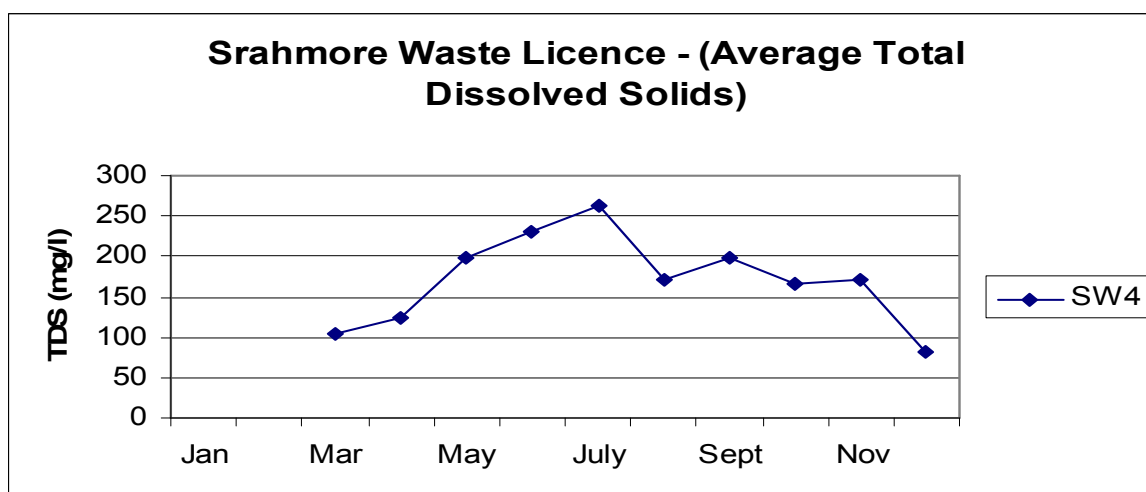
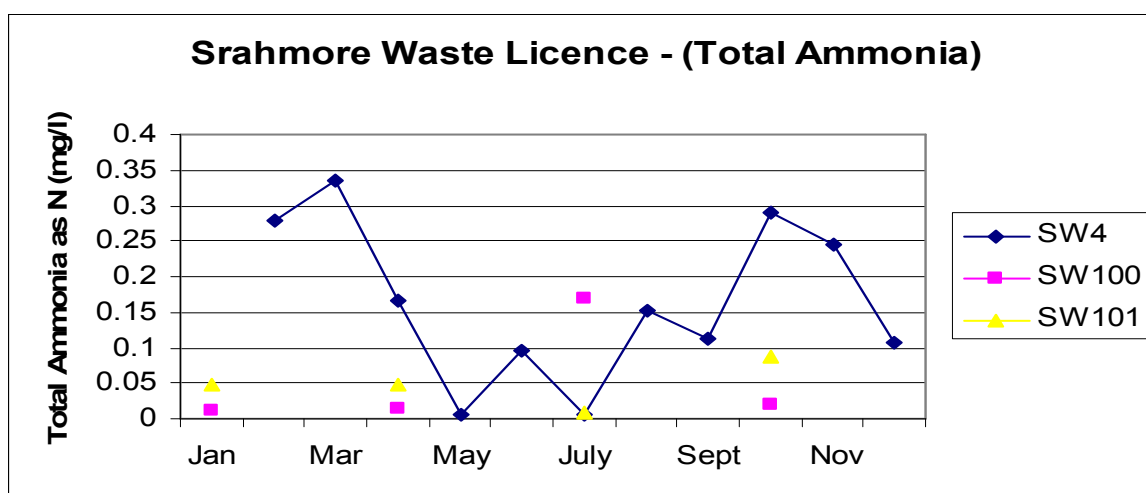
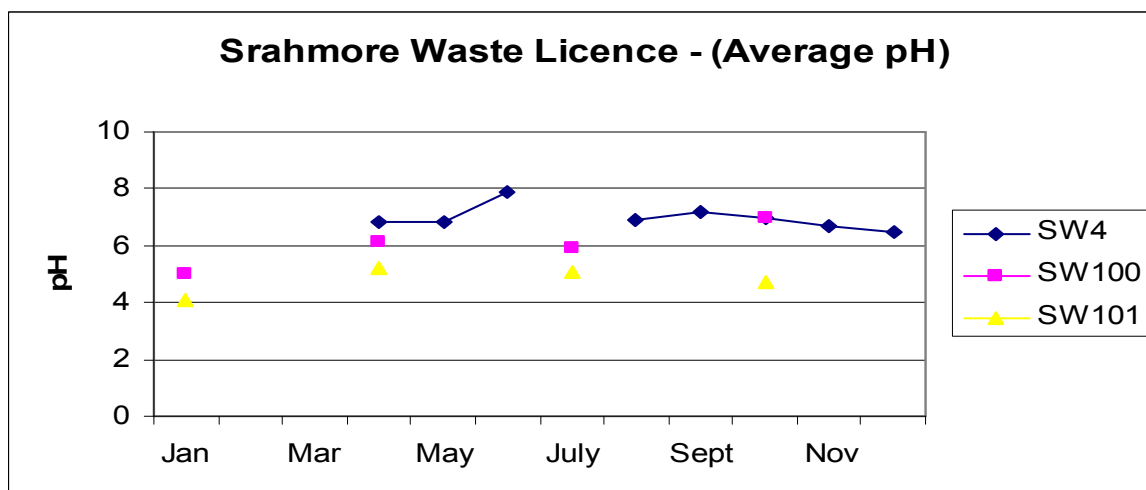
Condition 8.7 requires a stability assessment of each bay once filled. As no bays were filled during 2006, the stability assessments will be carried out once each bay is filled, when peat deposition recommences.

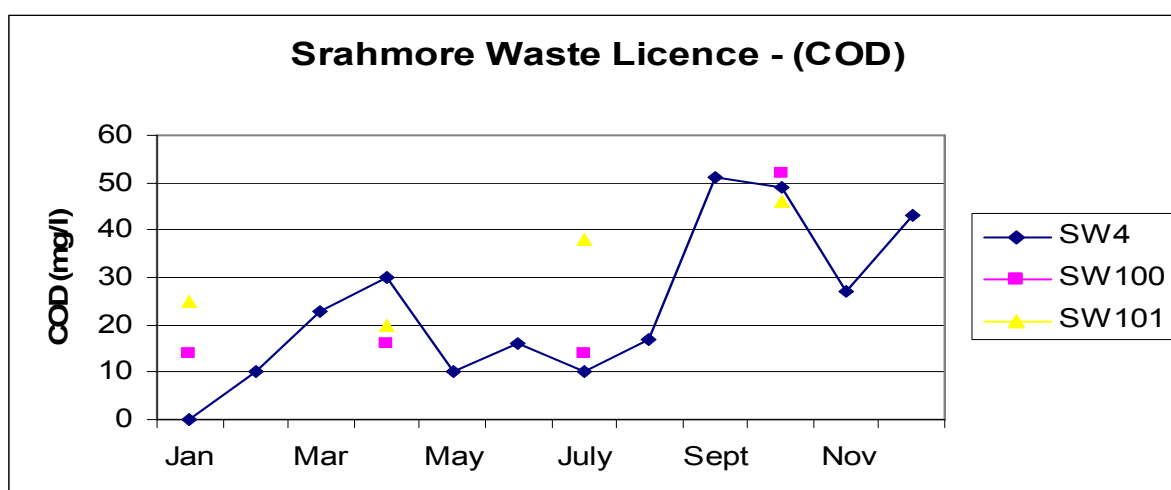
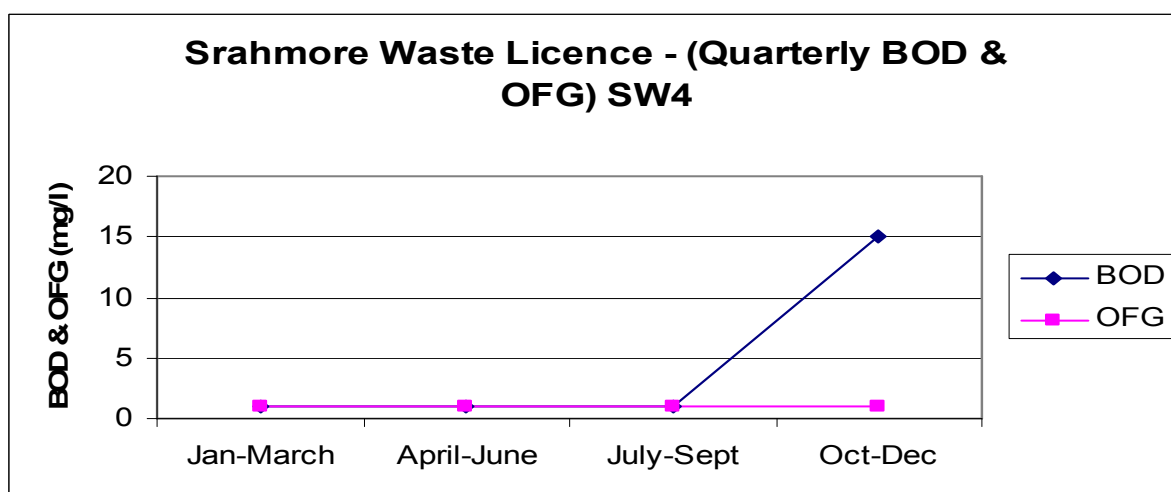
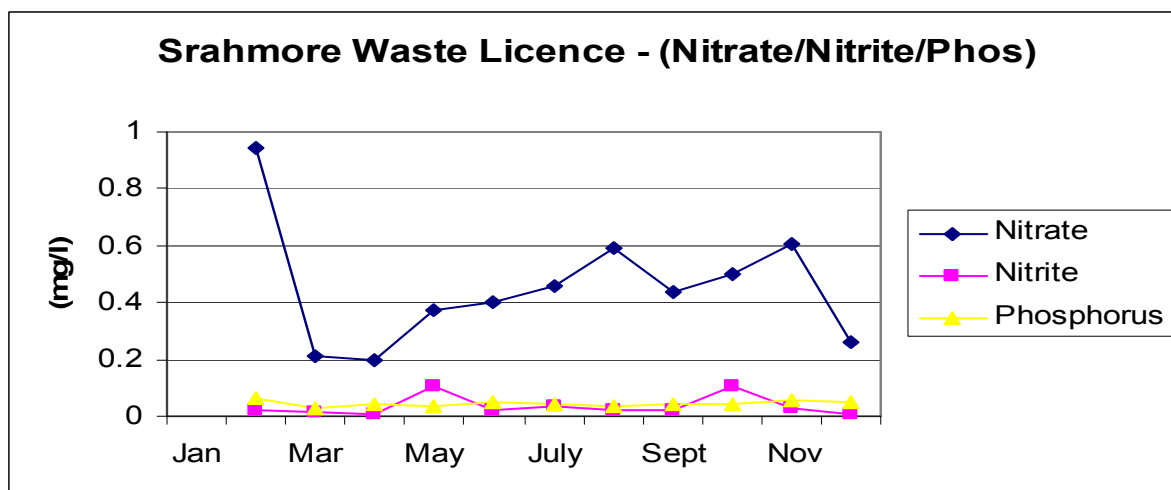
Appendix 1

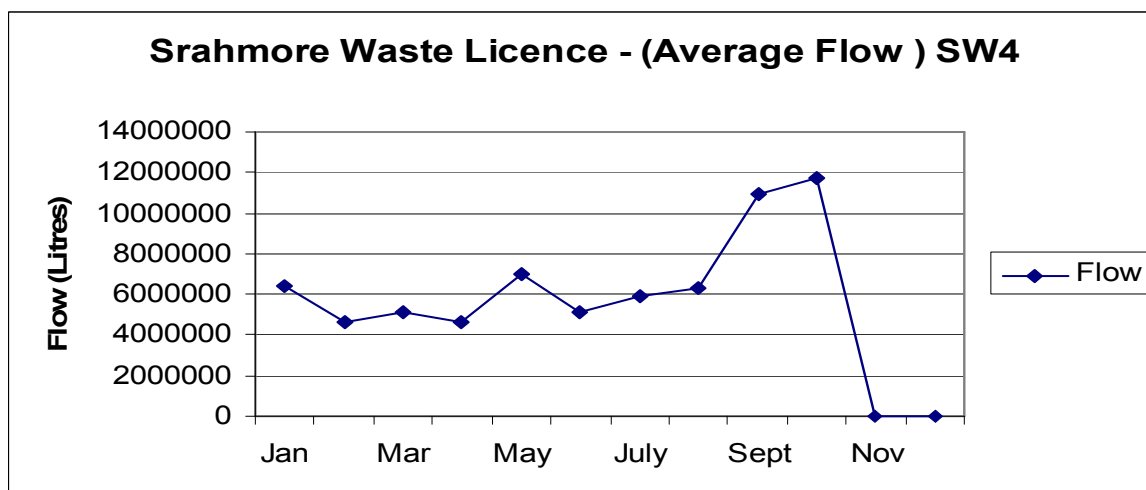


Appendix 2

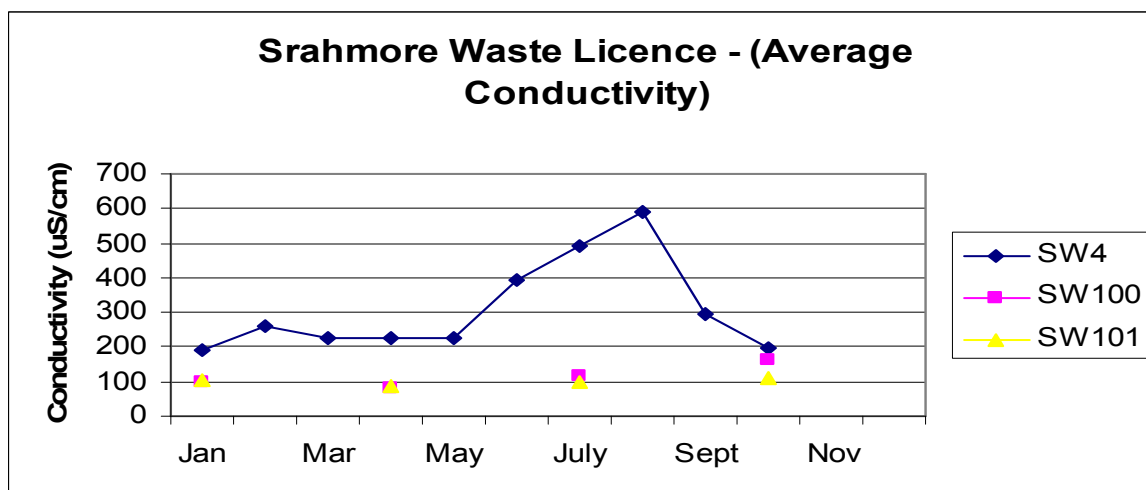






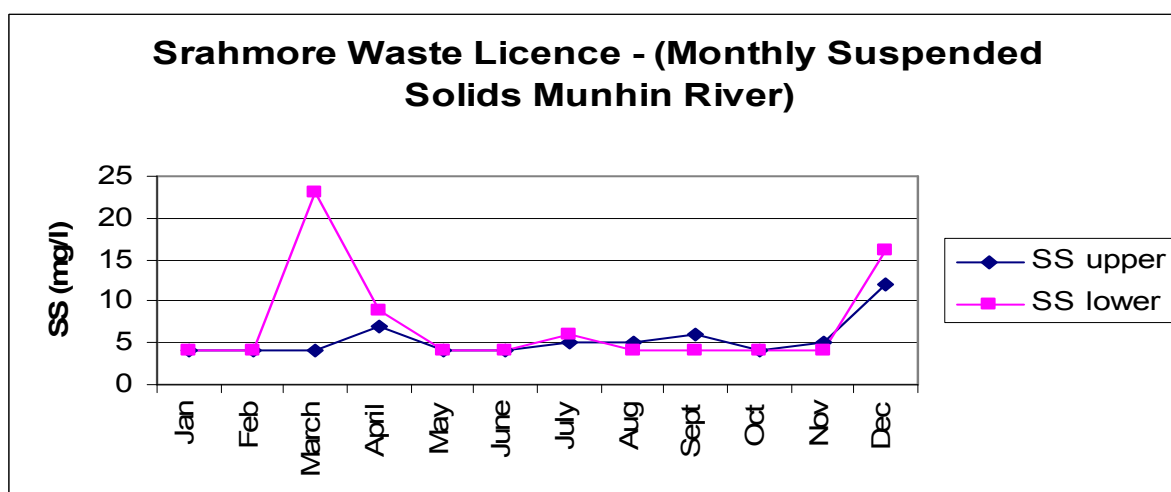
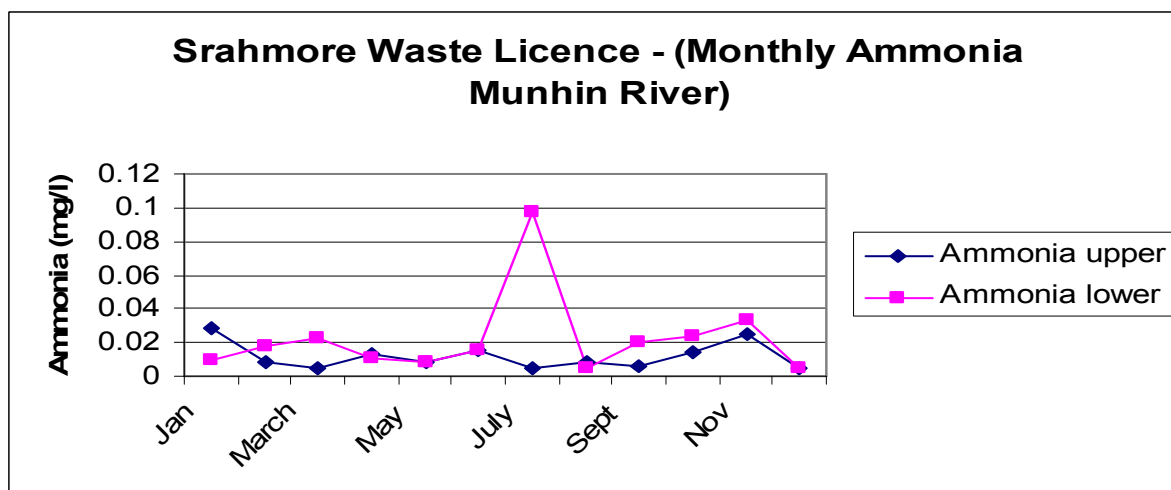


A malfunction in flow measurement recording occurred in November and December 2006 at SW 4, however the sampler did continue sample daily.



A malfunction in Conductivity measurement recording also occurred in November and December 2006 at SW 4.

Appendix 3



Appendix 4

PEAT DEPOSITION SITE

Energy Usage

Litres	Period	Litres	Date Delivered	Litres	Date Delivered
9,627	06 March 2006				
3,426	26 May 2006				
3,667	21 June 2006				
3,876	20 September 2006				
20,596		0		0	

Electrial

Litres	Period		Kw Hrs	Period	
0	01 January 2006	31 December 2006	19,544	01 January 2006	31 December 2006
Total Litres:			Total Units:		19,544

Resource	Units	Total	Mw/Hrs
Marked Gas Oil	Litres	20,596	
Petrol	Litres	0	
Electrical	Kw/Hrs	19,544	

Appendix 5

Srahmore Revegetation Photo Inspection



**Bord na Móna Energy Ltd
Peat Deposition Site
Srahmore
Bangor Erris,
Co. Mayo**

Date: 24th August 2006

Prepared by: Brendan Moyles (Bord na Móna)

Bay 4 Road 25



(April 2005)



(March 2006)



(June 2006)



(August 2006)

Bay 4 Deposited Peat



(July 2005)



(March 2006)



(June 2006)



(August 2006)

Bay 4 Deposited Peat



(July 2005)



(March 2006)



(June 2006)



(August 2006)

Bay 4 Deposited Peat



(July 2005)



(March 2006)



(June 2006)



(August 2006)

Bay 4 Mat Road



(July 2005)



(March 2006)



(June 2006)



(August 2006)

Srahmore Site View



August 2006

Appendix 6



LEGEND

REDLINE BOUNDARY

PIPED DRAIN/OUTFALL

HAUL ROAD

HIGH FIELD

FIELD DRAIN

HIGH FIELD TOE DRAIN

SURFACE WATER FLOW DIRECTION

PERIMETER SWALE

DUST MONITORING POINT

NOISE MONITORING POINT

SURFACE WATER EMISSION POINT

BOREHOLES

EMISSION POINT, MONITORING/SAMPLING POINT

NOTES

DUST MONITORING POINTS: DM-01 to DM-05

NOISE MONITORING POINTS: NR-A to NR-C

SURFACE WATER POINTS: SW1-4 & SW100-101

BOREHOLES: BH1 to BH4 (A & B)

DUST MONITORING POINT DM-01 and NOISE MONITORING POINT NR-C NOT VISIBLE IN A1 (1:2500) LAYOUT.

2	Revision 1	06/03/06
1	Original	23/08/05
No.	Issue	Date

Project:

Strahmore Peat Deposition Site

Title:

Waste Licence Emission&MonitoringPoints

Drawn by:	MO'S	Scale:	1:2500
Checked by:		Drawing No.:	CW-SR-EPA
Date:	23/08/05	Sheet No.:	1 of 1



Srahmore Waste Licence W199-1
Annual Environmental Report
2007

29th March 2008

Contents:

1. Introduction

- 1.1. Report Period.
- 1.2. Waste Licence Register Number.
- 1.3. Operator & Address of Facility.
- 1.4. Environmental Policy.
- 1.5. Current Management Structure.

2. Waste Management Report

2.1. Site Description

- Waste Management Activities
- Quantity of Waste accepted to date.
- Remaining site capacity
- Economic Contributions of the Activity.

3. Environmental Emissions of the Activity

- 3.1. Emissions to Atmosphere Summary.
- 3.2. Emissions to Water Summary.
- 3.3. Noise Monitoring Report.
- 3.4. Groundwater Monitoring Summary.
- 3.5. Resource & Energy Consumption/Efficiency Summary.

4. Environmental Management System

- 4.1. Schedule of Environmental Objectives & Targets.
- 4.2. Environmental Management Programme – Report.
- 4.3. Environmental Management Programme – Proposal.
- 4.4. Silt pond Inspection & desilting report.

5. Site Development Works.

- 5.1. Summary of Main changes/developments/works 2007.
- 5.2. Summary of Planned Works for 2008.

6. Waste Received and Consigned from the Facility.
 - 6.1. Non-hazardous waste received by the facility.
 - 6.2. Hazardous waste received by the facility.
 - 6.3. Non-hazardous waste sent off-site for Recovery/Disposal.
 - 6.4. Hazardous waste sent off-site for Recovery/Disposal
 7. Environmental Incidents & Complaints.
 - 7.1. Reported Incidents Summary.
 - 7.2. Reported Complaints Summary
 8. Review of Nuisance Controls.
 9. Review of Rehabilitation Plan.
 - 9.1 Vegetation Assessment
 10. Review of Environmental Liabilities Insurance Cover.
 11. Landfill Costs.
 12. Other Reports
 - 12.1. Tank & Pipeline Testing & Inspection Report.
 - 12.2. Placed Peat Stability Assessment.
-
- Appendix 1 Remaining Capacity
- Appendix 2 Emission to Air Results
- Appendix 3 Emissions to Water Results.
- Appendix 4 River Water Monitoring Results
- Appendix 5 Groundwater Results
- Appendix 6 Photo assessment March 2006.
- Appendix 7 Waste Licence emissions and monitoring locations.
- Appendix 8 AER and PRTR Electronic Reporting

1. Introduction

1.1. Report Period

This Annual Environmental Report covers the period of 01/01/07 to 31/12/07 for the Srahmore Peat Repository at Attavally, Bangor-Erris, Co Mayo.

This is the third Annual Environmental Report for Bord na Mona's Peat Repository at Srahmore, Attavally, Bangor-Erris, Co Mayo. The structure and contents of this report are based on the requirements of Schedule D Reports & AER Content.

1.2. Waste Licence Register Number - W199-1

1.3. Operator & Address of Facility.

Bord na Mona Energy Ltd
Srahmore,
Attavally
Bangor-Erris
Co Mayo

1.4. Environmental Policy (attached on next page)



Environmental Policy Statement

Bord Na Mona Energy Limited is a commercial semi-state body with responsibility to develop Ireland's peat resources in the national interest.

Bord Na Mona Energy Limited is committed to gather and make available information on all aspects of its environmental impact and to help improve understanding among the public generally of its role and of the importance of Irish peatlands.

Bord Na Mona Energy Limited recognises the importance of peatland conservation.

Bord Na Mona Energy Limited will leave behind all areas it owns as either an economically or socially integrated resource of high environmental value.

Bord Na Mona Energy Limited seeks to conduct all aspects of its business in an environmentally sensitive manner.

Bord Na Mona Energy Limited will establish an environmental management system specifically addressing the following impacts:

- Discharges to water
- Emissions to atmosphere
- Waste disposal
- Use of natural resources
- Noise, vibration, odour, dust and visual effects
- Natural environmental and eco-system

The environmental management system will be monitored, maintained and continually improved.

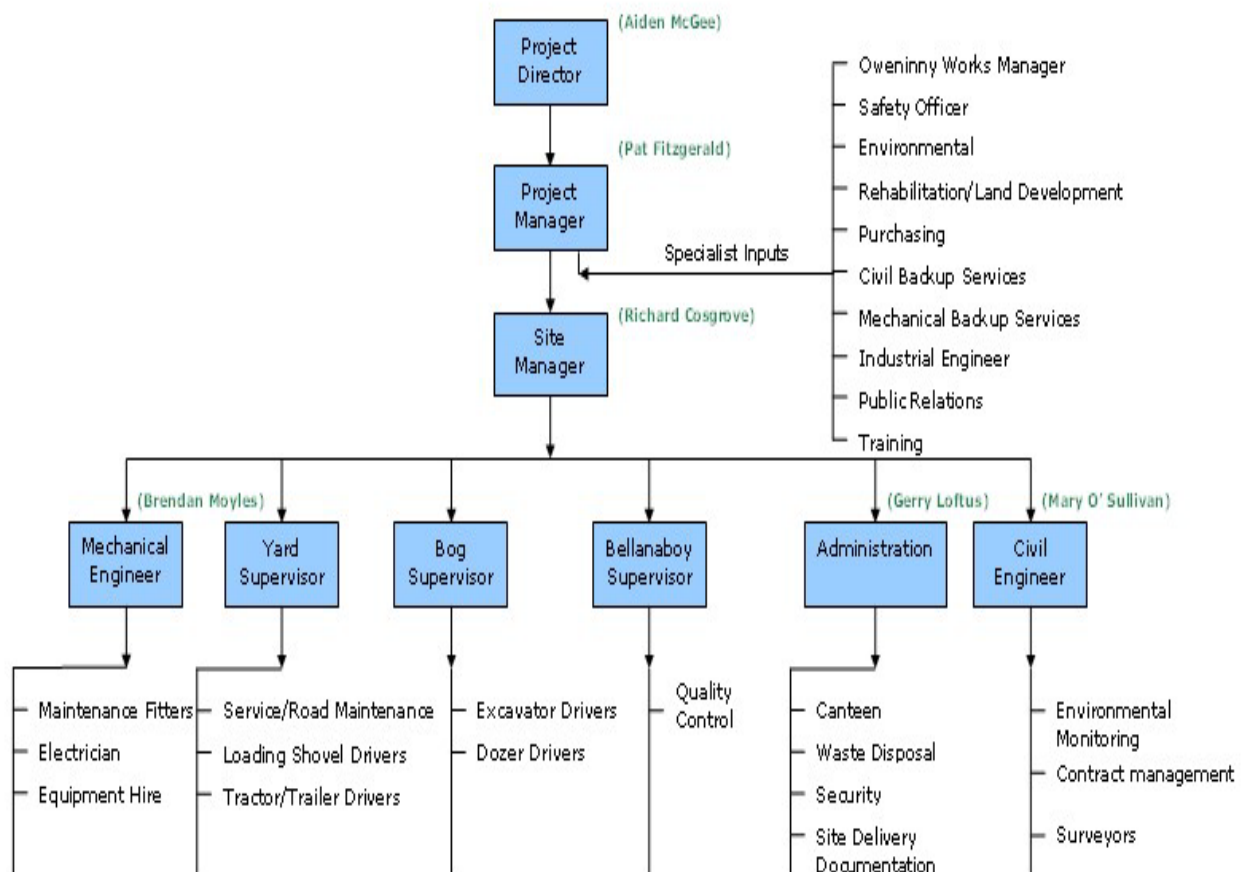
A system of regular environmental audits will be put in place.

Bord Na Mona Energy Limited will continue research and development (R&D) into all aspects of its environmental impact.

This statement is published and is available at all locations within the section and its contents are brought to the attention of all employees

1.5. Current Management Structure

Corrib Project – Peat Deposition Phase



2. Waste Management Report

2.1. Site Description

The site is situated approximately 1km northwest of the village Bangor-Erris and comprises cutover peatland in the Oweninny bog complex. This consists of eight separate areas of cutover peatland, numbered 1 – 8, each of which was assessed for suitability for the development. Area 5 was selected as the peat reception area. Area 6 was selected for the actual deposition of peat and a section of Area 7 is utilised as a “controlled overflow area” in the event of exceedance of the design rainfall. The peat reception area is utilised for off-loading of the peat is the closest area to the public road.

The site is a peat disposal area for the placement of c. 450,000m³ of peat waste excavated from the development of the Shell Corrib Gas Field Terminal at the nearby Bellanaboy Bridge site. The peat, which is from a 3000 to 5000 year old Atlantic Blanket Bog, is transported by road in trucks to the Srahmore deposit area. It was originally anticipated that peat transport and deposit would take place over a 6 month period, spread out over two seasons. However, peat transport and deposit ceased on the 4th July 2005, and as of that date, 112,937tonnes were transported to and deposited at the site.

Peat deposition at the site did not resume during 2006, so therefore no peat was deposited at the Srahmore site during 2006.

Peat deposition did recommence on the 2nd of April 2007 and completed the deposition of peat on the 29th June 2007.

A map detailing the final deposition is included in Appendix 1.

During the full operations at the site, up to 126 personnel were employed in the following areas:

BNM (support)	8	General Operatives	24	Security	4
BNM (Engineering)	2	Fitters	5	Environmental	1

Head Office Staff	2	Electricians	1	Archaeological	-
Site Office Staff	2	Site Supervisors	4	Canteen	3
Drivers	70	Contractors	-		
		Total			126

Plant on site during all operations is as follows:

Machine	Number	Operator
Excavators	20	BNM
Dozers	6	BNM
Tractors	28	BNM
Quads	4	BNM
Loading Shovels	3	BNM

3. Environmental Emissions of the Activity

3.1. Emissions to Atmosphere Summary

The only potential emissions to the atmosphere from the activities on site are dust. As required by Condition 8.8.1, locations for dust monitoring around the site were agreed with the Agency, and Bergerhoff Dust gauges were installed.

Dust monitoring for the period was at 5 locations around the site and commenced in April 2007 and are attached in Appendix 2.

Non-compliances:

Monitoring Point	Emission (mg/m ² /day)	ELV (mg/m ² /day)	Corrective Action
None	5 - 347	350	None required

This represents an overall compliance of 100%.

Procedures regarding dust suppression and dust monitoring are in place on site.

3.2. Emissions to Water Summary

Emissions to water from the site takes place at 3 locations:

Licence Emission Ref. No	SW No
S5-1	SW100
S5-2	SW101
Location 7 (combined from Area 5/6)	SW4

As required by Schedule C (2.2) the following parameters were monitored during peat deposition, from January to December 07

Monitoring during peat deposition suspension (October 2005 to December 2006)	Continuous	Daily	Weekly	Monthly	Quarterly
Flow	SW4				
pH			SW4		SW 100 & 101
Conductivity	SW4				SW 100 & 101
COD			SW4		SW 100 & 101
BOD					SW4
Suspended Solids			SW4		SW100 & 101
TDS			SW4		SW 100 & 101
Nitrite (as N)				SW4	
Nitrate (as N)				SW4	
Ammonia (as N)			SW4		
Total Phosphorus				SW4	
Oils, fats & greases					SW4

Emissions from SW4 are monitored using a flow proportional composite sampler, which operates on a continuous basis. Here a sample bottle is filled over a 24 hour period and sent to Complete Laboratory Services for analysis.

The compliance requirements at SW4 are as follows:

18/10 consecutive results, calculated as daily mean concentration or mass emission values on the basis of flow proportional composite sampling, shall not exceed the emission limit value. No individual result similarly calculated shall exceed 1.2 times the emission limit value

Emissions from SW100 & 101 are sampled by grab sample on a Quarterly basis and sent to the lab for analysis. The compliance requirements at SW100 & 101 are as follows:

No grab sample value shall exceed 1.2 times the emission limit value.

The emission limit value (ELV) attached to emissions to water from the site is 35mg/l suspended solids.

Results for the 3 emission points are in Appendix 3.

Non-compliances:

Monitoring Point	Emission (SS mg/l)	ELV (mg/l)	Corrective Action
SW4 (Location 7)	10/17/19/25/29 May 52 – 125 mg/l	35mg/l ¹	Yes
	19 & 22 nd June 47 – 49 mg/l		Yes
	5 th July 71 mg/l		Yes
	16 th September 44 mg/l		Yes

This represents an over compliance level of 97%

3.3 Ambient Monitoring.

River-water Monitoring:

Schedule C (6) requires monthly monitoring for Suspended Solids and Ammonia at two locations on the Munhin River, upstream and down stream of the discharge from Location 7 (SW4). The average suspended solids upstream and downstream of the discharge from the site were 7mg/l.

The average ammonia levels upstream of the discharge are .049 mg/l to .042 mg/l downstream. These results would be typical of levels found in peatland catchments and are well below the Maximum Allowable Concentration (0.23 mg/l)

These results would indicate that the Srahmore Peat Repository activities are having no negative effect on the suspended solids content of the river during peat suspension in 2007

Results of the analysis are attached in Appendix 4.

In addition Biological Quality (Q) rating/Q index is required annually.

This was carried out, in agreement with the Agency, on the 07/10/2007, by AMGC Environmental Agricultural Consultancy. Assessment was carried out upstream and

downstream of the discharge from the site, to establish a Q index for both locations and identify any change in water quality.

Biological Quality rating carried out upstream and downstream of the activity indicated that there was a slight improvement in water quality downstream of the main outlet from SW4 (Location 7). The rating went from Class C Moderately Polluted upstream to Class B Slightly Polluted downstream. A new hydrological station was installed at the outlet from Carraghmore Lake as it enters the Munhin River immediately upstream of the activity. This has resulted in a faster flow through this location which made sampling more difficult. However the results indicate that the quality of this stretch of the Munhin has not changed since 2005 when peat deposition last took place.

Groundwater Monitoring:

Condition 8.10 required the installation of a groundwater monitoring network at the site, in accordance with Agency guidelines. This required one up-hydraulic gradient, one down gradient of the peat reception area, and two down gradient of the peat deposition area.

Groundwater sampling was conducted on three occasions in 2007.

On the 25th April, all boreholes were monitored with BH's 3B, 4A & 4B all displaying elevated Diesel Range Organics (DRO's). Sampling was again carried out at the same locations on the 22nd May with the elevated boreholes getting duplicate sampling. The DRO's for the period had dropped significantly.

Sampling was again carried out on the 12th July at all boreholes and all results were below the limits of detection.

Investigations carried out on foot of the elevated results indicated that the elevated results may have been due to plant and equipment parking up adjacent to the boreholes. Investigation reports and corrective actions were submitted to the EPA during this period.

Results of all sampling during the period of investigation and the groundwater contour map are attached in appendix 5.

3.4 Noise Monitoring Report.

Condition 8.11 of the licence requires a noise survey to be carried out during weeks 2, 6 & 12 at the following locations:

NRA – At site entrance from the R313.

NRB – North/West of the site on the R313 at a dwelling.

NRC – West of the site, close to Bangor-Erris Village

Noise monitoring was carried out on the 24th April and 22nd May 2007. These covered weeks 2 and 6 of condition 8.11. Monitoring on week 12 of the operation did not take place as peat deposition was completed on the week prior to this period and all deposition operations had ceased on this date.

On both occasions the monitoring and subsequent reporting concluded that noise from the site did not have any significant impact on the existing noise environment. No complaints regarding noise from the operation were received at the site during the year reported.

A map of the Waste Licence Emission & Monitoring Points is included in Appendix 8.

3.5 Resource & Energy Consumption

Resource and Energy Consumption for the Facility was as follows:

Marked gas oil for all machine operations	-	270103 litres
Electricity usage	-	88.779 MW/hrs

Action plans carried out in 2007 were

1. A new road layout plan was produced which reduced the travel time of the tractor and trailer units.

2. Addition resources were applied to the Maintenance Programme. This allowed for the efficient maintenance of the plant fleet, resulting in more fuel efficiency. All plant in operation at the facility are new, so the fuel efficiencies of the plant are optimised.

Due to the completion of deposition at the site during 2007, there will be minimal energy and resource consumption at the site during 2008.

4 Environmental Management System

4.1 Management & Reporting Structure

This is included in section 1.5 and details the current management & reporting structure.

4.2 Schedule of Environmental Objectives & Targets

This sets out the schedule of objectives as proposed by Condition 2.2.2.2.

Objective	Target
1. Minimisation of suspended solids	Assessment of suspended solids generation during peat deposition during the first two months and setting a programme for its reduction
2. Reduction of fugitive dust	Establish the levels of dust generation during peat deposition during the first two months and setting a programme for its reduction.
3. Protection of dust sensitive areas	Establish the levels of dust nuisance at the three dust sensitive locations during the first two months of monitoring and setting a programme for the protection of these areas
4. Reuse of silt pond waste	Monitor the levels of silt pond waste cleanings at the 7 silt ponds and swale locations over the peat deposition period and establish a reuse option.
5. Effective spill leak management of Mobile fuelling units	Comply with all of the condition of the licence in relation to operation and maintenance of all mobile fuelling operations, and assess its effectiveness after 3 months operation.
6. Management of dangerous substances	Comply with the conditions of licence relating to oil and diesel storage, bunding and recycling and review after 2 months operation
7. Management of silt pond flow	Comply with the conditions of the licence

discharges	in relation to the management of silt pond flow discharges during high rainfall events and assess its effectiveness after two months operation.
8. Reuse of stone used in internal haul-road construction	Investigate any potential re-uses for the geotextile and stone used in the construction of the internal; haul-roads, either on site or in the locality.

4.3 Environmental Management Programme Report.

Minimisation of Suspended Solids (EMP1)

Activity/Emission	Objective	Target Date	Target	Persons Responsible
OT1 Emission of suspended Solids	Minimisation of suspended Solids	On-going programme during the life of the project and as part of aftercare & maintenance.	<p>To comply with Conditions 8.9.1, 8.9.3 & 8.9.4. a programme of weekly inspections of all drainage and subsequent waste treatments systems, daily inspections of discharges to receiving waters and the regulation and monitoring of all silt generating activities will be put in-place. This will be used for establishing the cleaning roster.</p> <p>These systems will be assessed on an ongoing basis for the first two months of peat deposition, to assess the degree of suspended solids generation, and this along with the daily results for SS from the Composite Sampler will be used to establish targets for the reduction of Suspended Solids</p> <p>Status: This project was on-going during peat deposition in 2007. All inspections of drainage and silt treatment systems was carried out and logged on the EMS system.</p>	Site Manager & Environmental Manager

Reduction of fugitive dust (EMP2)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT2 Fugitive dust emissions	Reduction of fugitive dust emissions during all operations	On-going programme during the life of the project.	<p>This programme will establish the degree of dust generation during the first two months of peat deposition. Peat delivery, tipping on the peat reception area, loading into the trailers and deposition into the bays will be examined along with any dust suppression methods employed and the appropriate Dust Handling Procedure. This will include the first two months of dust monitoring.</p> <p>The results of these assessments will be used to establish targets for reduction of fugitive dust emissions.</p> <p>Status: This programme and condition 8.8.1. has resulted in the provision of dust gauges at dust sensitive locations (see section 3.1 Emissions to Atmosphere). The main potential sources of dust from the site are the access road and peat deposition roads. The operations in 2007 were completed over 13 weeks starting on the 2nd April. There were no non-compliances during this period.</p>	Site Manager & Environmental Manager

Protection of dust sensitive areas. (EMP3)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT3 Fugitive dust emissions	Protection of Dust sensitive areas.	On-going programme during the life of the project.	<p>Based on the results of the initial two months dust monitoring at the five dust sensitive locations, a programme of protection of dust sensitive locations will be examined.</p> <p>This will address any measures to be put in place, such as the planting of trees, or any special measures to be put in place to protect any areas that exceed the ELV of 350 mg/m²/day.</p> <p>Status: There have been no complaints regarding dust received at the site during 2007. This along with the high level of compliance indicate that dust from the site is not a significant nuisance to any neighbours of the operations, and protection of any potential dust sensitive location is not necessary.</p>	Site Manager & Environmental Manager

Reuse of silt pond wastes (EMP4)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT4 Reuse of Silt Pond Waste	The reuse of all silt pond wastes.	On-going programme during the life of the project.	<p>As the silt wastes generated from the cleaning and maintenance of silt ponds S5-1, S5-2, Area 5 & Area 6 silt ponds are directly as a result of peat deposition, they will either be used in the Bog & Peat Deposition Area rehabilitation & aftercare, or will be incorporated into the existing bays once deposition is complete.</p> <p>Status: As all peat wastes accepted and generated at the site are for landfilling purposes, there is no further use for the silt pond cleanings. These will be incorporated into the peat deposited or if of benefit will be used in the final rehabilitation.</p>	<p>Site Manager & Environmental Manager</p> <p>Site Manager & Environmental Manager</p>

Management of mobile fuelling wagons (EMP5)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT5 Management of mobile Fuelling units	Effective spill/leak management of mobile fuelling units.	On-going programme during the life of the project.	<p>To comply with conditions 3.17, 3.19 and 3.20, the two mobile fuelling units are stored in a bunded location, with an oil spill kit in-place. Fuelling nozzles will be fitted with overflow shut-off mechanisms and auto fill clips will be disabled. All personnel will be made aware through training, of the Oil/Diesel Loading Procedure & the Emergency Response Procedure. Shortened versions of the procedures are posted on the tanks and at the bunded storage location. All service wagons have been inspected before use and bi-annually there after. Leaks, flaws, necessary repair etc, will be reported to the Site Manager. All the above will be in-place before peat deposition re-commences, and will be re-assessed as to their effectiveness every 3 months. The out come of these assessments will determine any improvements to be made and target dates to achieve them.</p> <p>Status: All of the above measures were in-place for 2007. Groundwater monitoring at one of the boreholes adjacent to the peat haulage road indicated high Diesel Range Organics, which was reported to the Agency. (see 3.3 Groundwater Monitoring)</p>	Site Manager & Environmental Manager

Management of dangerous substances (EMP6)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT6 Management of dangerous substances List I & List II	To manage of any dangerous substances as listed in I & II of the Dangerous Substances Directive 80/68/EEC	On-going programme during the life of the project.	<p>The only substances from Lists I & II of the Dangerous Substances Directive (76/464/EEC and 80/68/EEC and amendments) are List I (7) Mineral Oils and Hydrocarbons. The management of these will include:</p> <p>(1). Pollution Prevention as required by Conditions 3.13 – 3.21. This includes the safe storage of diesels/oil/Filters and protection of ground and surface water during fuelling operations.</p> <p>(2). Pollution Control: Maintenance of diesel/oil interceptors as required by Conditions 8.9.1 & 8.9.2</p> <p>All of these measures will be in-place before peat deposition commences.</p> <p>A review will be carried out after the first two months operation and every 3 months thereafter, to assess the effectiveness of programme OT6.</p> <p>A programme of improvement will be implemented once the operational performance of the management of diesels & oils has been assessed.</p>	Site Manager & Environmental Manager

			<p>Status: The oil interceptors installed at the site include 3 Klargestor units. These units are installed downstream of the grit trap and are operating successfully. They have also been fitted with alarms, which indicate when they require cleaning. The operation and maintenance of these units is on-going. They were inspected during this time and are on record. Sampling for COD at SW2 during the year showed an average of 59 mg/l.</p>	
--	--	--	---	--

Management of silt pond flow discharges (EMP7)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT7 Effective management of Silt pond flow discharges	Effective management of flow discharges during periods of high precipitation and flooding.	On-going programme during the life of the project.	<p>As is required by Conditions 3.11 & 3.12, all silt ponds must achieve specific design criteria i.e. max flow velocity $<10 \text{ cm}^{-1}$ and min. $75\text{m}^3/\text{nett ha}$ of bog. Flow regulators must also be fitted to ensure the design flow capacity is not exceeded.</p> <p>The drainage system has been designed to a rainfall event of 31 mm, which equates to a 100 year storm event of 1 hours rainfall.</p> <p>As the preferred option for the drainage management was the controlled discharge of water from the drains to the swale to the silt ponds, appropriate flow regulators will be in-place to ensure the design flow of each of the</p>	Site Manager & Environmental Manager

		<p>silt ponds is not exceeded during heavy rainfall and that any excess runoff generated is discharged to the overflow area (Area 7).</p> <p>Condition 3.4 requires a construction quality assurance validation to be completed on the surface water drainage/control/treatment works. This will include an assessment of the performance of the silt ponds and will assess its compliance with the stated maximum flow velocity $< 10 \text{ cms}^{-1}$</p> <p>Status.</p> <p>This was achieved by installing overflow pumps to pump this excess runoff from the swale to this overflow area. It was further improved by the installation of an automatic gravity overflow to areas 7 which removed the requirement for operator intervention during heavy rainfall and subsequent high discharge rates. This has been set to provide adequate drainage levels to the lowest deposition bay but also to allow overflow into area 7 during periods of high rainfall.</p>	
--	--	--	--

Reuse of road building materials (EMP8)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT8 Road materials re-use	Reuse of stone used in internal haul-road construction.	As stated in the EIS, the decommissioning plan for the internal haul road network would envisage it occurring at the end of the stabilisation period (5 yrs after deposition has been completed). There may also be a requirement to leave these roads in-place as part of the after use of the deposition area.	<p>All materials used in the internal haul road construction will be either recycled or reused.</p> <p>The Geotextile will be collected for reuse within BNM for under rail lines, or recycled through a licensed contractor.</p> <p>The 300mm of crushed stone will be recycled through one of the following:</p> <ol style="list-style-type: none"> 1. As internal service roads to a Proposed Wind Farm Development at Oweninny. 2. As construction material on an alternative site. 3. Through an appropriate recycling contractor. 4. Placement at the base of the toe drains to assist in drainage. <p>Status: As peat deposition has been completed, on site decommissioning and rehabilitation has also taken place. The stone peat haulage roads will have to be retained on site for 3 – 5 years so that access can be maintained to the bays for maintenance of drainage, monitoring and assessment.</p> <p>Given the current condition of the roads, it is not envisaged that recycling of the road material will be possible due to</p>	Site Manager & Environmental Manager

			encroachment of the deposited peat, flooding and degradation of the road surface and weed growth. Excavation and cleaning/screening of the road materials for reuse would be time and energy intensive and the energy and material offset for another site reuse would be negative.	
--	--	--	--	--

4.4 Environmental Management Programme Proposal.

The proposal for 2008 is to continue with projects EMP 1, 4, 7 & 8 as these are the only applicable projects due to the completion of the peat deposition in June 2007

4.5 Silt Pond Inspection & Desilting Report.

Inspections of the silt ponds are carried out weekly. A full log of all inspections is maintained at the site office and this along with SS results obtained from the silt ponds form the basis for the cleaning roster.

The silt ponds servicing the Srahmore site were all cleaned in February and July 2007

5 Site Development Works.

5.1 Summary of main changes/developments/works & planned works for 2007

Pre Deposition 2007

- Installation of bog mat road network
- Upgrade of road to workshop to facilitate traffic movement.
- Installation of temporary haul road in bay 5.
- Cleaning and maintenance of site drainage network.
- Resurfacing of main access road and deposition haul link road.
- Installation of automatic overflow to Area 7.

5.2 Summary of Planned Works for 2008

There is no development works planned for 2008 due to the completion of the project

6 Waste received and consigned from the Facility

6.1 Non-hazardous waste received by the facility.

		Non-Hazardous Waste Received			
Waste Description	EWC Code	On-site Disposal		On-site Recovery	
		Method	Tonnes	Method	Tonnes
Grit Trap Waste Deposited Peat	19 11 06	Deposit on Land	1.5	None	
	17 05 04	Deposit on Land	335113		

6.2 Hazardous waste received by the facility.

		Hazardous Waste Received			
Waste Description	EWC Code	On-site Disposal		On-site Recovery	
		Method	Tonnes	Method	Tonnes
None					

6.3 Non-hazardous waste sent off-site for Recovery/Disposal.

Waste Description	EWC Code	Tonnes	Details of Haulage Contractor	Recovery /Disposal	Name & Address of recovery/Disposal Site
Canteen Waste	20 01 08	8.01	Mayo County Council	Disposal	Rathroeen, Killala Rd, Ballina, Co. Mayo
Sewage Cleaning	20 03 06	200	Asethetic Services	Disposal	Ballina Wastewater Treatment Works, Belleek, Ballina, Co. Mayo

6.4 Hazardous waste sent off-site for Recovery/Disposal

Consignment Note/TFS Note Number	Date of Dispatch	Description of Waste	EWC Code	Tonnes	Details of Haulage Contractor	Disposal/ Recovery	Name & Address of Recovery/ Disposal site
46-155870	18/06/07	Oil Interceptor Waste	13 05 07	6	Envia Ireland Ltd	Recovery	Envia Ireland Ltd Portlaoise Co Laois
46-161849	28/11/07	Waste Oil	13 02 05	5.68	Envia Ireland Ltd	Recovery	Envia Ireland Ltd Portlaoise Co Laois

7 Environmental Incidents & Complaints.

7.1 Reported Incidents Summary.

Date	Nature of Incident	Cause	Corrective Action
	NONE		

7.2 Reported Complaints Summary

Date	Nature of Complaint	Cause	Corrective Action
	NONE		

8 Review of Nuisance Controls.

The nuisance controls at the site only include dust suppression and pest control.

Due to the completion of the project in 2007 all nuisance controls at the site have been removed.

9 Review of Rehabilitation Plan.

Rehabilitation at the Srahmore site is outlined in the Rehabilitation Plan for the Srahmore Peat Deposition Area and Associated Facilities (Feb 2005). The main criteria¹ defining successful rehabilitation of the Srahmore PDA and associated facility are:

- (i) Stabilisation of the deposited peat²
- (ii) Mitigation of silt run-off

Natural revegetation processes are outlined as the BAT for rehabilitation of the Srahmore site. Results so far indicate that vegetation establishes rapidly on the deposited peat. It is anticipated that the plant roots will bind the

¹ These are the basic criteria as identified in the consultation process for development of *The Rehabilitation Plan* for the entire Oweninny Works.

² Stabilisation of these areas infers revegetation. Once stabilised there will be no potential peat run-off from the site, which will cover the second criterion for successful rehabilitation.

introduced peat layer, altering the peat structure to create a homogeneous peat mass thereby stabilising the peat.

Vegetation assessment (see also attached Appendix 8: Photo Inspection from March 2006)

Deposition Area

The deposition area comprises access routes on high fields, peat deposition area and drainage channels. The greater part of the deposition area has been covered with peat. The peat was deposited and levelled between high fields using long-reach excavators. The final shaping allows for run-off into drainage channels with the peat remaining undisturbed to facilitate natural revegetation processes.

Within weeks the deposited peat was colonised by a flush of soft rush *Juncus effusus* seedlings. Other plants colonising included bulbous rush *Juncus bulbosus* and sorrel *Rumex acetosella*. The soft rush tussocks form the dominant character of the vegetation with inter-tussock spaces of patchy plant cover, with shrubs such as bramble *Rubus fruticosus* and some willow *Salix* spp. emerging. The cover of this pioneer vegetation is continuous over the entire area of deposited peat. The establishment of other species between the tussocks of soft rush will further bind the peat together and eventually lead to a complete cover and stabilisation of the introduced peat.

Vegetation cover in the remaining uncovered area is low and comprises patchy growth of bog cotton *Eriophorum angustifolium* and soft rush *Juncus effusus*.

Water over-spill area (Area 7)

This area was rehabilitated in line with the rehabilitation plan for the Oweninny Works, Cutaway Bog Rehabilitation (2003). This involved field drain blocking and it is anticipated that natural revegetation processes will proceed in this

area and over the duration of the peat deposition activity. The overflow facility will be maintained for the duration of the peat deposition and also for a number of years following the activity to ensure that there is no build-up of water on site. When the area is no longer required, the site will be re-surveyed to determine the vegetative condition and whether further rehabilitation work is required (unlikely to be more than superficial).

Off-loading facility (Area 5)

Construction work was completed in April 2005 and the final activity on-site was in Autumn 2007. To date, there has been extensive colonisation of the surrounding bare peat, predominantly soft rush *Juncus effusus*.

Srahmore Assessment March 2008

A walkover survey of the Srahmore PDA indicates that the vegetation that had established on the deposited peat is developing further. Inter-tussock spaces of the soft rush are becoming further colonised by herbs, grasses and mosses with intermittent pools. The initial pioneer vegetation is maturing a developing a denser growth pattern.

The vegetation will continue to develop over time and Bord na Móna will continue to monitor the changes in structure and composition. There is a slight difference between the peat deposited in 2005 and 2007, relating to the age of the rush tussock. It was noted also that the site is utilised by a number of bird species, particularly nesting Skylark (*Alauda arvensis*).

10 Review of Environmental Liabilities Insurance Cover.

In Accordance with the requirements of Schedule D, Annual Environmental Report Content, a review of the Environmental Liabilities Insurance Cover is required. The initial Environmental Liabilities Risk Assessment (ELRA) was

carried out in March 2005. This assessment examined 8 Potential Hazards, including, peat combustion, dust blow, sediment laden run-off, fire etc.

Of the critical potential hazards identified, mobilisation of peat off site and sediment laden run-off have not been highlighted as a potential problem during the operation of the site in 2005 and 2007. The number of non-compliances occurring during the period of operation from 2005 to 2007 is shown on table X below:

Compliance Levels	2005	2006	2007
Emissions to Water	97%	100%	97%
Emissions to Air	91.5%	No sampling due to suspension	100%

The risk of peat mobilisation from the site was identified as low in the ELRA, and during peat deposition in 2005 and 07 there were no indications that the status of this risk had increased.

The Licence requires the completion of a stability assessment of each bay, once it has been filled. No bays were filled during 2005, so a stability assessment was carried out in 2007, after each bay was completed.

To date, the natural re-vegetation as specified in the EIS has progressed better than expected . The continuous cover of soft rush (*Juncus effusus*) is already well established on the deposited peat, and has progressed its stabilisation.

Based on the experiences of peat deposition during the period of operation between 2005 and 2007, the experience of the success of the rehabilitation to date post deposition and the results of environmental monitoring, performance and compliance as reported in the 2005, 2006 & 2007 AER's, the Environmental Liabilities Insurance Cover is considered to be adequate.

11 Landfill Costs

Condition 12.2.1 requires the licence holder to submit a statement on the determination of charge for the disposal of waste in accordance with the requirements of S.I. No. 337 of 2002 European Communities Regulation 2002.

Following the consultation of this regulation, it is determined that as Srahmore Peat Deposition Site is only accepting waste peat from one permitted contractor, and that this charge has been agreed with the contractor prior to the commencement of the peat deposition and is applicable for the duration of the contract, the provision of this statement does not apply. The price agreed with the contractor is commercially sensitive.

12 Other Reports.

12.1 Fuel Bowser Testing.

Both fuel bowers were supplied by Cashes Engineering Ltd. Both of these bowers were certified and tested by the manufacturer. A copy of the conformity certificates are kept on file in Srahmore.

Both of these bowers are designated for re-use elsewhere in Bord na Mona.

12.2 Placed Peat Stability Assessment.

Condition 8.7 requires a stability assessment of each bay once filled. This was carried out on the 1st of December 2007 by Tobin Consulting Engineers.

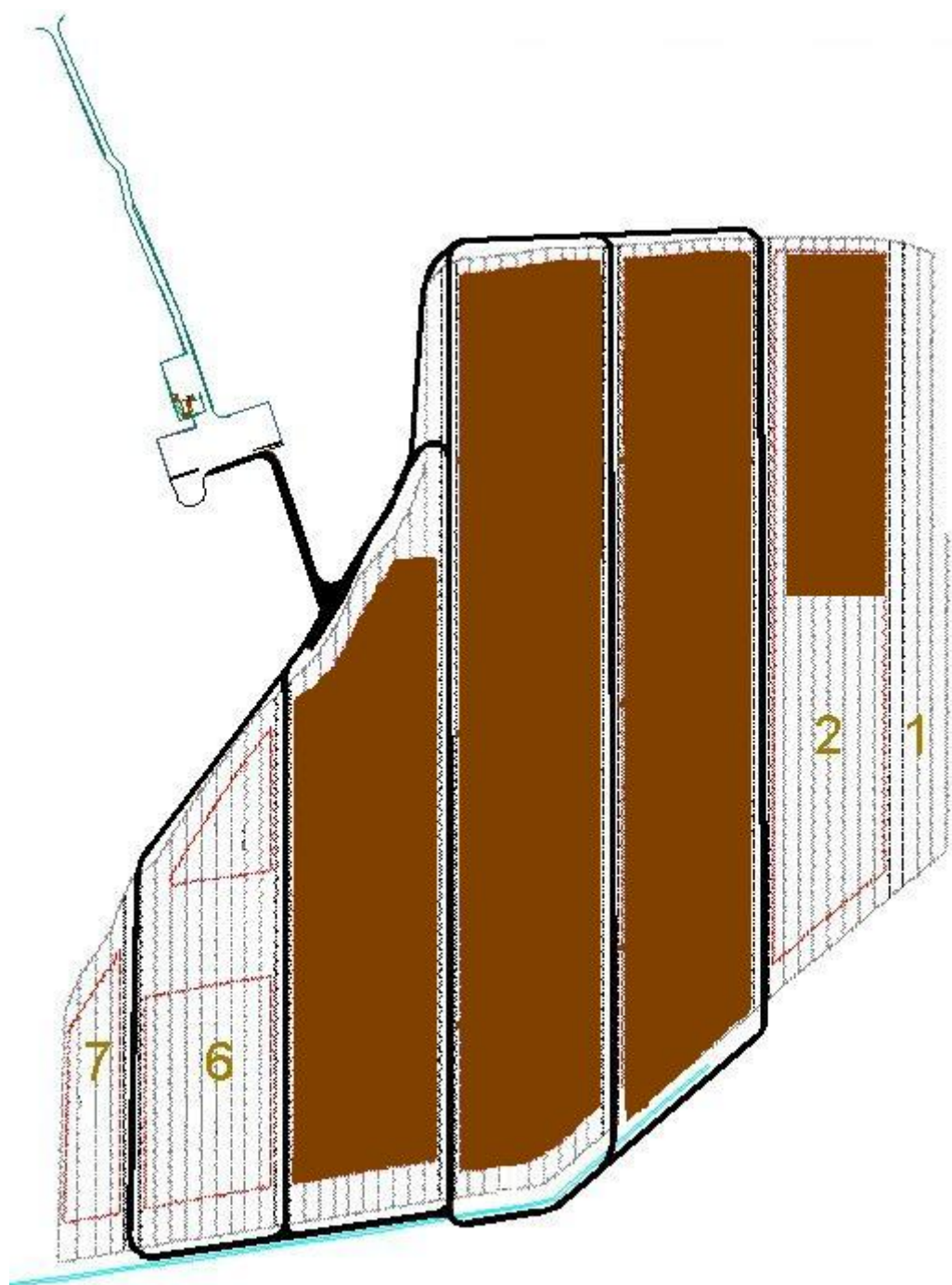
Based on the site walkover survey and previous assessments in 2003/2005/2006, all works were carried out in accordance with the rehabilitation plan.

There is No indication of instability in the internal high fields, perimeter high fields, deposited peat bays or drainage system.

The deposited peat is contained within each bay. In its current condition the risk of a mass deposited peat flowing out of bays 2, 3, 4 & 5 and entering the surrounding watercourse is very low.

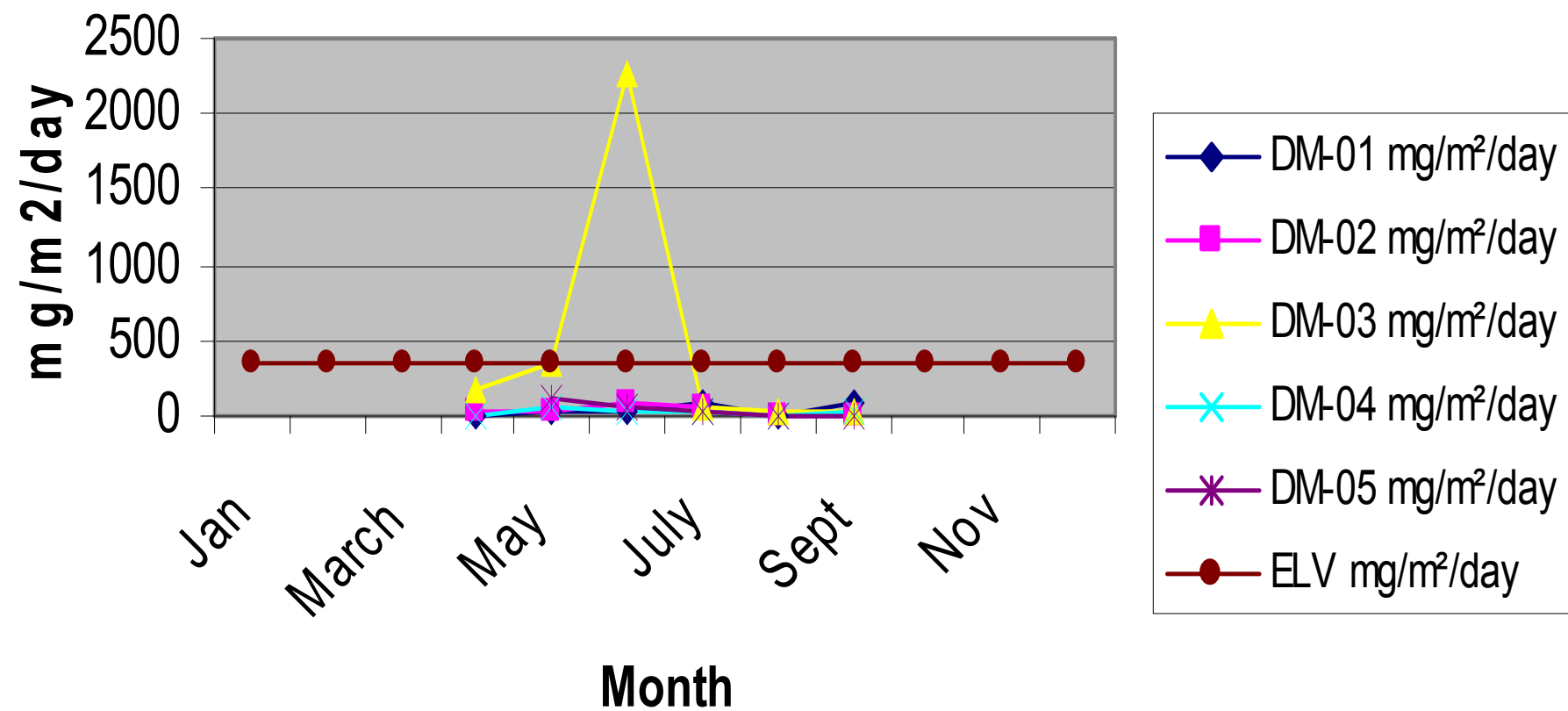
A copy of this Stability Assessment is retained on file at the site office.

Appendix 1

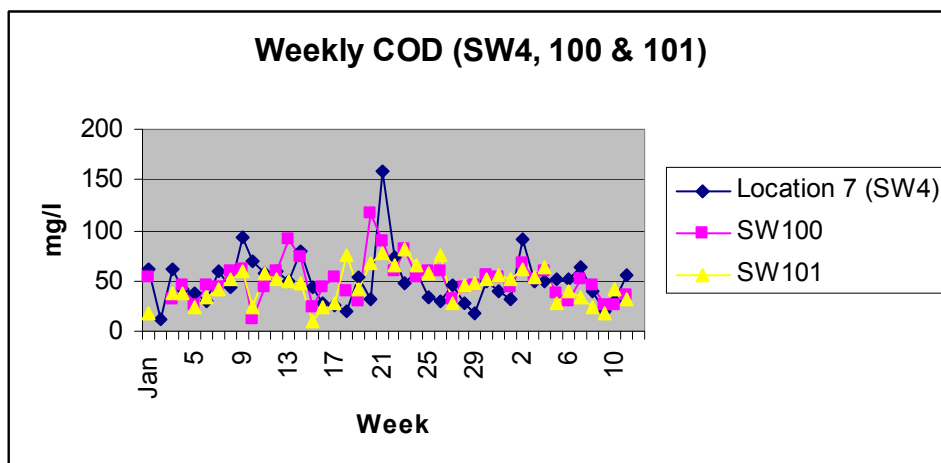
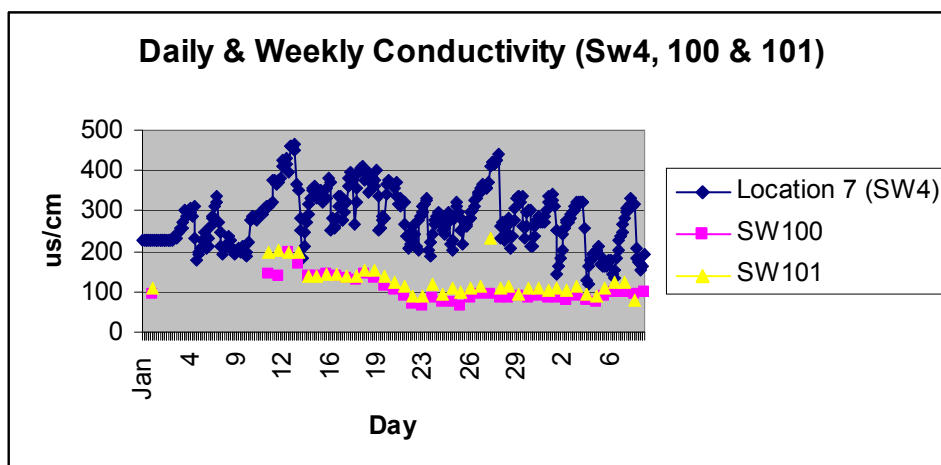
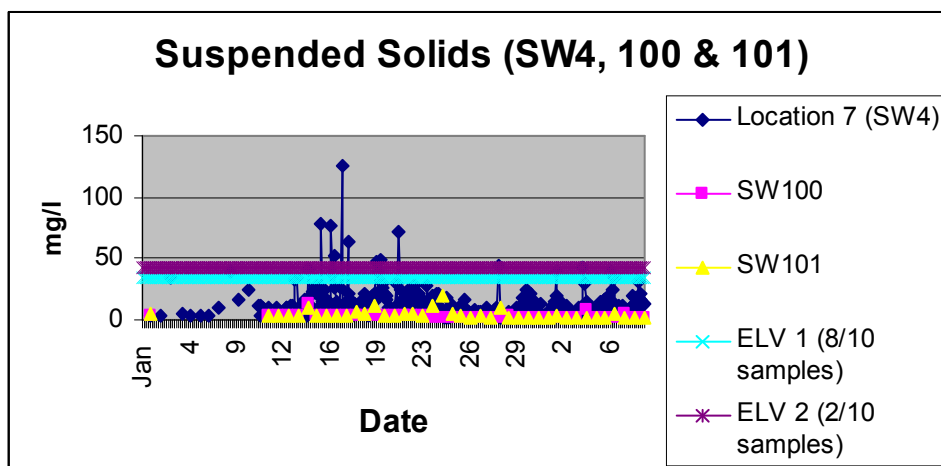


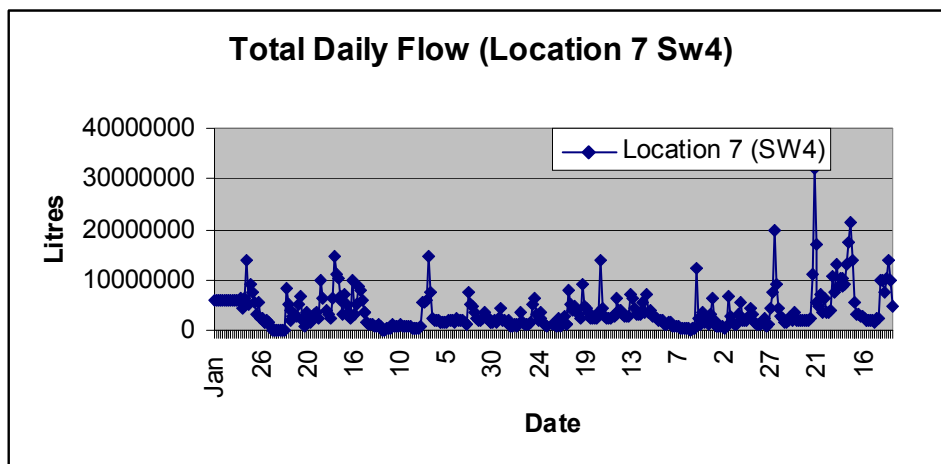
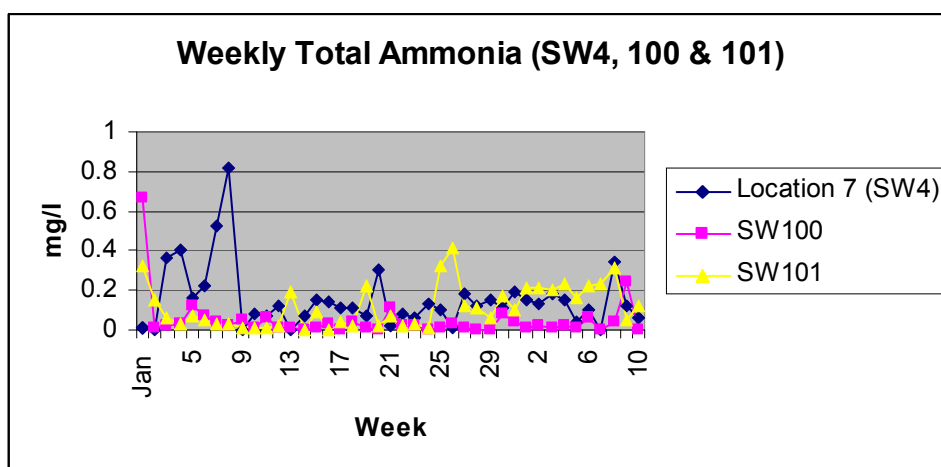
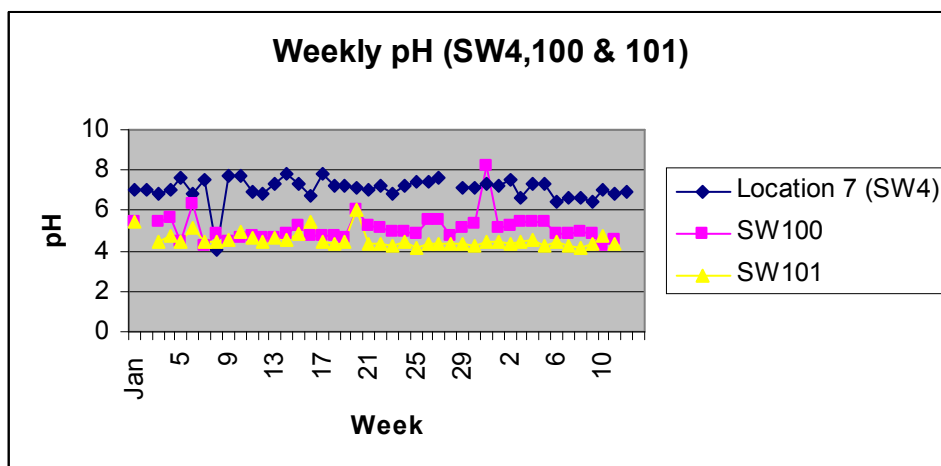
Appendix 2

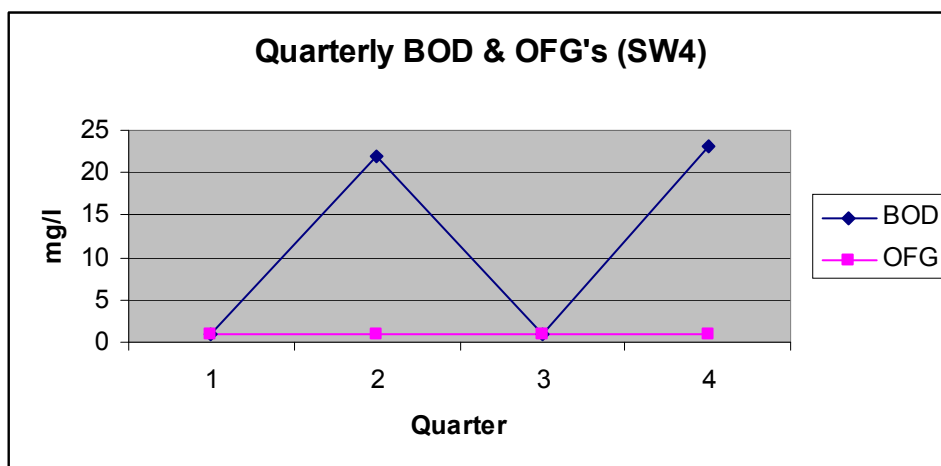
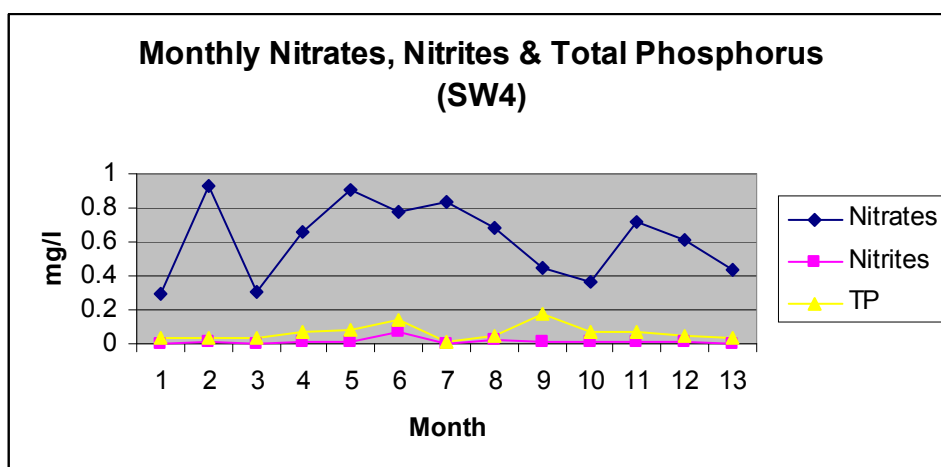
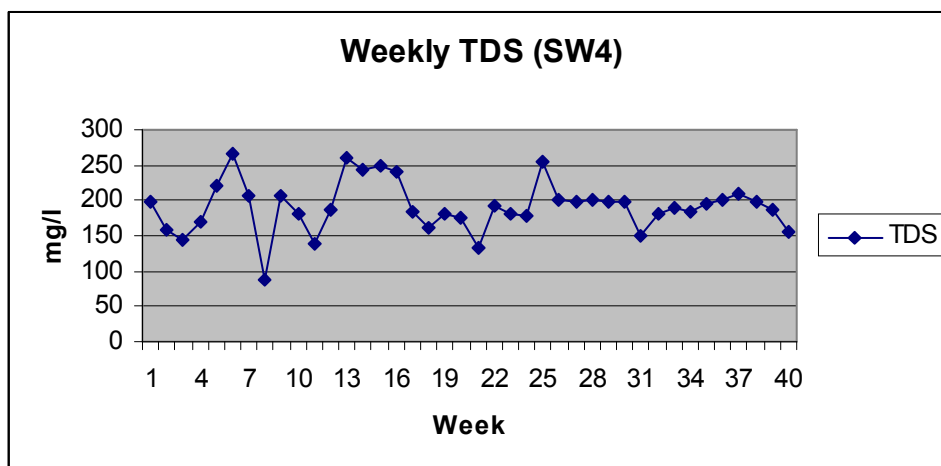
Monthly Dust (DM01 - 05)



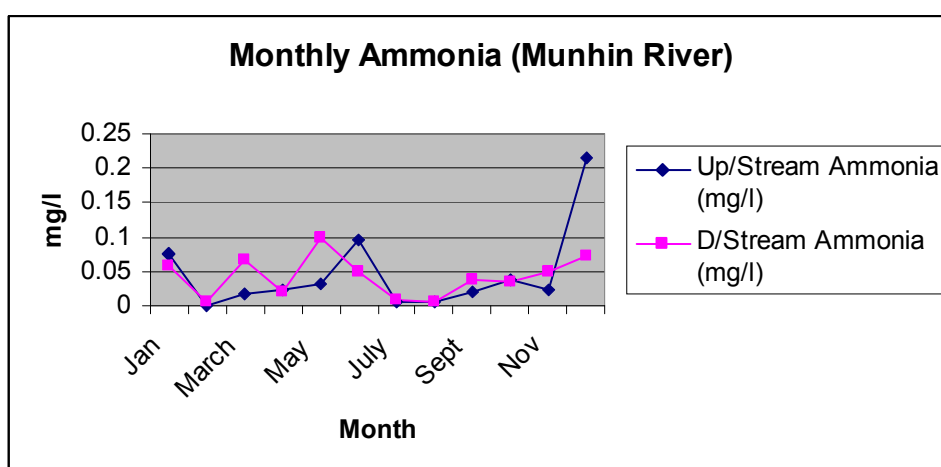
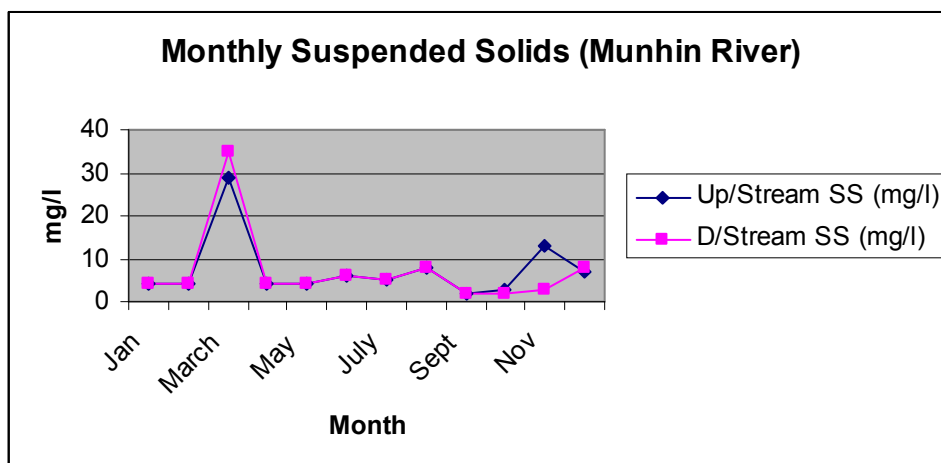
Appendix 3



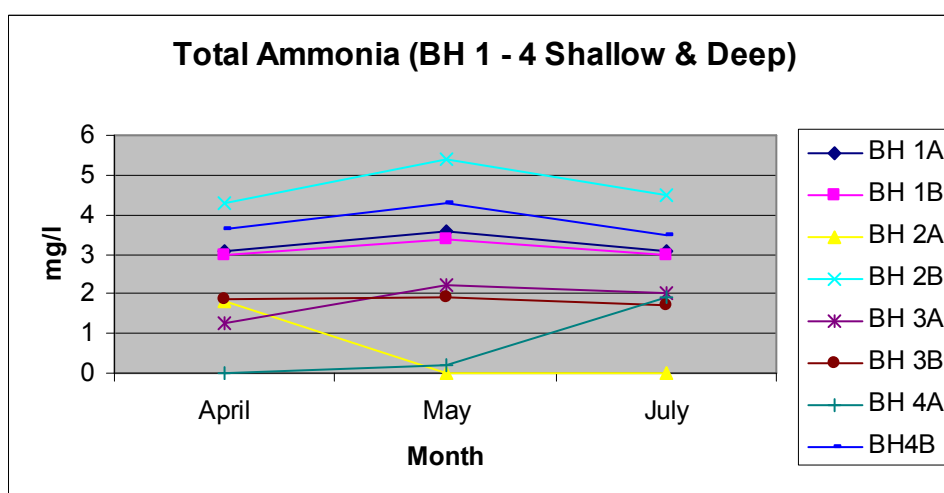
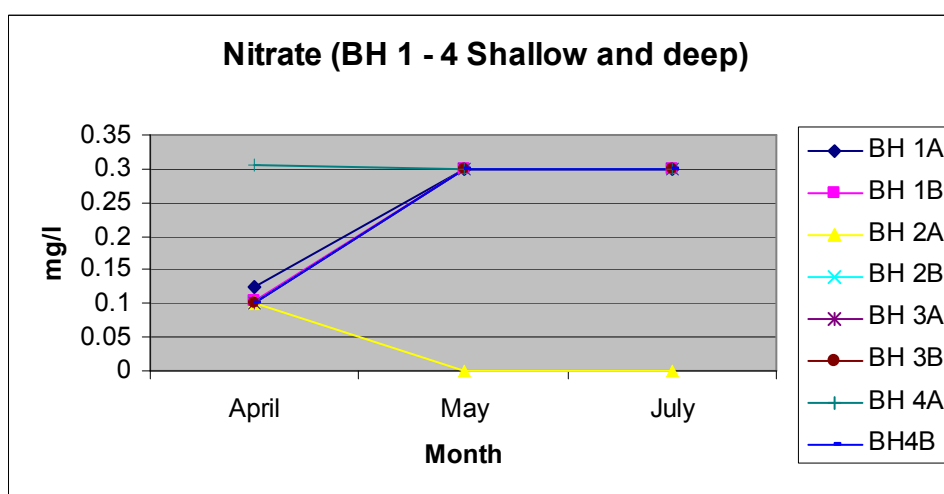
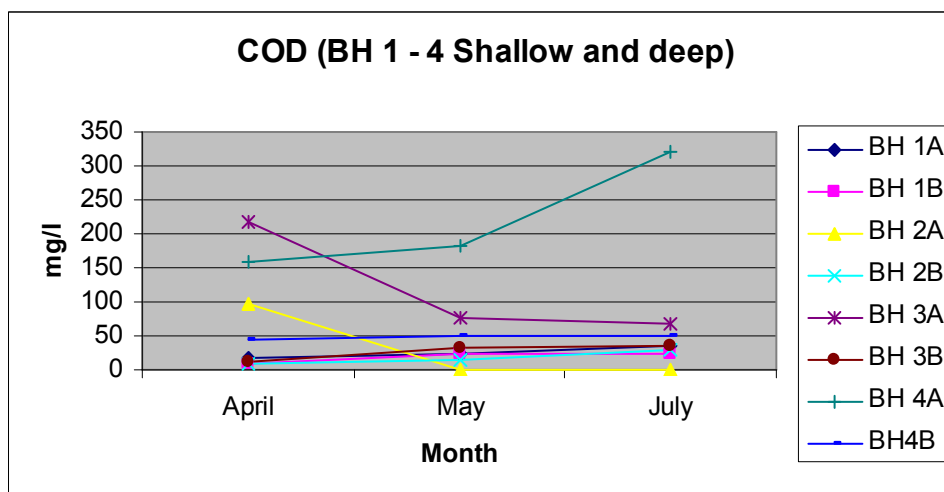


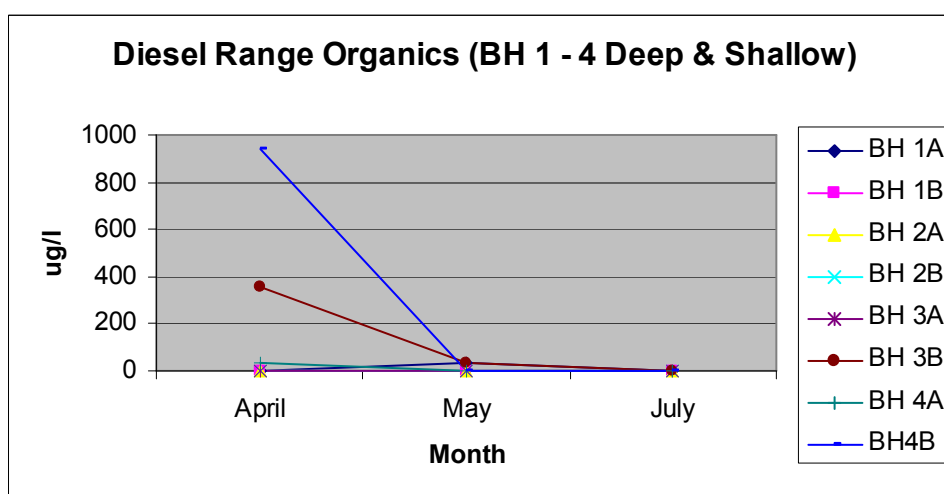
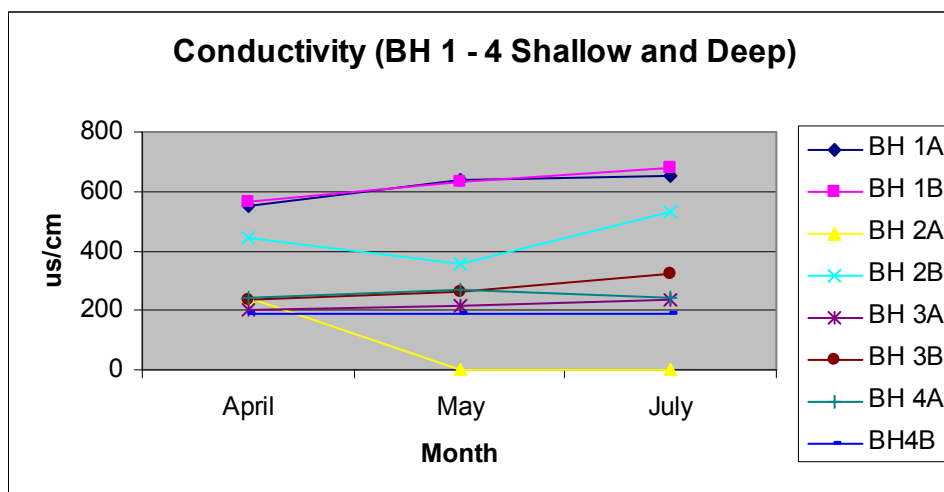


Appendix 4



Appendix 5





Appendix 6

Bay 4 Road 25 (April 2005)



Bay 4 Road 25 (August 2005)



Bay 4 Road 25 (March 2006)



Bay 4 Deposited Peat (July 2005)



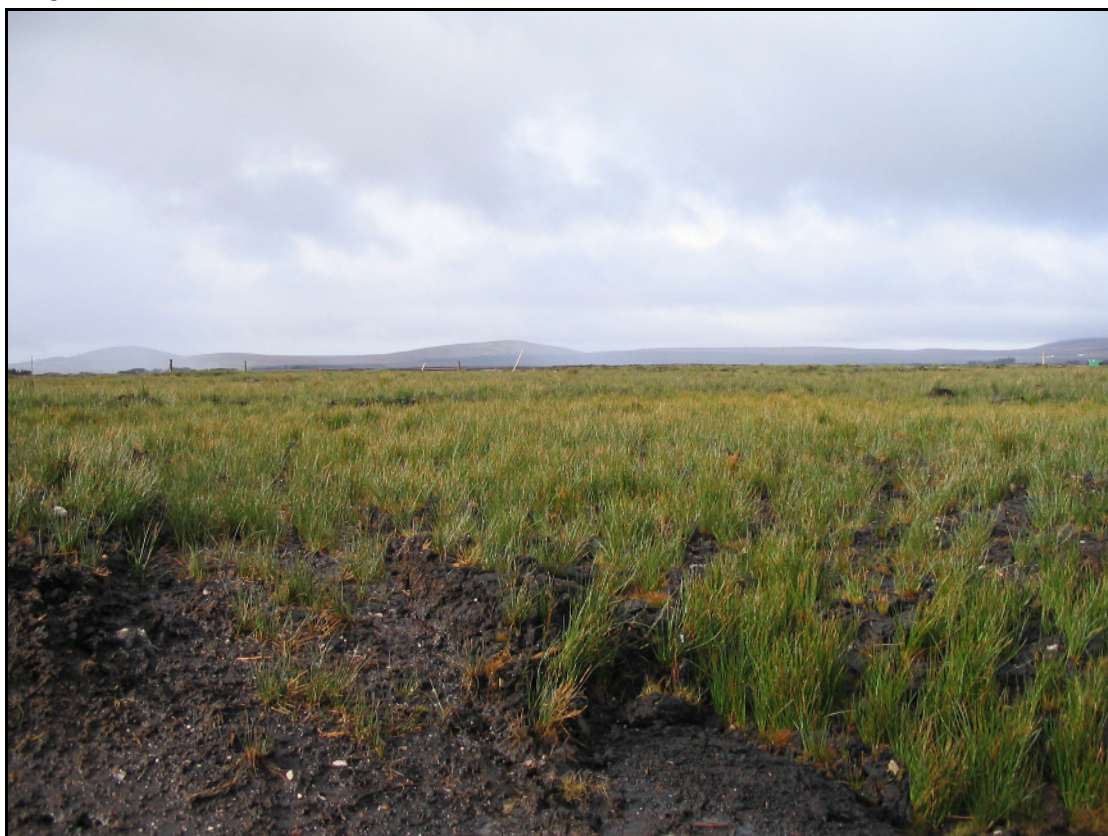
Bay 4 Deposited Peat (March 2006)



Bay 4 Deposited Peat (July 2005)



Bay 4 Deposited Peat (March 2006)



Bay 4 Deposited Peat (July 2005)



Bay 4 Deposited Peat (March 2006)



Appendix 7



LEGEND

REDLINE BOUNDARY

PIPED DRAIN/OUTFALL

HAUL ROAD

HIGH FIELD

FIELD DRAIN

HIGH FIELD TOE DRAIN

SURFACE WATER FLOW DIRECTION

PERIMETER SWALE

DUST MONITORING POINT

NOISE MONITORING POINT

SURFACE WATER EMISSION POINT

BOREHOLES

EMISSION POINT, MONITORING/SAMPLING POINT

NOTES

DUST MONITORING POINTS: DM-01 to DM-05

NOISE MONITORING POINTS: NR-A to NR-C

SURFACE WATER POINTS: SW1-4 & SW100-101

BOREHOLES: BH1 to BH4 (A & B)

DUST MONITORING POINT DM-01 and NOISE MONITORING POINT NR-C NOT VISIBLE IN A1 (1:2500) LAYOUT.

2	Revision 1	06/03/06
1	Original	23/08/05
No.	Issue	Date

Project:

Strahmore Peat Deposition Site

Title:

Waste Licence Emission&MonitoringPoints

Drawn by: MO'S	Scale: 1:2500
Checked by:	Drawing No.: CW-SR-EPA
Date: 23/08/05	Sheet No.: 1 of 1

Appendix 8

AER Returns Worksheet

Version 1.0.4

REFERENCE YEAR	2007
----------------	------

1. FACILITY IDENTIFICATION

Parent Company Name	Bord na Mona Energy Limited
Facility Name	Srahmore Peat Deposition Site
PRTR Identification Number	W0199
Licence Number	W0199-01

Waste or IPPC Classes of Activity

No.	class_name
1	Deposit on, in or under land (including landfill). Surface impoundment, including placement of liquid or sludge
2	discards into pits, ponds or lagoons.
3	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.

Address 1	Srahmore
Address 2	Attavally
Address 3	Bangor-Erris
City/Town/Village	County Mayo
Postal Code	
County	
Country	Ireland
Coordinates of Location	0.000
River Basin District	
NACE Code	382
Main Economic Activity	Waste treatment and disposal
Production Volume	0
Number of Installations	1

Number of Operating Hours in Year	1680
Number of Employees	126
User Feedback/Comments	Site was only operational for 4/5 months of the year during peat deposition and the project is now completed.
Web Address	www.bnm.ie

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
5d	Landfills

3. SOLVENTS DIRECTIVE

Is it applicable?	No
Have you been granted an exemption ?	No
Reason for exemption	

4.1 RELEASES TO AIR

| PRTR# : W0199 | Facility Name : Srahmore Peat Deposition Site | Filename : W0199_2007.xls | Return Year : 2007 |

13/05/2009 17:42

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO AIR								
POLLUTANT		METHOD				QUANTITY		
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
						0	0	0

SECTION B : REMAINING PRTR POLLUTANTS

SECTION B : REMAINING PM10 POLLUTANTS								
RELEASES TO AIR								
POLLUTANT		METHOD			QUANTITY			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
						0	0	0

SECTION C : LICENSED POLLUTANTS

SECTION C : LICENSED POLLUTANTS												
RELEASES TO AIR												
POLLUTANT			METHOD		QUANTITY							
Pollutant No.	Name	M/C/E	Method Used		DM-01	DM-02	DM-03	DM-04	DM-05	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description								
A10	Dust	E	OTH	VPI 2119 Blatt 2/Part 2	0	0	0	0	0	0.69	0	0.69

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. Please complete the table below:

Landfill: Please enter summary data on the quantities of methane flared and / or utilised	Srahmore Peat Deposition Site				
	T (Total) kg/Year	M/C/E	Method Used		Facility Total Capacity m³/hour
			Method Code	Designation or Description	
Methane flared	0				
Methane utilised in engine/s	0				

4.2 RELEASES TO WATERS

| PRTR# : W0199 | Facility Name : Strahmore Peat Deposition Site | Filename : W0199_2007.xls | Return Year : 2007 |

13/05/2009 17:43

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO WATERS							
POLLUTANT		Method Used			QUANTITY		
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

SECTION B : REMAINING PRTR POLLUTANTS

RELEASES TO WATERS							
POLLUTANT		Method Used			QUANTITY		
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

SECTION C : LICENSED POLLUTANTS

SECTION 3: LICENSED POLLUTANTS

RELEASES TO WATERS										
POLLUTANT					QUANTITY					
			Method Used		Location 7 (SW4)	SW100	SW101		A	F
									(Accident al)	(Fugitive)
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	Emission Point 3	T (Total) KG/Year	KG/Year	KG/Year
A40	Suspended Solids	E	OTH	G/19 Based on APHA, 1998, 20th Edition, Method 2540D	17153	2365	6937	26455	0	0

| PRTR# : W0199 | Facility Name : Srahmore Peat Deposition Site | Filename : W0199_2007.xls | Re: 13/05/2009 17:43

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER							
POLLUTANT		METHOD			QUANTITY		
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
			Method Code	Designation or Description			
					0	0	0

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER								
POLLUTANT		METHOD		QUANTITY				
Pollutant No.	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					0	0	0	

4.4 RELEASES TO LAND

| PRTR# : W0199 | Facility Name : Srahmore Peat Deposition Site | Filename : W0199_2007.xls | Return Year : 2007 |

13/05/2009 17:43

SECTION A : PRTR POLLUTANTS

RELEASES TO LAND							
POLLUTANT		METHOD			QUANTITY		
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
			Method Code	Designation or Description			
					0	0	0

SECTION B : LICENSED POLLUTANTS

RELEASES TO LAND							
POLLUTANT		METHOD			QUANTITY		
Pollutant No.	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
			Method Code	Designation or Description			
					0	0	0

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR# : W0199 | Facility Name : Srahmore Peat Deposition Site | Filename : W0199_2007.xls | Return Year : 2007 |

13/05/2009 17:43

Transfer Destination	European Waste Code	Hazardous	Quantity T/Year	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Name and Licence / Permit No. of Recoverer / Disposer / Broker	Address of Recoverer / Disposer / Broker	Name and Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)	Licence / Permit No. of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	19 11 06	No	1.5	Grit trap waste	D1	E	Volume Calculation	Onsite in Ireland	Bord na Mona, WL0199-01	Srahmore, Bangor Erris, Co Mayo		
Within the Country	20 01 08	No	8	Canteen waste	D1	M	Weighed	Offsite in Ireland	Mayo Co Council Ballina wastewater Treatment Works	Rathrooen lanfill, Killala Rd, Ballina, Co Mayo		
Within the Country	20 03 06	No	200	Sewage Cleaning	D9	M	Volume Calculation	Offsite in Ireland	Enva Ireland Ltd, W0184-01	Belleck, Ballina, Co Mayo		
Within the Country	13 02 05	Yes	5.68	Waste Oil	D9	C	Volume Calculation	Offsite in Ireland	Enva Ireland Ltd, W0184-01	Portlaoise, Co Laois.	Enva Ireland Ltd	WW0184-01
Within the Country	13 05 07	Yes	6	Oil Interceptor Waste	D9	C	Volume Calculation	Offsite in Ireland	Enva Ireland Ltd, W0184-01	Portlaoise, Co Laois.	Enva Ireland Ltd	WW0184-01

NACE_Group	NACE_SubGroup	NACE_Code	NACE_Description	NACE_ISIC
12	0	0	Manufacture of tobacco products	1200
36	0	0	Water collection, treatment and supply	3600
37	0	0	Sewerage	3700
39	0	0	Remediation activities and other waste management services	3900
75	0	0	Veterinary activities	7500
92	0	0	Gambling and betting activities	9200
97	0	0	Activities of households as employers of domestic personnel	9700
99	0	0	Activities of extraterritorial organisations and bodies	9900
02	1	0	Silviculture and other forestry activities	0210
05	1	0	Mining of hard coal	0510
06	1	0	Extraction of crude petroleum	0610
07	1	0	Mining of iron ores	0710
09	1	0	Support activities for petroleum and natural gas extraction	0910
13	1	0	Preparation and spinning of textile fibres	1311
16	1	0	Sawmilling and planing of wood	1610
19	1	0	Manufacture of coke oven products	1910
21	1	0	Manufacture of basic pharmaceutical products	2100*
24	1	0	Manufacture of basic iron and steel and of ferro-alloys	2410*
29	1	0	Manufacture of motor vehicles	2910
41	1	0	Development of building projects	4100*
49	1	0	Passenger rail transport, interurban	4911
50	1	0	Sea and coastal passenger water transport	5011
51	1	0	Passenger air transport	5110
52	1	0	Warehousing and storage	5210
53	1	0	Postal activities under universal service obligation	5310
55	1	0	Hotels and similar accommodation	5510*
56	1	0	Restaurants and mobile food service activities	5610
60	1	0	Radio broadcasting	6010
61	1	0	Wired telecommunications activities	6110
68	1	0	Buying and selling of own real estate	6810*
69	1	0	Legal activities	6910
70	1	0	Activities of head offices	7010
74	1	0	Specialised design activities	7410
78	1	0	Activities of employment placement agencies	7810
80	1	0	Private security activities	8010
81	1	0	Combined facilities support activities	8110
85	1	0	Pre-primary education	8510*
86	1	0	Hospital activities	8610
87	1	0	Residential nursing care activities	8710
88	1	0	Social work activities without accommodation for the elderly and disabled	8810
98	1	0	Undifferentiated goods-producing activities of private households for own use	9810
02	2	0	Logging	0220
05	2	0	Mining of lignite	0520
06	2	0	Extraction of natural gas	0620
10	2	0	Processing and preserving of fish, crustaceans and molluscs	1020
13	2	0	Weaving of textiles	1312
14	2	0	Manufacture of articles of fur	1420
15	2	0	Manufacture of footwear	1520
18	2	0	Reproduction of recorded media	1820
19	2	0	Manufacture of refined petroleum products	1920
20	2	0	Manufacture of pesticides and other agrochemical products	2021
21	2	0	Manufacture of pharmaceutical preparations	2100*
23	2	0	Manufacture of refractory products	2391
24	2	0	Manufacture of tubes, pipes, hollow profiles and related fittings, of steel	2410*
26	2	0	Manufacture of computers and peripheral equipment	2620
27	2	0	Manufacture of batteries and accumulators	2720
29	2	0	Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers	2920
30	2	0	Manufacture of railway locomotives and rolling stock	3020
32	2	0	Manufacture of musical instruments	3220
33	2	0	Installation of industrial machinery and equipment	3320
41	2	0	Construction of residential and non-residential buildings	4100*
45	2	0	Maintenance and repair of motor vehicles	4520
49	2	0	Freight rail transport	4912
50	2	0	Sea and coastal freight water transport	5012
53	2	0	Other postal and courier activities	5320
55	2	0	Holiday and other short-stay accommodation	5510*
59	2	0	Sound recording and music publishing activities	5920
60	2	0	Television programming and broadcasting activities	6020
61	2	0	Wireless telecommunications activities	6120
64	2	0	Activities of holding companies	6420
65	2	0	Reinsurance	6520
68	2	0	Renting and operating of own or leased real estate	6810*
69	2	0	Accounting, bookkeeping and auditing activities; tax consultancy	6920
71	2	0	Technical testing and analysis	7120
72	2	0	Research and experimental development on social sciences and humanities	7220
73	2	0	Market research and public opinion polling	7320
74	2	0	Photographic activities	7420
78	2	0	Temporary employment agency activities	7820
80	2	0	Security systems service activities	8020
82	2	0	Activities of call centres	8220
85	2	0	Primary education	8510*

87	2	0	Residential care activities for mental retardation, mental health and substance abuse	8720
94	2	0	Activities of trade unions	9420
98	2	0	Undifferentiated service-producing activities of private households for own use	9820
01	3	0	Plant propagation	0130
02	3	0	Gathering of wild growing non-wood products	0230
13	3	0	Finishing of textiles	1313
20	3	0	Manufacture of paints, varnishes and similar coatings, printing ink and mastics	2022
25	3	0	Manufacture of steam generators, except central heating hot water boilers	2513
26	3	0	Manufacture of communication equipment	2630
28	3	0	Manufacture of agricultural and forestry machinery	2821
30	3	0	Manufacture of air and spacecraft and related machinery	3030
32	3	0	Manufacture of sports goods	3230
35	3	0	Steam and air conditioning supply	3530
47	3	0	Retail sale of automotive fuel in specialised stores	4730
50	3	0	Inland passenger water transport	5021
55	3	0	Camping grounds, recreational vehicle parks and trailer parks	5520
56	3	0	Beverage serving activities	5630
61	3	0	Satellite telecommunications activities	6130
64	3	0	Trusts, funds and similar financial entities	6430
65	3	0	Pension funding	6530
66	3	0	Fund management activities	6630
74	3	0	Translation and interpretation activities	7490*
78	3	0	Other human resources provision	7830
80	3	0	Investigation activities	8030
81	3	0	Landscape service activities	8130
82	3	0	Organisation of conventions and trade shows	8230
84	3	0	Compulsory social security activities	8430
87	3	0	Residential care activities for the elderly and disabled	8730
02	4	0	Support services to forestry	0240
25	4	0	Manufacture of weapons and ammunition	2520
26	4	0	Manufacture of consumer electronics	2640
27	4	0	Manufacture of electric lighting equipment	2740
30	4	0	Manufacture of military fighting vehicles	3040
32	4	0	Manufacture of games and toys	3240
45	4	0	Sale, maintenance and repair of motorcycles and related parts and accessories	4540
50	4	0	Inland freight water transport	5022
77	4	0	Leasing of intellectual property and similar products, except copyrighted works	7740
01	5	0	Mixed farming	0150
25	5	0	Forging, pressing, stamping and roll-forming of metal; powder metallurgy	2591
32	5	0	Manufacture of medical and dental instruments and supplies	3250
49	5	0	Transport via pipeline	4930
20	6	0	Manufacture of man-made fibres	2030
26	6	0	Manufacture of irradiation, electromedical and electrotherapeutic equipment	2660
85	6	0	Educational support activities	8550
01	7	0	Hunting, trapping and related service activities	0170
23	7	0	Cutting, shaping and finishing of stone	2396
26	7	0	Manufacture of optical instruments and photographic equipment	2670
26	8	0	Manufacture of magnetic and optical media	2680
09	9	0	Support activities for other mining and quarrying	0990
27	9	0	Manufacture of other electrical equipment	2790
46	9	0	Non-specialised wholesale trade	4690
55	9	0	Other accommodation	5590
61	9	0	Other telecommunications activities	6190
74	9	0	Other professional, scientific and technical activities n.e.c.	7490*
79	9	0	Other reservation service and related activities	7990
86	9	0	Other human health activities	8690
87	9	0	Other residential care activities	8790
11	0	1	Distilling, rectifying and blending of spirits	1101
31	0	1	Manufacture of office and shop furniture	3100*
62	0	1	Computer programming activities	6201
90	0	1	Performing arts	9000*
91	0	1	Library and archives activities	9101
96	0	1	Washing and (dry-)cleaning of textile and fur products	9601
01	1	1	Growing of cereals (except rice), leguminous crops and oil seeds	0111
03	1	1	Marine fishing	0311
08	1	1	Quarrying of ornamental and building stone, limestone, gypsum, chalk and slate	0810*
10	1	1	Processing and preserving of meat	1010*
14	1	1	Manufacture of leather clothes	1410*
15	1	1	Tanning and dressing of leather; dressing and dyeing of fur	1511
17	1	1	Manufacture of pulp	1701*
18	1	1	Printing of newspapers	1811*
20	1	1	Manufacture of industrial gases	2011*
22	1	1	Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres	2211
23	1	1	Manufacture of flat glass	2310*
25	1	1	Manufacture of metal structures and parts of structures	2511*
26	1	1	Manufacture of electronic components	2610*
27	1	1	Manufacture of electric motors, generators and transformers	2710*
28	1	1	Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	2811
30	1	1	Building of ships and floating structures	3011
32	1	1	Striking of coins	3211*
33	1	1	Repair of fabricated metal products	3311
35	1	1	Production of electricity	3510*

38	1	1	Collection of non-hazardous waste	3811
42	1	1	Construction of roads and motorways	4210*
43	1	1	Demolition	4311
45	1	1	Sale of cars and light motor vehicles	4510*
46	1	1	Agents involved in the sale of agricultural raw materials, live animals, textile raw materials and semi-f	4610*
47	1	1	Retail sale in non-specialised stores with food, beverages or tobacco predominating	4711
58	1	1	Book publishing	5811
59	1	1	Motion picture, video and television programme production activities	5911
63	1	1	Data processing, hosting and related activities	6311
64	1	1	Central banking	6411
65	1	1	Life insurance	6511
66	1	1	Administration of financial markets	6611
71	1	1	Architectural activities	7110*
72	1	1	Research and experimental development on biotechnology	7210*
73	1	1	Advertising agencies	7310*
77	1	1	Renting and leasing of cars and light motor vehicles	7710*
79	1	1	Travel agency activities	7911
82	1	1	Combined office administrative service activities	8211
84	1	1	General public administration activities	8411
93	1	1	Operation of sports facilities	9311*
94	1	1	Activities of business and employers membership organisations	9411
95	1	1	Repair of computers and peripheral equipment	9511
01	2	1	Growing of grapes	0121
03	2	1	Marine aquaculture	0321
07	2	1	Mining of uranium and thorium ores	0721
16	2	1	Manufacture of veneer sheets and wood-based panels	1621
17	2	1	Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	1702
22	2	1	Manufacture of plastic plates, sheets, tubes and profiles	2220*
25	2	1	Manufacture of central heating radiators and boilers	2512*
28	2	1	Manufacture of ovens, furnaces and furnace burners	2815
35	2	1	Manufacture of gas	3520*
38	2	1	Treatment and disposal of non-hazardous waste	3821
42	2	1	Construction of utility projects for fluids	4220*
43	2	1	Electrical installation	4321
46	2	1	Wholesale of grain, unmanufactured tobacco, seeds and animal feeds	4620*
47	2	1	Retail sale of fruit and vegetables in specialised stores	4721*
51	2	1	Freight air transport	5120*
52	2	1	Service activities incidental to land transportation	5221
56	2	1	Event catering activities	5621
58	2	1	Publishing of computer games	5820*
66	2	1	Risk and damage evaluation	6621
70	2	1	Public relations and communication activities	7020*
77	2	1	Renting and leasing of recreational and sports goods	7721
81	2	1	General cleaning of buildings	8121
84	2	1	Foreign affairs	8421
86	2	1	General medical practice activities	8620*
93	2	1	Activities of amusement parks and theme parks	9321
95	2	1	Repair of consumer electronics	9521
10	3	1	Processing and preserving of potatoes	1030*
14	3	1	Manufacture of knitted and crocheted hosiery	1430*
23	3	1	Manufacture of ceramic tiles and flags	2392*
24	3	1	Cold drawing of bars	2410*
27	3	1	Manufacture of fibre optic cables	2731
29	3	1	Manufacture of electrical and electronic equipment for motor vehicles	2930*
38	3	1	Dismantling of wrecks	3830*
43	3	1	Plastering	4330*
45	3	1	Wholesale trade of motor vehicle parts and accessories	4530*
46	3	1	Wholesale of fruit and vegetables	4630*
49	3	1	Urban and suburban passenger land transport	4921
68	3	1	Real estate agencies	6820*
77	3	1	Renting and leasing of agricultural machinery and equipment	7730*
85	3	1	General secondary education	8521
01	4	1	Raising of dairy cattle	0141*
10	4	1	Manufacture of oils and fats	1040*
20	4	1	Manufacture of soap and detergents, cleaning and polishing preparations	2023*
23	4	1	Manufacture of ceramic household and ornamental articles	2393*
24	4	1	Precious metals production	2420*
28	4	1	Manufacture of metal forming machinery	2822*
46	4	1	Wholesale of textiles	4641*
47	4	1	Retail sale of computers, peripheral units and software in specialised stores	4741*
49	4	1	Freight transport by road	4923*
85	4	1	Post-secondary non-tertiary education	8530*
10	5	1	Operation of dairies and cheese making	1050*
20	5	1	Manufacture of explosives	2029*
23	5	1	Manufacture of cement	2394*
24	5	1	Casting of iron	2431*
26	5	1	Manufacture of instruments and appliances for measuring, testing and navigation	2651
27	5	1	Manufacture of electric domestic appliances	2750*
46	5	1	Wholesale of computers, computer peripheral equipment and software	4651
47	5	1	Retail sale of textiles in specialised stores	4751
85	5	1	Sports and recreation education	8541
01	6	1	Support activities for crop production	0161

10	6	1	Manufacture of grain mill products	1061
23	6	1	Manufacture of concrete products for construction purposes	2395*
25	6	1	Treatment and coating of metals	2592*
46	6	1	Wholesale of agricultural machinery, equipment and supplies	4653
47	6	1	Retail sale of books in specialised stores	4761*
10	7	1	Manufacture of bread; manufacture of fresh pastry goods and cakes	1071*
25	7	1	Manufacture of cutlery	2593*
46	7	1	Wholesale of solid, liquid and gaseous fuels and related products	4661
47	7	1	Retail sale of clothing in specialised stores	4771*
10	8	1	Manufacture of sugar	1072
47	8	1	Retail sale via stalls and markets of food, beverages and tobacco products	4781
08	9	1	Mining of chemical and fertiliser minerals	0891
10	9	1	Manufacture of prepared feeds for farm animals	1080*
13	9	1	Manufacture of knitted and crocheted fabrics	1391
23	9	1	Production of abrasive products	2399*
25	9	1	Manufacture of steel drums and similar containers	2599*
28	9	1	Manufacture of machinery for metallurgy	2823
30	9	1	Manufacture of motorcycles	3091
32	9	1	Manufacture of brooms and brushes	3290*
42	9	1	Construction of water projects	4290*
43	9	1	Roofing activities	4390*
47	9	1	Retail sale via mail order houses or via Internet	4791
63	9	1	News agency activities	6391
64	9	1	Financial leasing	6491
82	9	1	Activities of collection agencies and credit bureaus	8291
88	9	1	Child day-care activities	8890*
94	9	1	Activities of religious organisations	9491
11	0	2	Manufacture of wine from grape	1102*
31	0	2	Manufacture of kitchen furniture	3100*
62	0	2	Computer consultancy activities	6202*
90	0	2	Support activities to performing arts	9000*
91	0	2	Museums activities	9102*
96	0	2	Hairdressing and other beauty treatment	9602
01	1	2	Growing of rice	0112
03	1	2	Freshwater fishing	0312
08	1	2	Operation of gravel and sand pits; mining of clays and kaolin	0810*
10	1	2	Processing and preserving of poultry meat	1010*
14	1	2	Manufacture of workwear	1410*
15	1	2	Manufacture of luggage, handbags and the like, saddlery and harness	1512
17	1	2	Manufacture of paper and paperboard	1701*
18	1	2	Other printing	1811*
20	1	2	Manufacture of dyes and pigments	2011*
23	1	2	Shaping and processing of flat glass	2310*
25	1	2	Manufacture of doors and windows of metal	2511*
26	1	2	Manufacture of loaded electronic boards	2610*
27	1	2	Manufacture of electricity distribution and control apparatus	2710*
28	1	2	Manufacture of fluid power equipment	2812
30	1	2	Building of pleasure and sporting boats	3012
32	1	2	Manufacture of jewellery and related articles	3211*
33	1	2	Repair of machinery	3312
35	1	2	Transmission of electricity	3510*
38	1	2	Collection of hazardous waste	3812
42	1	2	Construction of railways and underground railways	4210*
43	1	2	Site preparation	4312*
46	1	2	Agents involved in the sale of fuels, ores, metals and industrial chemicals	4610*
58	1	2	Publishing of directories and mailing lists	5812
59	1	2	Motion picture, video and television programme post-production activities	5912
63	1	2	Web portals	6312
65	1	2	Non-life insurance	6512
66	1	2	Security and commodity contracts brokerage	6612
71	1	2	Engineering activities and related technical consultancy	7110*
73	1	2	Media representation	7310*
77	1	2	Renting and leasing of trucks	7710*
79	1	2	Tour operator activities	7912
84	1	2	Regulation of the activities of providing health care, education, cultural services and other social servi	8412
93	1	2	Activities of sport clubs	9312
94	1	2	Activities of professional membership organisations	9412
95	1	2	Repair of communication equipment	9512
01	2	2	Growing of tropical and subtropical fruits	0122
03	2	2	Freshwater aquaculture	0322
16	2	2	Manufacture of assembled parquet floors	1622*
17	2	2	Manufacture of household and sanitary goods and of toilet requisites	1709*
22	2	2	Manufacture of plastic packing goods	2220*
28	2	2	Manufacture of lifting and handling equipment	2816
35	2	2	Distribution of gaseous fuels through mains	3520*
38	2	2	Treatment and disposal of hazardous waste	3822
42	2	2	Construction of utility projects for electricity and telecommunications	4220*
43	2	2	Plumbing, heat and air conditioning installation	4322
46	2	2	Wholesale of flowers and plants	4620*
47	2	2	Retail sale of meat and meat products in specialised stores	4721*
51	2	2	Space transport	5120*
52	2	2	Service activities incidental to water transportation	5222

66	2	2	Activities of insurance agents and brokers	6622
70	2	2	Business and other management consultancy activities	7020*
77	2	2	Renting of video tapes and disks	7722
81	2	2	Other building and industrial cleaning activities	8129*
84	2	2	Defence activities	8422
86	2	2	Specialist medical practice activities	8620*
95	2	2	Repair of household appliances and home and garden equipment	9522
10	3	2	Manufacture of fruit and vegetable juice	1030*
23	3	2	Manufacture of bricks, tiles and construction products, in baked clay	2392*
24	3	2	Cold rolling of narrow strip	2410*
27	3	2	Manufacture of other electronic and electric wires and cables	2732
29	3	2	Manufacture of other parts and accessories for motor vehicles	2930*
38	3	2	Recovery of sorted materials	3830*
43	3	2	Joinery installation	4330*
45	3	2	Retail trade of motor vehicle parts and accessories	4530*
46	3	2	Wholesale of meat and meat products	4630*
49	3	2	Taxi operation	4922*
68	3	2	Management of real estate on a fee or contract basis	6820*
77	3	2	Renting and leasing of construction and civil engineering machinery and equipment	7730*
85	3	2	Technical and vocational secondary education	8522
01	4	2	Raising of other cattle and buffaloes	0141*
10	4	2	Manufacture of margarine and similar edible fats	1040*
20	4	2	Manufacture of perfumes and toilet preparations	2023*
23	4	2	Manufacture of ceramic sanitary fixtures	2393*
24	4	2	Aluminium production	2420*
46	4	2	Wholesale of clothing and footwear	4641*
47	4	2	Retail sale of telecommunications equipment in specialised stores	4741*
49	4	2	Removal services	4923*
85	4	2	Tertiary education	8530*
10	5	2	Manufacture of ice cream	1050*
20	5	2	Manufacture of glues	2029*
23	5	2	Manufacture of lime and plaster	2394*
24	5	2	Casting of steel	2431*
26	5	2	Manufacture of watches and clocks	2652
27	5	2	Manufacture of non-electric domestic appliances	2750*
46	5	2	Wholesale of electronic and telecommunications equipment and parts	4652
47	5	2	Retail sale of hardware, paints and glass in specialised stores	4752
85	5	2	Cultural education	8542
01	6	2	Support activities for animal production	0162
10	6	2	Manufacture of starches and starch products	1062
23	6	2	Manufacture of plaster products for construction purposes	2395*
25	6	2	Machining	2592*
46	6	2	Wholesale of machine tools	4659*
47	6	2	Retail sale of newspapers and stationery in specialised stores	4761*
10	7	2	Manufacture of rusks and biscuits; manufacture of preserved pastry goods and cakes	1071*
25	7	2	Manufacture of locks and hinges	2593*
46	7	2	Wholesale of metals and metal ores	4662
47	7	2	Retail sale of footwear and leather goods in specialised stores	4771*
10	8	2	Manufacture of cocoa, chocolate and sugar confectionery	1073
47	8	2	Retail sale via stalls and markets of textiles, clothing and footwear	4782
08	9	2	Extraction of peat	0892
10	9	2	Manufacture of prepared pet foods	1080*
13	9	2	Manufacture of made-up textile articles, except apparel	1392
25	9	2	Manufacture of light metal packaging	2599*
28	9	2	Manufacture of machinery for mining, quarrying and construction	2824
30	9	2	Manufacture of bicycles and invalid carriages	3092
64	9	2	Other credit granting	6492
82	9	2	Packaging activities	8292
94	9	2	Activities of political organisations	9492
11	0	3	Manufacture of cider and other fruit wines	1102*
31	0	3	Manufacture of mattresses	3100*
62	0	3	Computer facilities management activities	6202*
90	0	3	Artistic creation	9000*
91	0	3	Operation of historical sites and buildings and similar visitor attractions	9102*
96	0	3	Funeral and related activities	9603
01	1	3	Growing of vegetables and melons, roots and tubers	0113
10	1	3	Production of meat and poultry meat products	1010*
14	1	3	Manufacture of other outerwear	1410*
18	1	3	Pre-press and pre-media services	1812*
20	1	3	Manufacture of other inorganic basic chemicals	2011*
23	1	3	Manufacture of hollow glass	2310*
28	1	3	Manufacture of other pumps and compressors	2813*
32	1	3	Manufacture of imitation jewellery and related articles	3212
33	1	3	Repair of electronic and optical equipment	3313
35	1	3	Distribution of electricity	3510*
42	1	3	Construction of bridges and tunnels	4210*
43	1	3	Test drilling and boring	4312*
46	1	3	Agents involved in the sale of timber and building materials	4610*
58	1	3	Publishing of newspapers	5813*
59	1	3	Motion picture, video and television programme distribution activities	5913
84	1	3	Regulation of and contribution to more efficient operation of businesses	8413
93	1	3	Fitness facilities	9311*

01	2	3	Growing of citrus fruits	0123
16	2	3	Manufacture of other builders' carpentry and joinery	1622*
17	2	3	Manufacture of paper stationery	1709*
22	2	3	Manufacture of builders' ware of plastic	2220*
28	2	3	Manufacture of office machinery and equipment (except computers and peripheral equipment)	2817
35	2	3	Trade of gas through mains	3520*
46	2	3	Wholesale of live animals	4620*
47	2	3	Retail sale of fish, crustaceans and molluscs in specialised stores	4721*
52	2	3	Service activities incidental to air transportation	5223
84	2	3	Justice and judicial activities	8423*
86	2	3	Dental practice activities	8620*
95	2	3	Repair of footwear and leather goods	9523
24	3	3	Cold forming or folding	2410*
27	3	3	Manufacture of wiring devices	2733
43	3	3	Floor and wall covering	4330*
46	3	3	Wholesale of dairy products, eggs and edible oils and fats	4630*
77	3	3	Renting and leasing of office machinery and equipment (including computers)	7730*
01	4	3	Raising of horses and other equines	0142
23	4	3	Manufacture of ceramic insulators and insulating fittings	2393*
24	4	3	Lead, zinc and tin production	2420*
46	4	3	Wholesale of electrical household appliances	4649*
47	4	3	Retail sale of audio and video equipment in specialised stores	4742
20	5	3	Manufacture of essential oils	2029*
24	5	3	Casting of light metals	2432*
47	5	3	Retail sale of carpets, rugs, wall and floor coverings in specialised stores	4753
85	5	3	Driving school activities	8549*
01	6	3	Post-harvest crop activities	0163
23	6	3	Manufacture of ready-mixed concrete	2395*
46	6	3	Wholesale of mining, construction and civil engineering machinery	4659*
47	6	3	Retail sale of music and video recordings in specialised stores	4762
10	7	3	Manufacture of macaroni, noodles, couscous and similar farinaceous products	1074
25	7	3	Manufacture of tools	2593*
46	7	3	Wholesale of wood, construction materials and sanitary equipment	4663*
47	7	3	Dispensing chemist in specialised stores	4772*
10	8	3	Processing of tea and coffee	1079*
08	9	3	Extraction of salt	0893
13	9	3	Manufacture of carpets and rugs	1393
25	9	3	Manufacture of wire products, chain and springs	2599*
28	9	3	Manufacture of machinery for food, beverage and tobacco processing	2825
11	0	4	Manufacture of other non-distilled fermented beverages	1102*
90	0	4	Operation of arts facilities	9000*
91	0	4	Botanical and zoological gardens and nature reserves activities	9103
96	0	4	Physical well-being activities	9609*
01	1	4	Growing of sugar cane	0114
14	1	4	Manufacture of underwear	1410*
18	1	4	Binding and related services	1812*
20	1	4	Manufacture of other organic basic chemicals	2011*
23	1	4	Manufacture of glass fibres	2310*
28	1	4	Manufacture of other taps and valves	2813*
33	1	4	Repair of electrical equipment	3314
35	1	4	Trade of electricity	3510*
46	1	4	Agents involved in the sale of machinery, industrial equipment, ships and aircraft	4610*
58	1	4	Publishing of journals and periodicals	5813*
59	1	4	Motion picture projection activities	5914
01	2	4	Growing of pome fruits and stone fruits	0124
16	2	4	Manufacture of wooden containers	1623
17	2	4	Manufacture of wallpaper	1709*
28	2	4	Manufacture of power-driven hand tools	2818
46	2	4	Wholesale of hides, skins and leather	4620*
47	2	4	Retail sale of bread, cakes, flour confectionery and sugar confectionery in specialised stores	4721*
52	2	4	Cargo handling	5224
84	2	4	Public order and safety activities	8423*
95	2	4	Repair of furniture and home furnishings	9524
24	3	4	Cold drawing of wire	2410*
43	3	4	Painting and glazing	4330*
46	3	4	Wholesale of beverages	4630*
77	3	4	Renting and leasing of water transport equipment	7730*
01	4	4	Raising of camels and camelids	0143
23	4	4	Manufacture of other technical ceramic products	2393*
24	4	4	Copper production	2420*
46	4	4	Wholesale of china and glassware and cleaning materials	4649*
24	5	4	Casting of other non-ferrous metals	2432*
47	5	4	Retail sale of electrical household appliances in specialised stores	4759*
01	6	4	Seed processing for propagation	0164
23	6	4	Manufacture of mortars	2395*
46	6	4	Wholesale of machinery for the textile industry and of sewing and knitting machines	4659*
47	6	4	Retail sale of sporting equipment in specialised stores	4763
46	7	4	Wholesale of hardware, plumbing and heating equipment and supplies	4663*
47	7	4	Retail sale of medical and orthopaedic goods in specialised stores	4772*
10	8	4	Manufacture of condiments and seasonings	1079*
13	9	4	Manufacture of cordage, rope, twine and netting	1394
25	9	4	Manufacture of fasteners and screw machine products	2599*

28	9	4	Manufacture of machinery for textile, apparel and leather production	2826
11	0	5	Manufacture of beer	1103*
01	1	5	Growing of tobacco	0115
20	1	5	Manufacture of fertilisers and nitrogen compounds	2012
28	1	5	Manufacture of bearings, gears, gearing and driving elements	2814
33	1	5	Repair and maintenance of ships and boats	3315*
46	1	5	Agents involved in the sale of furniture, household goods, hardware and ironmongery	4610*
01	2	5	Growing of other tree and bush fruits and nuts	0125
28	2	5	Manufacture of non-domestic cooling and ventilation equipment	2819*
47	2	5	Retail sale of beverages in specialised stores	4722
84	2	5	Fire service activities	8423*
95	2	5	Repair of watches, clocks and jewellery	9529*
46	3	5	Wholesale of tobacco products	4630*
77	3	5	Renting and leasing of air transport equipment	7730*
01	4	5	Raising of sheep and goats	0144
24	4	5	Other non-ferrous metal production	2420*
46	4	5	Wholesale of perfume and cosmetics	4649*
23	6	5	Manufacture of fibre cement	2395*
46	6	5	Wholesale of office furniture	4659*
47	6	5	Retail sale of games and toys in specialised stores	4764
46	7	5	Wholesale of chemical products	4669*
47	7	5	Retail sale of cosmetic and toilet articles in specialised stores	4772*
10	8	5	Manufacture of prepared meals and dishes	1075
13	9	5	Manufacture of non-wovens and articles made from non-wovens, except apparel	1399*
28	9	5	Manufacture of machinery for paper and paperboard production	2829*
11	0	6	Manufacture of malt	1103*
01	1	6	Growing of fibre crops	0116
20	1	6	Manufacture of plastics in primary forms	2013*
33	1	6	Repair and maintenance of aircraft and spacecraft	3315*
46	1	6	Agents involved in the sale of textiles, clothing, fur, footwear and leather goods	4610*
01	2	6	Growing of oleaginous fruits	0126
47	2	6	Retail sale of tobacco products in specialised stores	4723
46	3	6	Wholesale of sugar and chocolate and sugar confectionery	4630*
01	4	6	Raising of swine/pigs	0145
24	4	6	Processing of nuclear fuel	2420*
46	4	6	Wholesale of pharmaceutical goods	4649*
46	6	6	Wholesale of other office machinery and equipment	4659*
46	7	6	Wholesale of other intermediate products	4669*
47	7	6	Retail sale of flowers, plants, seeds, fertilisers, pet animals and pet food in specialised stores	4773*
10	8	6	Manufacture of homogenised food preparations and dietetic food	1079*
13	9	6	Manufacture of other technical and industrial textiles	1399*
28	9	6	Manufacture of plastic and rubber machinery	2829*
11	0	7	Manufacture of soft drinks; production of mineral waters and other bottled waters	1104
20	1	7	Manufacture of synthetic rubber in primary forms	2013*
33	1	7	Repair and maintenance of other transport equipment	3315*
46	1	7	Agents involved in the sale of food, beverages and tobacco	4610*
01	2	7	Growing of beverage crops	0127
46	3	7	Wholesale of coffee, tea, cocoa and spices	4630*
01	4	7	Raising of poultry	0146
46	4	7	Wholesale of furniture, carpets and lighting equipment	4649*
46	7	7	Wholesale of waste and scrap	4669*
47	7	7	Retail sale of watches and jewellery in specialised stores	4773*
46	1	8	Agents specialised in the sale of other particular products	4610*
01	2	8	Growing of spices, aromatic, drug and pharmaceutical crops	0128
46	3	8	Wholesale of other food, including fish, crustaceans and molluscs	4630*
46	4	8	Wholesale of watches and jewellery	4649*
47	7	8	Other retail sale of new goods in specialised stores	4773*
31	0	9	Manufacture of other furniture	3100*
62	0	9	Other information technology and computer service activities	6209
96	0	9	Other personal service activities n.e.c.	9609*
01	1	9	Growing of other non-perennial crops	0119
14	1	9	Manufacture of other wearing apparel and accessories	1410*
22	1	9	Manufacture of other rubber products	2219
23	1	9	Manufacture and processing of other glass, including technical glassware	2310*
33	1	9	Repair of other equipment	3319
45	1	9	Sale of other motor vehicles	4510*
46	1	9	Agents involved in the sale of a variety of goods	4610*
47	1	9	Other retail sale in non-specialised stores	4719
58	1	9	Other publishing activities	5819
64	1	9	Other monetary intermediation	6419
66	1	9	Other activities auxiliary to financial services, except insurance and pension funding	6619
72	1	9	Other research and experimental development on natural sciences and engineering	7210*
82	1	9	Photocopying, document preparation and other specialised office support activities	8219
93	1	9	Other sports activities	9319
01	2	9	Growing of other perennial crops	0129
07	2	9	Mining of other non-ferrous metal ores	0729
16	2	9	Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	1629
17	2	9	Manufacture of other articles of paper and paperboard	1709*
22	2	9	Manufacture of other plastic products	2220*
25	2	9	Manufacture of other tanks, reservoirs and containers of metal	2512*
28	2	9	Manufacture of other general-purpose machinery n.e.c.	2819*
43	2	9	Other construction installation	4329

47	2	9	Other retail sale of food in specialised stores	4721*
52	2	9	Other transportation support activities	5229
56	2	9	Other food service activities	5629
58	2	9	Other software publishing	5820*
66	2	9	Other activities auxiliary to insurance and pension funding	6629
77	2	9	Renting and leasing of other personal and household goods	7729
81	2	9	Other cleaning activities	8129*
93	2	9	Other amusement and recreation activities	9329
95	2	9	Repair of other personal and household goods	9529*
10	3	9	Other processing and preserving of fruit and vegetables	1030*
14	3	9	Manufacture of other knitted and crocheted apparel	1430*
43	3	9	Other building completion and finishing	4330*
46	3	9	Non-specialised wholesale of food, beverages and tobacco	4630*
49	3	9	Other passenger land transport n.e.c.	4922*
77	3	9	Renting and leasing of other machinery, equipment and tangible goods n.e.c.	7730*
01	4	9	Raising of other animals	0149
23	4	9	Manufacture of other ceramic products	2393*
28	4	9	Manufacture of other machine tools	2822*
46	4	9	Wholesale of other household goods	4649*
20	5	9	Manufacture of other chemical products n.e.c.	2029*
47	5	9	Retail sale of furniture, lighting equipment and other household articles in specialised stores	4759*
85	5	9	Other education n.e.c.	8549*
23	6	9	Manufacture of other articles of concrete, plaster and cement	2395*
46	6	9	Wholesale of other machinery and equipment	4659*
47	7	9	Retail sale of second-hand goods in stores	4774
10	8	9	Manufacture of other food products n.e.c.	1079*
47	8	9	Retail sale via stalls and markets of other goods	4789
08	9	9	Other mining and quarrying n.e.c.	0899
13	9	9	Manufacture of other textiles n.e.c.	1399*
23	9	9	Manufacture of other non-metallic mineral products n.e.c.	2399*
25	9	9	Manufacture of other fabricated metal products n.e.c.	2599*
28	9	9	Manufacture of other special-purpose machinery n.e.c.	2829*
30	9	9	Manufacture of other transport equipment n.e.c.	3099
32	9	9	Other manufacturing n.e.c.	3290*
42	9	9	Construction of other civil engineering projects n.e.c.	4290*
43	9	9	Other specialised construction activities n.e.c.	4390*
47	9	9	Other retail sale not in stores, stalls or markets	4799
63	9	9	Other information service activities n.e.c.	6399
64	9	9	Other financial service activities, except insurance and pension funding n.e.c.	6499
82	9	9	Other business support service activities n.e.c.	8299
88	9	9	Other social work activities without accommodation n.e.c.	8890*
94	9	9	Activities of other membership organisations n.e.c.	9499

Activity_Group	Activity_SubGroup	Activity_Code	Activity_Name	Capacity_Threshold
1	NA	a	Mineral oil and gas refineries	
2	NA	a	Metal ore (including sulphide ore) roasting or sintering installations	0
3	NA	a	Underground mining and related operations	Receiving 10 tonnes per day
5	NA	a	Installations for the recovery or disposal of hazardous waste	0
6	NA	a	Industrial plants for the production of pulp from timber or similar fibrous materials	With a carcass production capacity of 50 tonnes per day
8	NA	a	Slaughterhouses	With a treatment capacity of 10 tonnes per day
9	NA	a	Plants for the pre-treatment (operations such as washing, bleaching, mercerisation) or dyeing of fibre	0
1	NA	b	Installations for gasification and liquefaction	With a capacity of 2.5 tonnes per hour
2	NA	b	Installations for the production of pig iron or steel (primary or secondary melting) including continuous casting	Where the surface of the area effectively under extractive operation equals 25 hectares
3	NA	b	Opencast mining and quarrying	With a capacity of 3 tonnes per hour
5	NA	b	Installations for the incineration of non-hazardous waste in the scope of Directive 2000/76/EC of the	With a production capacity of 20 tonnes per day
6	NA	b	Industrial plants for the production of paper and board and other primary wood products (such as chi	With a production capacity of 1 000 tonnes of fish or shellfish per year
7	NA	b	Intensive aquaculture	With a treatment capacity of 12 tonnes of finished product per day
9	NA	b	Plants for the tanning of hides and skins	With a heat input of 50 megawatts (MW)
1	NA	c	Thermal power stations and other combustion installations	0
4	NA	c	Chemical installations for the production on an industrial scale of phosphorous-, nitrogen- or potassi	With a capacity of 50 tonnes per day
5	NA	c	Installations for the disposal of non-hazardous waste	With a production capacity of 50 m3 per day
6	NA	c	Industrial plants for the preservation of wood and wood products with chemicals	With a capacity to receive 200 tonnes of milk per day (average value on an annual basis)
8	NA	c	Treatment and processing of milk	With a consumption capacity of 150 kg per hour or 200 tonnes per year
9	NA	c	Installations for surface treatment of substances, objects or products using organic solvents, in particu	0
1	NA	d	Coke ovens	With a production capacity of 20 tonnes per day
2	NA	d	Ferrous metal foundries	0
3	NA	d	Installations for the production of asbestos and the manufacture of asbestos-based products	Receiving 10 tonnes per day or with a total capacity of 25 000 tonnes
4	NA	d	Chemical installations for the production on an industrial scale of basic plant health products and of t	0
5	NA	d	Landfills	With a capacity of 1 tonne per hour
9	NA	d	Installations for the production of carbon (hard-burnt coal) or electro-graphite by means of incineratio	With a melting capacity of 20 tonnes per day
1	NA	e	Coal rolling mills	With a capacity of 100 000 population equivalents
3	NA	e	Installations for the manufacture of glass, including glass fibre	With a production capacity of 75 tonnes per day, or with a kiln capacity of 4 m3 and with a setting density per kiln of 300 kg/m3
4	NA	e	Installations using a chemical or biological process for the production on an industrial scale of basic	0
5	NA	e	Installations for the disposal or recycling of animal carcasses and animal waste	With a treatment capacity of 10 tonnes per day
9	NA	e	Installations for the building of, and painting or removal of paint from ships	With a capacity for ships 100 m long
1	NA	f	Installations for the manufacture of coal products and solid smokeless fuel	0
2	NA	f	Installations for surface treatment of metals and plastic materials using an electrolytic or chemical pr	Where the volume of the treatment vats equals 30 m3
3	NA	f	Installations for melting mineral substances, including the production of mineral fibres	With a melting capacity of 20 tonnes per day
4	NA	f	Installations for the production on an industrial scale of explosives and pyrotechnic products	0
5	NA	f	Urban waste-water treatment plants	With a capacity of 100 000 population equivalents
3	NA	g	Installations for the manufacture of ceramic products by firing, in particular roofing tiles, bricks, refrac	With a production capacity of 75 tonnes per day, or with a kiln capacity of 4 m3 and with a setting density per kiln of 300 kg/m3
5	NA	g	Independently operated industrial waste-water treatment plants which serve one or more activities of	With a capacity of 10 000 m3 per day
4	a	i	Simple hydrocarbons (linear or cyclic, saturated or unsaturated, aliphatic or aromatic)	0
7	a	i	Installations for the intensive rearing of poultry or pigs (i)	With 40 000 places for poultry
4	b	i	Gases, such as ammonia, chlorine or hydrogen chloride, fluorine or hydrogen fluoride, carbon oxides	0
8	b	i	Animal raw materials (other than milk)	With a finished product production capacity of 75 tonnes per day
2	c	i	Hot-rolling mills	With a capacity of 20 tonnes of crude steel per hour
3	c	i	Cement clinker in rotary kilns	per hour
2	e	i	For the production of non-ferrous crude metals from ore, concentrates or secondary raw materials by	With a production capacity of 500 tonnes per day
4	a	ii	Oxygen-containing hydrocarbons such as alcohols, aldehydes, ketones, carboxylic acids, esters, ac	0
7	a	ii	Installations for the intensive rearing of poultry or pigs (ii)	With 2 000 places for production pigs (over 30 kg)
4	b	ii	Acids, such as chromic acid, hydrofluoric acid, phosphoric acid, nitric acid, hydrochloric acid, sulphur	0
8	b	ii	Vegetable raw materials	With a finished product production capacity of 300 tonnes per day (average value on a quarterly basis)
2	c	ii	Smitheries with hammers	With an energy of 50 kilojoules per hammer, where the calorific power used exceeds
3	c	ii	Lime in rotary kilns	20 MW
2	e	ii	For the smelting, including the alloying, of non-ferrous metals, including recovered products (refining	With a production capacity of 50 tonnes per day
4	a	iii	Sulphurous hydrocarbons	With a melting capacity of 4 tonnes per day for lead and cadmium or 20 tonnes per day for all other metals
7	a	iii	Installations for the intensive rearing of poultry or pigs (iii)	0
4	b	iii	Bases, such as ammonium hydroxide, potassium hydroxide, sodium hydroxide	With 750 places for sows
2	c	iii	Application of protective fused metal coats	0
3	c	iii	Cement clinker or lime in other furnaces	With an input of 2 tonnes of crude steel per hour
4	a	iv	Nitrogenous hydrocarbons such as amines, amides, nitrous compounds, nitro compounds or nitrate	With a production capacity of 50 tonnes per day
4	b	iv	Salts, such as ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, pei	0
4	a	ix	Synthetic rubbers	0
4	a	v	Phosphorus-containing hydrocarbons	0
4	b	v	Non-metals, metal oxides or other inorganic compounds such as calcium carbide, silicon, silicon cart	0
4	a	vi	Halogenic hydrocarbons	0
4	a	vii	Organometallic compounds	0
4	a	viii	Basic plastic materials (polymers, synthetic fibres and cellulose-based fibres)	0
4	a	x	Dyes and pigments	0
4	a	xi	Surface-active agents and surfactants	0

Emission Type : Air**Category Specific PRTR Pollutants**

Pollutant Number	Pollutant Name	Pollutant Lookup
06	Ammonia (NH3)	06 - Ammonia (NH3)
17	Arsenic and compounds	17 - Arsenic and compounds
18	Cadmium and compounds	18 - Cadmium and compounds
03	Carbon dioxide (CO2)	03 - Carbon dioxide (CO2)
02	Carbon monoxide (CO)	02 - Carbon monoxide (CO)
19	Chromium and compounds	19 - Chromium and compounds
20	Copper and compounds	20 - Copper and compounds
42	Hexachlorobenzene (HCB)	42 - Hexachlorobenzene (HCB)
21	Mercury and compounds	21 - Mercury and compounds
01	Methane (CH4)	01 - Methane (CH4)
22	Nickel and compounds	22 - Nickel and compounds
08	Nitrogen oxides (NOx/NO2)	08 - Nitrogen oxides (NOx/NO2)
05	Nitrous oxide (N2O)	05 - Nitrous oxide (N2O)
86	Particulate matter (PM10)	86 - Particulate matter (PM10)
47	PCDD + PCDF (dioxins + furans)	47 - PCDD + PCDF (dioxins + furans)
11	Sulphur oxides (SOx/SO2)	11 - Sulphur oxides (SOx/SO2)
24	Zinc and compounds	24 - Zinc and compounds

Remaining PRTR Pollutants

Pollutant Number	Pollutant Name	Pollutant Lookup
55	1,1,1-trichloroethane	55 - 1,1,1-trichloroethane
56	1,1,2,2-tetrachloroethane	56 - 1,1,2,2-tetrachloroethane
44	1,2,3,4,5,6-hexachlorocyclohexane(HCH)	44 - 1,2,3,4,5,6-hexachlorocyclohexane(HCH)
34	1,2-dichloroethane (EDC)	34 - 1,2-dichloroethane (EDC)
26	Aldrin	26 - Aldrin
61	Anthracene	61 - Anthracene
81	Asbestos	81 - Asbestos
62	Benzene	62 - Benzene
28	Chlordane	28 - Chlordane
29	Chlordecone	29 - Chlordecone
80	Chlorine and inorganic compounds (as HCL)	80 - Chlorine and inorganic compounds (as HCL)
15	Chlorofluorocarbons (CFCs)	15 - Chlorofluorocarbons (CFCs)
33	DDT	33 - DDT
70	Di-(2-ethyl hexyl) phthalate (DEHP)	70 - Di-(2-ethyl hexyl) phthalate (DEHP)
35	Dichloromethane (DCM)	35 - Dichloromethane (DCM)
36	Dieldrin	36 - Dieldrin
39	Endrin	39 - Endrin
65	Ethyl benzene	65 - Ethyl benzene
66	Ethylene oxide	66 - Ethylene oxide
84	Fluorine and inorganic compounds (as HF)	84 - Fluorine and inorganic compounds (as HF)
40	Halogenated organic compounds	40 - Halogenated organic compounds
16	Halons	16 - Halons
41	Heptachlor	41 - Heptachlor
90	Hexabromobiphenyl	90 - Hexabromobiphenyl
04	Hydro-fluorocarbons (HFCs)	04 - Hydro-fluorocarbons (HFCs)
14	Hydrochlorofluorocarbons (HCFCs)	14 - Hydrochlorofluorocarbons (HCFCs)
85	Hydrogen cyanide (HCN)	85 - Hydrogen cyanide (HCN)
23	Lead and compounds	23 - Lead and compounds
45	Lindane	45 - Lindane
46	Mirex	46 - Mirex
68	Naphthalene	68 - Naphthalene
07	Non-methane volatile organic compounds (NMVOC)	07 - Non-methane volatile organic compounds (NMVOC)
48	Pentachlorobenzene	48 - Pentachlorobenzene
49	Pentachlorophenol (PCP)	49 - Pentachlorophenol (PCP)
09	Perfluorocarbons (PFCs)	09 - Perfluorocarbons (PFCs)
50	Polychlorinated biphenyls (PCBs)	50 - Polychlorinated biphenyls (PCBs)
72	Polycyclic aromatic hydrocarbons (PAHs)	72 - Polycyclic aromatic hydrocarbons (PAHs)
10	Sulphur hexafluoride (SF6)	10 - Sulphur hexafluoride (SF6)
52	Tetrachloroethylene (PER)	52 - Tetrachloroethylene (PER)
53	Tetrachloromethane (TCM)	53 - Tetrachloromethane (TCM)
73	Toluene	73 - Toluene
59	Toxaphene	59 - Toxaphene
54	Trichlorobenzenes (TCBs)	54 - Trichlorobenzenes (TCBs)
57	Trichloroethylene	57 - Trichloroethylene
58	Trichloromethane	58 - Trichloromethane
60	Vinyl chloride	60 - Vinyl chloride
78	Xylenes	78 - Xylenes

Emission Type : Water**Category Specific PRTR Pollutants**

Pollutant Number	Pollutant Name	Pollutant Lookup
44	1,2,3,4,5,6-hexachlorocyclohexane(HCH)	44 - 1,2,3,4,5,6-hexachlorocyclohexane(HCH)
34	1,2-dichloroethane (EDC)	34 - 1,2-dichloroethane (EDC)
25	Alachlor	25 - Alachlor
26	Aldrin	26 - Aldrin
61	Anthracene	61 - Anthracene
17	Arsenic and compounds	17 - Arsenic and compounds
81	Asbestos	81 - Asbestos
27	Atrazine	27 - Atrazine
62	Benzene	62 - Benzene
91	Benzo(g,h,i)perylene	91 - Benzo(g,h,i)perylene
63	Brominated diphenylethers	63 - Brominated diphenylethers
18	Cadmium and compounds	18 - Cadmium and compounds
28	Chlordane	28 - Chlordane
29	Chlordecone	29 - Chlordecone

Air Lookup

From Row A	4
To Row A	20
Start Cell A	3
From Row B	24
To Row B	70
Start Cell B	23

Water Lookup

From Row A	75
To Row A	143
Start Cell A	74
From Row B	147
To Row B	148
Start Cell B	146

Offsite Xfers Lookup

From Row	153
To Row	243
Start Cell	152

Land Lookup

From Row	248
To Row	338
Start Cell	247

30	Chlorfenvinphos	30 - Chlorfenvinphos
79	Chlorides	79 - Chlorides
31	Chloro-alkanes, C10-C13	31 - Chloro-alkanes, C10-C13
32	Chlorpyrifos	32 - Chlorpyrifos
19	Chromium and compounds	19 - Chromium and compounds
20	Copper and compounds	20 - Copper and compounds
82	Cyanides (as total CN)	82 - Cyanides (as total CN)
33	DDT	33 - DDT
70	Di-(2-ethyl hexyl) phthalate (DEHP)	70 - Di-(2-ethyl hexyl) phthalate (DEHP)
35	Dichloromethane (DCM)	35 - Dichloromethane (DCM)
36	Dieldrin	36 - Dieldrin
37	Diuron	37 - Diuron
38	Endosulphan	38 - Endosulphan
39	Endrin	39 - Endrin
65	Ethyl benzene	65 - Ethyl benzene
88	Fluoranthene	88 - Fluoranthene
83	Fluorides (as total F)	83 - Fluorides (as total F)
40	Halogenated organic compounds	40 - Halogenated organic compounds
41	Heptachlor	41 - Heptachlor
90	Hexabromobiphenyl	90 - Hexabromobiphenyl
42	Hexachlorobenzene (HCB)	42 - Hexachlorobenzene (HCB)
43	Hexachlorobutadiene (HCBd)	43 - Hexachlorobutadiene (HCBd)
89	Isodrin	89 - Isodrin
67	Isoproturon	67 - Isoproturon
23	Lead and compounds	23 - Lead and compounds
45	Lindane	45 - Lindane
21	Mercury and compounds	21 - Mercury and compounds
46	Mirex	46 - Mirex
68	Naphthalene	68 - Naphthalene
22	Nickel and compounds	22 - Nickel and compounds
64	Nonylphenol and Nonylphenol ethoxylates (NP/NPEs)	64 - Nonylphenol and Nonylphenol ethoxylates (NP/NPEs)
87	Octylphenols and Octylphenol ethoxylates	87 - Octylphenols and Octylphenol ethoxylates
69	Organotin compounds	69 - Organotin compounds
47	PCDD + PCDF (dioxins + furans)	47 - PCDD + PCDF (dioxins + furans)
48	Pentachlorobenzene	48 - Pentachlorobenzene
49	Pentachlorophenol (PCP)	49 - Pentachlorophenol (PCP)
71	Phenols (as total C)	71 - Phenols (as total C)
50	Polychlorinated biphenyls (PCBs)	50 - Polychlorinated biphenyls (PCBs)
72	Polycyclic aromatic hydrocarbons (PAHs)	72 - Polycyclic aromatic hydrocarbons (PAHs)
51	Simazine	51 - Simazine
52	Tetrachloroethylene (PER)	52 - Tetrachloroethylene (PER)
53	Tetrachloromethane (TCM)	53 - Tetrachloromethane (TCM)
73	Toluene	73 - Toluene
12	Total nitrogen	12 - Total nitrogen
76	Total organic carbon (TOC)	76 - Total organic carbon (TOC)
13	Total phosphorus	13 - Total phosphorus
74	Tributyltin and compounds	74 - Tributyltin and compounds
54	Trichlorobenzenes (TCBs)	54 - Trichlorobenzenes (TCBs)
57	Trichloroethylene	57 - Trichloroethylene
58	Trichloromethane	58 - Trichloromethane
77	Trifluralin	77 - Trifluralin
75	Triphenyltin and compounds	75 - Triphenyltin and compounds
60	Vinyl chloride	60 - Vinyl chloride
78	Xylenes	78 - Xylenes
24	Zinc and compounds	24 - Zinc and compounds

Remaining PRTR Pollutants

Pollutant_Number	Pollutant_Name	Pollutant_Lookup
66	Ethylene oxide	66 - Ethylene oxide
59	Toxaphene	59 - Toxaphene

Emission Type : Offsite Transfers

PRTR Pollutants

Pollutant_Number	Pollutant_Name	Pollutant_Lookup
55	1,1,1-trichloroethane	55 - 1,1,1-trichloroethane
56	1,1,2,2-tetrachloroethane	56 - 1,1,2,2-tetrachloroethane
44	1,2,3,4,5,6-hexachlorocyclohexane(HCH)	44 - 1,2,3,4,5,6-hexachlorocyclohexane(HCH)
34	1,2-dichloroethane (EDC)	34 - 1,2-dichloroethane (EDC)
25	Alachlor	25 - Alachlor
26	Aldrin	26 - Aldrin
06	Ammonia (NH3)	06 - Ammonia (NH3)
61	Anthracene	61 - Anthracene
17	Arsenic and compounds	17 - Arsenic and compounds
81	Asbestos	81 - Asbestos
27	Atrazine	27 - Atrazine
62	Benzene	62 - Benzene
91	Benzo(g,h,i)perylene	91 - Benzo(g,h,i)perylene
63	Brominated diphenylethers	63 - Brominated diphenylethers
18	Cadmium and compounds	18 - Cadmium and compounds
03	Carbon dioxide (CO2)	03 - Carbon dioxide (CO2)
02	Carbon monoxide (CO)	02 - Carbon monoxide (CO)
28	Chlordane	28 - Chlordane
29	Chlordecone	29 - Chlordecone
30	Chlorfenvinphos	30 - Chlorfenvinphos
79	Chlorides	79 - Chlorides
80	Chlorine and inorganic compounds (as HCL)	80 - Chlorine and inorganic compounds (as HCL)
31	Chloro-alkanes, C10-C13	31 - Chloro-alkanes, C10-C13
15	Chlorofluorocarbons (CFCs)	15 - Chlorofluorocarbons (CFCs)

32	Chlorpyrifos	32 - Chlorpyrifos
19	Chromium and compounds	19 - Chromium and compounds
20	Copper and compounds	20 - Copper and compounds
82	Cyanides (as total CN)	82 - Cyanides (as total CN)
33	DDT	33 - DDT
70	Di-(2-ethyl hexyl) phthalate (DEHP)	70 - Di-(2-ethyl hexyl) phthalate (DEHP)
35	Dichloromethane (DCM)	35 - Dichloromethane (DCM)
36	Dieldrin	36 - Dieldrin
37	Diuron	37 - Diuron
38	Endosulphan	38 - Endosulphan
39	Endrin	39 - Endrin
65	Ethyl benzene	65 - Ethyl benzene
66	Ethylene oxide	66 - Ethylene oxide
88	Fluoranthene	88 - Fluoranthene
83	Fluorides (as total F)	83 - Fluorides (as total F)
84	Fluorine and inorganic compounds (as HF)	84 - Fluorine and inorganic compounds (as HF)
40	Halogenated organic compounds	40 - Halogenated organic compounds
16	Halons	16 - Halons
41	Heptachlor	41 - Heptachlor
90	Hexabromobiphenyl	90 - Hexabromobiphenyl
42	Hexachlorobenzene (HCB)	42 - Hexachlorobenzene (HCB)
43	Hexachlorobutadiene (HCBd)	43 - Hexachlorobutadiene (HCBd)
04	Hydro-fluorocarbons (HFCs)	04 - Hydro-fluorocarbons (HFCs)
14	Hydrochlorofluorocarbons (HCFCs)	14 - Hydrochlorofluorocarbons (HCFCs)
85	Hydrogen cyanide (HCN)	85 - Hydrogen cyanide (HCN)
89	Isodrin	89 - Isodrin
67	Isoproturon	67 - Isoproturon
23	Lead and compounds	23 - Lead and compounds
45	Lindane	45 - Lindane
21	Mercury and compounds	21 - Mercury and compounds
01	Methane (CH4)	01 - Methane (CH4)
46	Mirex	46 - Mirex
68	Naphthalene	68 - Naphthalene
22	Nickel and compounds	22 - Nickel and compounds
08	Nitrogen oxides (NOx/NO2)	08 - Nitrogen oxides (NOx/NO2)
05	Nitrous oxide (N2O)	05 - Nitrous oxide (N2O)
07	Non-methane volatile organic compounds (NMVOC)	07 - Non-methane volatile organic compounds (NMVOC)
64	Nonylphenol and Nonylphenol ethoxylates (NP/NPEs)	64 - Nonylphenol and Nonylphenol ethoxylates (NP/NPEs)
87	Octylphenols and Octylphenol ethoxylates	87 - Octylphenols and Octylphenol ethoxylates
69	Organotin compounds	69 - Organotin compounds
86	Particulate matter (PM10)	86 - Particulate matter (PM10)
47	PCDD + PCDF (dioxins + furans)	47 - PCDD + PCDF (dioxins + furans)
48	Pentachlorobenzene	48 - Pentachlorobenzene
49	Pentachlorophenol (PCP)	49 - Pentachlorophenol (PCP)
09	Perfluorocarbons (PFCs)	09 - Perfluorocarbons (PFCs)
71	Phenols (as total C)	71 - Phenols (as total C)
50	Polychlorinated biphenyls (PCBs)	50 - Polychlorinated biphenyls (PCBs)
72	Polycyclic aromatic hydrocarbons (PAHs)	72 - Polycyclic aromatic hydrocarbons (PAHs)
51	Simazine	51 - Simazine
10	Sulphur hexafluoride (SF6)	10 - Sulphur hexafluoride (SF6)
11	Sulphur oxides (SOx/SO2)	11 - Sulphur oxides (SOx/SO2)
52	Tetrachloroethylene (PER)	52 - Tetrachloroethylene (PER)
53	Tetrachloromethane (TCM)	53 - Tetrachloromethane (TCM)
73	Toluene	73 - Toluene
12	Total nitrogen	12 - Total nitrogen
76	Total organic carbon (TOC)	76 - Total organic carbon (TOC)
13	Total phosphorus	13 - Total phosphorus
59	Toxaphene	59 - Toxaphene
74	Tributyltin and compounds	74 - Tributyltin and compounds
54	Trichlorobenzenes (TCBs)	54 - Trichlorobenzenes (TCBs)
57	Trichloroethylene	57 - Trichloroethylene
58	Trichloromethane	58 - Trichloromethane
77	Trifluralin	77 - Trifluralin
75	Triphenyltin and compounds	75 - Triphenyltin and compounds
60	Vinyl chloride	60 - Vinyl chloride
78	Xylenes	78 - Xylenes
24	Zinc and compounds	24 - Zinc and compounds

Emission Type : Land

PRTR Pollutants

Pollutant_Number	Pollutant_Name	Pollutant_Lookup
55	1,1,1-trichloroethane	55 - 1,1,1-trichloroethane
56	1,1,2,2-tetrachloroethane	56 - 1,1,2,2-tetrachloroethane
44	1,2,3,4,5,6-hexachlorocyclohexane(HCH)	44 - 1,2,3,4,5,6-hexachlorocyclohexane(HCH)
34	1,2-dichloroethane (EDC)	34 - 1,2-dichloroethane (EDC)
25	Alachlor	25 - Alachlor
26	Aldrin	26 - Aldrin
06	Ammonia (NH3)	06 - Ammonia (NH3)
61	Anthracene	61 - Anthracene
17	Arsenic and compounds	17 - Arsenic and compounds
81	Asbestos	81 - Asbestos
27	Atrazine	27 - Atrazine
62	Benzene	62 - Benzene
91	Benzo(g,h,i)perylene	91 - Benzo(g,h,i)perylene
63	Brominated diphenylethers	63 - Brominated diphenylethers
18	Cadmium and compounds	18 - Cadmium and compounds
03	Carbon dioxide (CO2)	03 - Carbon dioxide (CO2)
02	Carbon monoxide (CO)	02 - Carbon monoxide (CO)

28	Chlordane	28 - Chlordane
29	Chlordecone	29 - Chlordecone
30	Chlorfenvinphos	30 - Chlorfenvinphos
79	Chlorides	79 - Chlorides
80	Chlorine and inorganic compounds (as HCL)	80 - Chlorine and inorganic compounds (as HCL)
31	Chloro-alkanes, C10-C13	31 - Chloro-alkanes, C10-C13
15	Chlorofluorocarbons (CFCs)	15 - Chlorofluorocarbons (CFCs)
32	Chlorpyrifos	32 - Chlorpyrifos
19	Chromium and compounds	19 - Chromium and compounds
20	Copper and compounds	20 - Copper and compounds
82	Cyanides (as total CN)	82 - Cyanides (as total CN)
33	DDT	33 - DDT
70	Di-(2-ethyl hexyl) phthalate (DEHP)	70 - Di-(2-ethyl hexyl) phthalate (DEHP)
35	Dichloromethane (DCM)	35 - Dichloromethane (DCM)
36	Dieldrin	36 - Dieldrin
37	Diuron	37 - Diuron
38	Endosulphan	38 - Endosulphan
39	Endrin	39 - Endrin
65	Ethyl benzene	65 - Ethyl benzene
66	Ethylene oxide	66 - Ethylene oxide
88	Fluoranthene	88 - Fluoranthene
83	Fluorides (as total F)	83 - Fluorides (as total F)
84	Fluorine and inorganic compounds (as HF)	84 - Fluorine and inorganic compounds (as HF)
40	Halogenated organic compounds	40 - Halogenated organic compounds
16	Halons	16 - Halons
41	Heptachlor	41 - Heptachlor
90	Hexabromobiphenyl	90 - Hexabromobiphenyl
42	Hexachlorobenzene (HCB)	42 - Hexachlorobenzene (HCB)
43	Hexachlorobutadiene (HCBD)	43 - Hexachlorobutadiene (HCBD)
04	Hydro-fluorocarbons (HFCs)	04 - Hydro-fluorocarbons (HFCs)
14	Hydrochlorofluorocarbons (HCFCs)	14 - Hydrochlorofluorocarbons (HCFCs)
85	Hydrogen cyanide (HCN)	85 - Hydrogen cyanide (HCN)
89	Isodrin	89 - Isodrin
67	Isoproturon	67 - Isoproturon
23	Lead and compounds	23 - Lead and compounds
45	Lindane	45 - Lindane
21	Mercury and compounds	21 - Mercury and compounds
01	Methane (CH4)	01 - Methane (CH4)
46	Mirex	46 - Mirex
68	Naphthalene	68 - Naphthalene
22	Nickel and compounds	22 - Nickel and compounds
08	Nitrogen oxides (NOx/NO2)	08 - Nitrogen oxides (NOx/NO2)
05	Nitrous oxide (N2O)	05 - Nitrous oxide (N2O)
07	Non-methane volatile organic compounds (NMVOC)	07 - Non-methane volatile organic compounds (NMVOC)
64	Nonylphenol and Nonylphenol ethoxylates (NP/NPEs)	64 - Nonylphenol and Nonylphenol ethoxylates (NP/NPEs)
87	Octylphenols and Octylphenol ethoxylates	87 - Octylphenols and Octylphenol ethoxylates
69	Organotin compounds	69 - Organotin compounds
86	Particulate matter (PM10)	86 - Particulate matter (PM10)
47	PCDD + PCDF (dioxins + furans)	47 - PCDD + PCDF (dioxins + furans)
48	Pentachlorobenzene	48 - Pentachlorobenzene
49	Pentachlorophenol (PCP)	49 - Pentachlorophenol (PCP)
09	Perfluorocarbons (PFCs)	09 - Perfluorocarbons (PFCs)
71	Phenols (as total C)	71 - Phenols (as total C)
50	Polychlorinated biphenyls (PCBs)	50 - Polychlorinated biphenyls (PCBs)
72	Polycyclic aromatic hydrocarbons (PAHs)	72 - Polycyclic aromatic hydrocarbons (PAHs)
51	Simazine	51 - Simazine
10	Sulphur hexafluoride (SF6)	10 - Sulphur hexafluoride (SF6)
11	Sulphur oxides (SOx/SO2)	11 - Sulphur oxides (SOx/SO2)
52	Tetrachloroethylene (PER)	52 - Tetrachloroethylene (PER)
53	Tetrachloromethane (TCM)	53 - Tetrachloromethane (TCM)
73	Toluene	73 - Toluene
12	Total nitrogen	12 - Total nitrogen
76	Total organic carbon (TOC)	76 - Total organic carbon (TOC)
13	Total phosphorus	13 - Total phosphorus
59	Toxaphene	59 - Toxaphene
74	Tributyltin and compounds	74 - Tributyltin and compounds
54	Trichlorobenzenes (TCBs)	54 - Trichlorobenzenes (TCBs)
57	Trichloroethylene	57 - Trichloroethylene
58	Trichloromethane	58 - Trichloromethane
77	Trifluralin	77 - Trifluralin
75	Triphenyltin and compounds	75 - Triphenyltin and compounds
60	Vinyl chloride	60 - Vinyl chloride
78	Xylenes	78 - Xylenes
24	Zinc and compounds	24 - Zinc and compounds

Licensed (Non-PRTR) Pollutants

Pollutant_Number	Pollutant_Name	Pollutant_Lookup
A01	1,2 trichloroethylene	A01 - 1,2 trichloroethylene
A02	2-methoxyethanol	A02 - 2-methoxyethanol
W01	Acetate	W01 - Acetate
A03	Acetic acid	A03 - Acetic acid
W61	Acrylates	W61 - Acrylates
W55	Aluminium	W55 - Aluminium
A04	Amines	A04 - Amines
A38	Ammonia	A38 - Ammonia
A05	Antimony	A05 - Antimony
A06	Benzene & toluene & xylene (combined)	A06 - Benzene & toluene & xylene (combined)
W02	Biocides	W02 - Biocides
W03	BOD	W03 - BOD
W04	Bromide	W04 - Bromide
W05	Calcium	W05 - Calcium
A07	Class B organics	A07 - Class B organics
W56	Cobalt	W56 - Cobalt
W06	COD	W06 - COD
W59	Colour	W59 - Colour
A08	Condenseable volatile organic compounds	A08 - Condenseable volatile organic compounds
W07	Conductivity	W07 - Conductivity
W08	Detergents (as MBAS)	W08 - Detergents (as MBAS)
W09	Diesel range organics	W09 - Diesel range organics
W10	Dimethylester	W10 - Dimethylester
A09	Dimethylformamide	A09 - Dimethylformamide
W11	Dissolved oxygen	W11 - Dissolved oxygen
A10	Dust	A10 - Dust
A11	Epichlorohydrin	A11 - Epichlorohydrin
W12	Faecal coliforms	W12 - Faecal coliforms
W13	Faecal streptococci	W13 - Faecal streptococci
W14	Fats, Oils and Greases	W14 - Fats, Oils and Greases
W15	Formaldehyde	W15 - Formaldehyde
A12	Formaldehyde	A12 - Formaldehyde
A13	Formic acid	A13 - Formic acid
W16	Hydrazine	W16 - Hydrazine
A14	Hydrogen bromide	A14 - Hydrogen bromide
W17	Hydrogen peroxide	W17 - Hydrogen peroxide
A15	Hydrogen sulphide	A15 - Hydrogen sulphide
W18	Hydrogen sulphide	W18 - Hydrogen sulphide
A16	Indicator Microorganisms	A16 - Indicator Microorganisms
W19	Inorganic acids	W19 - Inorganic acids
A17	Iodinated compounds	A17 - Iodinated compounds
W57	Iron	W57 - Iron
A18	Isocyanate	A18 - Isocyanate
W62	Kjeldahl Nitrogen	W62 - Kjeldahl Nitrogen
W20	Magnesium	W20 - Magnesium
W21	Manganese	W21 - Manganese
A19	MDI	A19 - MDI
W22	MDI as NCO group	W22 - MDI as NCO group
A20	Merceptans	A20 - Merceptans
W23	Methanol	W23 - Methanol
W24	Mineral oils	W24 - Mineral oils
W25	Monochloramine	W25 - Monochloramine
W26	n-hexene	W26 - n-hexene
W27	Nitrate (as N)	W27 - Nitrate (as N)
A21	Nitric acid (HNO3)	A21 - Nitric acid (HNO3)
W28	Non-purgeable organic compounds	W28 - Non-purgeable organic compounds
W29	Octafluoropentanol	W29 - Octafluoropentanol
W30	Organic solvents	W30 - Organic solvents
A22	Organic substances with photochemical ozone potential	A22 - Organic substances with photochemical ozone potential
W31	Organohalogens	W31 - Organohalogens
W32	Ortho-phosphate	W32 - Ortho-phosphate
A23	Ozone	A23 - Ozone
W33	Permethrin	W33 - Permethrin
W34	Pesticides	W34 - Pesticides
W35	Petrol range organics	W35 - Petrol range organics
W36	pH	W36 - pH
W37	Pharmaceutical actives	W37 - Pharmaceutical actives
W38	Potassium	W38 - Potassium
W39	Preventol WB	W39 - Preventol WB
W40	Semi-volatiles	W40 - Semi-volatiles
W54	Silver	W54 - Silver
W41	Sodium	W41 - Sodium
W42	Streptomyacin	W42 - Streptomyacin
W43	Sulphate	W43 - Sulphate
W53	Sulphides	W53 - Sulphides
A39	Sulphuric Acid	A39 - Sulphuric Acid
A40	Suspended Solids	A40 - Suspended Solids
W44	TA luft carcinogenic substance class 3	W44 - TA luft carcinogenic substance class 3
A24	TA Luft carcinogenic substances Class 1	A24 - TA Luft carcinogenic substances Class 1
A25	TA Luft carcinogenic substances Class 2	A25 - TA Luft carcinogenic substances Class 2

Pollutant Lookup		
From Row		3
To Row		104
Start Cell		2

A26 TA Luft carcinogenic substances Class 3
A27 TA Luft inorganic dust particles class 1
A28 TA Luft inorganic dust particles class 2
A29 TA Luft inorganic dust particles class 3
A30 TA Luft organic substances class 1
A31 TA Luft organic substances class 2
A32 TA Luft organic substances class 3
W60 Temperature
A33 Thalium compounds
W58 Tin
A34 Toluene di-isocyanate
A35 Total acids
W45 Total acids
W46 Total coliforms
W47 Total heavy metals
W51 Total Organic Carbon (as C)
W52 Total Organic Carbon (as Toluene)
W48 Total petroleum hydrocarbons
W49 Toxicity (as TU)
W50 Undenatured botulinum toxin
A36 Vandium
A37 Volatile organic compounds

A26 - TA Luft carcinogenic substances Class 3
A27 - TA Luft inorganic dust particles class 1
A28 - TA Luft inorganic dust particles class 2
A29 - TA Luft inorganic dust particles class 3
A30 - TA Luft organic substances class 1
A31 - TA Luft organic substances class 2
A32 - TA Luft organic substances class 3
W60 - Temperature
A33 - Thalium compounds
W58 - Tin
A34 - Toluene di-isocyanate
A35 - Total acids
W45 - Total acids
W46 - Total coliforms
W47 - Total heavy metals
W51 - Total Organic Carbon (as C)
W52 - Total Organic Carbon (as Toluene)
W48 - Total petroleum hydrocarbons
W49 - Toxicity (as TU)
W50 - Undenatured botulinum toxin
A36 - Vandium
A37 - Volatile organic compounds

GroupCode	Description	2
01	WASTE RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS	21
02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING	24
03	WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD	134
04	WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES	137
05	WASTES FROM PETROLEUM REFINING, NATURAL GAS PURIFICATION AND PYROLYTIC TREATMENT OF COAL	975
06	WASTES FROM INORGANIC CHEMICAL PROCESSES	
07	WASTES FROM ORGANIC CHEMICAL PROCESSES	
08	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS,) ADHESIVES, SEALANTS AND PRINTING INKS	
09	WASTES FROM THE PHOTOGRAPHIC INDUSTRY	
10	WASTES FROM THERMAL PROCESSES	
11	WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY	
12	WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS	
13	OIL WASTES AND WASTES OF LIQUID FUELS (except edible oils, and those in chapters 05, 12 and 19)	
14	WASTE ORGANIC SOLVENTS, REFRIGERANTS AND PROPELLANTS (except 07 and 08)	
15	WASTE PACKAGING, ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED	
16	WASTES NOT OTHERWISE SPECIFIED IN THE LIST	
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)	
18	WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate RESEARCH (except kitchen and restaurant wastes not arising from immediate health care)	
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE	
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	

GroupCode	SubGroupCode	Description
01	01	wastes from mineral excavation
01	03	wastes from physical and chemical processing of metalliferous minerals
01	04	wastes from physical and chemical processing of non-metalliferous minerals
01	05	drilling muds and other drilling wastes
02	01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02	02	wastes from the preparation and processing of meat, fish and other foods of animal origin
02	03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02	04	wastes from sugar processing
02	05	wastes from the dairy products industry
02	06	wastes from the baking and confectionery industry
02	07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
03	01	wastes from wood processing and the production of panels and furniture
03	02	wastes from wood preservation
03	03	wastes from pulp, paper and cardboard production and processing
04	01	wastes from the leather and fur industry
04	02	wastes from the textile industry
05	01	wastes from petroleum refining
05	06	waste from the pyrolytic treatment of coal
05	07	waste from natural gas purification and transportation
06	01	wastes from the manufacture, formulation, supply and use (MFSU) of acids
06	02	wastes from the MFSU of bases
06	03	wastes from the MFSU of salts and their solutions and metallic oxides
06	04	metal-containing wastes other than those mentioned in 06 03
06	05	sludges from on-site effluent treatment
06	06	wastes from the MFSU of sulphur chemicals, sulphur chemical processes and desulphurisation processes
06	07	wastes from the MFSU of halogens and halogen chemical processes
06	08	wastes from the MFSU of silicon and silicon derivatives
06	09	wastes from the MFSU of phosphorus chemicals and phosphorous chemical processes
06	10	wastes from the MFSU of nitrogen chemicals, nitrogen chemical processes and fertiliser manufacture
06	11	wastes from the manufacture of inorganic pigments and opacifiers
06	13	wastes from inorganic chemical processes not otherwise specified
07	01	wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals
07	02	wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07	03	wastes from the MFSU of organic dyes and pigments (except 06 11)
07	04	wastes from the MFSU of organic plant protection products (except 02 01 08 and 02 01 09), wood preserving agents (except 03 02) and other biocides
07	05	wastes from the MFSU of pharmaceuticals
07	06	wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics
07	07	wastes from the MFSU of fine chemicals and chemical products not otherwise specified
08	01	wastes from MFSU and removal of paint and varnish
08	02	wastes from MFSU of other coatings (including ceramic materials)
08	03	wastes from MFSU of printing inks
08	04	wastes from MFSU of adhesives and sealants (including waterproofing products)
08	05	wastes not otherwise specified in 08
09	01	wastes for the photographic industry
10	01	wastes from power stations and other combustion plants (except 19)
10	02	wastes from the iron and steel industry
10	03	wastes from aluminium thermal metallurgy
10	04	wastes from lead thermal metallurgy
10	05	wastes from zinc thermal metallurgy
10	06	wastes from copper thermal metallurgy
10	07	wastes from silver, gold and platinum thermal metallurgy
10	08	wastes from other non-ferrous thermal metallurgy
10	09	wastes from casting of ferrous pieces
10	10	wastes from casting of non-ferrous pieces
10	11	wastes from manufacture of glass and glass products
10	12	wastes from manufacture of ceramic goods, bricks, tiles and construction products
10	13	wastes from manufacture of cement, lime and plaster and articles and products made from them
10	14	waste from crematoria
11	01	wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)
11	02	waste from non-ferrous hydrometallurgical processes
11	03	sludges and solids from tempering processes
11	05	wastes from hot galvanising processes
12	01	wastes from shaping and physical and mechanical surface treatment of metals and plastics
12	03	wastes from water and steam degreasing processes (except 11)
13	01	waste hydraulic oils
13	02	waste engine, gear and lubricating oils
13	03	waste insulating and heat transmission oils
13	04	bilge oils
13	05	oil/water separator contents
13	07	wastes of liquid fuels
13	08	oil wastes not otherwise specified
14	06	waste organic solvents, refrigerants and foam/aerosol propellants
15	01	packaging (including separately collected municipal packaging waste)
15	02	absorbents, filter materials, wiping cloths and protective clothing
16	01	end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)
16	02	wastes from electrical and electronic equipment
16	03	off-specification batches and unused products
16	04	waste explosives
16	05	gases in pressure containers and discarded chemicals
16	06	batteries and accumulators
16	07	wastes from transport tank, storage tank and barrel cleaning (except 05 and 13)
16	08	spent catalysts
16	09	oxidising substances
16	10	aqueous liquid wastes destined for off-site treatment
16	11	waste linings and refractories
17	01	concrete, bricks, tiles and ceramics
17	02	wood, glass and plastic
17	03	bituminous mixtures, coal tar and tarred products
17	04	metals (including their alloys)
17	05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17	06	insulation materials and asbestos-containing construction materials
17	08	gypsum-based construction material
17	09	other construction and demolition waste
18	01	wastes from natal care, diagnosis, treatment or prevention of disease in humans
18	02	wastes from research, diagnosis, treatment or prevention of disease involving animals
19	01	wastes from incineration or pyrolysis of waste
19	02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19	03	stabilised/solidified wastes (19)
19	04	vitrified waste and wastes from vitrification
19	05	wastes from aerobic treatment of solid wastes
19	06	wastes from anaerobic treatment of waste
19	07	landfill leachate
19	08	wastes from waste water treatment plants not otherwise specified
19	09	wastes from the preparation of water intended for human consumption or water for industrial use
19	10	wastes from shredding of metal-containing wastes
19	11	wastes from oil regeneration
19	12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19	13	wastes from soil and grounder remediation
20	01	separately collected fractions (except 15 01)
20	02	garden and park wastes (including cemetery waste)
20	03	other municipal wastes

GroupCode	SubGroupCode	WasteCode	Description	Hazardous
01	01	01	wastes from mineral metalliferous excavation	No
01	01	02	wastes from mineral non-metalliferous excavation	No
01	03	04	acid-generating tailings from processing of sulphide ore	Yes
01	03	05	other tailings containing dangerous substances	Yes

01	03	06	tailings other than those mentioned in 01 03 04 and 01 03 05	No
01	03	07	other wastes containing dangerous substances from physical and chemical processing of metalliferous	Yes
01	03	08	dusty and powdery wastes other than those mentioned in 01 03 07	No
01	03	09	red mud from alumina production other than the wastes mentioned in 01 03 07	No
01	03	99	wastes not otherwise specified	No
01	04	07	waste containing dangerous substances from physical and chemical processing of nonmetalliferous	Yes
01	04	08	waste gravel and crushed rocks other than those mentioned in 01 04 07	No
01	04	09	waste sand and clays	No
01	04	10	dusty and powdery wastes other than those mentioned in 01 04 07	No
01	04	11	wastes from potash and rock salt processing other than those mentioned in 01 04 07	No
01	04	12	tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07	No
01	04	13	waste from stone cutting and sawing other than those mentioned in 01 04 07	No
01	04	99	waste not otherwise specified	No
01	05	04	freshwater drilling muds and wastes	No
01	05	05	oil-containing drilling muds and wastes	Yes
01	05	06	drilling muds and other drilling wastes containing dangerous substances	Yes
01	05	07	barite-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06	No
01	05	08	chloride-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06	No
01	05	99	wastes not otherwise specified	No
02	01	01	sludges from washing and cleaning	No
02	01	02	animal-tissue waste	No
02	01	03	plant-tissue waste	No
02	01	04	waste plastics (except packaging)	No
02	01	06	animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated	No
02	01	07	waste from forestry	No
02	01	08	agrochemical waste containing dangerous substances	Yes
02	01	09	agrochemical waste other than those mentioned in 02 01 08	No
02	01	10	waste metal	No
02	01	99	wastes not otherwise specified	No
02	02	01	sludges from washing and cleaning	No
02	02	02	animal-tissue waste	No
02	02	03	materials unsuitable for consumption or processing	No
02	02	04	sludges from on-site effluent treatment	No
02	02	99	waste not otherwise specified	No
02	03	01	sludges from washing, cleaning, peeling, centrifuging and separation	No
02	03	02	waste from preserving agents	No
02	03	03	wastes from solvent extraction	No
02	03	04	materials unsuitable for consumption or processing	No
02	03	05	sludges from on-site effluent treatment	No
02	03	99	wastes not otherwise specified	No
02	04	01	soil from cleaning and washing beet	No
02	04	02	off-specification calcium carbonate	No
02	04	03	sludges from on-site effluent treatment	No
02	04	99	wastes not otherwise specified	No
02	05	01	materials unsuitable for consumption or processing	No
02	05	02	sludges from on-site effluent treatment	No
02	05	99	wastes not otherwise specified	No
02	06	01	materials unsuitable for consumption or processing	No
02	06	02	wastes from preserving agents	No
02	06	03	sludges from on-site effluent treatment	No
02	06	99	waste not otherwise specified	No
02	07	01	wastes from washing, cleaning and mechanical reduction of raw materials	No
02	07	02	wastes from spirits distillation	No
02	07	03	wastes from chemical treatment	No
02	07	04	materials unsuitable for consumption or processing	No
02	07	05	sludges from on-site effluent treatment	No
02	07	99	waste not otherwise specified	No
03	01	01	waste bark and cork	No
03	01	04	sawdust, shavings, cuttings, wood, particle board and veneer containing dangerous substances	No
03	01	05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04	No
03	01	99	wastes not otherwise specified	No
03	02	01	non-halogenated organic wood preservatives	Yes
03	02	02	organochlorinated wood preservatives	Yes
03	02	03	organometallic wood preservatives	Yes
03	02	04	inorganic wood preservatives	Yes
03	02	05	other wood preservatives containing dangerous substances	Yes
03	02	99	wood preservatives not otherwise specified	No
03	03	01	waste bark and wood	No
03	03	02	green liquor sludge (from recovery of cooking liquor)	No
03	03	05	de-inking sludges from paper recycling	No
03	03	06	mechanically separated rejects from pulping of waste paper and cardboard	No
03	03	08	wastes from sorting of paper and cardboard destined for recycling	No
03	03	09	lime mud waste	No
03	03	10	fibre rejects, fibre-, filler- and coating-sludges from mechanical separation	No
03	03	11	sludges from on-site effluent treatment other than those mentioned in 03 03 10	No
03	03	99	wastes not otherwise specified	No
04	01	01	fleshings and lime split wastes	No
04	01	02	liming waste	No
04	01	03	degreasing wastes containing solvents without a liquid phase	Yes
04	01	04	tanning liquor containing chromium	No
04	01	05	tanning liquor free of chromium	No
04	01	06	sludges, in particular from on-site effluent treatment containing chromium	No
04	01	07	sludges, in particular from on-site effluent treatment free of chromium	No
04	01	08	waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium	No
04	01	09	wastes from dressing and finishing	No
04	01	99	wastes not otherwise specified	No
04	02	09	wastes from composite materials (impregnated textile, elastomer, plastomer)	No
04	02	10	organic matter from natural products (for example grease, wax)	No
04	02	14	wastes from finishing containing organic solvents	Yes
04	02	15	wastes from finishing other than those mentioned in 04 02 14	No
04	02	16	dye-stuffs and pigments containing dangerous substances	Yes
04	02	17	dye-stuffs and pigments other than those mentioned in 04 02 16	No
04	02	19	sludges from on-site effluent treatment containing dangerous substances	Yes
04	02	20	sludges from on-site effluent treatment other than those mentioned in 04 02 19	No
04	02	21	wastes from unprocessed textile fibres	No
04	02	22	wastes from processed textile fibres	No
04	02	99	wastes not otherwise specified	No
05	01	02	desalter sludges	Yes
05	01	03	tank bottom sludges	Yes
05	01	04	acid alkyl sludges	Yes
05	01	05	oil spills	Yes
05	01	06	city sludges from maintenance operations of the plant or equipment	Yes
05	01	07	acid tars	Yes
05	01	08	other tars	Yes
05	01	09	sludges from on-site effluent treatment containing dangerous substances	Yes
05	01	10	sludges from on-site effluent treatment other than those mentioned in 05 01 09	No
05	01	11	wastes from cleaning of fuels with bases	Yes
05	01	12	oil containing acids	Yes
05	01	13	boiler feedwater sludges	No
05	01	14	wastes from cooling columns	No
05	01	15	spent filter clays	Yes
05	01	16	sulphur-containing wastes from petroleum desulphurisation	No
05	01	17	bitumen	No
05	01	99	wastes not otherwise specified	No
05	06	01	acid tars	Yes
05	06	03	other tars	Yes
05	06	04	waste from cooling columns	No
05	06	99	wastes not otherwise specified	No
05	07	01	wastes containing mercury	Yes
05	07	02	wastes containing sulphur	No
05	07	99	wastes not otherwise specified	No
06	01	01	sulphuric acid and sulphurous acid	Yes
06	01	02	hydrochloric acid	Yes
06	01	03	hydrochloric acid	Yes
06	01	04	phosphoric and phosphorous acid	Yes
06	01	05	nitric acid and nitrous acid	Yes
06	01	06	other acids	Yes
06	01	99	wastes not otherwise specified	No
06	02	01	calcium hydroxide	Yes
06	02	03	ammonium hydroxide	Yes
06	02	04	sodium and potassium hydroxide	Yes
06	02	05	other bases	Yes
06	02	99	wastes not otherwise specified	No
06	03	11	solid salts and solutions containing cyanides	Yes
06	03	13	solid salts and solutions containing heavy metals	Yes
06	03	14	solid salts and solution other than those mentioned in 06 03 11 and 06 03 13	No
06	03	15	metallic oxides containing heavy metals	Yes
06	03	16	metallic oxides other than those mentioned in 06 03 15	No
06	03	99	wastes not otherwise specified	No
06	04	03	wastes containing arsenic	Yes

06	04	04	wastes containing mercury	Yes
06	04	05	wastes containing other heavy metals	Yes
06	04	09	wastes not otherwise specified	No
06	05	02	sludges from on-site effluent treatment containing dangerous solutions	Yes
06	05	03	sludges from onsite effluent treatment other than those mentioned in 06 05 02	No
06	06	02	wastes containing dangerous sulphides	Yes
06	06	03	wastes containing sulphides other than those mentioned in 06 06 02	No
06	06	09	wastes not otherwise specified	No
06	07	01	wastes containing asbestos from electrolysis	Yes
06	07	02	activated carbon from chlorine production	Yes
06	07	03	barium sulphate sludge containing mercury	Yes
06	07	04	solutions and acids, for example contact acid	Yes
06	07	99	wastes not otherwise specified	No
06	08	02	waste containing dangerous silicones	Yes
06	08	99	wastes not otherwise specified	No
06	09	02	phosphorus slag	No
06	09	03	calcium-based reaction wastes containing or contaminated with dangerous substances	Yes
06	09	04	calcium-based reaction wastes other than those mentioned in 06 09 03	No
06	09	99	wastes not otherwise specified	No
06	10	02	wastes containing dangerous substances	Yes
06	10	99	wastes not otherwise specified	No
06	11	01	calcium-based reaction wastes from titanium dioxide production	No
06	11	99	wastes not otherwise specified	No
06	13	01	inorganic plant protection products, wood-preserving agents and other biocides	Yes
06	13	02	spent activated carbon (except 06 07 02)	Yes
06	13	03	carbon black	No
06	13	04	wastes from asbestos processing	Yes
06	13	05	soot	Yes
06	13	99	wastes not otherwise specified	No
07	01	01	aqueous washing liquids and mother liquors	Yes
07	01	03	organic halogenated solvents, washing liquids and mother liquors	Yes
07	01	04	other organic solvents, washing liquids and mother liquors	Yes
07	01	07	halogenated still bottoms and reaction residues	Yes
07	01	08	other still bottoms and reaction residues	Yes
07	01	09	halogenated filter cakes and spent absorbents	Yes
07	01	10	other filter cakes and spent absorbents	Yes
07	01	11	sludges from on-site effluent treatment containing dangerous substances	Yes
07	01	12	sludges from on-site effluent treatment other than those mentioned in 07 01 11	No
07	01	99	wastes not otherwise specified	No
07	02	01	aqueous washing liquids and mother liquors	Yes
07	02	03	organic halogenated solvents, washing liquids and mother liquors	Yes
07	02	04	other organic solvents, washing liquids and mother liquors	Yes
07	02	07	halogenated still bottoms and reaction residues	Yes
07	02	08	other still bottoms and reaction residues	Yes
07	02	09	halogenated filter cakes and spent absorbents	Yes
07	02	10	other filter cakes and spent absorbents	Yes
07	02	11	sludges from on-site effluent treatment containing dangerous substances	Yes
07	02	12	sludges from on-site effluent treatment other than those mentioned in 07 02 11	No
07	02	13	waste plastic	No
07	02	14	wastes from additives containing dangerous substances	Yes
07	02	15	wastes from additives other than those mentioned in 07 02 14	No
07	02	16	waste containing dangerous silicones	Yes
07	02	17	waste containing silicones other than those mentioned in 07 02 16	No
07	02	99	wastes not otherwise specified	No
07	03	01	aqueous washing liquids and mother liquors	Yes
07	03	03	organic halogenated solvents, washing liquids and mother liquors	Yes
07	03	04	other organic solvents, washing liquids and mother liquors	Yes
07	03	07	halogenated still bottoms and reaction residues	Yes
07	03	08	other still bottoms and reaction residues	Yes
07	03	09	halogenated filter cakes and spent absorbents	Yes
07	03	10	other filter cakes and spent absorbents	Yes
07	03	11	sludges from on-site effluent treatment containing dangerous substances	Yes
07	03	12	sludges from on-site effluent treatment other than those mentioned in 07 03 11	No
07	03	99	wastes not otherwise specified	No
07	04	01	aqueous washing liquids and mother liquors	Yes
07	04	03	organic halogenated solvents, washing liquids and mother liquors	Yes
07	04	04	other organic solvents, washing liquids and mother liquors	Yes
07	04	07	halogenated still bottoms and reaction residues	Yes
07	04	08	other still bottoms and reaction residues	Yes
07	04	09	halogenated filter cakes and spent absorbents	Yes
07	04	10	other filter cakes and spent absorbents	Yes
07	04	11	sludges from on-site effluent treatment containing dangerous substances	Yes
07	04	12	sludges from on-site effluent treatment other than those mentioned in 07 04 11	No
07	04	13	solid wastes containing dangerous substances	Yes
07	04	99	wastes not otherwise specified	No
07	05	01	aqueous washing liquids and mother liquors	Yes
07	05	03	organic halogenated solvents, washing liquids and mother liquors	Yes
07	05	04	other organic solvents, washing liquids and mother liquors	Yes
07	05	07	halogenated still bottoms and reaction residues	Yes
07	05	08	other still bottoms and reaction residues	Yes
07	05	09	halogenated filter cakes and spent absorbents	Yes
07	05	10	other filter cakes and spent absorbents	Yes
07	05	11	sludges from on-site effluent treatment containing dangerous substances	Yes
07	05	12	sludges from on-site effluent treatment other than those mentioned in 07 05 11	No
07	05	13	solid wastes containing dangerous substances	Yes
07	05	14	solid wastes other than those mentioned in 07 05 13	No
07	05	99	wastes not otherwise specified	No
07	06	01	aqueous washing liquids and mother liquors	Yes
07	06	03	organic halogenated solvents, washing liquids and mother liquors	Yes
07	06	04	other organic solvents, washing liquids and mother liquors	Yes
07	06	07	halogenated still bottoms and reaction residues	Yes
07	06	08	other still bottoms and reaction residues	Yes
07	06	09	halogenated filter cakes and spent absorbents	Yes
07	06	10	other filter cakes and spent absorbents	Yes
07	06	11	sludges from on-site effluent treatment containing dangerous substances	Yes
07	06	12	sludges from on-site effluent treatment other than those mentioned in 07 06 11	No
07	06	99	wastes not otherwise specified	No
07	07	01	aqueous washing liquids and mother liquors	Yes
07	07	03	organic halogenated solvents, washing liquids and mother liquors	Yes
07	07	04	other organic solvents, washing liquids and mother liquors	Yes
07	07	07	halogenated still bottoms and reaction residues	Yes
07	07	08	other still bottoms and reaction residues	Yes
07	07	09	halogenated filter cakes and spent absorbents	Yes
07	07	10	other filter cakes and spent absorbents	Yes
07	07	11	sludges from on-site effluent treatment containing dangerous substances	Yes
07	07	12	sludges from on-site effluent treatment other than those mentioned in 07 07 11	No
07	07	99	wastes not otherwise specified	No
08	01	11	waste paint and varnish containing organic solvents or other dangerous substances	Yes
08	01	12	waste paint and varnish other than those mentioned in 08 01 11	No
08	01	13	sludges from paint or varnish containing organic solvents or other dangerous substances	Yes
08	01	14	sludges from paint or varnish other than those mentioned in 08 01 13	No
08	01	15	aqueous sludges containing paint or varnish containing organic solvents or other dangerous substances	Yes
08	01	16	aqueous sludges containing paint or varnish other than those mentioned in 08 01 15	No
08	01	17	wastes from paint or varnish removal containing organic solvents or other dangerous substances	Yes
08	01	18	wastes from paint or varnish removal other than those mentioned in 08 01 17	No
08	01	19	aqueous suspensions containing paint or varnish containing organic solvents or other dangerous substances	Yes
08	01	20	aqueous suspensions containing paint or varnish other than those mentioned in 08 01 19	No
08	01	21	waste paint or varnish remover	Yes
08	01	99	wastes not otherwise specified	No
08	02	01	waste coating powders	No
08	02	02	aqueous sludges containing ceramic materials	No
08	02	03	aqueous suspensions containing ceramic materials	No
08	02	99	wastes not otherwise specified	No
08	03	07	aqueous sludges containing ink	No
08	03	08	aqueous liquid waste containing ink	No
08	03	12	waste ink containing dangerous substances	Yes
08	03	13	waste ink other than those mentioned in 08 03 12	No
08	03	14	ink sludges containing dangerous substances	Yes
08	03	15	ink sludges other than those mentioned in 08 03 14	No
08	03	16	waste etching solutions	Yes
08	03	17	waste printing toner containing dangerous substances	Yes
08	03	18	waste printing toner other than those mentioned in 08 03 17	No
08	03	19	disperse oil	Yes
08	03	99	wastes not otherwise specified	No
08	04	09	waste adhesives and sealants containing organic solvents or other dangerous substances	Yes
08	04	10	waste adhesives and sealants other than those mentioned in 08 04 09	No
08	04	11	adhesive and sealant sludges containing organic solvents or other dangerous substances	Yes
08	04	12	adhesive and sealant sludges other than those mentioned in 08 04 11	No
08	04	13	aqueous sludges containing adhesives or sealants containing organic solvents or other dangerous substances	Yes
08	04	14	aqueous sludges containing adhesives or sealants other than those mentioned in 08 04 13	No

08	04	15	aqueous liquid waste containing adhesives or sealants containing organic solvents or other dangerous substances	Yes
08	04	16	aqueous liquid waste containing adhesives or sealants other than those mentioned in 08 04 15	No
08	04	17	rosin oil	Yes
08	04	99	wastes not otherwise specified	No
08	05	01	waste isocyanates	Yes
09	01	01	water-based developer and activator solutions	Yes
09	01	02	water-based offset plate developer solutions	Yes
09	01	03	solvent-based developer solutions	Yes
09	01	04	fixed solutions	Yes
09	01	05	bleach solutions and bleach fixer solutions	Yes
09	01	06	wastes containing silver from on-site treatment of photographic wastes	Yes
09	01	07	photographic film and paper containing silver or silver compounds	No
09	01	08	photographic film and paper free of silver or silver compounds	No
09	01	10	single-use cameras without batteries	No
09	01	11	single-use cameras containing batteries included in 16 06 01, 16 06 02 or 16 06 03	Yes
09	01	12	single-use cameras containing batteries other than those mentioned in 09 01 11	No
09	01	13	aqueous liquid waste from on-site reclamation of silver other than those mentioned in 09 01 06	Yes
09	01	99	wastes not otherwise specified	No
10	01	01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)	No
10	01	02	coal fly ash	No
10	01	03	fly ash from peat and untreated wood	No
10	01	04	oil fly ash and boiler dust	Yes
10	01	05	calcium-based reaction wastes from flue-gas desulphurisation in solid form	No
10	01	07	calcium-based reaction wastes from flue-gas desulphurisation in sludge form	No
10	01	09	sulphuric acid	Yes
10	01	13	fly ash from emulsified hydrocarbons used as fuel	Yes
10	01	14	bottom ash, slag and boiler dust from co-incineration containing dangerous substances	No
10	01	15	bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14	No
10	01	16	fly ash from co-incineration containing dangerous substances	Yes
10	01	17	fly ash from co-incineration other than those mentioned in 10 01 16	No
10	01	18	wastes from gas cleaning containing dangerous substances	Yes
10	01	19	wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18	No
10	01	20	sludges from on-site effluent treatment containing dangerous substances	Yes
10	01	21	sludges from on-site effluent treatment other than those mentioned in 10 01 20	No
10	01	22	aqueous sludges from boiler cleaning containing dangerous substances	Yes
10	01	23	aqueous sludges from boiler cleaning other than those mentioned in 10 01 22	No
10	01	24	sands from fluidised beds	No
10	01	25	wastes from fuel storage and preparation of coal-fired power plants	No
10	01	26	wastes from cooling-water treatment	No
10	01	99	wastes not otherwise specified	No
10	02	01	wastes from the processing of slag	No
10	02	02	unprocessed slag	No
10	02	07	solid wastes from gas treatment containing dangerous substances	Yes
10	02	08	solid wastes from gas treatment other than those mentioned in 10 02 07	No
10	02	10	mill scales	No
10	02	11	wastes from cooling-water treatment containing oil	Yes
10	02	12	waste from cooling-water treatment other than those mentioned in 10 02 11	No
10	02	13	sludges and filter cakes from gas treatment containing dangerous substances	Yes
10	02	14	sludges and filter cakes from gas treatment other than those mentioned in 10 02 13	No
10	02	15	other sludges and filter cakes	No
10	02	99	wastes not otherwise specified	No
10	03	02	anode scraps	No
10	03	04	primary production slags	Yes
10	03	05	waste alumina	No
10	03	06	salt slags from secondary production	Yes
10	03	08	black drosses from secondary production	Yes
10	03	15	skimmings that are flammable or emit, upon contact with water, flammable gases in dangerous quantities	Yes
10	03	16	skimming other than those mentioned in 10 03 15	No
10	03	17	tar-containing wastes from anode manufacture	Yes
10	03	18	carbon-containing waste from anode manufacture other than those mentioned in 10 03 17	No
10	03	19	flue-gas dust containing dangerous substances	Yes
10	03	20	flue-gas dust other than those mentioned in 10 03 19	No
10	03	21	other particulates and dust (including ball-mill dust) containing dangerous substances	Yes
10	03	22	other particulates and dust (including ball-mill dust) other than those mentioned in 10 03 21	No
10	03	23	solid wastes from gas treatment containing dangerous substances	Yes
10	03	24	solid wastes from gas treatment other than those mentioned in 10 03 23	No
10	03	25	sludges and filter cakes from gas treatment containing dangerous substances	Yes
10	03	26	sludges and filter cakes from gas treatment other than those mentioned in 10 03 25	No
10	03	27	wastes from cooling-water treatment containing oil	Yes
10	03	28	wastes from cooling-water treatment other than those mentioned in 10 03 27	No
10	03	29	waste from treatment of salt slags and black drosses containing dangerous substances	No
10	03	30	wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29	No
10	04	01	wastes not otherwise specified	No
10	04	02	slags from primary and secondary production	Yes
10	04	03	dross and skimmings from primary and secondary production	Yes
10	04	04	calcium arsenate	Yes
10	04	05	flue-gas dust	Yes
10	04	06	other particulates and dust	Yes
10	04	07	solid wastes from gas treatment	Yes
10	04	08	sludges and filter cakes from gas treatment	Yes
10	04	09	wastes from cooling-water treatment containing oil	Yes
10	04	10	waste from cooling-water treatment other than those mentioned in 10 04 09	No
10	04	99	wastes not otherwise specified	No
10	05	01	slags from primary and secondary production	No
10	05	03	flue-gas dust	Yes
10	05	04	other particulates and dust	No
10	05	05	solid waste from gas treatment	Yes
10	05	06	sludges and filter cakes from gas treatment	Yes
10	05	08	wastes from cooling-water treatment containing oil	Yes
10	05	09	wastes from cooling-water treatment other than those mentioned in 10 05 08	No
10	05	10	dross and skimmings that are flammable or emit, upon contact with water, flammable gases in dangerous quantities	Yes
10	05	11	dross and skimmings other than those mentioned in 10 05 10	No
10	05	99	wastes not otherwise specified	No
10	06	01	slags from primary and secondary production	No
10	06	02	dross and skimmings from primary and secondary production	No
10	06	03	flue-gas dust	Yes
10	06	04	other particulates and dust	No
10	06	06	solid wastes from gas treatment	Yes
10	06	07	sludges and filter cakes from gas treatment	Yes
10	06	09	wastes from cooling-water treatment containing oil	Yes
10	06	10	waste from cooling-water treatment other than those mentioned in 10 06 09	No
10	06	99	wastes not otherwise specified	No
10	07	01	slags from primary and secondary production	No
10	07	02	dross and skimmings from primary and secondary production	No
10	07	03	solid wastes from gas treatment	No
10	07	04	other particulates and dust	No
10	07	05	sludges and filter cakes from gas treatment	No
10	07	07	wastes from cooling-water treatment containing oil	Yes
10	07	08	wastes from cooling-water treatment other than those mentioned in 10 07 07	No
10	07	99	wastes not otherwise specified	No
10	08	04	particulates and dust	No
10	08	08	salt slag from primary and secondary production	Yes
10	08	09	other slags	No
10	08	10	dross and skimming that are flammable or emit, upon the contact with water, flammable gases in dangerous quantities	Yes
10	08	11	dross and skimmings other than those mentioned in 10 08 10	No
10	08	12	tar-containing waste from anode manufacture	Yes
10	08	13	carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12	No
10	08	14	anode scrap	No
10	08	15	flue-gas dust containing dangerous substances	Yes
10	08	16	flue-gas dust other than those mentioned in 10 08 15	No
10	08	17	sludges and filter cakes from flue-gas treatment containing dangerous substances	Yes
10	08	18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 08 17	No
10	08	19	wastes from cooling-water treatment containing oil	Yes
10	08	20	wastes from cooling-water treatment other than those mentioned in 10 08 19	No
10	08	99	wastes not otherwise specified	No
10	09	03	furnace slag	No
10	09	05	casting cores and moulds which have not undergone pouring containing dangerous substances	Yes
10	09	06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05	No
10	09	07	casting cores and moulds which have undergone pouring containing dangerous substances	Yes
10	09	08	casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07	No
10	09	09	flue-gas dust containing dangerous substances	Yes
10	09	10	flue-gas dust other than those mentioned in 10 09 09	No
10	09	11	other particulates containing dangerous substances	Yes
10	09	12	other particulates other than those mentioned in 10 09 11	No
10	09	13	waste binders containing dangerous substances	Yes
10	09	14	waste binders other than those mentioned in 10 09 13	No
10	09	15	waste crack-indicating agent containing dangerous substances	Yes
10	09	16	waste crack-indicating agent other than those mentioned in 10 09 15	No
10	09	99	wastes not otherwise specified	No
10	10	03	furnace slag	No

10	10	05	casting cores and moulds which have not undergone pouring, containing dangerous substances	Yes
10	10	06	casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 0 0	No
10	10	07	casting cores and moulds which have undergone pouring, containing dangerous substances	Yes
10	10	08	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07	No
10	10	09	flue-gas dust containing dangerous substances	Yes
10	10	10	flue-gas dust other than those mentioned in 10 10 09	No
10	10	11	other particulates containing dangerous substances	Yes
10	10	12	other particulates other than those mentioned in 10 10 11	No
10	10	13	waste binders containing dangerous substances	Yes
10	10	14	waste binders other than those mentioned in 10 10 13	No
10	10	15	waste crack-indicating agent containing dangerous substances	Yes
10	10	16	waste crack-indicating agent other than those mentioned in 10 10 15	No
10	10	99	wastes not otherwise specified	No
10	11	03	waste glass-based fibrous materials	No
10	11	05	particulates and dust	No
10	11	09	waste preparation mixture before thermal processing, containing dangerous substances	Yes
10	11	10	waste preparation mixture before thermal processing, other than those mentioned in 10 11 9	No
10	11	11	waste glass in small particles and glass powder containing heavy metals (for example from cathode	Yes
10	11	12	waste glass other than those mentioned in 10 11 11	No
10	11	13	glass-polishing and -grinding sludge containing dangerous substances	Yes
10	11	14	glass-polishing and -grinding sludge other than those mentioned in 10 11 13	No
10	11	15	solid wastes from flue-gas treatment containing dangerous substances	Yes
10	11	16	solid wastes from flue-gas treatment other than those mentioned in 10 11 15	No
10	11	17	sludges and filter cakes from flue-gas treatment containing dangerous substances	Yes
10	11	18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 11 17	No
10	11	19	solid wastes from on-site effluent treatment containing dangerous substances	Yes
10	11	20	solid wastes from on-site effluent treatment other than those mentioned in 10 11 19	No
10	11	99	wastes not otherwise specified	No
10	12	01	waste preparation mixture before thermal processing	No
10	12	03	particulates and dust	No
10	12	05	sludges and filter cakes from gas treatment	No
10	12	06	discarded moulds	No
10	12	08	waste ceramics, bricks, tiles and construction products (after thermal processing)	No
10	12	09	solid wastes from gas treatment containing dangerous substances	Yes
10	12	10	solid wastes from gas treatment other than those mentioned in 10 12 09	No
10	12	11	wastes from glazing containing heavy metals	Yes
10	12	12	wastes from glazing other than those mentioned in 10 12 11	No
10	12	13	sludge from on-site effluent treatment	No
10	12	99	wastes not otherwise specified	No
10	13	01	waste preparation mixture before thermal processing	No
10	13	04	wastes from calcination and hydration of lime	No
10	13	06	particulates and dust (except 10 13 12 and 10 13 13)	No
10	13	07	sludges and filter cakes from gas treatment	No
10	13	09	wastes from asbestos-cement manufacture containing asbestos	Yes
10	13	10	wastes from asbestos-cement manufacture other than those mentioned in 10 13 09	No
10	13	11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 11	No
10	13	12	solid wastes from gas treatment containing dangerous substances	Yes
10	13	13	solid wastes from gas treatment other than those mentioned in 10 13 12	No
10	13	14	waste concrete and concrete sludge	No
10	13	99	wastes not otherwise specified	No
10	14	01	waste from gas cleaning containing mercury	Yes
11	01	05	pickling acids	Yes
11	01	06	acids not otherwise specified	Yes
11	01	07	pickling bases	Yes
11	01	08	phosphating sludges	Yes
11	01	09	sludges and filter cakes containing dangerous substances	Yes
11	01	10	sludges and filter cakes other than those mentioned in 11 01 09	No
11	01	11	aqueous rinsing liquids containing dangerous substances	Yes
11	01	12	aqueous rinsing liquids other than those mentioned in 11 01 11	No
11	01	13	degreasing wastes containing dangerous substances	Yes
11	01	14	degreasing wastes other than those mentioned in 11 01 13	No
11	01	15	eluate and sludges from membrane systems or ion exchange systems containing dangerous substances	Yes
11	01	16	saturated or spent ion exchange resins	Yes
11	01	98	other wastes containing dangerous substances	Yes
11	01	99	wastes not otherwise specified	No
11	02	02	sludges from zinc hydrometallurgy (including jarosite, goethite)	Yes
11	02	03	wastes from the production of anodes for aqueous electrolytical processes	Yes
11	02	05	wastes from copper hydrometallurgical processes containing dangerous substances	Yes
11	02	06	wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05	No
11	02	07	other wastes containing dangerous substances	Yes
11	02	99	wastes not otherwise specified	No
11	03	01	waste containing cyanide	Yes
11	03	02	other wastes	Yes
11	05	01	hard zinc	No
11	05	02	zinc ash	No
11	05	03	solid wastes from gas treatment	Yes
11	05	04	spent flux	Yes
11	05	99	wastes not otherwise specified	No
12	01	01	ferrous metal filings and turnings	No
12	01	02	ferrous metal dust and particles	No
12	01	03	non-ferrous metal filings and turnings	No
12	01	04	non-ferrous metal dust and particles	No
12	01	05	plastics shavings and turnings	No
12	01	06	mineral-based machining oils containing halogens (except emulsions and solutions)	Yes
12	01	07	mineral-based machining oils free of halogens (except emulsions and solutions)	Yes
12	01	08	machining emulsions and solutions containing halogens	Yes
12	01	09	machining emulsions and solutions free of halogens	Yes
12	01	10	synthetic machining oils	Yes
12	01	12	spent waxes and fats	Yes
12	01	13	welding wastes	No
12	01	14	machining sludges containing dangerous substances	Yes
12	01	15	machining sludges other than those mentioned in 12 01 14	No
12	01	16	waste blasting material containing dangerous substances	Yes
12	01	17	waste blasting material other than those mentioned in 12 01 16	No
12	01	18	metal sludge (grinding, honing and lapping sludge) containing oil	Yes
12	01	19	readily biodegradable machining oil	Yes
12	01	20	spent grinding bodies and grinding materials containing dangerous substances	Yes
12	01	21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20	No
12	01	99	wastes not otherwise specified	No
12	03	01	aqueous washing liquids	Yes
12	03	02	steam degreasing wastes	Yes
13	01	01	hydraulic oils, containing PCBs (15)	Yes
13	01	04	chlorinated emulsions	Yes
13	01	05	non-chlorinated emulsions	Yes
13	01	09	mineral-based chlorinated hydraulic oils	Yes
13	01	10	mineral-based non-chlorinated hydraulic oils	Yes
13	01	11	synthetic hydraulic oils	Yes
13	01	12	readily biodegradable hydraulic oils	Yes
13	01	13	other hydraulic oils	Yes
13	02	04	mineral-based chlorinated engine, gear and lubricating oils	Yes
13	02	05	mineral-based non-chlorinated engine, gear and lubricating oils	Yes
13	02	06	synthetic engine, gear and lubricating oils	Yes
13	02	07	readily biodegradable engine, gear and lubricating oils	Yes
13	02	08	other engine, gear and lubricating oils	Yes
13	03	01	insulating or heat transmission oils containing PCBs	Yes
13	03	06	mineral-based chlorinated insulating and heat transmission oils other than those mentioned in 13 03	Yes
13	03	07	mineral-based non-chlorinated insulating and heat transmission oils	Yes
13	03	08	synthetic insulating and heat transmission oils	Yes
13	03	09	readily biodegradable insulating and heat transmission oils	Yes
13	03	10	other insulating and heat transmission oils	Yes
13	04	01	bilge oils from inland navigation	Yes
13	04	02	bilge oils from petty sewers	Yes
13	04	03	bilge oils from other navigation	Yes
13	05	01	solids from grit chambers and oil/water separators	Yes
13	05	02	sludges from oil/water separators	Yes
13	05	03	interceptor sludges	Yes
13	05	06	oil from oil/water separators	Yes
13	05	07	oily water from oil/water separators	Yes
13	05	08	mixtures of wastes from grit chambers and oil/water separators	Yes
13	07	01	fuel oil and diesel	Yes
13	07	02	petrol	Yes
13	07	03	other fuels (including mixtures)	Yes
13	08	01	desalter sludges or emulsions	Yes
13	08	02	other emulsions	Yes
13	08	99	wastes not otherwise specified	No
14	06	01	chlorofluorocarbons, HCFC, HFC	Yes
14	06	02	other halogenated solvents and solvent mixtures	Yes
14	06	03	other solvents and solvent mixtures	Yes
14	06	04	sludges or solid wastes containing halogenated solvents	Yes
14	06	05	sludges or solid wastes containing other solvents	Yes

15	01	01	paper and cardboard packaging	No
15	01	02	plastic packaging	No
15	01	03	wooden packaging	No
15	01	04	metallic packaging	No
15	01	05	composite packaging	No
15	01	06	mixed packaging	No
15	01	07	glass packaging	No
15	01	09	textile packaging	No
15	01	10	packaging containing residues of or contaminated by dangerous substances	Yes
15	01	11	metallic packaging containing a dangerous solid porous matrix (for example asbestos), including emf	Yes
15	02	02	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective cloth	Yes
15	02	03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 03	No
16	01	03	end-of-life tyres	No
16	01	04	end-of-life vehicles	Yes
16	01	06	end-of-life vehicles, containing neither liquids nor other hazardous components	No
16	01	07	oil filters	Yes
16	01	08	components containing mercury	Yes
16	01	09	components containing PCBs	Yes
16	01	10	explosive components (for example air bags)	Yes
16	01	11	brake pads containing asbestos	Yes
16	01	12	brake pads other than those mentioned in 16 01 11	No
16	01	13	brake fluids	Yes
16	01	14	antifreeze fluids containing dangerous substances	Yes
16	01	15	antifreeze fluids other than those mentioned in 16 01 14	No
16	01	16	tanks for liquefied gas	No
16	01	17	ferrous metal	No
16	01	18	non-ferrous metal	No
16	01	19	plastic	No
16	01	20	glass	No
16	01	21	hazardous components other than those mentioned in 16 01 07 to 16 01 11 and 16 01 13 and 16 01 21	Yes
16	01	22	components not otherwise specified	No
16	01	29	wastes not otherwise specified	No
16	02	09	transformers and capacitors containing PCBs	Yes
16	02	10	discarded equipment containing or contaminated by PCBs other than those mentioned in 16 02 09	Yes
16	02	11	discarded equipment containing chlorofluorocarbons, HCFC, HFC	Yes
16	02	12	discarded equipment containing free asbestos	Yes
16	02	13	discarded equipment containing hazardous components (16) other than those mentioned in 16 02 05	Yes
16	02	14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13	No
16	02	15	hazardous components removed from discarded equipment	Yes
16	02	16	components removed from discarded equipment other than those mentioned in 16 02 15	No
16	03	03	inorganic wastes containing dangerous substances	Yes
16	03	04	inorganic wastes other than those mentioned in 16 03 03	No
16	03	05	organic wastes containing dangerous substances	Yes
16	03	06	organic wastes other than those mentioned in 16 03 05	No
16	04	01	waste ammunition	Yes
16	04	02	fireworks wastes	Yes
16	04	03	other waste explosives	Yes
16	05	04	gases in pressure containers (including halons) containing dangerous substances	Yes
16	05	05	gases in pressure containers other than those mentioned in 16 05 04	No
16	05	06	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of labora	Yes
16	05	07	discarded inorganic chemicals consisting of or containing dangerous substances	Yes
16	05	08	discarded organic chemicals consisting of or containing dangerous substances	Yes
16	05	09	discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08	No
16	06	01	lead batteries	Yes
16	06	02	Ni-Cd batteries	Yes
16	06	03	mercury-containing batteries	Yes
16	06	04	alkaline batteries (except 16 06 03)	No
16	06	05	other batteries and accumulators	No
16	06	06	separately collected electrolyte from batteries and accumulators	Yes
16	07	08	wastes containing oil	Yes
16	07	09	wastes containing other dangerous substances	Yes
16	07	09	wastes not otherwise specified	No
16	08	01	spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 01)	No
16	08	02	spent catalysts containing dangerous transition metals (17) or dangerous transition metal compounds	Yes
16	08	03	spent catalysts containing transition metals or transition metal compounds not otherwise specified	No
16	08	04	spent fluid catalytic cracking catalysts (except 16 08 07)	No
16	08	05	spent catalysts containing phosphoric acid	Yes
16	08	06	spent liquids used as catalysts	Yes
16	08	07	spent catalysts contaminated with dangerous substances	Yes
16	09	01	permanganates, for example potassium permanganate	Yes
16	09	02	chromates, for example potassium chromate, potassium or sodium dichromate	Yes
16	09	03	peroxides, for example hydrogen peroxide	Yes
16	09	04	oxidising substances, not otherwise specified	Yes
16	10	01	aqueous liquid wastes containing dangerous substances	Yes
16	10	02	aqueous liquid wastes other than those mentioned in 16 10 01	No
16	10	03	aqueous concentrates containing dangerous substances	Yes
16	10	04	aqueous concentrates other than those mentioned in 16 10 03	No
16	11	01	carbon-based linings and refractories from metallurgical processes containing dangerous substances	Yes
16	11	02	carbon-based linings and refractories from metallurgical processes other than those mentioned in 16 11 01	No
16	11	03	other linings and refractories from metallurgical processes containing dangerous substances	Yes
16	11	04	other linings and refractories from metallurgical processes other than those mentioned in 16 11 03	No
16	11	05	linings and refractories from non-metallurgical processes containing dangerous substances	Yes
16	11	06	linings and refractories from non-metallurgical processes other than those mentioned in 16 11 05	No
17	01	01	concrete	No
17	01	02	bricks	No
17	01	03	tiles and ceramics	No
17	01	06	mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing dangerous substances	Yes
17	01	07	mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	No
17	02	01	wood	No
17	02	02	glass	No
17	02	03	plastic	No
17	02	04	glass, plastic and wood containing or contaminated with dangerous substances	Yes
17	03	01	bituminous mixtures containing coal tar	Yes
17	03	02	bituminous mixtures containing other than those mentioned in 17 03 01	No
17	03	03	coal tar and tarred products	Yes
17	04	01	copper, bronze, brass	No
17	04	02	aluminium	No
17	04	03	lead	No
17	04	04	zinc	No
17	04	05	iron and steel	No
17	04	06	tin	No
17	04	07	mixed metals	No
17	04	09	metal waste contaminated with dangerous substances	Yes
17	04	10	cables containing oil, coal tar and other dangerous substances	Yes
17	04	11	cables other than those mentioned in 17 04 10	No
17	05	03	soil and stones containing dangerous substances	Yes
17	05	04	soil and stones other than those mentioned in 17 05 03	No
17	05	05	dredging spoil containing dangerous substances	Yes
17	05	06	dredging spoil other than those mentioned in 17 05 05	No
17	05	07	track ballast containing dangerous substances	Yes
17	05	08	track ballast other than those mentioned in 17 05 07	No
17	06	01	insulation materials containing asbestos	Yes
17	06	03	other insulation materials consisting of or containing dangerous substances	Yes
17	06	04	insulation materials other than those mentioned in 17 06 01 and 17 06 03	No
17	06	05	construction materials containing asbestos (18)	Yes
17	08	01	gypsum-based construction materials contaminated with dangerous substances	Yes
17	08	02	gypsum-based construction materials other than those mentioned in 17 08 01	No
17	09	01	construction and demolition wastes containing mercury	Yes
17	09	02	construction and demolition wastes containing pcb (for example pcb-containing sealants, pcb-contain	Yes
17	09	03	other construction and demolition wastes (including mixed wastes) containing dangerous substances	Yes
17	09	04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	No
18	01	01	sharp (except 18 01 03)	No
18	01	02	body parts and organs including blood bags and blood preserves (except 18 01 03)	No
18	01	03	wastes whose collection and disposal is subject to special requirements in order to prevent infection	Yes
18	01	04	wastes whose collection and disposal is not subject to special requirements in order to prevent infect	No
18	01	06	chemicals consisting of or containing dangerous substances	Yes
18	01	07	chemicals other than those mentioned in 18 01 06	No
18	01	08	cytotoxic and cytostatic medicines	Yes
18	01	09	medicines other than those mentioned in 18 01 08	No
18	01	10	amalgam waste from dental care	Yes
18	02	01	sharp except (18 02 02)	No
18	02	02	wastes whose collection and disposal is subject to special requirements in order to prevent infection	Yes
18	02	03	wastes whose collection and disposal is not subject to special requirements in order to prevent infect	No
18	02	05	chemicals consisting of or containing dangerous substances	Yes
18	02	06	chemicals other than those mentioned in 18 02 05	No
18	02	07	cytotoxic and cytostatic medicines	Yes
18	02	08	medicines other than those mentioned in 18 02 07	No
19	01	02	ferrous materials removed from bottom ash	No
19	01	05	filter cake from gas treatment	Yes
19	01	06	aqueous liquid wastes from gas treatment and other aqueous liquid wastes	Yes

19	01	07	solid wastes from gas treatment	Yes
19	01	10	spent activated carbon from flue-gas treatment	Yes
19	01	11	bottom ash and slag containing dangerous substances	Yes
19	01	12	bottom ash and slag other than those mentioned in 19 01 11	No
19	01	13	fly ash containing dangerous substances	Yes
19	01	14	fly ash other than those mentioned in 19 01 13	No
19	01	15	boiler dust containing dangerous substances	Yes
19	01	16	boiler dust other than those mentioned in 19 01 15	No
19	01	17	pyrolysis wastes containing dangerous substances	Yes
19	01	18	pyrolysis wastes other than those mentioned in 19 01 17	No
19	01	19	sands from fluidised beds	No
19	01	99	wastes not otherwise specified	No
19	02	03	premixed wastes composed only of non-hazardous wastes	No
19	02	04	premixed wastes composed of at least one hazardous waste	Yes
19	02	05	sludges from physico/chemical treatment containing dangerous substances	Yes
19	02	06	sludges from physico/chemical treatment other than those mentioned in 19 02 05	No
19	02	07	oil and concentrates from separation	Yes
19	02	08	liquid combustible wastes containing dangerous substances	Yes
19	02	09	solid combustible wastes containing dangerous substances	Yes
19	02	10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09	No
19	02	11	other wastes containing dangerous substances	Yes
19	02	99	wastes not otherwise specified	No
19	03	04	wastes marked as hazardous, partly (20) stabilised	Yes
19	03	05	stabilised wastes other than those mentioned in 19 03 04	No
19	03	06	wastes marked as hazardous, solidified	Yes
19	03	07	solidified wastes other than those mentioned in 19 03 06	No
19	04	01	vitrified waste	No
19	04	02	fly ash and other flue-gas treatment wastes	Yes
19	04	03	non-vitrified solid phase	Yes
19	04	04	aqueous liquid wastes from vitrified waste tempering	No
19	05	01	non-composted fraction of municipal and similar wastes	No
19	05	02	non-composted fraction of animal and vegetable waste	No
19	05	03	off-specification compost	No
19	05	99	wastes not otherwise specified	No
19	06	03	liquor from anaerobic treatment of municipal waste	No
19	06	04	digestate from anaerobic treatment of municipal waste	No
19	06	05	liquor from anaerobic treatment of animal and vegetable waste	No
19	06	06	digestate from anaerobic treatment of animal and vegetable waste	No
19	06	99	wastes not otherwise specified	No
19	07	02	landfill leachate containing dangerous substances	Yes
19	07	03	landfill leachate other than those mentioned in 19 07 02	No
19	08	01	screenings	No
19	08	02	waste from desanding	No
19	08	05	sludges from treatment of urban waste water	No
19	08	06	saturated or spent ion exchange resins	Yes
19	08	07	solutions and sludges from regeneration of ion exchangers	Yes
19	08	08	membrane system waste containing heavy metals	Yes
19	08	09	grease and oil mixture from oil/water separation containing only edible oil and fats	No
19	08	10	grease and oil mixture from oil/water separation other than those mentioned in 19 08 09	Yes
19	08	11	sludges containing dangerous substances from biological treatment of industrial waste water	Yes
19	08	12	sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11	No
19	08	13	sludges containing dangerous substances from other treatment of industrial waste water	Yes
19	08	14	sludges from other treatment of industrial waste water other than those mentioned in 19 08 13	No
19	08	99	wastes not otherwise specified	No
19	09	01	solid waste from primary filtration and screenings	No
19	09	02	sludges from water clarification	No
19	09	03	sludges from decarbonation	No
19	09	04	spent activated carbon	No
19	09	05	saturated or spent ion exchange resins	No
19	09	06	solutions and sludges from regeneration of ion exchangers	No
19	09	99	wastes not otherwise specified	No
19	10	01	iron and steel waste	No
19	10	02	non-ferrous waste	No
19	10	03	fluff-light fraction and dust containing dangerous substances	Yes
19	10	04	fluff-light fraction and dust other than those mentioned in 19 10 03	No
19	10	05	other fractions containing dangerous substances	Yes
19	10	06	other fractions other than those mentioned in 19 10 05	No
19	11	01	spent filter clays	Yes
19	11	02	acid tars	Yes
19	11	03	aqueous liquid wastes	Yes
19	11	04	wastes from cleaning of fuel with bases	Yes
19	11	05	sludges from on-site effluent treatment containing dangerous substances	Yes
19	11	06	sludges from on-site effluent treatment other than those mentioned in 19 11 05	No
19	11	07	wastes from flue-gas cleaning	Yes
19	11	99	wastes not otherwise specified	No
19	12	01	paper and cardboard	No
19	12	02	ferrous metal	No
19	12	03	non-ferrous metal	No
19	12	04	plastic and rubber	No
19	12	05	glass	No
19	12	06	wood containing dangerous substances	Yes
19	12	07	wood other than that mentioned in 19 12 06	No
19	12	08	textiles	No
19	12	09	minerals (for example sand, stones)	No
19	12	10	combustible waste (refuse derived fuel)	No
19	12	11	other wastes (including mixtures of materials) from mechanical treatment of waste containing danger	Yes
19	12	12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those	No
19	13	01	solid wastes from soil remediation containing dangerous substances	Yes
19	13	02	solid wastes from soil remediation other than those mentioned in 19 13 01	No
19	13	03	sludges from soil remediation containing dangerous substances	Yes
19	13	04	sludges from soil remediation other than those mentioned in 19 13 03	No
19	13	05	sludges from groundwater remediation containing dangerous substances	Yes
19	13	06	sludges from groundwater remediation other than those mentioned in 19 13 05	No
19	13	07	aqueous liquid wastes and aqueous concentrates from groundwater remediation containing dangerous	Yes
19	13	08	aqueous liquid wastes and aqueous concentrates from groundwater remediation other than those m	No
20	01	01	paper and cardboard	No
20	01	02	glass	No
20	01	08	biodegradable kitchen and canteen waste	No
20	01	10	clothes	No
20	01	11	textiles	No
20	01	13	solvents	Yes
20	01	14	acids	Yes
20	01	15	alkalines	Yes
20	01	17	photochemicals	Yes
20	01	19	pesticides	Yes
20	01	21	fluorescent tubes and other mercury-containing waste	Yes
20	01	23	discarded equipment containing chlorofluorocarbons	Yes
20	01	25	edible oil and fat	No
20	01	26	oil and fat other than those mentioned in 20 01 25	Yes
20	01	27	paint, inks, adhesives and resins containing dangerous substances	Yes
20	01	28	paint, inks, adhesives and resins other than those mentioned in 20 01 27	No
20	01	29	detergents containing dangerous substances	Yes
20	01	30	detergents other than those mentioned in 20 01 29	No
20	01	31	cytotoxic and cytostatic medicines	Yes
20	01	32	medicines other than those mentioned in 20 01 31	No
20	01	33	batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and ac	Yes
20	01	34	batteries and accumulators other than those mentioned in 20 01 33	No
20	01	35	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01	Yes
20	01	36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and	No
20	01	37	wood containing dangerous substances	Yes
20	01	38	wood other than that mentioned in 20 01 37	No
20	01	39	plastics	No
20	01	40	metals	No
20	01	41	wastes from chimney sweeping	No
20	01	99	other fractions not otherwise specified	No
20	02	01	biodegradable waste	No
20	02	02	soil and stones	No
20	02	03	other non-biodegradable wastes	No
20	03	01	mixed municipal waste	No
20	03	02	waste from markets	No
20	03	03	street-cleaning residues	No
20	03	04	septic tank sludge	No
20	03	06	waste from sewage cleaning	No
20	03	07	bulky waste	No
20	03	99	municipal wastes not otherwise specified	No

RD_Code	RD_Description	RD_Type
D1	Deposit into or onto land (e.g. landfill etc)	Disposal
D10	Incineration on land	Disposal
D11	Incineration at sea	Disposal
D12	Permanent storage (e.g., emplacement of containers in a mine, etc.)	Disposal
D13	Blending or mixing prior to submission to any of the operations numbered D1 to D12	Disposal
D14	Repackaging prior to submission to any of the operations numbered D1 to D13	Disposal
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending co	Disposal
D2	Land treatment (e.g. biodegradation of liquid or sludgy discards in soils, etc.)	Disposal
D3	Deep injection (e.g. injection of pumpable discards into wells, salt domes or naturally occurring reposit	Disposal
D4	Surface impoundment (e.g. placement of liquid or sludge discards into pits, ponds or lagoons etc.)	Disposal
D5	Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated fr	Disposal
D6	Release into a water body except seas/oceans	Disposal
D7	Release into seas/oceans including sea-bed insertion	Disposal
D8	Biological treatment not specified elsewhere in this list which results in final compounds or mixtures w	Disposal
D9	Physico chemical treatment not specified elsewhere in this list which results in final compounds or mix	Disposal
R1	Use principally as a fuel or other means to generate energy	Recovery
R10	Land treatment resulting in benefit to agriculture or ecological improvement	Recovery
R11	Uses of wastes obtained from any of the operations numbered R1 to R10	Recovery
R12	Exchange of wastes for submission to any of the operations numbered R1 to R11	Recovery
R13	Accumulation of material intended for any operation numbered R1 to R12 (excluding temporary storag	Recovery
R2	Solvent reclamation/regeneration	Recovery
R3	Recycling/reclamation of organic substances which are not used as solvents (including composting an	Recovery
R4	Recycling/reclamation of metals and metal compounds	Recovery
R5	Recycling/reclamation of other inorganic materials	Recovery
R6	Regeneration of acids or bases	Recovery
R7	Recovery of components used for pollution abatement	Recovery
R8	Recovery of components from catalysts	Recovery
R9	Used oil re-refining or other reuses of oil	Recovery

Methods used for determination of releases to air, water, waste water or sewer: Method Identification Codes

See also the relevant sections of EPA AER Guidance Document and EPA Website AER Returns Guidance Notes.

For each parameter, where this applies.		Please enter Method Category (M/C/E), Method Code and Method Designation or Description according to this table.	
Category of Method Used	M/C/E	Method Used	
		Method Code	Designation or Description
Measurement methodologies If you used...	Then please enter...		
Internationally approved measurement standard	M	short designation of the relevant standard (e.g. EN 14385:2004)	Leave this cell blank
Measurement methodology already prescribed by the competent authority in a licence or an operating permit for that facility	M	PER	Enter brief description of method you used
National or regional binding measurement methodology prescribed by legislation for the pollutant and facility concerned	M	NRB	Enter brief description of method you used
Alternative measurement method in accordance with existing CEN/ISO measurement standards	M	ALT	Enter brief description of method you used
Measurement methodology the performance of which is demonstrated by means of certified reference materials and accepted by competent authority	M	CRM	Enter brief description of method you used
Other measurement methodology	M	OTH	Enter brief description of method you used
Calculation methodologies If you used...	Then please enter...		
Internationally approved calculation method	C	short designation of the method used: ETS, IPCC, UNECE/EMEP	Leave this cell blank
Calculation methodology already prescribed by the competent authority in a licence or an operating permit for that facility	C	PER	Enter brief description of method you used
National or regional binding calculation methodology prescribed by legislation for the pollutant and facility concerned	C	NRB	Enter brief description of method you used
Mass balance method which is accepted by the competent authority	C	MAB	Enter brief description of method you used
European-wide sector specific calculation method	C	SSC	Enter brief description of method you used
Other calculation methodology	C	OTH	Enter brief description of method you used
Estimation methodologies If you used...	Then please enter...		
A non-standardised estimation procedure	E	ESTIMATE	Leave this cell blank, but please ensure that you enter a brief description of method you used for this estimation as a footnote in your paper AER

"E" and "ESTIMATE" are used when the releases are determined by best assumptions or expert guesses that are not based on publicly available references or in case of absence of recognised emission estimation methodologies or good practice guidelines.

Completed Example: this example illustrates how the information should be entered for a representative case

Releases to air		Method		Quantity	
No. Annex II	Pollutant Name	M/C/E	Method used		T (total) (kg/year)
			Code	Designation or description	
1	CH ₄	C	NRB	regional binding measurement methodology using specific gas chromatography	125,000
3	CO ₂	C	ETS		244,000,000
14	HCFCs	E	ESTIMATE		1.28
18	C ₆	M	EN 14385:2004		12.5
72	PAH	M	NRB	VDI 3873	122

Method Codes
M
C
E

Lookups Configured
Y

Water Types
Freshwater
Seawater
Estuary

Transfer Destination
Within the Country
To Other Countries

Waste Treatment Operation
Recovery
Disposal

Waste Method Used
Weighed
None
Volume Calculation

Treatment Location
Onsite in Ireland
Offsite in Ireland
Abroad

Yes/No
Yes
No

General Help

This Excel workbook is divided into numerous worksheets
The first group of worksheets form the AER return once filled in by the licensee
The remaining worksheets provide reference material to assist in the filling out of the data
Quick help on filling out each sheet can also be found by hovering your mouse over the red triangle in cells that include help

Printing

The AER return data from each sheet can be printed by clicking on the PRINT THIS SHEET button

Creating & Submitting an AER Return

Once all relevant data has been entered click the CREATE AER XML RETURN & UPLOAD button on the Facilities worksheet
This will validate the workbook and prompt you to enter a location for creating the XML AER Return file (C:\ by default)
You can either accept the default path or enter a different path where the file will be created, then click the OK button
Once the file has been created a message will be displayed containing further instructions (Make a note of the XML file at this point)
You will then be redirected to the AER returns website where you must first login and then attach your XML file for uploading
It is therefore important to ensure you have internet access from the computer you are making a return from
Follow the instructions on the website to complete the AER return

[Back to top](#)

Facility ID & Activities

This worksheet contains Licensee-specific information about the facility making the return
The following areas should be filled out on this worksheet :
Production Volume
Number of Installations
Number of Operating Hours in Year
Number of Employees
User Feedback/Comments
Web Address

[Back to top](#)

You should also fill out section 3 - Solvents Directive

Please examine all pre-entered data to ensure that it is correct. You will need to inform the EPA if anything should be altered

Releases to Air

This worksheet allows you to enter any pollutants that are released to air
Based on your Class Activities the PRTR pollutants list will be divided into two sections (Section A and B)
Section A represents sector-specific pollutants which apply to air and are based on your class activities
Section B represents all remaining pollutants that could be released to air but are not contained in Section A
This division of pollutants allows for quicker and more intuitive filling out of the worksheet as pollutants are grouped by priority
The third section (Section C) provides an area to fill in Licensed pollutants

[Back to top](#)

An additional section for Landfill operators must be filled out also

Enter a Total KG/Year, Method used details and the Facility Total Capacity as appropriate

Each section is filled in the same manner

Begin by selecting a pollutant from the dropdown list under the pollutant section

When you select a pollutant the pollutant number and name will appear in the corresponding cells

Next, fill in the method used section of the worksheet by selecting a method from the dropdown list

Only Measured, Calculated or Estimated are the values that can be entered here

Fill in a Method Code and Designation or Description (For further help please refer to the Methods Used worksheet)

Next, enter the quantities of release for this pollutant under Emission Point 1

This will appear in the Total Quantity cell also

If any Accidental or Fugitive releases for this pollutant are applicable then enter these under the Accidental or Fugitive section

If you have releases from more than one Emission Point then you can add additional points by clicking on the Add Emission Point button

This will add an additional Emission Point column to the right of the last one (A maximum of 9 points can be used)

The Accidental and Fugitive quantities represent the totals for ALL emission points and not one particular point

[Click here for Methods Used Reference](#)

You can also enter comments or a description of each emission point in the grey cell over the emission point

In order to add another pollutant in a particular section you must click the ADD NEW ROW button

If you have made a mistake and wish to remove the last row entered then click the DELETE LAST ROW button in the relevant section

If you have no releases for a particular section then do not enter any pollutant or related data into the section - leave it blank

Releases to Waters

This worksheet allows you to enter any pollutants that are released to water

Based on your Class Activities the PRTR pollutants list will be divided into two sections (Section A and B)

Section A represents sector-specific pollutants which apply to water and are based on your class activities

Section B represents all remaining pollutants that could be released to water but are not contained in Section A

This division of pollutants allows for quicker and more intuitive filling out of the worksheet as pollutants are grouped by priority

The third section (Section C) provides an area to fill in Licensed pollutants

[Back to top](#)

Each section is filled in the same manner

Begin by selecting a pollutant from the dropdown list under the pollutant section

When you select a pollutant the pollutant number and name will appear in the corresponding cells

Next, fill in the method used section of the worksheet by selecting a method from the dropdown list

Only Measured, Calculated or Estimated are the values that can be entered here

Fill in a Method Code and Designation or Description (For further help please refer to the Methods Used worksheet)

Next, enter the quantities of release for this pollutant under Emission Point 1

This will appear in the Total Quantity cell also

If any Accidental or Fugitive releases for this pollutant are applicable then enter these under the Accidental or Fugitive section

If you have releases from more than one Emission Point then you can add additional points by clicking on the Add Emission Point button

This will add an additional Emission Point column to the right of the last one (A maximum of 9 points can be used)

The Accidental and Fugitive quantities represent the totals for ALL emission points and not one particular point

[Click here for Methods Used Reference](#)

You can also enter comments or a description of each emission point in the grey cell over the emission point

In order to add another pollutant in a particular section you must click the ADD NEW ROW button

If you have made a mistake and wish to remove the last row entered then click the DELETE LAST ROW button in the relevant section

If you have no releases for a particular section then do not enter any pollutant or related data into the section - leave it blank

Offsite Transfers of Pollutants

This worksheet allows you to enter any pollutants that are transferred offsite and are destined for waste-water treatment or sewer

This worksheet is divided into two sections (Section A and B)

Section A represents PRTR pollutants while section B represents Licensed pollutants

[Back to top](#)

Each section is filled in the same manner

Begin by selecting a pollutant from the dropdown list under the pollutant section

When you select a pollutant the pollutant number and name will appear in the corresponding cells

Next, fill in the method used section of the worksheet by selecting a method from the dropdown list

Only Measured, Calculated or Estimated are the values that can be entered here

Fill in a Method Code and Designation or Description (For further help please refer to the Methods Used worksheet)

Next, enter the quantities of release for this pollutant under Emission Point 1

This will appear in the Total Quantity cell also

If any Accidental or Fugitive releases for this pollutant are applicable then enter these under the Accidental or Fugitive section

If you have releases from more than one Emission Point then you can add additional points by clicking on the Add Emission Point button

[Click here for Methods Used Reference](#)

This will add an additional Emission Point column to the right of the last one (A maximum of 9 points can be used)
The Accidental and Fugitive quantities represent the totals for ALL emission points and not one particular point

You can also enter comments or a description of each emission point in the grey cell over the emission point

In order to add another pollutant in a particular section you must click the ADD NEW ROW button
If you have made a mistake and wish to remove the last row entered then click the DELETE LAST ROW button in the relevant section
If you have no releases for a particular section then do not enter any pollutant or related data into the section - leave it blank

Releases to Land

This worksheet allows you to enter any pollutants that are released to land
This worksheet is divided into two sections (Section A and B)
Section A represents PRTR pollutants while section B represents Licensed pollutants

[Back to top](#)

Each section is filled in the same manner
Begin by selecting a pollutant from the dropdown list under the pollutant section
When you select a pollutant the pollutant number and name will appear in the corresponding cells
Next, fill in the method used section of the worksheet by selecting a method from the dropdown list
Only Measured, Calculated or Estimated are the values that can be entered here
Fill in a Method Code and Designation or Description (For further help please refer to the Methods Used worksheet)
Next, enter the quantities of release for this pollutant under Emission Point 1
This will appear in the Total Quantity cell also
If any Accidental releases for this pollutant are applicable then enter these under the Accidental section
If you have releases from more than one Emission Point then you can add additional points by clicking on the Add Emission Point button
This will add an additional Emission Point column to the right of the last one (A maximum of 9 points can be used)
The Accidental quantities represent the totals for ALL emission points and not one particular point

[Click here for Methods Used Reference](#)

You can also enter comments or a description of each emission point in the grey cell over the emission point

In order to add another pollutant in a particular section you must click the ADD NEW ROW button
If you have made a mistake and wish to remove the last row entered then click the DELETE LAST ROW button in the relevant section
If you have no releases for a particular section then do not enter any pollutant or related data into the section - leave it blank

Treatment & Transfers of Waste

This worksheet allows you to enter onsite treatment and offsite transfers of waste
Begin by selecting the transfer destination from the dropdown list (valid entries are Within the Country or To Other Countries)
Next, select the EWC (European Waste Code) by double-clicking on the EWC cell for the record you are filling out
The EWC reference worksheet will be displayed
Select the appropriate chapters to build the waste code (These are broken into Group, SubGroup and Code on the reference sheet)
To select a code double-click on it where you will then be brought to the next section of codes under the selected one
Appropriate codes for the selected values will be highlighted in blue
Repeat this for the subsequent levels to retrieve the full six-digit Waste Code
The code will then be returned to the Treatment & Transfers of Waste sheet that is being filled out
If you already know the full six digit EWC then just scroll down the Waste Reference sheet and double click on the six-digit code
The Hazardous value for the entered EWC will be displayed
Enter a quantity for the particular EWC (Tonnes/year)
Enter a description for the waste
Next, select a Waste Treatment Operation by double-clicking on the cell under this section
The Waste Treatment Operation reference worksheet will be displayed
Select the appropriate code by double-clicking on it
The code will then be returned to the Treatment & Transfers of Waste sheet that is being filled out
Select a method used from the dropdown lists in the Method Used section of the sheet
Select a Location of Treatment from the dropdown list (valid values are Onsite in Ireland, Offsite in Ireland and Abroad)
Enter the name of the recoverer/disposer
Enter the address of the recoverer/disposer
Enter the final address of the recovery/disposal site
Enter the Licence / Permit No. of the final recovery/disposal site
In order to add another waste code record you must click the ADD NEW ROW button
If you have made a mistake and wish to remove the last row entered then click the DELETE LAST ROW button in the relevant section
If you have no waste data to enter then do not enter any waste or related data into this worksheet - leave it blank

[Back to top](#)

Ref. - NACE Codes

This worksheet contains reference information for NACE codes

[Back to top](#)
[Click here for NACE Codes Reference](#)

Ref. PRTR Activities

This worksheet contains reference information for PRTR Class Activities

[Back to top](#)
[Click here for PRTR Class Activities Reference](#)

Ref. PRTR Pollutants

This worksheet contains reference information for PRTR Pollutants

[Back to top](#)
[Click here for PRTR Pollutants Reference](#)

Ref. Licensed Pollutants

This worksheet contains reference information for Licensed Pollutants

[Back to top](#)
[Click here for Licensed Pollutants Reference](#)

Ref. Waste Codes

This worksheet contains reference information for EWC (European Waste Codes)

[Back to top](#)
[Click here for Waste Codes Reference](#)

Ref. Recoverer/Disposer Codes

This worksheet contains reference information for Recoverer and Disposer Codes

[Back to top](#)
[Click here for Recoverer/Disposer Codes Reference](#)

Ref. Methods Used

This worksheet contains reference information for Methods Used

[Back to top](#)
[Click here for Methods Used Reference](#)



Srahmore Waste Licence W199-1
Annual Environmental Report
2008

29th March 2009

Bord na Móna today operates 5 main subsidiary companies in more than 20 locations throughout Ireland, the UK and USA. The principal businesses are in the Energy, Resource Recovery, Horticulture, Home Heating and Wastewater Treatment and Air Pollution Abatement markets. The company also engages in an extensive rehabilitation program to develop its peat lands in an environmentally sustainable manner. The company turnover for 2007/8 was €370m.



Bord na Móna has long recognised the need to diversify its activities in order to secure a sustainable future. In this context we identified the energy and resource recovery sectors as appropriate areas of growth and development, given our assets, strengths and skills. Significant challenges face Ireland in meeting the country's needs to provide secure sustainable energy and manage waste while minimising the impact on the environment. Bord na Móna is in a strong position to contribute to dealing with these challenges. We have a unique mixture of assets, experience and innovation which will enable us to cross-link our activities in energy, water and resource recovery to provide products and services which will meet Ireland's needs. We also have the capacity to become an exemplar for others to follow in these fields. With this background we have scoped out a new vision for the future sustainable development of Bord na Móna.

Following on from our vision, we have developed a new mission for Bord na Móna which the Company is committed to achieving.

In 1934 the Turf Development Board was formed to 'develop and improve the turf industry.' The experience of fuel shortages during the war re-enforced the Irish State's commitment to developing the country's bogs. In 1944 the TDB was asked to devise and submit a comprehensive programme, the outcome was the transformation in 1946 of the TDB into Bord na Móna. The Board was given a mandate to increase the use of peat as a fuel and in energy production. Markets for the use of moss peat in horticulture were also developed.

In 1990 Bord na Móna implemented a divisionalised and decentralised structure, designed to delegate responsibility downwards ensuring a sharper focus on each profit centre and a greater spirit of enterprise.

Group Vision



The vision statement defines the Company's purpose, in terms of its values.

Values are guiding beliefs about how things should be done.

The vision statement communicates both the purpose and values of Bord na Móna.

For employees, it gives direction about how they are expected to behave and inspires them to give their best. Shared with customers, it shapes the customers' understanding of why they should work with Bord na Móna.

Bord na Móna will seek solutions that optimise the creative energy and potential of the organisation, driven by long term goals and the organisation's vision and mission.

In this context our devolved business units will align their vision and strategic planning with the global direction provided.

Consistent with our vision, innovation will once again return to the core of everything we do. We will capitalise on opportunities to cross fertilise our unique range of skills and technologies that add value and are socially and environmentally sustainable.

Greater focus will be placed on managing and developing our land assets in a responsible and sustainable manner. Our award winning initiatives at Lough Boora (Co. Offaly) and Oweninny (Co Mayo), provide shining examples of what can be achieved

Group Mission

We conduct our affairs with openness, honesty and integrity.

We are Ireland's leading environmentally responsible integrated utility service provider encompassing electricity, heating solutions, resource recovery, water, horticulture and related services.

We capitalise on international opportunities where we have a competitive advantage.

We achieve continuing growth through superior customer service, outstanding quality and innovation delivered through the excellence and commitment of our people.

We engage in sustainable profitable business in the communities we serve, which is rewarding and challenging for employees and other stakeholders.

Contents:

1. Introduction

1.1. Report Period.

1.2. Waste Licence Register Number.

1.3. Operator & Address of Facility.

1.4. Environmental Policy.

1.5. Current Management Structure.

2. Waste Management Report

2.1. Site Description

Waste Management Activities

Quantity of Waste accepted to date.

Remaining site capacity

Economic Contributions of the Activity.

3. Environmental Emissions of the Activity

3.1. Emissions to Atmosphere Summary.

3.2. Emissions to Water Summary.

3.3. Noise Monitoring Report.

3.4. Groundwater Monitoring Summary.

3.5. Resource & Energy Consumption/Efficiency Summary.

4. Environmental Management System

4.1. Schedule of Environmental Objectives & Targets.

4.2. Environmental Management Programme – Report.

4.3. Environmental Management Programme – Proposal.

4.4. Silt pond Inspection & desilting report.

5. Site Development Works.

5.1. Summary of Main changes/developments/works 2007.

5.2. Summary of Planned Works for 2008.

6. Waste Received and Consigned from the Facility.

6.1. Non-hazardous waste received by the facility.

6.2. Hazardous waste received by the facility.

6.3. Non-hazardous waste sent off-site for Recovery/Disposal.

6.4. Hazardous waste sent off-site for Recovery/Disposal

7. Environmental Incidents & Complaints.

7.1. Reported Incidents Summary.

7.2. Reported Complaints Summary

8. Review of Nuisance Controls.

9. Review of Rehabilitation Plan.

9.1 Vegetation Assessment

10. Review of Environmental Liabilities Insurance Cover.

11. Landfill Costs.

12. Other Reports

12.1. Tank & Pipeline Testing & Inspection Report.

12.2. Placed Peat Stability Assessment.

Appendix 1 Remaining Capacity

Appendix 2 Emissions to Water Results.

Appendix 3 River Water Monitoring Results

Appendix 4 Groundwater Results

Appendix 5 AER and PRTR Electronic Reporting

Appendix 6 Waste Licence emissions and monitoring locations.

1. Introduction

1.1. Report Period

This Annual Environmental Report covers the period of 01/01/08 to 31/12/08 for the Srahmore Peat Repository at Attavally, Bangor-Erris, Co Mayo.

This is the fourth Annual Environmental Report for Bord na Mona's Peat Repository at Srahmore, Attavally, Bangor-Erris, Co Mayo. The structure and contents of this report are based on the requirements of Schedule D Reports & AER Content.

1.2. Waste Licence Register Number - W199-1

1.3. Operator & Address of Facility.

Bord na Mona Energy Ltd
Srahmore,
Attavally
Bangor-Erris
Co Mayo

1.4. Environmental Policy (attached on next page)



Environmental Policy Statement

Bord Na Mona Energy Limited is a commercial semi-state body with responsibility to develop Ireland's peat resources in the national interest.

Bord Na Mona Energy Limited is committed to gather and make available information on all aspects of its environmental impact and to help improve understanding among the public generally of its role and of the importance of Irish peatlands.

Bord Na Mona Energy Limited recognises the importance of peatland conservation.

Bord Na Mona Energy Limited will leave behind all areas it owns as either an economically or socially integrated resource of high environmental value.

Bord Na Mona Energy Limited seeks to conduct all aspects of its business in an environmentally sensitive manner.

Bord Na Mona Energy Limited will establish an environmental management system specifically addressing the following impacts:

- Discharges to water
- Emissions to atmosphere
- Waste disposal
- Use of natural resources
- Noise, vibration, odour, dust and visual effects
- Natural environmental and eco-system

The environmental management system will be monitored, maintained and continually improved.

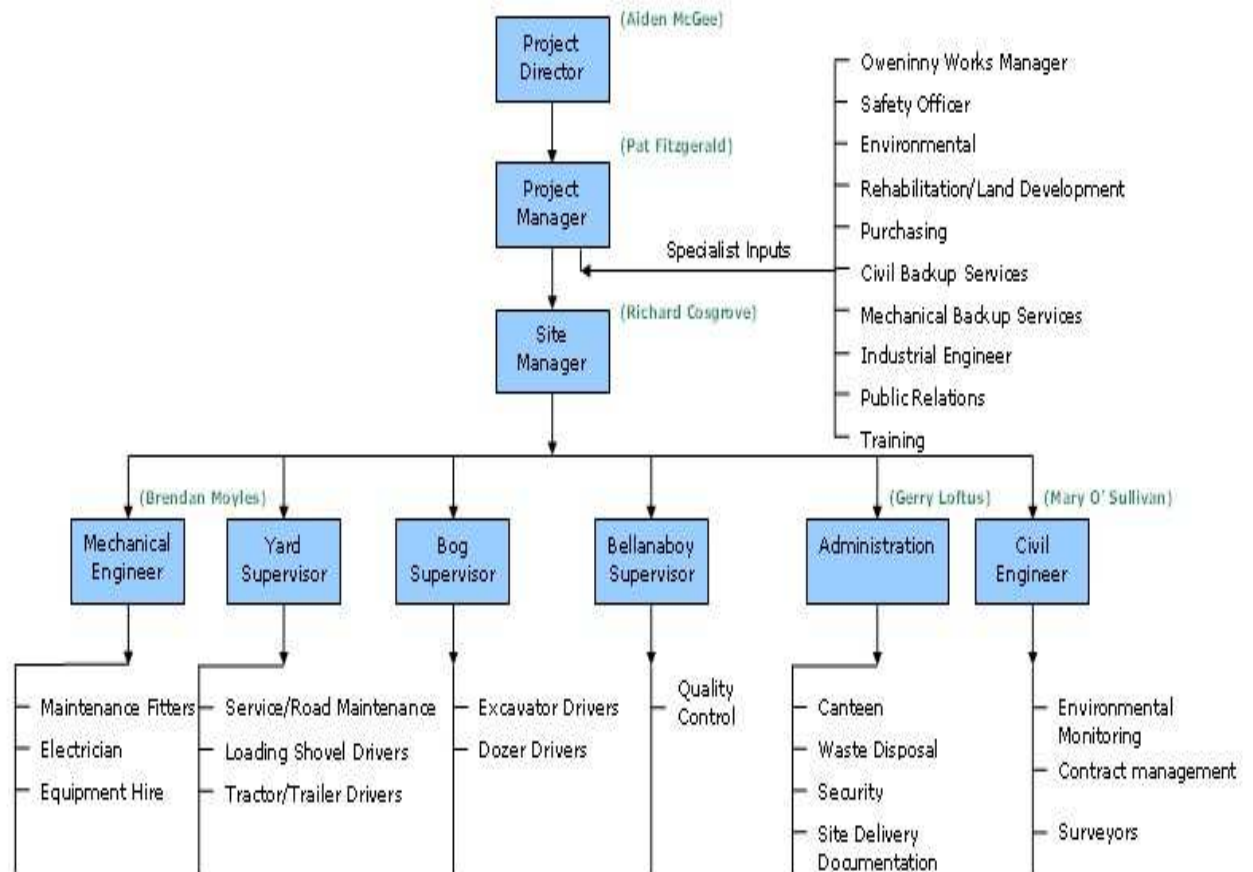
A system of regular environmental audits will be put in place.

Bord Na Mona Energy Limited will continue research and development (R&D) into all aspects of its environmental impact.

This statement is published and is available at all locations within the section and its contents are brought to the attention of all employees

1.5. Current Management Structure

Corrib Project – Peat Deposition Phase



2. Waste Management Report

2.1. Site Description

The site is situated approximately 1km northwest of the village Bangor-Erris and comprises cutover peatland in the Oweninny bog complex. This consists of eight separate areas of cutover peatland, numbered 1 – 8, each of which was assessed for suitability for the development. Area 5 was selected as the peat reception area. Area 6 was selected for the actual deposition of peat and a section of Area 7 is utilised as a “controlled overflow area” in the event of exceedance of the design rainfall. The peat reception area is utilised for off-loading of the peat is the closest area to the public road.

The site is a peat disposal area for the placement of c. 450,000m³ of peat waste excavated from the development of the Shell Corrib Gas Field Terminal at the nearby Bellanaboy Bridge site. The peat, which is from a 3000 to 5000 year old Atlantic Blanket Bog, is transported by road in trucks to the Srahmore deposit area. It was originally anticipated that peat transport and deposit would take place over a 6 month period, spread out over two seasons. However, peat transport and deposit ceased on the 4th July 2005, and as of that date, 112,937tonnes were transported to and deposited at the site.

Peat deposition at the site did not resume during 2006, so therefore no peat was deposited at the Srahmore site during 2006.

Peat deposition did recommence on the 2nd of April 2007 and completed the deposition of peat on the 29th June 2007.

Since then, decommissioning of plant and equipment has taken place in accordance with Condition 9.1 of the Waste Licence.

As of this AER, the volume of peat deposited in Srahmore is 448,049m³.

A map detailing the final deposition is included in Appendix 1.

During the decommissioning of certain elements and general maintenance of the site during 2008, 10 personnel were employed in the following areas:

BNM (support)	0	General Operatives	2	Security	0
BNM (Engineering)	0	Fitters	1	Environmental	1
Head Office Staff	1	Electricians	0	Archaeological	0
Site Office Staff	1	Site Supervisors	0	Canteen	0
Drivers	4	Contractors	-		
		Total			10

Plant on site during all operations is as follows:

Machine	Number	Operator
Excavators	23	BNM
Dozers	1	BNM
Tractors	2	BNM
Quads	1	BNM
Loading Shovels	0	BNM

3. Environmental Emissions of the Activity

3.1. Emissions to Atmosphere Summary

The only potential emissions to the atmosphere from the activities on site are dust. As required by Condition 8.8.1, locations for dust monitoring around the site were agreed with the Agency, and Bergerhoff Dust gauges were installed. As there was no peat deposition operations at the site during 2008, there were no requirement to monitor for dust, as was the case in 2007.

3.2. Emissions to Water Summary

Emissions to water from the site takes place at 3 locations:

Licence Emission Ref. No	SW No
S5-1	SW100
S5-2	SW101
Location 7 (combined from Area 5/6)	SW4

As required by Schedule C (2.2) the following parameters were monitored during peat deposition, from January to December 08

Monitoring during peat deposition suspension (October 2005 to December 2006)	Continuous	Daily	Weekly	Monthly	Quarterly
Flow	SW4				
pH			SW4	SW 100 & 101	
Conductivity	SW4		SW100 & 101		
COD			SW4, 100 & 101		
BOD					SW4
Suspended Solids		SW4	SW 100 & 101		
TDS			SW4		
Nitrite (as N)				SW4	
Nitrate (as N)				SW4	
Ammonia (as N)			SW4, 100 & 101		
Total Phosphorus				SW4	
Oils, fats & greases					SW4

Emissions from SW4 are monitored using a flow proportional composite sampler, which operates on a continuous basis. Here a sample bottle is filled over a 24 hour period and sent to Complete Laboratory Services for analysis.

The compliance requirements at SW4 are as follows:

18/10 consecutive results, calculated as daily mean concentration or mass emission values on the basis of flow proportional composite sampling, shall not exceed the emission limit value. No individual result similarly calculated shall exceed 1.2 times the emission limit value

Emissions from SW100 & 101 are sampled by grab sample on a Quarterly basis and sent to the lab for analysis. The compliance requirements at SW100 & 101 are as follows:

No grab sample value shall exceed 1.2 times the emission limit value.

The emission limit value (ELV) attached to emissions to water from the site is 35mg/l suspended solids.

Results for the 3 emission points are in Appendix 2.

Non-compliances:

Monitoring Point	Emission (SS mg/l)	ELV (mg/l)	Corrective Action
SW7 (Location 7)	49 mg/l	35mg/l ¹	Yes

This represents an over compliance level of 99.7%

3.3 Ambient Monitoring.**River-water Monitoring:**

Schedule C (6) requires monthly monitoring for Suspended Solids and Ammonia at two locations on the Munhin River, upstream and down stream of the discharge from Location 7 (SW4). The average suspended solids upstream and downstream of the discharge from the site were 7mg/l and 10mg/l respectively.

The average ammonia levels upstream of the discharge are 0.017 mg/l to .019 mg/l downstream. These results would be typical of levels found in peatland catchments and are well below the Maximum Allowable Concentration (0.23 mg/l)

These results would indicate that the Srahmore Peat Repository activities are having no negative effect on the suspended solids content of the river during 2008

Results of the analysis are attached in Appendix 3.

Groundwater Monitoring:

Condition 8.10 required the installation of a groundwater monitoring network at the site, in accordance with Agency guidelines. This required one up-hydraulic gradient, one down gradient of the peat reception area, and two down gradient of the peat deposition area.

Groundwater sampling was conducted on one occasion in 2008, due to the inactivity at the site.

On the 24 and 25th of November, all boreholes were monitored with BH 1A displaying elevated Diesel Range Organics (DRO's). A reserve sample for this location was

again analysed and the DRO's for that sample were found to be compliant with the Guide values. This was notified to the Agency.

Results of all sampling during the period of investigation and the groundwater contour map are attached in appendix 4.

3.4 Noise Monitoring Report.

Condition 8.11 of the licence requires a noise survey to be carried out during weeks 2, 6 & 12 at the following locations:

NRA – At site entrance from the R313.

NRB – North/West of the site on the R313 at a dwelling.

NRC – West of the site, close to Bangor-Erris Village

Due to the absence of any peat deposition activity at the site during 2008, noise monitoring was not required

A map of the Waste Licence Emission & Monitoring Points is included in Appendix 6.

3.5 Resource & Energy Consumption

Resource and Energy Consumption for the Facility was as follows:

Marked gas oil for all machine operations	-	2988 litres
Electricity usage	-	8058 MW/hrs

Due to the completion of deposition at the site during 2007, there was little energy and resource consumption at the site during 2008.

4 Environmental Management System

4.1 Management & Reporting Structure

This is included in section 1.5 and details the current management & reporting structure.

4.2 Schedule of Environmental Objectives & Targets

This sets out the schedule of objectives as proposed by Condition 2.2.2.2.

Objective	Target
1. Minimisation of suspended solids	Assessment of suspended solids generation during peat deposition during the first two months and setting a programme for its reduction
2. Reduction of fugitive dust	Establish the levels of dust generation during peat deposition during the first two months and setting a programme for its reduction.
3. Protection of dust sensitive areas	Establish the levels of dust nuisance at the three dust sensitive locations during the first two months of monitoring and setting a programme for the protection of these areas
4. Reuse of silt pond waste	Monitor the levels of silt pond waste cleanings at the 7 silt ponds and swale locations over the peat deposition period and establish a reuse option.
5. Effective spill leak management of Mobile fuelling units	Comply with all of the condition of the licence in relation to operation and maintenance of all mobile fuelling operations, and assess its effectiveness after 3 months operation.
6. Management of dangerous substances	Comply with the conditions of licence relating to oil and diesel storage, bunding and recycling and review after 2 months operation
7. Management of silt pond flow discharges	Comply with the conditions of the licence in relation to the management of silt pond flow discharges during high rainfall events and assess its effectiveness after two months operation.
8. Reuse of stone used in internal haul-road construction	Investigate any potential re-uses for the geotextile and stone used in the construction of the internal; haul-roads, either on site or in the locality.

4.3 Environmental Management Programme Report.

Minimisation of Suspended Solids (EMP1)

Activity/Emission	Objective	Target Date	Target	Persons Responsible
OT1 Emission of suspended Solids	Minimisation of suspended Solids	On-going programme during the life of the project and as part of aftercare & maintenance.	<p>To comply with Conditions 8.9.1, 8.9.3 & 8.9.4. a programme of weekly inspections of all drainage and subsequent waste treatments systems, daily inspections of discharges to receiving waters and the regulation and monitoring of all silt generating activities will be put in-place. This will be used for establishing the cleaning roster.</p> <p>These systems will be assessed on an ongoing basis for the first two months of peat deposition, to assess the degree of suspended solids generation, and this along with the daily results for SS from the Composite Sampler will be used to establish targets for the reduction of Suspended Solids</p> <p>Status: The inspections and monitoring of these emissions were continued during 2008 and are retained on site for inspection.</p>	Site Manager & Environmental Manager

Reduction of fugitive dust (EMP2)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT2 Fugitive dust emissions	Reduction of fugitive dust emissions during all operations	On-going programme during the life of the project.	<p>This programme will establish the degree of dust generation during the first two months of peat deposition. Peat delivery, tipping on the peat reception area, loading into the trailers and deposition into the bays will be examined along with any dust suppression methods employed and the appropriate Dust Handling Procedure. This will include the first two months of dust monitoring.</p> <p>The results of these assessments will be used to establish targets for reduction of fugitive dust emissions.</p> <p>Status: Due to the absence of any peat deposition activities on site during the reporting period, this was programme was not required.</p>	Site Manager & Environmental Manager

Protection of dust sensitive areas. (EMP3)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT3 Fugitive dust emissions	Protection of Dust sensitive areas.	On-going programme during the life of the project.	<p>Based of the results of the initial two months dust monitoring at the five dust sensitive locations, a programme of protection of dust sensitive locations will be examined.</p> <p>This will address any measures to be put in-place, such as the planting of trees, or any special measures to be put in place to protect any areas that exceed the ELV of 350</p>	Site Manager & Environmental Manager

			<p>mg/m²/day.</p> <p>Status: There were no complaints regarding dust received at the site during 2008, due the inactivity at the site, so this programme was suspended.</p>	
--	--	--	---	--

Reuse of silt pond wastes (EMP4)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT4 Reuse of Silt Pond Waste	The reuse of all silt pond wastes.	On-going programme during the life of the project.	<p>As the silt wastes generated from the cleaning and maintenance of silt ponds S5-1, S5-2, Area 5 & Area 6 silt ponds are directly as a result of peat deposition, they will either be used in the Bog & Peat Deposition Area rehabilitation & aftercare, or will be incorporated into the existing bays once deposition is complete.</p> <p>Status: As all peat wastes accepted and generated at the site are for landfilling purposes, there is no further use for the silt pond cleanings. These will be incorporated into the peat deposited or if of benefit will be used in the final rehabilitation.</p>	<p>Site Manager & Environmental Manager</p> <p>Site Manager & Environmental Manager</p>

Management of mobile fuelling wagons (EMP5)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT5 Management of mobile Fuelling units	Effective spill/leak management of mobile fuelling units.	On-going programme during the life of the project.	<p>To comply with conditions 3.17, 3.19 and 3.20, the two mobile fuelling units are stored in a bunded location, with an oil spill kit in-place. Fuelling nozzles will be fitted with overflow shut-off mechanisms and auto fill clips will be disabled. All personnel will be made aware through training, of the Oil/Diesel Loading Procedure & the Emergency Response Procedure. Shortened versions of the procedures are posted on the tanks and at the bunded storage location. All service wagons have been inspected before use and bi-annually there after. Leaks, flaws, necessary repair etc, will be reported to the Site Manager. All the above will be in-place before peat deposition re-commences, and will be re-assessed as to their effectiveness every 3 months. The out come of these assessments will determine any improvements to be made and target dates to achieve them.</p> <p>Status: All of the above measures were in-place for 2008.</p>	Site Manager & Environmental Manager

Management of dangerous substances (EMP6)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT6 Management of dangerous substances List I & List II	To manage of any dangerous substances as listed in I & II of the Dangerous Substances Directive 80/68/EEC	On-going programme during the life of the project.	<p>The only substances from Lists I & II of the Dangerous Substances Directive (76/464/EEC and 80/68/EEC and amendments) are List I (7) Mineral Oils and Hydrocarbons. The management of these will include:</p> <p>(1). Pollution Prevention as required by Conditions 3.13 – 3.21. This includes the safe storage of diesels/oil/Filters and protection of ground and surface water during fuelling operations.</p> <p>(2). Pollution Control: Maintenance of diesel/oil interceptors as required by Conditions 8.9.1 & 8.9.2</p> <p>All of these measures will be in-place before peat deposition commences.</p> <p>A review will be carried out after the first two months operation and every 3 months thereafter, to assess the effectiveness of programme OT6.</p> <p>A programme of improvement will be implemented once the operational performance of the management of diesels & oils has been assessed.</p> <p>Status: The oil interceptors installed at the</p>	Site Manager & Environmental Manager

			<p>site include 3 Klargestester units. These units are installed downstream of the grit trap and are operating successfully. They have also been fitted with alarms, which indicate when they require cleaning. The operation and maintenance of these units is on-going. They were inspected during this time and are on record. Sampling for COD at SW2 during the year showed an average of 42 mg/l.</p>	
--	--	--	---	--

Management of silt pond flow discharges (EMP7)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT7 Effective management of Silt pond flow discharges	Effective management of flow discharges during periods of high precipitation and flooding.	On-going programme during the life of the project.	<p>As is required by Conditions 3.11 & 3.12, all silt ponds must achieve specific design criteria i.e. max flow velocity $<10 \text{ cm}^{-1}$ and min. $75\text{m}^3/\text{nett ha}$ of bog. Flow regulators must also be fitted to ensure the design flow capacity is not exceeded.</p> <p>The drainage system has been designed to a rainfall event of 31 mm, which equates to a 100 year storm event of 1 hours rainfall.</p> <p>As the preferred option for the drainage management was the controlled discharge of water from the drains to the swale to the silt ponds, appropriate flow regulators will be in-place to ensure the design flow of each of the silt ponds is not exceeded during heavy rainfall</p>	Site Manager & Environmental Manager

			<p>and that any excess runoff generated is discharged to the overflow area (Area 7).</p> <p>Condition 3.4 requires a construction quality assurance validation to be completed on the surface water drainage/control/treatment works. This will include an assessment of the performance of the silt ponds and will assess its compliance with the stated maximum flow velocity $< 10 \text{ cms}^{-1}$</p> <p>Status.</p> <p>This was achieved by installing overflow pumps to pump this excess runoff from the swale to this overflow area during 2007. It was further improved by the installation of an automatic gravity overflow to areas 7 which removed the requirement for operator intervention during heavy rainfall and subsequent high discharge rates. This has been set to provide adequate drainage levels to the lowest deposition bay but also to allow overflow into area 7 during periods of high rainfall. This was maintained during 2008, with flow directed to the controlled overflow area during periods of heavy rain.</p>	
--	--	--	---	--

Reuse of road building materials (EMP8)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT8 Road materials re-use	Reuse of stone used in internal haul-road construction.	As stated in the EIS, the decommissioning plan for the internal haul road network would envisage it occurring at the end of the stabilisation period (5 yrs after deposition has been completed). There may also be a requirement to leave these roads in-place as part of the after use of the deposition area.	<p>All materials used in the internal haul road construction will be either recycled or reused.</p> <p>The Geotextile will be collected for reuse within BNM for under rail lines, or recycled through a licensed contractor.</p> <p>The 300mm of crushed stone will be recycled through one of the following:</p> <ol style="list-style-type: none"> 1. As internal service roads to a Proposed Wind Farm Development at Oweninny. 2. As construction material on an alternative site. 3. Through an appropriate recycling contractor. 4. Placement at the base of the toe drains to assist in drainage. <p>Status: As peat deposition has been completed, on site decommissioning and rehabilitation has also taken place. The stone peat haulage roads will have to be retained on site for 3 – 5 years so that access can be maintained to the bays for maintenance of drainage, monitoring and assessment.</p> <p>Given the current condition of the roads, it is not envisaged that recycling of the road material will be possible due to</p>	Site Manager & Environmental Manager

			encroachment of the deposited peat, flooding and degradation of the road surface and weed growth. Excavation and cleaning/screening of the road materials for reuse would be time and energy intensive and the energy and material offset for another site reuse would be negative. This is still the case in 2008.	
--	--	--	--	--

4.4 Environmental Management Programme Proposal.

The proposal for 2009 is to continue with projects EMP 1, 4 & 8, as these are the only applicable projects due to the completion of the peat deposition in June 2007

4.5 Silt Pond Inspection & Desilting Report.

Inspections of the silt ponds are carried out weekly. A full log of all inspections is maintained at the site office and this along with SS results obtained from the silt ponds form the basis for the cleaning roster.

The silt ponds servicing the Srahmore site were all cleaned during 2008 as follows:

Silt Pond	Date Cleaned
S5-1	August 2008
S5-2	August 2008
SP1	August 2008
SP2a/b	August 2008
SP3a/b	September 2008
SW4	September 2008
SW104	September 2008

5 Site Development Works.

5.1 Summary of main changes/developments/works carried out in 2008

- Roads. Some repair work and filling in potholes, was carried out during the summer.
- Maintenance. Some maintenance work was carried out on access roads to the composite samplers, as well as to silt ponds.

- Drainage. Only a very limited amount of drainage work was deemed necessary on site during 2008.
- Two new ponds excavated in Srahmore in November and two original ponds filled in.

5.2 Summary of Planned Works for 2009

There are no development works planned for 2009, due to the completion of the project

6 Waste received and consigned from the Facility

6.1 Non-hazardous waste received by the facility.

		Non-Hazardous Waste Received			
Waste Description	EWC Code	On-site Disposal		On-site Recovery	
		Method	Tonnes	Method	Tonnes
		None		None	

6.2 Hazardous waste received by the facility.

		Hazardous Waste Received			
Waste Description	EWC Code	On-site Disposal		On-site Recovery	
		Method	Tonnes	Method	Tonnes
None					

6.3 Non-hazardous waste sent off-site for Recovery/Disposal.

Waste Description	EWC Code	Tonnes	Details of Haulage Contractor	Recovery /Disposal	Name & Address of recovery/Disposal Site
Canteen Waste	20 01 08	0.74	G & T Loftus Recycling Ltd	Disposal	Rathroeen, Killala Rd, Ballina, Co. Mayo
Sewage Cleaning	20 03 06	2	Aesthetic Services	Disposal	Ballina Wastewater Treatment Works, Belleek, Ballina, Co. Mayo

6.4 Hazardous waste sent off-site for Recovery/Disposal

Consignment Note/TFS Note Number	Date of Dispatch	Description of Waste	EWC Code	Tonnes	Details of Haulage Contractor	Disposal/ Recovery	Name & Address of Recovery/ Disposal site
					None during 2008 due to inactivity at the site.		

7 Environmental Incidents & Complaints.

7.1 Reported Incidents Summary.

Date	Nature of Incident	Cause	Corrective Action
	NONE		

7.2 Reported Complaints Summary

Date	Nature of Complaint	Cause	Corrective Action
	NONE		

8 Review of Nuisance Controls.

The nuisance controls at the site only include dust suppression and pest control.

Due to the completion of the project in 2007, dust suppression was not required. Pest Guard were retained for vermin control during 2008

9 Review of Rehabilitation Plan.

Rehabilitation at the Srahmore site is outlined in the Rehabilitation Plan for the Srahmore Peat Deposition Area and Associated Facilities (Feb 2005). The main criteria¹ defining successful rehabilitation of the Srahmore PDA and associated facility are:

- (i) Stabilisation of the deposited peat²
- (ii) Mitigation of silt run-off

Natural revegetation processes are outlined as the BAT for rehabilitation of the Srahmore site. Results so far indicate that vegetation establishes rapidly on the deposited peat. It is anticipated that the plant roots will bind the introduced peat layer, altering the peat structure to create a homogeneous peat mass thereby stabilising the peat.

Deposition Area

The deposition area comprises access routes on high fields, peat deposition area and drainage channels. The greater part of the deposition area has been covered with peat. The peat was deposited and levelled between high fields using long-reach excavators. The final shaping allows for run-off into drainage channels with the peat remaining undisturbed to facilitate natural revegetation processes.

Within weeks the deposited peat was colonised by a flush of soft rush *Juncus effusus* seedlings. Other plants colonising included bulbous rush *Juncus bulbosus* and sorrel *Rumex acetosella*. The soft rush tussocks form the dominant character of the vegetation with inter-tussock spaces of patchy plant cover, with shrubs such as bramble *Rubus fruticosus* and some willow *Salix* spp. emerging. The cover of this pioneer vegetation is continuous over the entire area of deposited peat. The establishment of other species between the

¹ These are the basic criteria as identified in the consultation process for development of *The Rehabilitation Plan* for the entire Oweninny Works.

² Stabilisation of these areas infers revegetation. Once stabilised there will be no potential peat run-off from the site, which will cover the second criterion for successful rehabilitation.

tussocks of soft rush will further bind the peat together and eventually lead to a complete cover and stabilisation of the introduced peat.

Vegetation cover in the remaining uncovered area is low and comprises patchy growth of bog cotton *Eriophorum angustifolium* and soft rush *Juncus effusus*.

Water over-spill area (Area 7)

This area was rehabilitated in line with the rehabilitation plan for the Oweninny Works, Cutaway Bog Rehabilitation (2003). This involved field drain blocking and it is anticipated that natural revegetation processes will proceed in this area and over the duration of the peat deposition activity. The overflow facility will be maintained for the duration of the peat deposition and also for a number of years following the activity to ensure that there is no build-up of water on site. When the area is no longer required, the site will be re-surveyed to determine the vegetative condition and whether further rehabilitation work is required (unlikely to be more than superficial).

Off-loading facility (Area 5)

Construction work was completed in April 2005 and the final activity on-site was in Autumn 2007. To date, there has been extensive colonisation of the surrounding bare peat, predominantly soft rush *Juncus effusus*.

Srahmore Assessment March 2008

A walkover survey of the Srahmore PDA indicates that the vegetation that had established on the deposited peat is developing further. Inter-tussock spaces of the soft rush are becoming further colonised by herbs, grasses and mosses with intermittent pools. The initial pioneer vegetation is maturing a developing a denser growth pattern.

The vegetation will continue to develop over time and Bord na Móna will continue to monitor the changes in structure and composition. There is a slight difference between the peat deposited in 2005 and 2007, relating to the age of the rush tussock. It was noted also that the site is utilised by a number of bird species, particularly nesting Skylark (*Alauda arvensis*).

10 Review of Environmental Liabilities Insurance Cover.

In Accordance with the requirements of Schedule D, Annual Environmental Report Content, a review of the Environmental Liabilities Insurance Cover is required. The initial Environmental Liabilities Risk Assessment (ELRA) was carried out in March 2005. This assessment examined 8 Potential Hazards, including, peat combustion, dust blow, sediment laden run-off and fire etc.

Of the critical potential hazards identified, mobilisation of peat off site and sediment laden run-off have not been highlighted as a potential problem during the operation of the site in 2005 and 2007. The number of non-compliances occurring during the period of operation from 2005 to 2008 is shown on the table below:

Compliance Levels	2005	2006	2007	2008
Emissions to Water	97%	100%	97%	99%
Emissions to Air	91.5%	No sampling due to suspension	100%	No sampling due to suspension

The risk of peat mobilisation from the site was identified as low in the ELRA, and during peat deposition in 2005 and 2007 there were no indications that the status of this risk had increased.

The Licence requires the completion of a stability assessment of each bay, once it has been filled. No bays were filled during 2005, so a stability assessment was carried out in 2007, after each bay was completed.

To date, the natural re-vegetation as specified in the EIS has progressed better than expected. The continuous cover of soft rush (*Juncus effusus*) is already well established on the deposited peat, and has progressed its stabilisation. Piezometric tubes have been installed in the deposited bays so as to enable monitoring of water levels.

Based on the experiences of peat deposition during the period of operation between 2005 and 2007, the experience of the success of the rehabilitation to date post deposition and the results of environmental monitoring, performance and compliance as reported in the 2005, 2006, 2007 & 2008 AER's, the Environmental Liabilities Insurance Cover is considered to be adequate.

11 Landfill Costs

Condition 12.2.1 requires the licence holder to submit a statement on the determination of charge for the disposal of waste in accordance with the requirements of S.I. No. 337 of 2002 European Communities Regulation 2002.

Following the consultation of this regulation, it is determined that as Srahmore Peat Deposition Site is only accepting waste peat from one permitted contractor, and that this charge has been agreed with the contractor prior to the commencement of the peat deposition and is applicable for the duration of the contract, the provision of this statement does not apply. The price agreed with the contractor is commercially sensitive.

12 Other Reports.

12.1 Fuel Bowser Testing.

Both fuel bowers were supplied by Cashes Engineering Ltd. Both of these bowers were certified and tested by the manufacturer. A copy of the conformity certificates are kept on file in Srahmore.

Both of these bowers were designated for re-use elsewhere in Bord na Mona and have since been transferred to the midland bogs.

12.2 Placed Peat Stability Assessment.

Condition 8.7 requires a stability assessment of each bay once filled. This was carried out on the 1st of December 2007 by Tobin Consulting Engineers.

Based on the site walkover survey and previous assessments in 2003/2005/2006, all works were carried out in accordance with the rehabilitation plan.

There is no indication of instability in the internal high fields, perimeter high fields, deposited peat bays or drainage system.

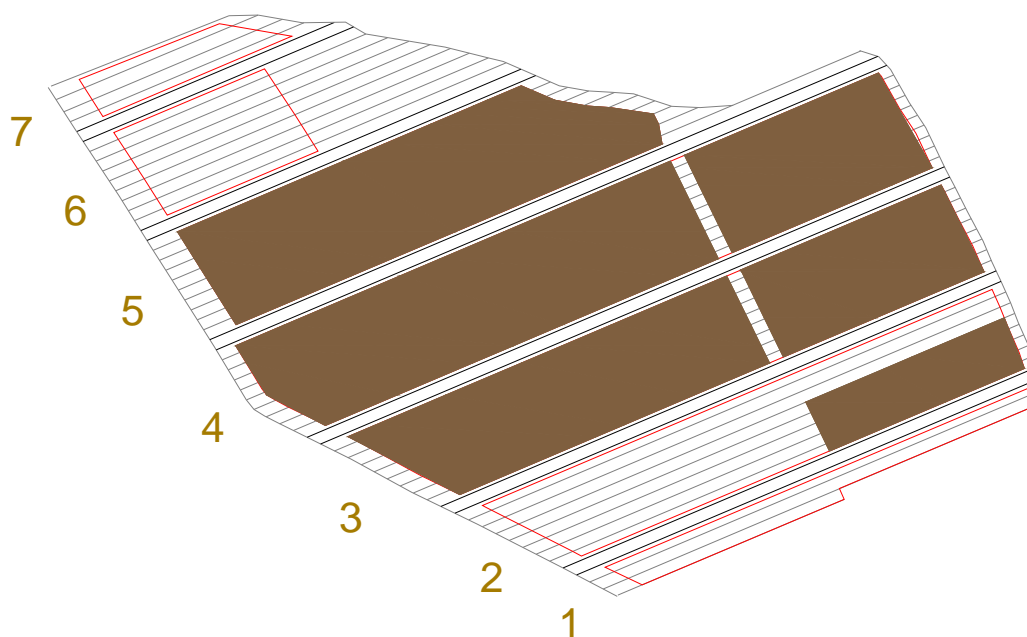
The deposited peat is contained within each bay. In its current condition the risk of a mass deposited peat flowing out of bays 2, 3, 4 & 5 and entering the surrounding watercourse is very low.

A copy of this Stability Assessment is retained on file at the site office.

As there was not peat deposited during 2008, a stability assessment was not required.

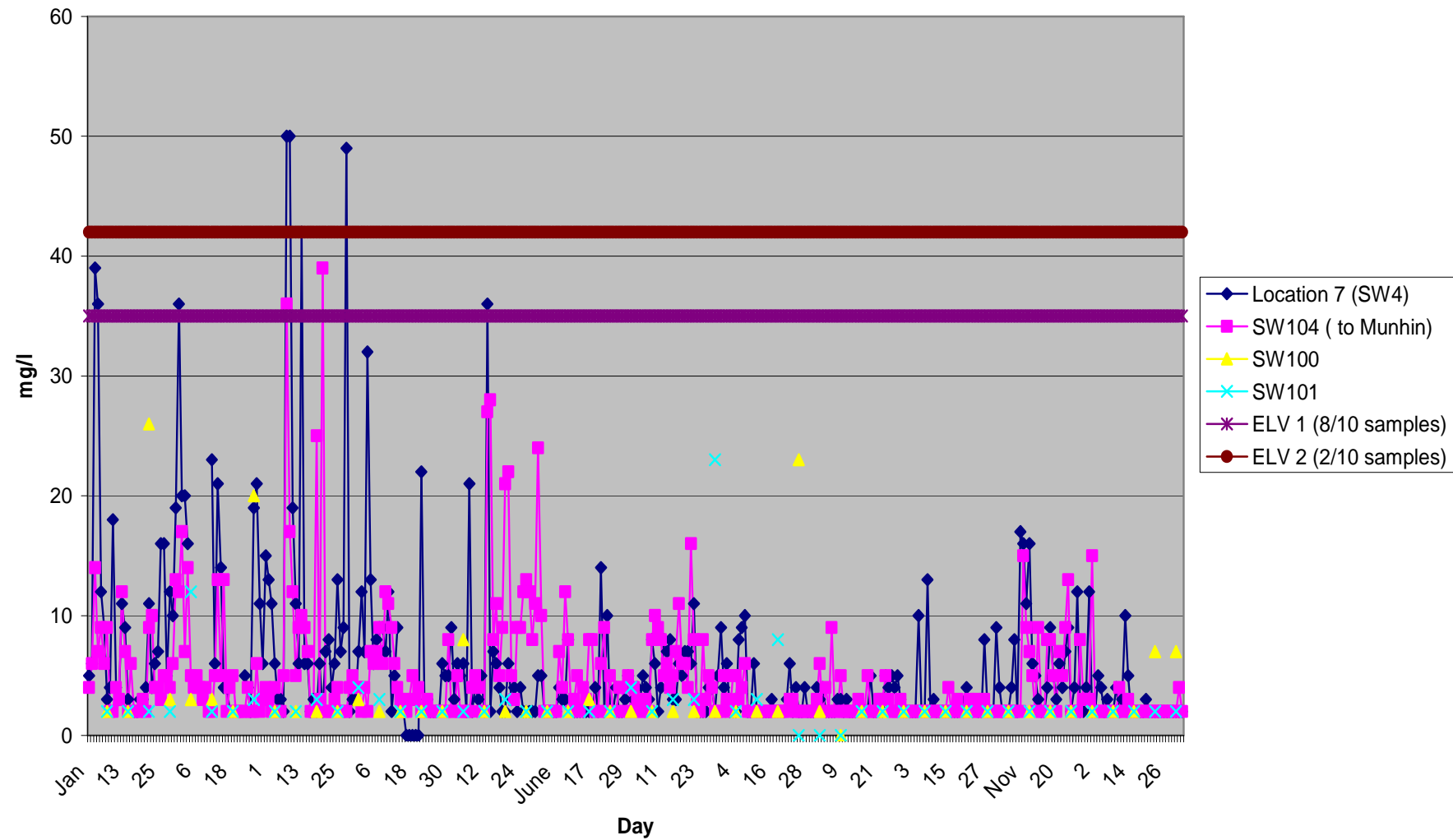
Appendix 1

Bay	Srahmore Storage Volume	Srahmore Deposited Volume	Srahmore Remaining Volume
	(m ³)	(m ³)	(m ³)
1	15,000	0	15,000
2	80,190	30,869	49,321
3	106,974	132,764	0
4	135,802	175,048	0
5	84,856	109,368	0
6	28,806	0	28,806
7	13,372	0	13,372
Totals	465,000	448,049	106,499

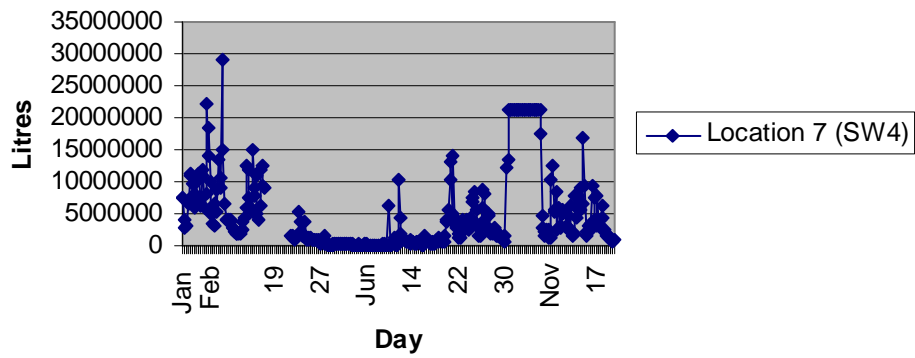


Appendix 2

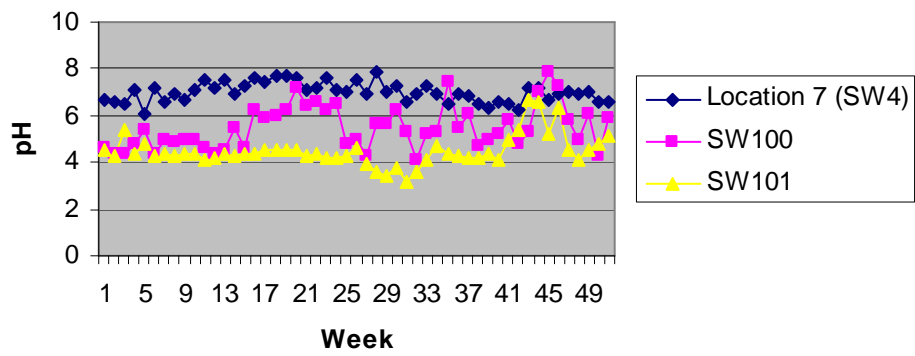
Suspended Solids (mg/l) Location 7 (sw4), Sw100 & Sw101



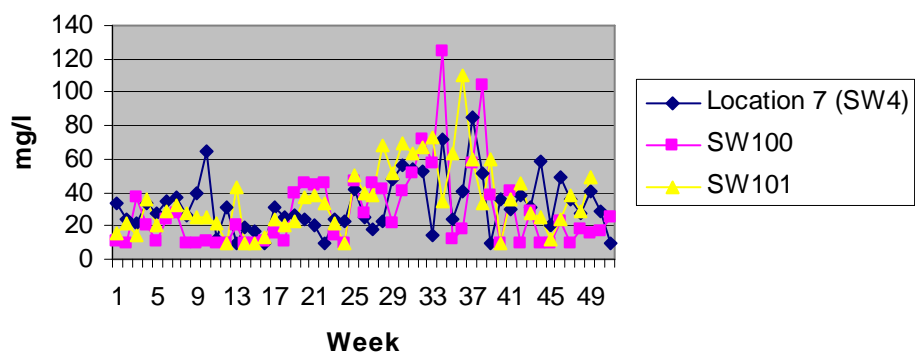
Location 7 (SW4) Flow (L)

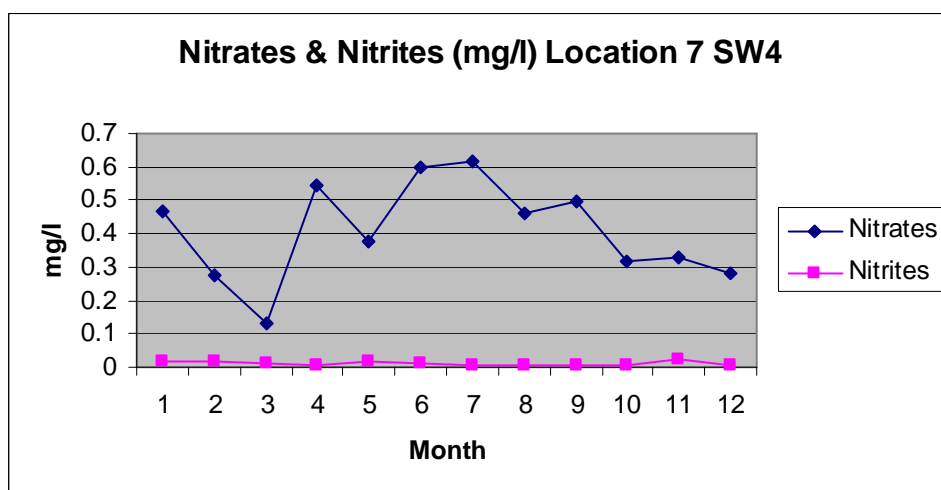
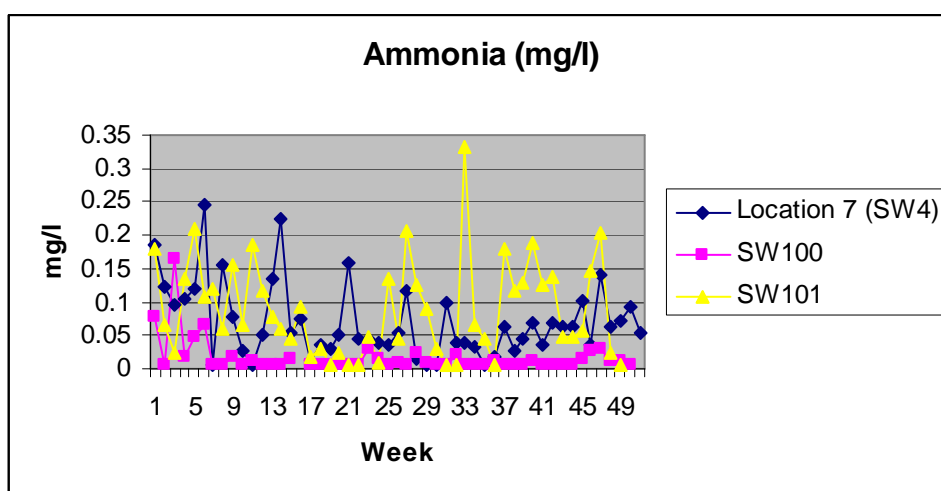
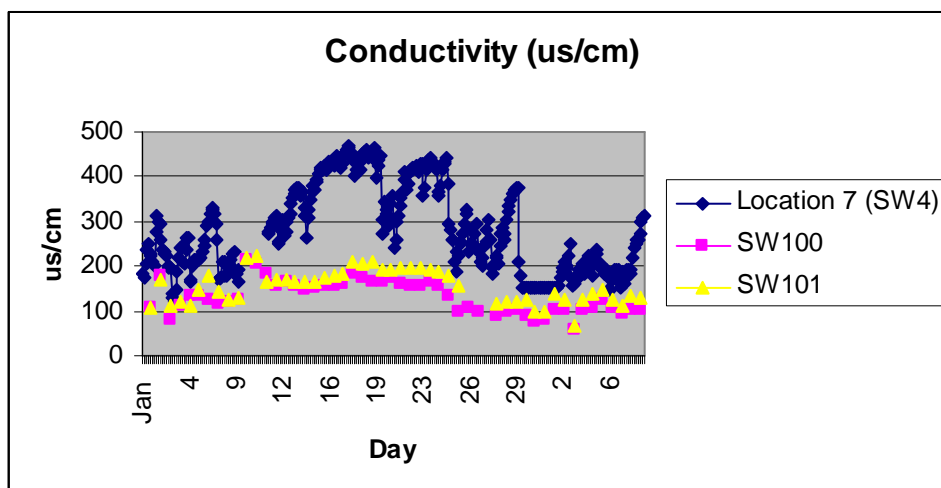


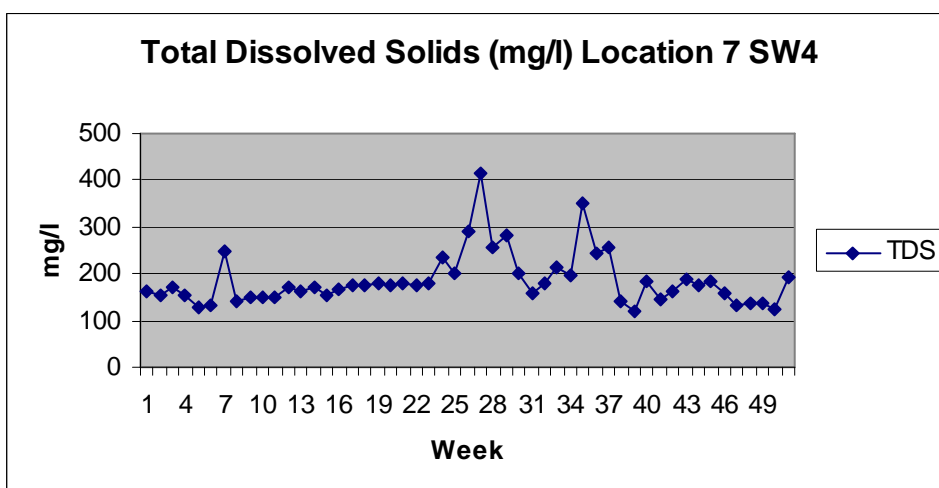
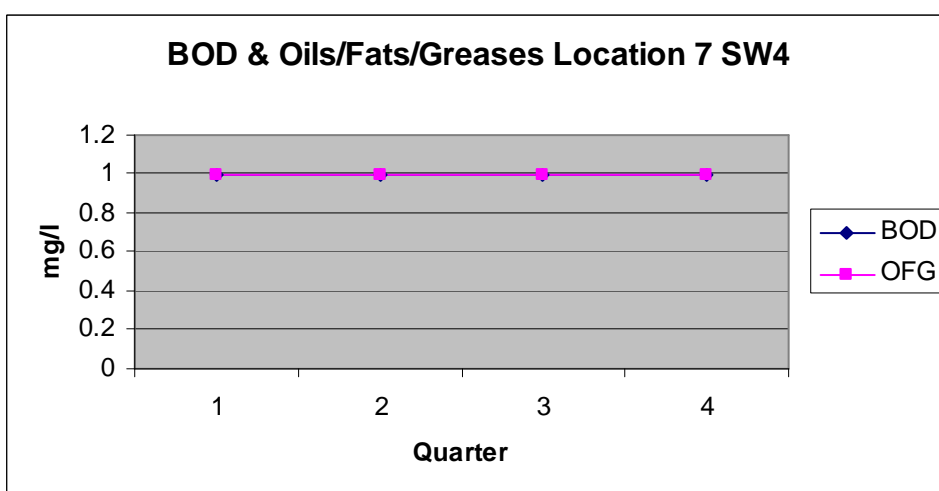
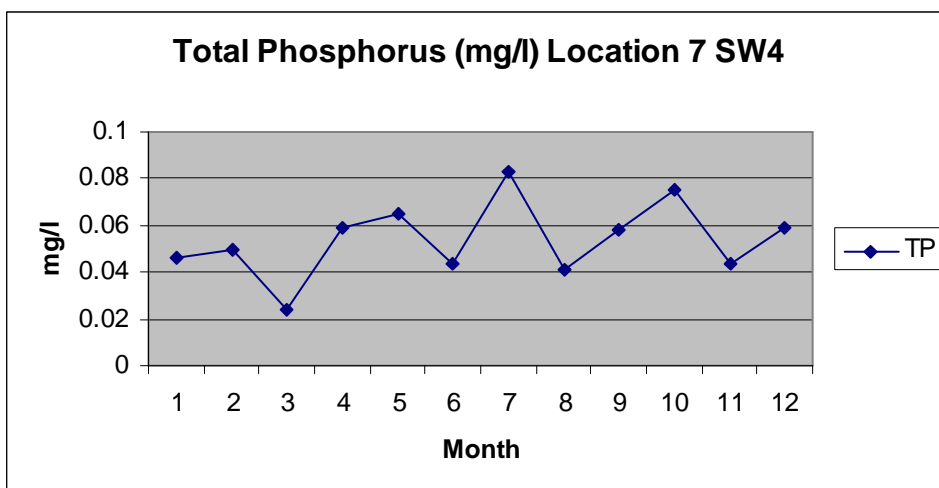
pH



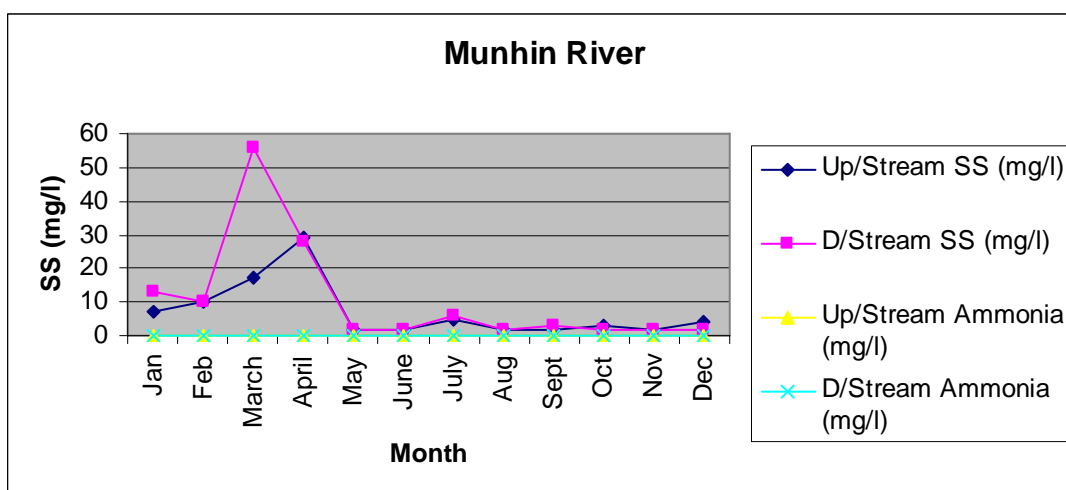
COD (mg/l)



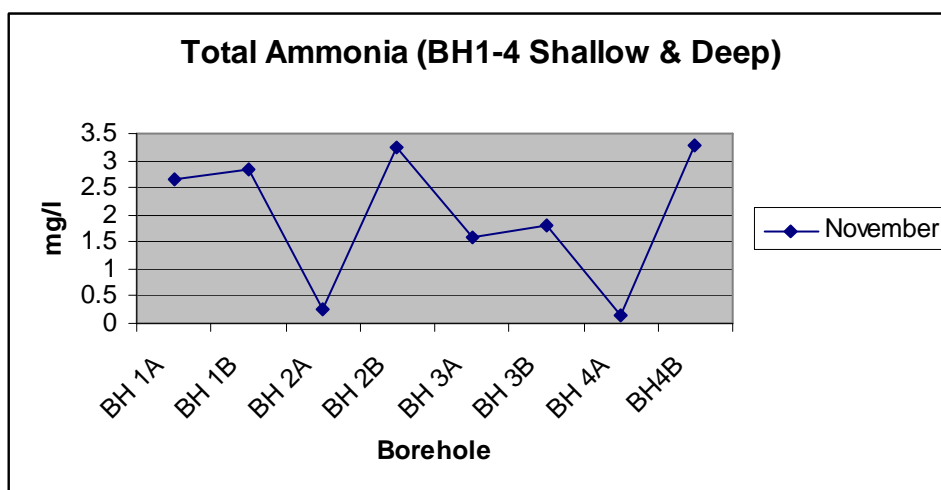
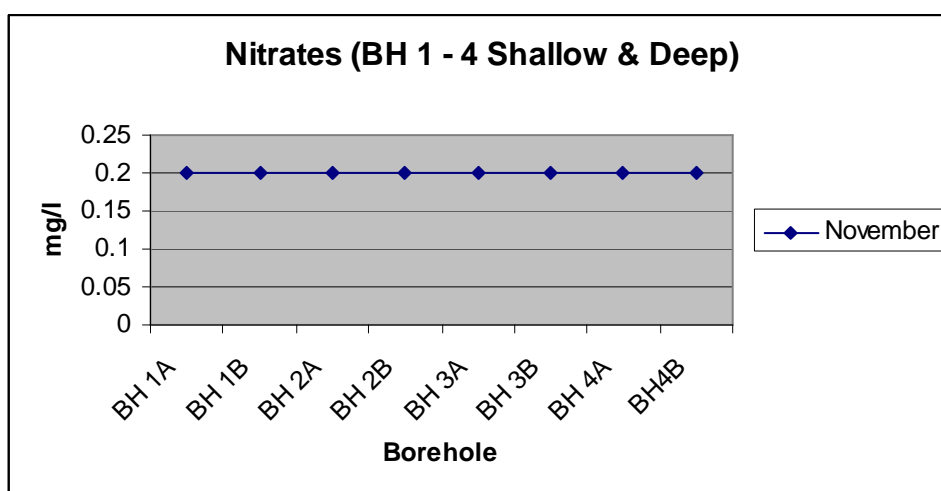
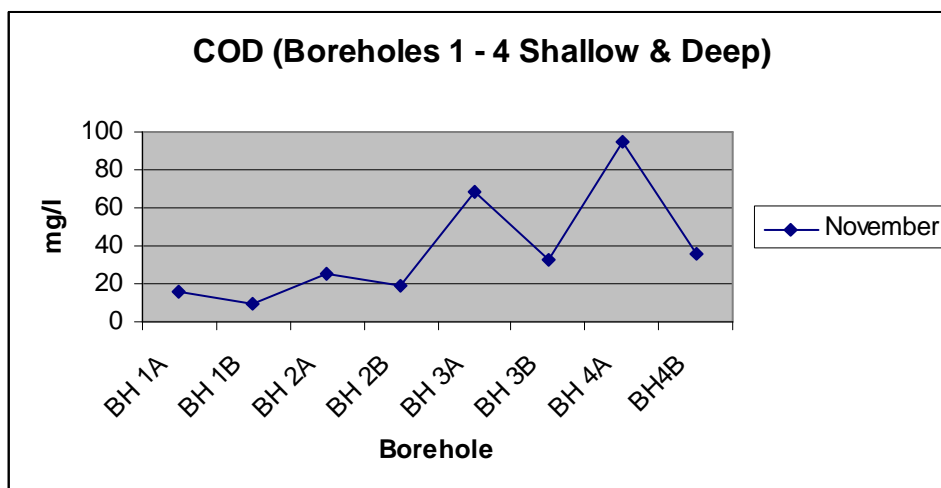


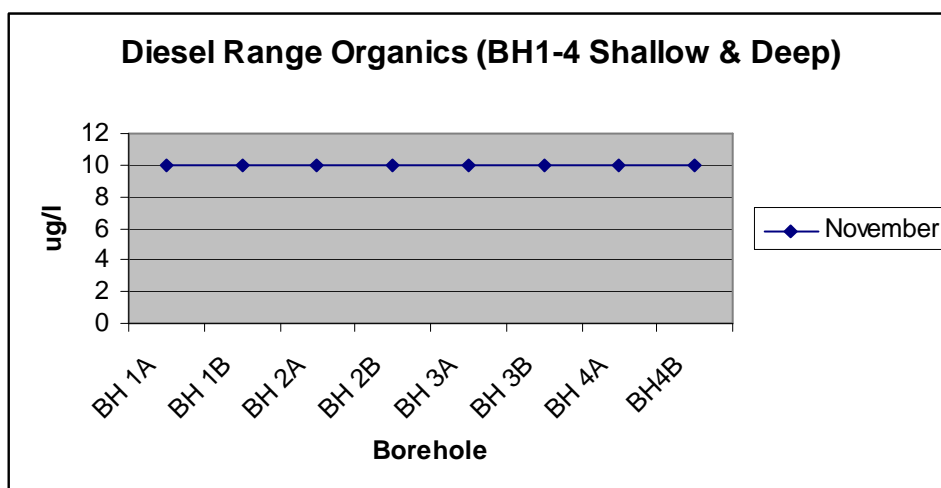
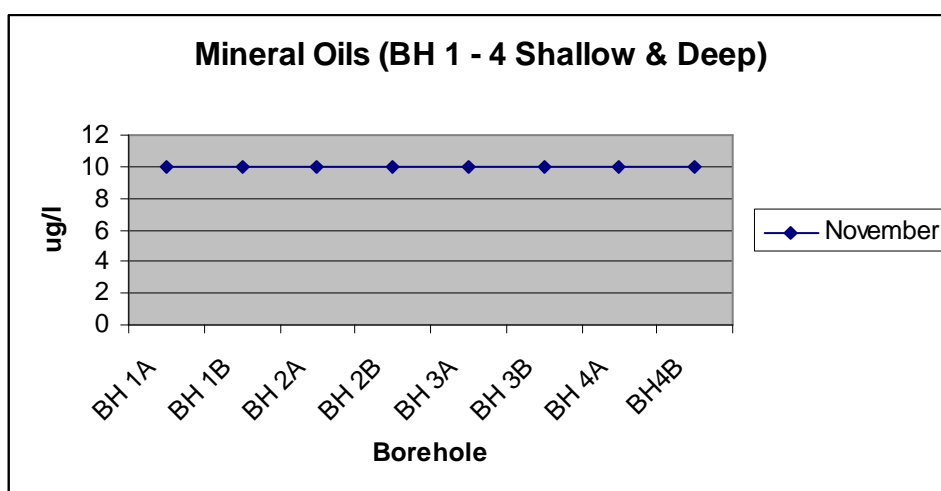
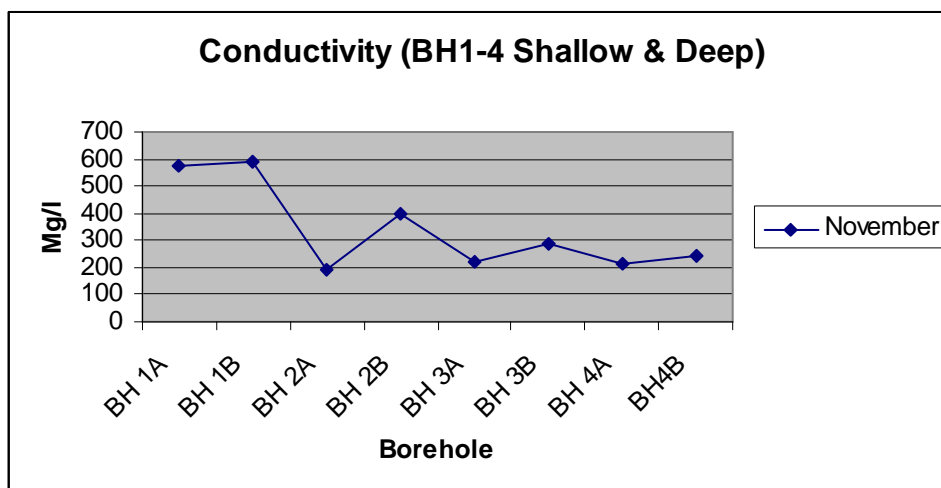


Appendix 3



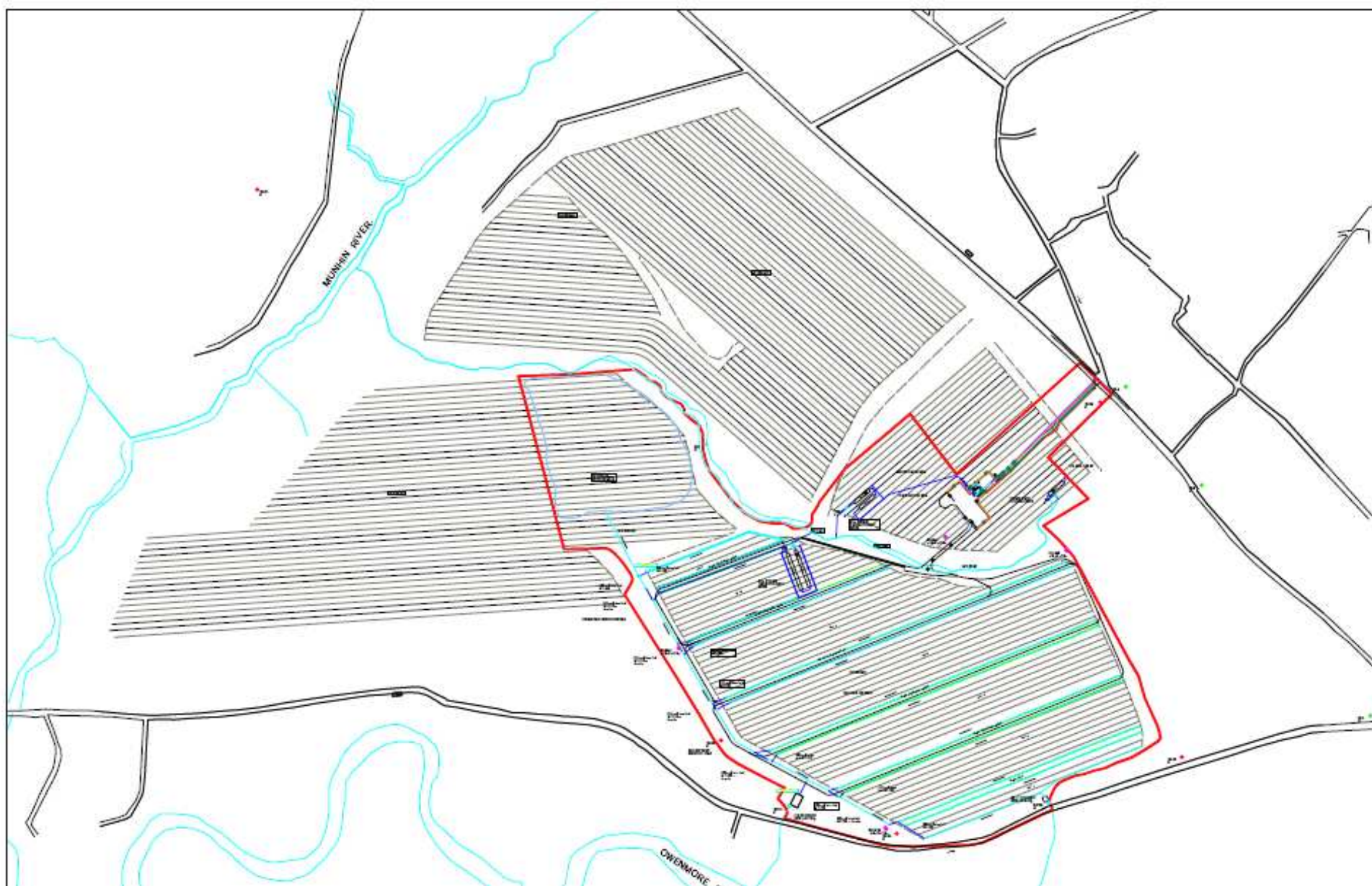
Appendix 4





Appendix 5

Appendix 6





Srahmore Waste Licence W199-1
Annual Environmental Report
2009

29th March 2010

Bord na Móna today operates 5 main subsidiary companies in more than 20 locations throughout Ireland, the UK and USA. The principal businesses are in the Energy, Resource Recovery, Horticulture, Home Heating and Wastewater Treatment and Air Pollution Abatement markets. The company also engages in an extensive rehabilitation program to develop its peat lands in an environmentally sustainable manner.

A NEW CONTRACT WITH NATURE

Bord na Móna has long recognised the need to diversify its activities in order to secure a sustainable future. In this context we identified the energy and resource recovery sectors as appropriate areas of growth and development, given our assets, strengths and skills.

Significant challenges face Ireland in meeting the country's needs to provide secure sustainable energy and manage waste while minimising the impact on the environment. Bord na Móna is in a strong position to contribute to dealing with these challenges. We have a unique mixture of assets, experience and innovation which will enable us to cross-link our activities in energy, water and resource recovery to provide products and services which will meet Ireland's needs. We also have the capacity to become an exemplar for others to follow in these fields.

With this background we have scoped out a new vision for the future sustainable development of Bord na Móna.

Following on from our vision, we have developed a new mission for Bord na Móna which the Company is committed to achieving.

In 1934 the Turf Development Board was formed to 'develop and improve the turf industry.' The experience of fuel shortages during the war re-enforced the Irish State's commitment to developing the country's bogs. In 1944 the TDB was asked to devise and submit a comprehensive programme, the outcome was the transformation in 1946 of the TDB into Bord na Móna. The Board was given a mandate to increase the use of peat as a fuel and in energy production. Markets for the use of moss peat in horticulture were also developed.

In 1990 Bord na Móna implemented a divisionalised and decentralised structure, designed to delegate responsibility downwards ensuring a sharper focus on each profit centre and a greater spirit of enterprise.

Group Vision



The vision statement defines the Company's purpose, in terms of its values.

Values are guiding beliefs about how things should be done.

The vision statement communicates both the purpose and values of Bord na Móna.

For employees, it gives direction about how they are expected to behave and inspires them to give their best. Shared with customers, it shapes the customers' understanding of why they should work with Bord na Móna.

Bord na Móna will seek solutions that optimise the creative energy and potential of the organisation, driven by long term goals and the organisation's vision and mission.

In this context our devolved business units will align their vision and strategic planning with the global direction provided.

Consistent with our vision, innovation will once again return to the core of everything we do. We will capitalise on opportunities to cross fertilise our unique range of skills and technologies that add value and are socially and environmentally sustainable.

Greater focus will be placed on managing and developing our land assets in a responsible and sustainable manner. Our award winning initiatives at Lough Boora (Co. Offaly) and Oweninny (Co Mayo), provide shining examples of what can be achieved

Group Mission

We conduct our affairs with openness, honesty and integrity.

We are Ireland's leading environmentally responsible integrated utility service provider encompassing electricity, heating solutions, resource recovery, water, horticulture and related services.

We capitalise on international opportunities where we have a competitive advantage.

We achieve continuing growth through superior customer service, outstanding quality and innovation delivered through the excellence and commitment of our people.

We engage in sustainable profitable business in the communities we serve, which is rewarding and challenging for employees and other stakeholders.

Contents:**1. Introduction**

1.1. Report Period.

1.2. Waste Licence Register Number.

1.3. Operator & Address of Facility.

1.4. Environmental Policy.

1.5. Current Management Structure.

2. Waste Management Report**2.1. Site Description**

Waste Management Activities

Quantity of Waste accepted to date.

Remaining site capacity

Economic Contributions of the Activity.

3. Environmental Emissions of the Activity

3.1. Emissions to Atmosphere Summary.

3.2. Emissions to Water Summary.

3.3. Noise Monitoring Report.

3.4. Groundwater Monitoring Summary.

3.5. Resource & Energy Consumption/Efficiency Summary.

4. Environmental Management System

4.1. Schedule of Environmental Objectives & Targets.

4.2. Environmental Management Programme – Report.

4.3. Environmental Management Programme – Proposal.

4.4. Silt pond Inspection & desilting report.

5. Site Development Works.
 - 5.1. Summary of Main changes/developments/works 2009.
 - 5.2. Summary of Planned Works for 2010.
6. Waste Received and Consigned from the Facility.
 - 6.1. Non-hazardous waste received by the facility.
 - 6.2. Hazardous waste received by the facility.
 - 6.3. Non-hazardous waste sent off-site for Recovery/Disposal.
 - 6.4. Hazardous waste sent off-site for Recovery/Disposal
7. Environmental Incidents & Complaints.
 - 7.1. Reported Incidents Summary.
 - 7.2. Reported Complaints Summary
8. Review of Nuisance Controls.
9. Review of Rehabilitation Plan.
 - 9.1 Vegetation Assessment
10. Review of Environmental Liabilities Insurance Cover.
11. Landfill Costs.
12. Other Reports
 - 12.1. Tank & Pipeline Testing & Inspection Report.
 - 12.2. Placed Peat Stability Assessment.

Appendix 1 Remaining Capacity

Appendix 2 Emissions to Water Results.

Appendix 3 River Water Monitoring Results

Appendix 4 Groundwater Results

Appendix 5 AER and PRTR Electronic Reporting

Appendix 6 Waste Licence emissions and monitoring locations.

1.0 Introduction

1.1. Report Period

This Annual Environmental Report covers the period of 01/01/09 to 31/12/09 for the Srahmore Peat Repository at Attavally, Bangor-Erris, Co Mayo.

This is the Fifth Annual Environmental Report for Bord na Mona's Peat Repository at Srahmore, Attavally, Bangor-Erris, Co Mayo. The structure and contents of this report are based on the requirements of Schedule D Reports & AER Content.

1.2. Waste Licence Register Number - W199-01

1.3. Operator & Address of Facility.

Bord na Mona Energy Ltd
Srahmore,
Attavally
Bangor-Erris
Co Mayo

1.4. Environmental Policy (attached on next page)

Environmental Policy Statement

Bord Na Mona Energy Limited is a commercial semi-state body with responsibility to develop Ireland's peat resources in the national interest.

Bord Na Mona Energy Limited is committed to gather and make available information on all aspects of its environmental impact and to help improve understanding among the public generally of its role and of the importance of Irish peatlands.

Bord Na Mona Energy Limited recognises the importance of peatland conservation.

Bord Na Mona Energy Limited will leave behind all areas it owns as either an economically or socially integrated resource of high environmental value.

Bord Na Mona Energy Limited seeks to conduct all aspects of its business in an environmentally sensitive manner.

Bord Na Mona Energy Limited will establish an environmental management system specifically addressing the following impacts:

- Discharges to water
- Emissions to atmosphere
- Waste disposal
- Use of natural resources
- Noise, vibration, odour, dust and visual effects
- Natural environmental and eco-system

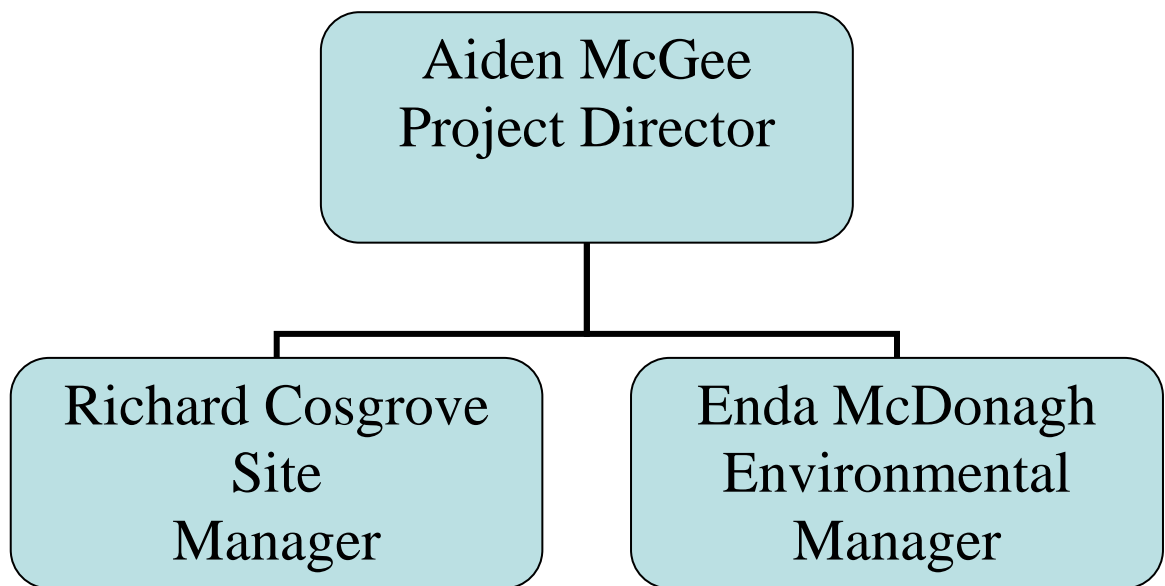
The environmental management system will be monitored, maintained and continually improved.

A system of regular environmental audits will be put in place.

Bord Na Mona Energy Limited will continue research and development (R&D) into all aspects of its environmental impact.

This statement is published and is available at all locations within the section and its contents are brought to the attention of all employees.

1.5. Current Management Structure



2.0 Waste Management Report

2.1 Site Description

The site is situated approximately 1km northwest of the village Bangor-Erris and comprises cutover peatland in the Oweninny bog complex. This consists of eight separate areas of cutover peatland, numbered 1 – 8, each of which was assessed for suitability for the development. Area 5 was selected as the peat reception area. Area 6 was selected for the actual deposition of peat and a section of Area 7 is utilised as a “controlled overflow area” in the event of exceedance of the design rainfall. The peat reception area is utilised for off-loading of the peat is the closest area to the public road.

The site is a peat disposal area for the placement of c. 450,000m³ of peat waste excavated from the development of the Shell Corrib Gas Field Terminal at the nearby Bellanaboy Bridge site. The peat, which is from a 3000 to 5000 year old Atlantic Blanket Bog, is transported by road in trucks to the Srahmore deposit area. It was originally anticipated that peat transport and deposit would take place over a 6 month period, spread out over two seasons. However, peat transport and deposit ceased on the 4th July 2005, and as of that date, 112,937tonnes were transported to and deposited at the site.

Peat deposition at the site did not resume during 2006. Peat deposition did recommence on the 2nd of April 2007 and completed the deposition of peat on the 29th June 2007.

As the volumes of peat deposited had reached the licensed limit in June 2007, no more peat was accepted in 2008 or 2009.

Since then, decommissioning of plant and equipment has taken place in accordance with Condition 9.1 of the Waste Licence.

On the 18 May 2009, an application for a review of the Waste Licence was submitted to the EPA, requesting that an additional 75,000m³ be permitted to be deposited.

This application is still with the EPA for its consideration.

As of this AER, the volume of peat deposited in Srahmore is 448,049m³.

A map detailing the final deposition is included in Appendix 1

3.0 Environmental Emissions of the Activity

3.1 Emissions to Atmosphere Summary

The only potential emissions to the atmosphere from the activities on site are dust. As required by Condition 8.8.1, locations for dust monitoring around the site were agreed with the Agency, and Bergerhoff Dust gauges were installed. As there was no peat deposition operations at the site during 2009, there was no requirement to monitor for dust, as was the case in 2007 and 2008.

3.2 Emissions to Water Summary

Emissions to water from the site takes place at 3 locations:

Licence Emission Ref. No	SW No
S5-1	SW100
S5-2	SW101
Location 7 (combined from Area 5/6)	SW4

As required by Schedule C (2.2) the following parameters were monitored during peat deposition, from January to December 09

	Continuous	Daily	Weekly	Monthly	Quarterly
	SW4				
Flow					
pH			SW4	SW 100 & 101	
Conductivity	SW4		SW100 & 101		
COD			SW4, 100 & 101		
BOD					SW4
Suspended Solids		SW4	SW 100 & 101		
TDS			SW4		
Nitrite (as N)				SW4	
Nitrate (as N)				SW4	
Ammonia (as N)			SW4, 100 & 101		
Total Phosphorus				SW4	
Oils, fats & greases					SW4

Emissions from SW4 are monitored using a flow proportional composite sampler, which operates on a continuous basis. two x 2 litre sample bottles are filled over a 24 hour period, with 1 litre sent to Complete Laboratory Services for analysis and the remaining 3 litres retained on site for sampling by the EPA.

The compliance requirements at SW4 are as follows:

18/10 consecutive results, calculated as daily mean concentration or mass emission values on the basis of flow proportional composite sampling, shall not exceed the emission limit value. No individual result similarly calculated shall exceed 1.2 times the emission limit value

Emissions from SW100 & 101 are sampled by grab sample on a weekly basis and sent to the lab for analysis. The compliance requirements at SW100 & 101 are as follows:

No grab sample value shall exceed 1.2 times the emission limit value.

The emission limit value (ELV) attached to emissions to water from the site is 35mg/l suspended solids.

Results for the 3 emission points are in Appendix 2.

Non-compliances:

Monitoring Point	Emission (SS mg/l)	ELV (mg/l)	Corrective Action
SW7 (Location 7)	None	35mg/l	n/a
SW100	None	35mg/l	n/a
SW101	None	35mg/l	n/a

This represents an over compliance level of 100%.

The 2007 - 2009 results for these three emission points were graphed in Appendix 2.

These trends over the 3 year period show a gradual drop in the suspended solids from the site, from an average of 10.8 mg/l in 2007, to 5.6 mg/l in 2008 and 4.4 mg/l in 2009 at the main emission point from the site, at Location 7 (SW4).

This is also the case with Sw100 and Sw101, as per the table below.

Year	SW4(Location 7) SS (mg/l)	Sw100 SS (mg/l)	Sw101 SS (mg/l)
2007	10.8	4.08	4.18
2008	5.6	2.74	2.66
2009	4.4	1.9	2.36

3.3 Ambient Monitoring.

River-water Monitoring:

Schedule C (6) requires monthly monitoring for Suspended Solids and Ammonia at two locations on the Munhin River, upstream and down stream of the discharge from Location 7 (SW4). The average suspended solids upstream and downstream of the discharge from the site were 4.6mg/l and 3.4mg/l respectively.

The average ammonia levels upstream of the discharge are 0.016 mg/l and 0.026 mg/l downstream. These results would be typical of levels found in peatland catchments and are well below the Maximum Allowable Concentration (0.23 mg/l)

These results would indicate that the Srahmore Peat Repository activities had no negative effect on the suspended solids content of the river during 2009.

Results of the analysis are attached in Appendix 3.

Biological monitoring:

Biological Quality (Q) rating/Q index is required annually.

This was carried out, in agreement with the Agency, in early November 2009, by AMGC Environmental Agricultural Consultancy. The Licence requires this to be carried out between June and September, but due an error in scheduling this work, it was not done until early November.

Assessment was carried out upstream and downstream of the discharge from the site, to establish a Q index for both locations and identify any change in water quality.

Biological Quality rating carried out upstream and downstream of the activity indicated that there was an improvement in water quality downstream of the main outlet from SW4 (Location 7), since 2007. Both sample locations, upstream and downstream, have a Q index of Q3-4 and a BBI of 8-7. This classifies both locations as slightly polluted, which under the Irish System, means the river is classified as Class B Slightly Polluted.

Groundwater Monitoring:

Condition 8.10 required the installation of a groundwater monitoring network at the site, in accordance with Agency guidelines. This required one up-hydraulic gradient, one down gradient of the peat reception area, and two down gradient of the peat deposition area.

Groundwater sampling was conducted in May and October 2009. Results for BH 4 shallow returned Diesel Range Organics (DRO) of 109µg/l in May and BH 1 Deep and BH 2 shallow returned 86 and 210 µ g/l respectively, in October.

The 109µg/l DRO returned in May 2009 was clear during the October monitoring event.

For October, the level at BH-1D (86.3 µg/l) is low and whilst it does exceed the Dutch Target value of 50 µg/l it is well within the Dutch Intervention Value of 600µg/l. The target value is the baseline concentration value below which compound and/or elements are known or assumed not to have an effect on the natural properties of the soil. The intervention value is the maximum tolerable concentration above which remediation is required.

The elevated level at BH-2S (210 µg/l) is greater than that recorded at BH-1D but again is within the Dutch Intervention Value of 600µg/l. Previous monitoring has shown elevated levels of DRO to arise sporadically at different monitoring locations on non-consecutive occasions. These elevated concentrations may be the result of interference with natural organics in groundwaters due to the presence of overlying organic peat deposits.

It is also worth noting that October 2009's monitoring event was the first in which DRO levels above the limit of detection were recorded in both BH-1D and

BH-2S. The DRO elevations are not considered highly significant due to their low levels and also as a result of being undetectable at BH-1S and BH-2D (<10 µg/l) which are the paired (shallow and deep) monitoring boreholes.

Conductivity levels ranged from 186µS/cm at BH3-S to 639µS/cm at BH1-S and therefore, do not exceed the Interim Guideline Value of 1000 µS/cm for groundwater.

COD concentrations exhibit normal levels for groundwater across the site ranging from 19 mg/l at BH1-D to 158 mg/l at BH4-S.

Nitrate levels were found to be below the limit of detection (<0.2 mg/l) and therefore remain within the Interim Guideline Value for Nitrate as N (5.65 mg/l –N) as set out in the Interim Report “Towards Setting Guideline Values for the Protection of Groundwater in Ireland” 2004.

Ammonia levels, (NH₃-N) ranged from <0.02 mg/l at GW-4S to 3.89 mg/l at BH-2D. All ammonia results with the exception of BH-4S remain elevated and are above their IGV limit of (0.12mg/l as N). During the previous monitoring event (ECS3324) ammonia levels ranged from <0.2mg/l at BH-4S to 6.20mg/l at BH-1S. The results are consistent with previous trends, displaying slight fluctuations. These fluctuations are due to natural processes in the peatland.

The Srahmore Facility is located within a cut-away peat land. Groundwaters beneath peatland's have been found to be naturally high in nitrogen and due to the nature of the peatland's reducing conditions; the nitrogen is present in the form of ammonia. The ammonia levels remain elevated as it is not oxidised to nitrite or nitrate. BH-4 is downgradient of the reception area and BH's 1 and 2 are downgradient of the deposition area. As outlined to the Agency following both of these sampling events, there has been no activity at these two locations during 2009. Results of all sampling during the period of investigation and the groundwater contour map are attached in appendix 4.

3.4 Noise Monitoring Report.

Condition 8.11 of the licence requires a noise survey to be carried out during weeks 2, 6 & 12 at the following locations:

NRA – At site entrance from the R313.

NRB – North/West of the site on the R313 at a dwelling.

NRC – West of the site, close to Bangor-Erris Village

Due to the absence of any peat deposition activity at the site during 2009, noise monitoring was not required.

A map of the Waste Licence Emission & Monitoring Points is included in Appendix 6.

3.5 Resource & Energy Consumption

Resource and Energy Consumption for the Facility was as follows:

Marked gas oil for all machine operations	-	2950 litres
Electricity usage	-	3.92MW/hrs

Due to the completion of deposition at the site during 2007, there was little energy and resource consumption at the site during 2009.

4.0 Environmental Management System

4.1 Management & Reporting Structure

This is included in section 1.5 and details the current management & reporting structure.

4.2 Schedule of Environmental Objectives & Targets

This sets out the schedule of objectives as proposed by Condition 2.2.2.2.

Objective	Target
1. Minimisation of suspended solids	Assessment of suspended solids generation during peat deposition during the first two months and setting a programme for its reduction
2. Reduction of fugitive dust	Establish the levels of dust generation during peat deposition during the first two months and setting a programme for its reduction.
3. Protection of dust sensitive areas	Establish the levels of dust nuisance at the three dust sensitive locations during the first two months of monitoring and setting a programme for the protection of these areas
4. Reuse of silt pond waste	Monitor the levels of silt pond waste cleanings at the 7 silt ponds and swale locations over the peat deposition period and establish a reuse option.
5. Effective spill leak management of Mobile fuelling units	Comply with all of the condition of the licence in relation to operation and maintenance of all mobile fuelling operations, and assess its effectiveness after 3 months operation.
6. Management of dangerous substances	Comply with the conditions of licence relating to oil and diesel storage, bunding and recycling and review after 2 months operation
7. Management of silt pond flow discharges	Comply with the conditions of the licence in relation to the management of silt pond flow discharges during high rainfall events and assess its effectiveness after two months operation.
8. Reuse of stone used in internal haul-road construction	Investigate any potential re-uses for the geotextile and stone used in the construction of the internal; haul-roads, either on site or in the locality.

4.3 Environmental Management Programme Report.

Minimisation of Suspended Solids (EMP1)

Activity/Emission	Objective	Target Date	Target	Persons Responsible
OT1 Emission of suspended Solids	Minimisation of suspended Solids	On-going programme during the life of the project and as part of aftercare & maintenance.	<p>To comply with Conditions 8.9.1, 8.9.3 & 8.9.4. a programme of weekly inspections of all drainage and subsequent waste treatments systems, daily inspections of discharges to receiving waters and the regulation and monitoring of all silt generating activities will be put in-place. This will be used for establishing the cleaning roster.</p> <p>These systems will be assessed on an ongoing basis for the first two months of peat deposition, to assess the degree of suspended solids generation, and this along with the daily results for SS from the Composite Sampler will be used to establish targets for the reduction of Suspended Solids</p> <p>Status: The inspections and monitoring of these emissions were continued during 2009 and are retained on site for inspection.</p>	Site Manager & Environmental Manager

Reduction of fugitive dust (EMP2)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT2 Fugitive dust emissions	Reduction of fugitive dust emissions during all operations	On-going programme during the life of the project.	<p>This programme will establish the degree of dust generation during the first two months of peat deposition. Peat delivery, tipping on the peat reception area, loading into the trailers and deposition into the bays will be examined along with any dust suppression methods employed and the appropriate Dust Handling Procedure. This will include the first two months of dust monitoring.</p> <p>The results of these assessments will be used to establish targets for reduction of fugitive dust emissions.</p> <p>Status: Due to the absence of any peat deposition activities on site during the reporting period, this was programme was not required.</p>	Site Manager & Environmental Manager

Protection of dust sensitive areas. (EMP3)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT3 Fugitive dust emissions	Protection of Dust sensitive areas.	On-going programme during the life of the project.	<p>Based of the results of the initial two months dust monitoring at the five dust sensitive locations, a programme of protection of dust sensitive locations will be examined.</p> <p>This will address any measures to be put in-place, such as the planting of trees, or any special measures to be put in place to protect any areas that exceed the ELV of 350 mg/m²/day.</p> <p>Status: There were no complaints regarding dust, received at the site during 2009, due the inactivity at the site, so this programme was suspended.</p>	Site Manager & Environmental Manager

Reuse of silt pond wastes (EMP4)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT4 Reuse of Silt Pond Waste	The reuse of all silt pond wastes.	On-going programme during the life of the project.	<p>As the silt wastes generated from the cleaning and maintenance of silt ponds S5-1, S5-2, Area 5 & Area 6 silt ponds are directly as a result of peat deposition, they will either be used in the Bog & Peat Deposition Area rehabilitation & aftercare, or will be incorporated into the existing bays once deposition is complete.</p> <p>Status: As all peat wastes accepted and generated at the site are for landfilling purposes, there is no further use for the silt pond cleanings. These will be incorporated into the peat deposited or if off benefit will be used in the final rehabilitation.</p>	<p>Site Manager & Environmental Manager</p> <p>Site Manager & Environmental Manager</p>

Management of mobile fuelling wagons (EMP5)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT5 Management of mobile Fuelling units	Effective spill/leak management of mobile fuelling units.	On-going programme during the life of the project.	<p>To comply with conditions 3.17, 3.19 and 3.20, the two mobile fuelling units are stored in a bunded location, with an oil spill kit in-place. Fuelling nozzles will be fitted with overflow shut-off mechanisms and auto fill clips will be disabled. All personnel will be made aware through training, of the Oil/Diesel Loading Procedure & the Emergency Response Procedure. Shortened versions of the procedures are posted on the tanks and at the bunded storage location. All service wagons have been inspected before use and bi-annually there after. Leaks, flaws, necessary repair etc, will be reported to the Site Manager. All the above will be in-place before peat deposition re-commences, and will be re-assessed as to their effectiveness every 3 months. The out come of these assessments will determine any improvements to be made and target dates to achieve them.</p> <p>Status: There is one double-skinned tank retained on-site for re-fuelling excavators etc, which is stored in the Bangor Workshop.</p>	Site Manager & Environmental Manager

Management of dangerous substances (EMP6)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT6 Management of dangerous substances List I & List II	To manage of any dangerous substances as listed in I & II of the Dangerous Substances Directive 80/68/EEC	On-going programme during the life of the project.	<p>The only substances from Lists I & II of the Dangerous Substances Directive (76/464/EEC and 80/68/EEC and amendments) are List I (7) Mineral Oils and Hydrocarbons. The management of these will include:</p> <p>(1). Pollution Prevention as required by Conditions 3.13 – 3.21. This includes the safe storage of diesels/oil/Filters and protection of ground and surface water during fuelling operations.</p> <p>(2). Pollution Control: Maintenance of diesel/oil interceptors as required by Conditions 8.9.1 & 8.9.2</p> <p>All of these measures will be in-place before peat deposition commences.</p> <p>A review will be carried out after the first two months operation and every 3 months thereafter, to assess the effectiveness of programme OT6.</p> <p>A programme of improvement will be implemented once the operational performance of the management of diesels & oils has been assessed.</p>	Site Manager & Environmental Manager

			<p>Status: The oil interceptors installed at the site include 3 Klargestar units. These units are installed downstream of the grit trap and are operating successfully. They have also been fitted with alarms, which indicate when they require cleaning. The operation and maintenance of these units is on-going. They were inspected during this time and are on record. Sampling for COD at SW2 during the year showed an average of 43 mg/l. There was no requirement to clean the unit during 2009.</p> <hr/>	
--	--	--	---	--

Management of silt pond flow discharges (EMP7)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT7 Effective management of Silt pond flow discharges	Effective management of flow discharges during periods of high precipitation and flooding.	On-going programme during the life of the project.	<p>As is required by Conditions 3.11 & 3.12, all silt ponds must achieve specific design criteria i.e. max flow velocity $<10 \text{ cm}^{-1}$ and min. $75\text{m}^3/\text{nett ha}$ of bog. Flow regulators must also be fitted to ensure the design flow capacity is not exceeded.</p> <p>The drainage system has been designed to a rainfall event of 31 mm, which equates to a 100 year storm event of 1 hours rainfall.</p> <p>As the preferred option for the drainage management was the controlled discharge of water from the drains to the swale to the silt ponds, appropriate flow regulators will be in-place to ensure the design flow of each of the silt ponds is not exceeded during heavy rainfall and that any excess runoff generated is discharged to the overflow area (Area 7).</p> <p>Condition 3.4 requires a construction quality assurance validation to be completed on the surface water drainage/control/treatment works. This will include an assessment of the performance of the silt ponds and will assess its compliance with the stated maximum flow velocity $< 10 \text{ cms}^{-1}$</p>	Site Manager & Environmental Manager

			<p>Status.</p> <p>This was achieved by installing overflow pumps to pump this excess runoff from the swale to this overflow area during 2007. It was further improved by the installation of an automatic gravity overflow to areas 7 which removed the requirement for operator intervention during heavy rainfall and subsequent high discharge rates. This has been set to provide adequate drainage levels to the lowest deposition bay but also to allow overflow into area 7 during periods of high rainfall. This was maintained during 2009, with flow directed to the controlled overflow area during periods of heavy rain.</p>	
--	--	--	---	--

Reuse of road building materials (EMP8)

Activity/Emission	Objective	Target Date	Target	Person Responsible
OT8 Road materials re-use	Reuse of stone used in internal haul-road construction.	As stated in the EIS, the decommissioning plan for the internal haul road network would envisage it occurring at the end of the stabilisation period (5 yrs after deposition has been completed). There may also be a requirement to leave these roads in-place as part of the after use of the deposition area.	<p>All materials used in the internal haul road construction will be either recycled or reused.</p> <p>The Geotextile will be collected for reuse within BNM for under rail lines, or recycled through a licensed contractor.</p> <p>The 300mm of crushed stone will be recycled through one of the following:</p> <ol style="list-style-type: none"> 1. As internal service roads to a Proposed Wind Farm Development at Oweninny. 2. As construction material on an alternative site. 3. Through an appropriate recycling contractor. 4. Placement at the base of the toe drains to assist in drainage. <p>Status: As peat deposition has been completed, on site decommissioning and rehabilitation has also taken place. The stone peat haulage roads will have to be retained on site for 3 – 5 years so that access can be maintained to the bays for maintenance of drainage, monitoring and assessment.</p> <p>Given the current condition of the roads, it is not envisaged that recycling of the road material will be possible due to</p>	Site Manager & Environmental Manager

			<p>encroachment of the deposited peat, flooding and degradation of the road surface and weed growth. Excavation and cleaning/screening of the road materials for reuse would be time and energy intensive and the energy and material offset for another site reuse would be negative. This is still the case in 2009.</p>	
--	--	--	---	--

4.4 Environmental Management Programme Proposal.

The proposal for 2010 is to continue with projects EMP 1, 4 & 8, as these are the only applicable projects due to the completion of the peat deposition in June 2007. However should peat deposition recommence in 2010, all of the projects will be monitored.

4.5 Silt Pond Inspection & Desilting Report.

Inspections of the silt ponds are carried out weekly. A full log of all inspections is maintained at the site office and this along with SS results obtained from the silt ponds form the basis for the cleaning roster.

The silt ponds servicing the Srahmore site were all cleaned during 2009 as follows:

Silt Pond	Date Cleaned
S5-1	August 2009
S5-2	August 2009
SP1	September 2009
SP2a/b	September 2009
SP3a/b	September 2009
SW4	September 2009
SW104	September 2009

5.0 Site Development Works.

5.1 Summary of main changes/developments/works carried out in 2009

- Maintenance. Some maintenance work was carried out on access roads to the composite samplers, as well as to silt ponds.
- Drainage. Work was carried out in bay 2, regarding the drainage and outfall from this area.
- The removal of silt from the excavation of the two new silt ponds in 2008 was completed, along with the fencing and drainage work.

5.2 Summary of Planned Works for 2010

There will be some maintenance works required at the swale, fencing at one of the silt ponds and on-going maintenance of the silt ponds.

6.0 Waste received and consigned from the Facility

6.1 Non-hazardous waste received by the facility.

		Non-Hazardous Waste Received			
Waste Description	EWC Code	On-site Disposal		On-site Recovery	
		Method	Tonnes	Method	Tonnes
		None		None	

6.2 Hazardous waste received by the facility.

		Hazardous Waste Received			
Waste Description	EWC Code	On-site Disposal		On-site Recovery	
		Method	Tonnes	Method	Tonnes
		None			

6.3 Non-hazardous waste sent off-site for Recovery/Disposal.

Waste Description	EWC Code	Tonnes	Details of Haulage Contractor	Recovery /Disposal	Name & Address of recovery/Disposal Site
Canteen/office Waste	20 01 08	0.124	G & T Loftus Recycling Ltd	Disposal	Rathroeen, Killala Rd, Ballina, Co. Mayo

6.4 Hazardous waste sent off-site for Recovery/Disposal

Consignment Note/TFS Note Number	Date of Dispatch	Description of Waste	EWC Code	Tonnes	Details of Haulage Contractor	Disposal/ Recovery	Name & Address of Recovery/ Disposal site
				None during 2009, due to inactivity at the site.			

7.0 Environmental Incidents & Complaints.

7.1 Reported Incidents Summary.

Date	Nature of Incident	Cause	Corrective Action
	NONE		

7.2 Reported Complaints Summary

Date	Nature of Complaint	Cause	Corrective Action
	NONE		

8.0 Review of Nuisance Controls.

The nuisance controls at the site only include dust suppression and pest control.

Due to the completion of the project in 2007, dust suppression was not required. Pest Guard were retained for vermin control during 2009

9.0 Review of Rehabilitation Plan.

Rehabilitation at the Srahmore site is outlined in the Rehabilitation Plan for the Srahmore Peat Deposition Area and Associated Facilities (Feb 2005). The main criteria¹ defining successful rehabilitation of the Srahmore PDA and associated facility are:

- (i) Stabilisation of the deposited peat²
- (ii) Mitigation of silt run-off

Natural revegetation processes are outlined as the BAT for rehabilitation of the Srahmore site. Results show that vegetation established rapidly on the deposited peat; the plant roots bind the introduced peat layer, altering the peat structure to create a homogeneous peat mass thereby stabilising the peat.

Deposition Area

The deposition area comprises access routes on high fields, peat deposition area and drainage channels. The greater part of the deposition area has been covered with peat. The peat was deposited and levelled between high fields using long-reach excavators. The final shaping allows for run-off into drainage channels with the peat remaining undisturbed to facilitate natural revegetation processes.

Within weeks the deposited peat was colonised by a flush of soft rush *Juncus effusus* seedlings. Other plants colonising included bulbous rush *Juncus bulbosus* and sorrel *Rumex acetosella*. The soft rush tussocks form the dominant character of the vegetation with inter-tussock spaces of patchy plant cover, with shrubs such as bramble *Rubus fruticosus* and some willow *Salix* spp. emerging. The cover of this pioneer vegetation is continuous over the entire area of deposited peat. The establishment of other species between the tussocks of soft rush will further bind the peat together and eventually lead to a complete cover and stabilisation of the introduced peat.

¹ These are the basic criteria as identified in the consultation process for development of *The Rehabilitation Plan* for the entire Oweninny Works.

² Stabilisation of these areas infers revegetation. Once stabilised there will be no potential peat run-off from the site, which will cover the second criterion for successful rehabilitation.

Vegetation cover in the remaining uncovered area is low and comprises patchy growth of bog cotton *Eriophorum angustifolium* and soft rush *Juncus effusus*.

Water over-spill area (Area 7)

This area was rehabilitated in line with the rehabilitation plan for the Oweninny Works, Cutaway Bog Rehabilitation (2003). This involved field drain blocking and it is anticipated that natural revegetation processes will proceed in this area and over the duration of the peat deposition activity. The overflow facility will be maintained for the duration of the peat deposition and also for a number of years following the activity to ensure that there is no build-up of water on site. When the area is no longer required, the site will be re-surveyed to determine the vegetative condition and whether further rehabilitation work is required (unlikely to be more than superficial).

Off-loading facility (Area 5)

Construction work was completed in April 2005 and the final activity on-site was in Autumn 2007. To date, there has been extensive colonisation of the surrounding bare peat, predominantly soft rush *Juncus effusus*.

Srahmore Assessment November 2009

A walkover survey of the Srahmore PDA indicated that the vegetation that has established on the deposited peat is developing further as outlined in previous annual assessments. Inter-tussock spaces of the soft rush are becoming further colonised by herbs, grasses and mosses with intermittent pools. The initial pioneer vegetation is maturing and developing a denser growth pattern. There are signs of Willow shrubs *Salix* spp. throughout the PDA with a small area of emerging Gorse *Ulex europaeus* to the north west of the PDA.

A notable feature is the emergence of *Sphagnum cuspidatum* plants throughout the deposited peat area. The plants are by no means extensive in

cover but do indicate Poor Fen conditions. The spontaneous regeneration of *Sphagnum* suggests that growth of the bog-mosses could be accelerated by creation of pools throughout the deposited peat complex. The potential to carry out this work will be assessed in spring 2010.

The vegetation will continue to develop over time and Bord na Móna will continue to monitor the changes in structure and composition: the site is still utilised by a number of bird species, particularly nesting Skylark (*Alauda arvensis*).

10.0 Review of Environmental Liabilities Insurance Cover.

In Accordance with the requirements of Schedule D, Annual Environmental Report Content, a review of the Environmental Liabilities Insurance Cover is required. The initial Environmental Liabilities Risk Assessment (ELRA) was carried out in March 2005. This assessment examined 8 Potential Hazards, including, peat combustion, dust blow, sediment laden run-off and fire etc.

Of the critical potential hazards identified, mobilisation of peat off site and sediment laden run-off have not been highlighted as a potential problem during the operation of the site in 2005 and 2007. The compliance occurring during the period of operation from 2005 to 2009 is shown on the table below:

Compliance Levels	2005	2006	2007	2008	2009
Emissions to Water	97%	100%	97%	99%	100%
Emissions to Air	91.5%	No sampling due to suspension	100%	No sampling due to Suspension	No sampling due to Suspension

The risk of peat mobilisation from the site was identified as low in the ELRA, and during peat deposition in 2005 and 2007 there were no indications that the status of this risk had increased.

The Licence requires the completion of a stability assessment of each bay, once it has been filled. No bays were filled during 2005, so a stability assessment was carried out in 2007, after each bay was completed.

To date, the natural re-vegetation as specified in the EIS has progressed better than expected. The continuous cover of soft rush (*Juncus effusus*) is already well established on the deposited peat, and has progressed its stabilisation. Piezometric tubes have been installed in the deposited bays so as to enable monitoring of water levels.

Based on the experiences of peat deposition during the period of operation between 2005 and 2007, the experience of the success of the rehabilitation to date post deposition and the results of environmental monitoring, performance and compliance as reported in the 2005, 2006, 2007, 2008 and 2009 AER's, the Environmental Liabilities Insurance Cover is considered to be adequate.

11.0 Landfill Costs

Condition 12.2.1 requires the licence holder to submit a statement on the determination of charge for the disposal of waste in accordance with the requirements of S.I. No. 337 of 2002 European Communities Regulation 2002.

Following the consultation of this regulation, it is determined that as Srahmore Peat Deposition Site is only accepting waste peat from one permitted contractor, and that this charge has been agreed with the contractor prior to the commencement of the peat deposition and is applicable for the duration of the contract, the provision of this statement does not apply. The price agreed with the contractor is commercially sensitive.

12.0 Other Reports.

12.1 Fuel Bowser Testing.

Both fuel bowers were supplied by Cashes Engineering Ltd. Both of these bowers were certified and tested by the manufacturer. A copy of the conformity certificates are kept on file in Srahmore.

Both of these bowers were designated for re-use elsewhere in Bord na Mona and have since been transferred to the midland bogs.

12.2 Placed Peat Stability Assessment.

Condition 8.7 requires a stability assessment of each bay once filled. This was carried out on the 1st of December 2007 by Tobin Consulting Engineers.

Based on the site walkover survey and previous assessments in 2003/2005/2006, all works were carried out in accordance with the rehabilitation plan.

There is no indication of instability in the internal high fields, perimeter high fields, deposited peat bays or drainage system.

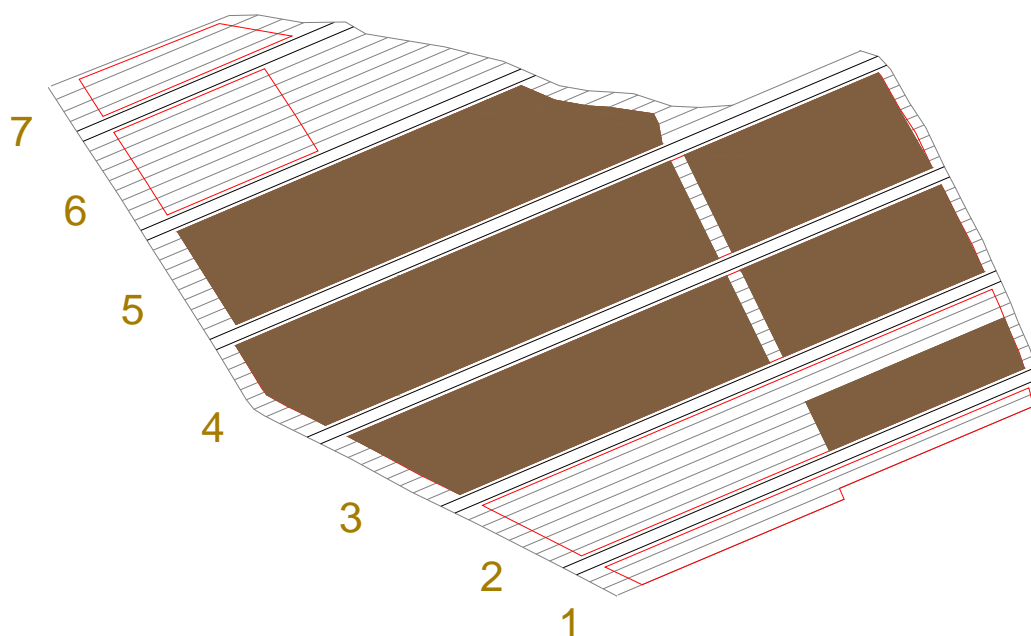
The deposited peat is contained within each bay. In its current condition the risk of a mass deposited peat flowing out of bays 2, 3, 4 & 5 and entering the surrounding watercourse is very low.

A copy of this Stability Assessment is retained on file at the site office.

As there was not peat deposited during 2009, a stability assessment was not required.

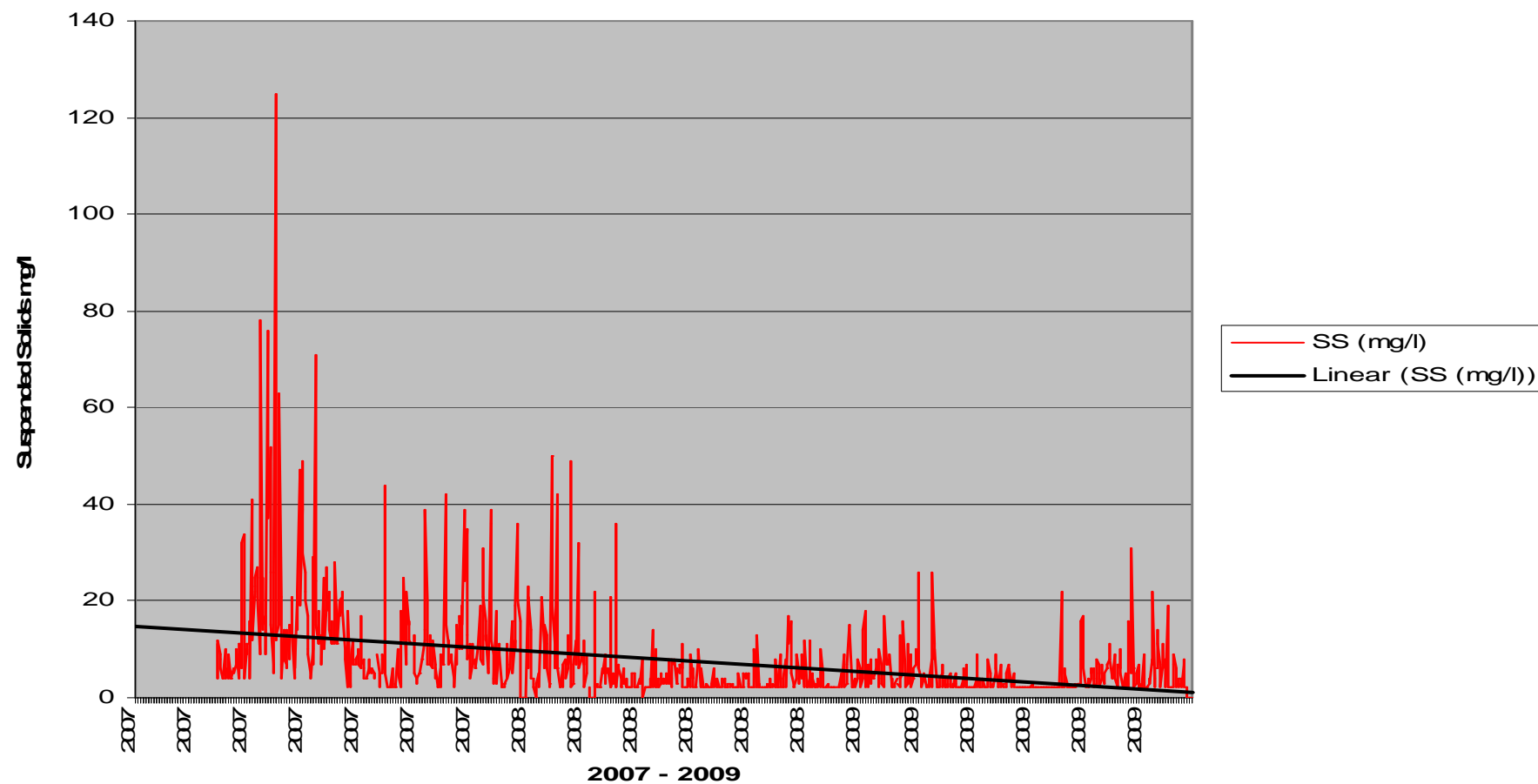
Appendix 1

Bay	Srahmore Storage Volume	Srahmore Deposited Volume	Srahmore Remaining Volume
	(m ³)	(m ³)	(m ³)
1	15,000	0	15,000
2	80,190	30,869	49,321
3	106,974	132,764	0
4	135,802	175,048	0
5	84,856	109,368	0
6	28,806	0	28,806
7	13,372	0	13,372
Totals	465,000	448,049	106,499

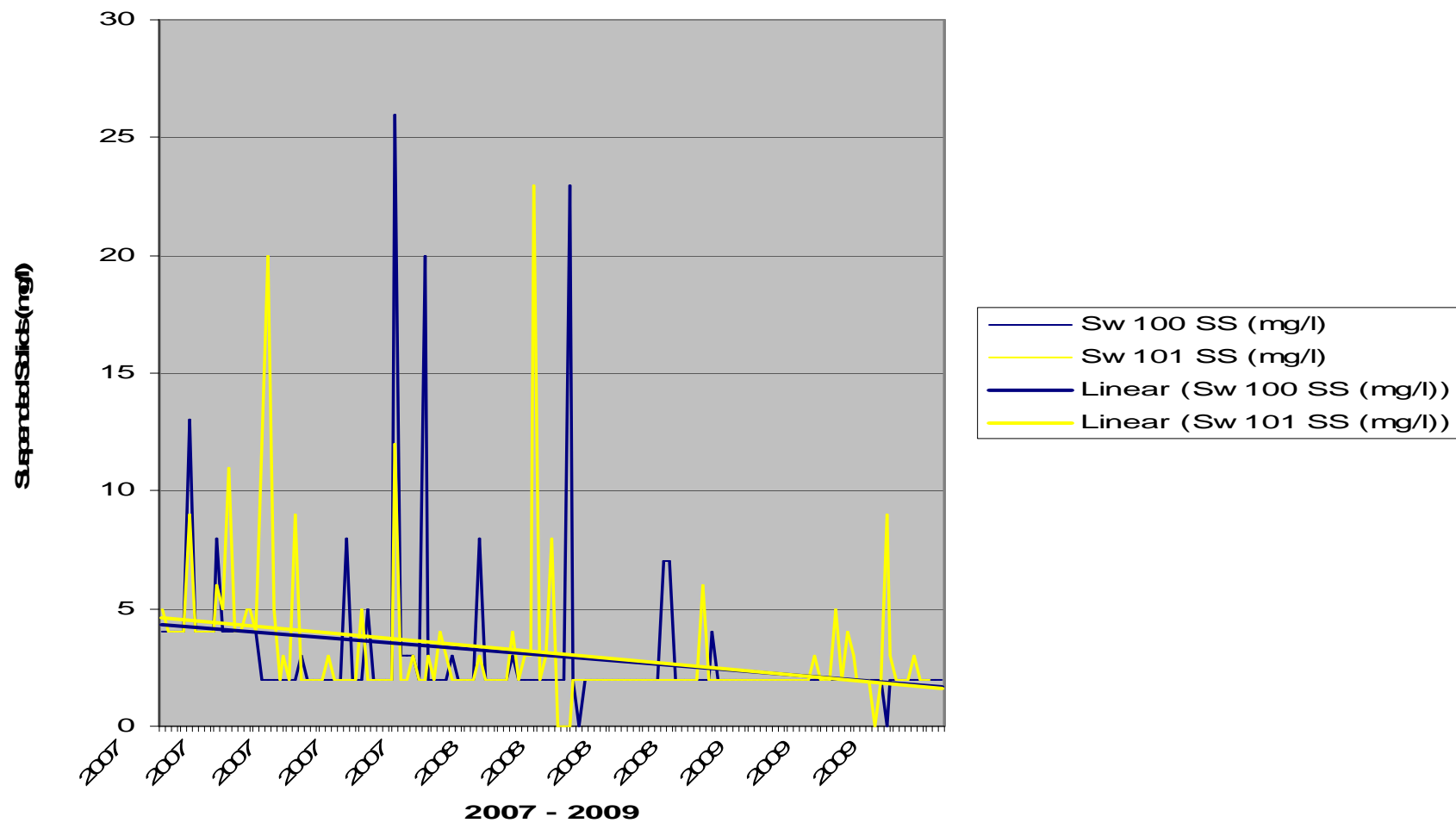


Appendix 2

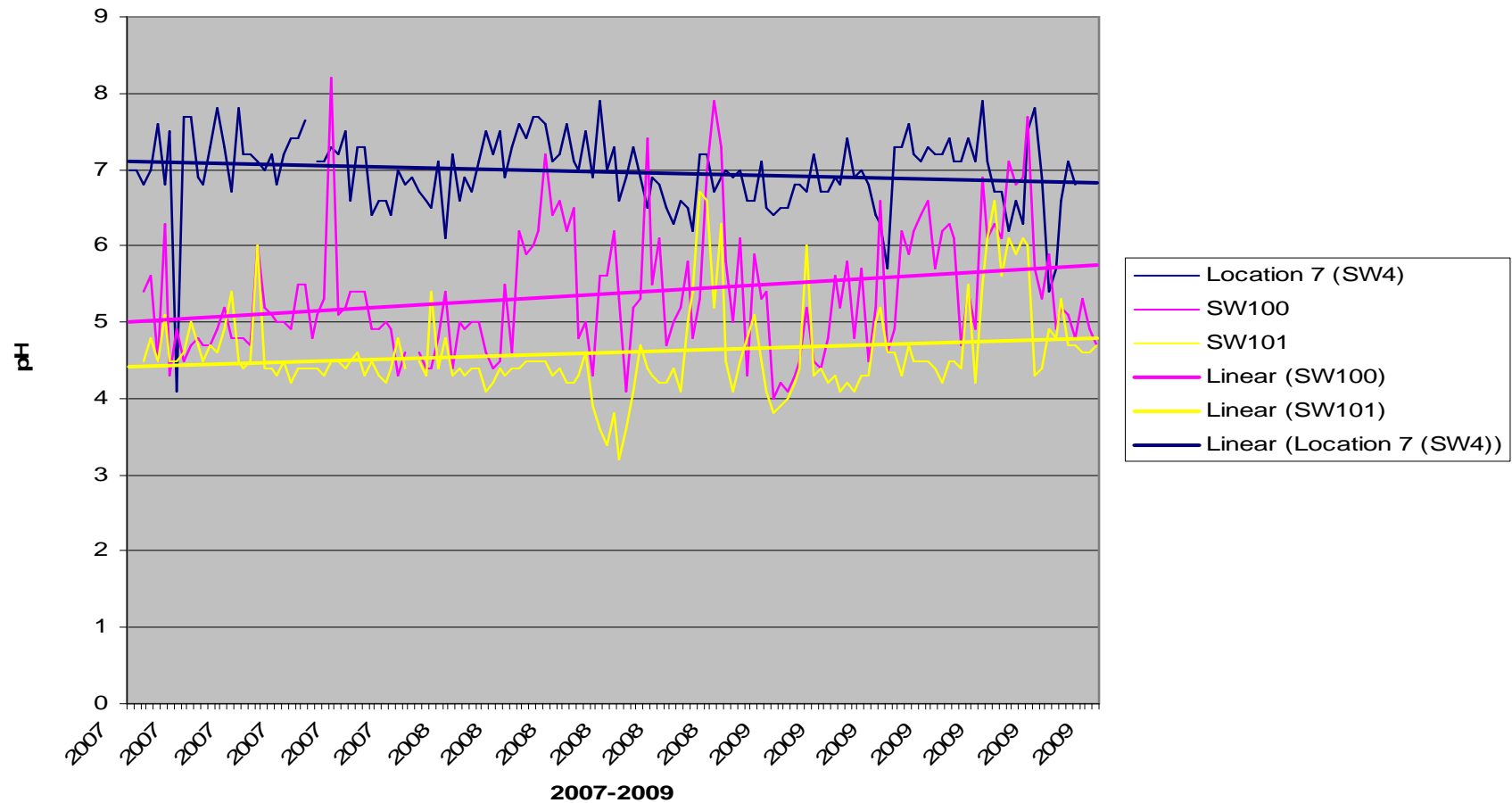
07-09 SW4 (location 7) Suspended Solids Trends



07-09 SW100,101 Suspended Solids Trends



07-09 SW4,100,101 pH Trends

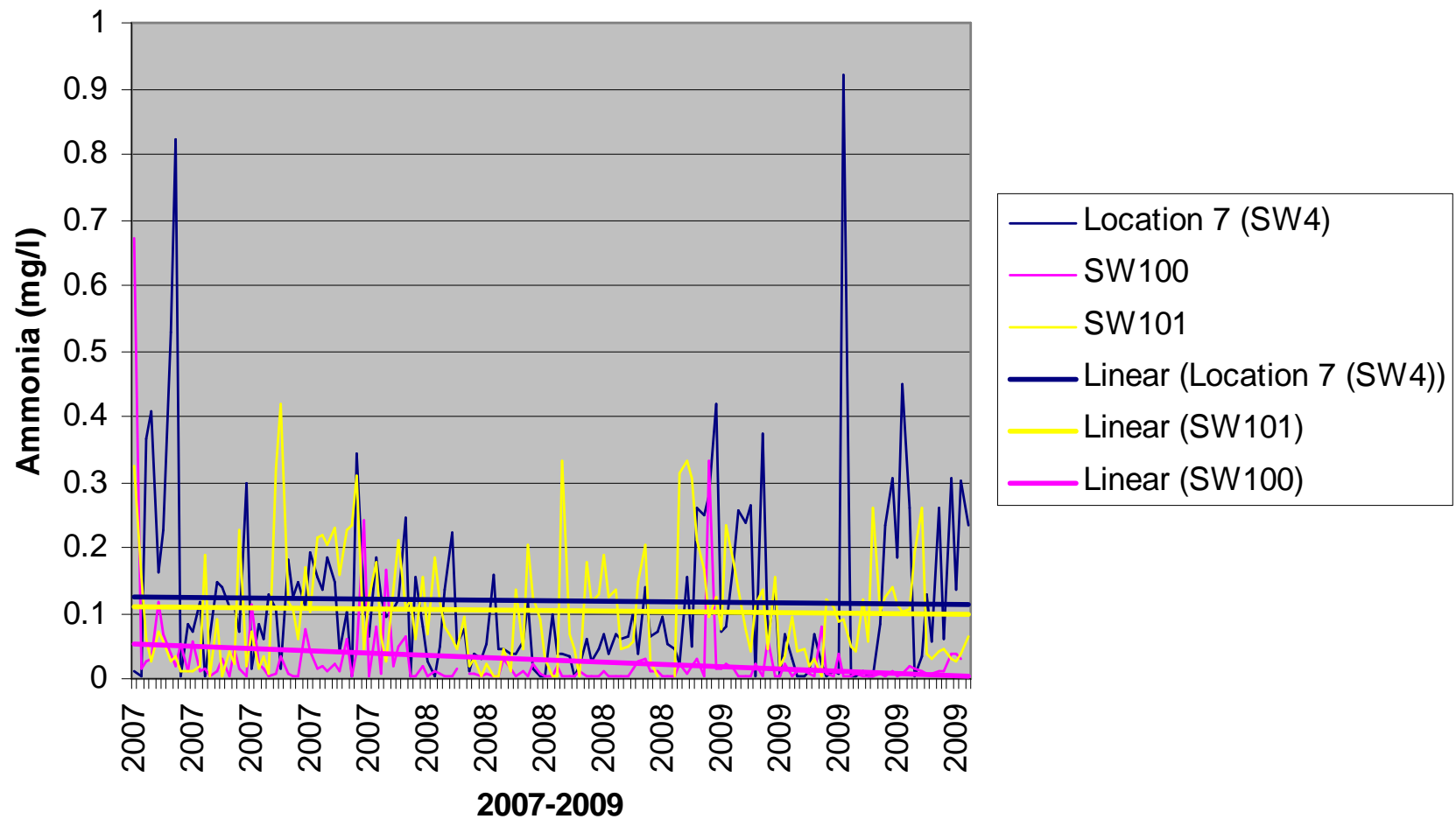


07-09 Location 7 (SW4) Flow Trends

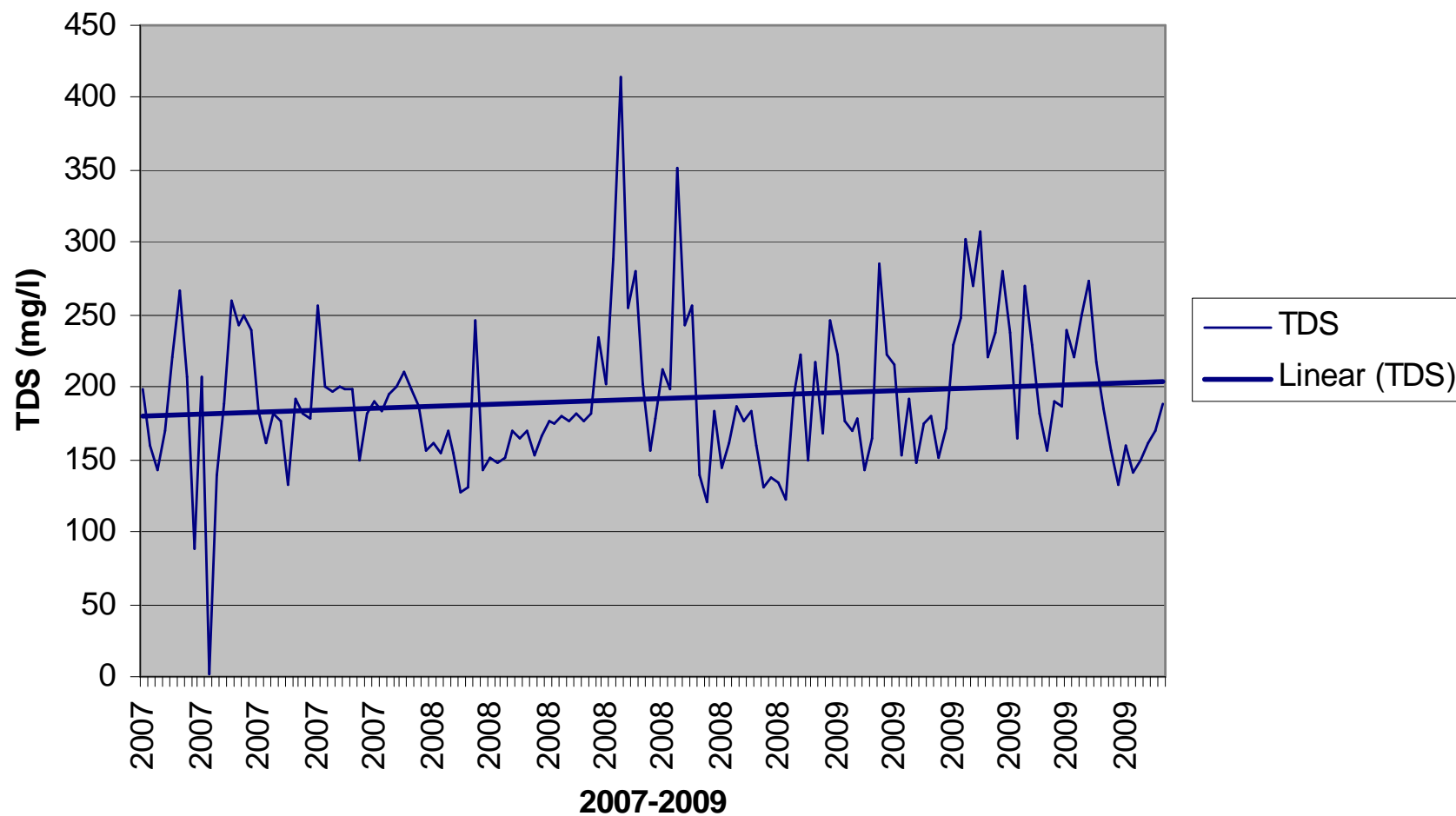
The graph displays flow data for Location 7 (SW4) from 2007 to 2009. The Y-axis represents flow in Litres, ranging from 0 to 3,500,000. The X-axis represents the Year, from 2007 to 2009. The data shows significant fluctuations, with major peaks occurring in early 2007, late 2007, early 2008, and late 2008. A linear trend line is also shown, indicating a slight downward trend over the period.

Year	Location 7 (SW4) Flow (Litres)	Linear (Location 7 (SW4)) Flow (Litres)
2007	~3,200,000	~400,000
2008	~2,900,000	~350,000
2009	~2,400,000	~300,000

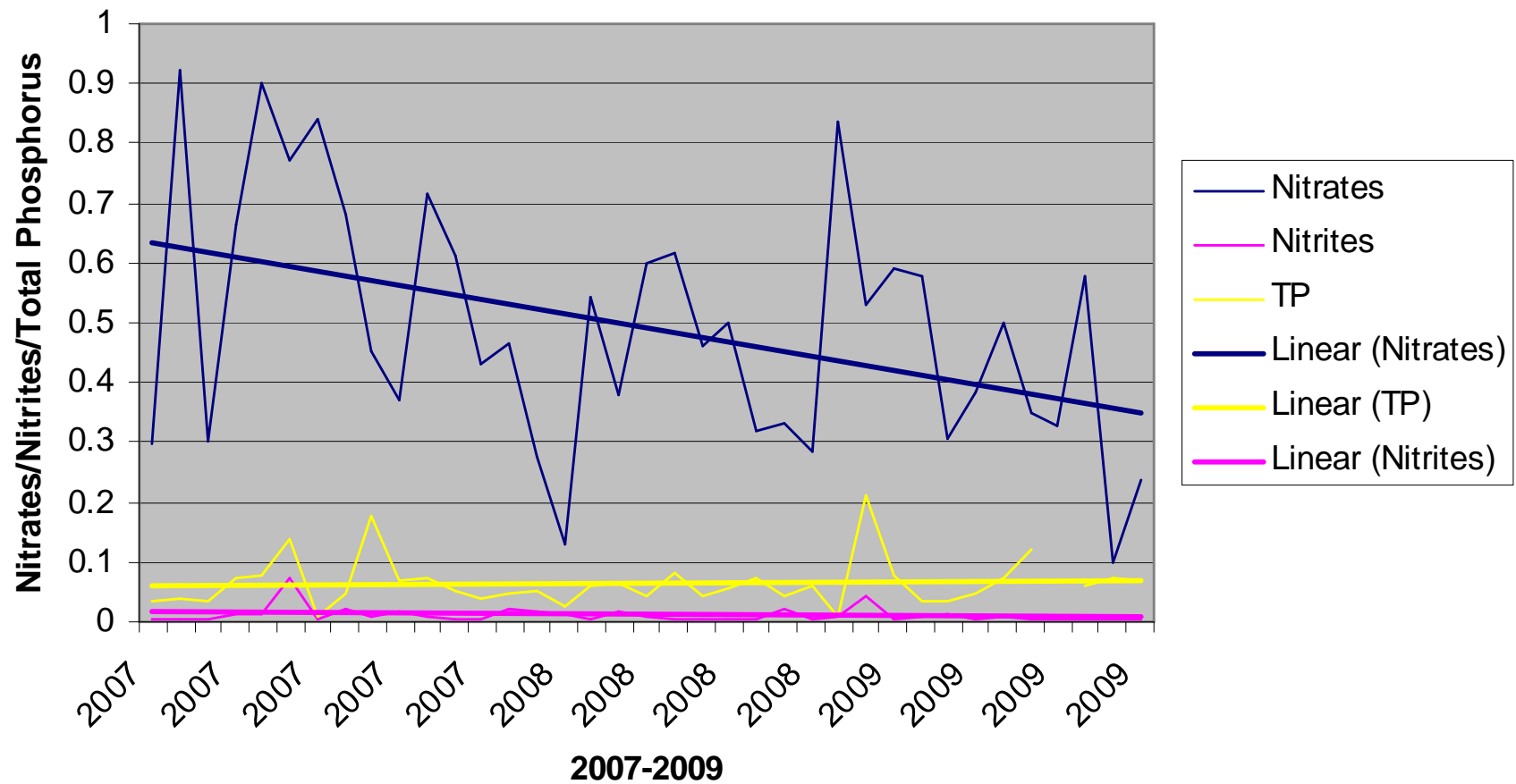
07-09 SW4,100,101 Ammonia Trends



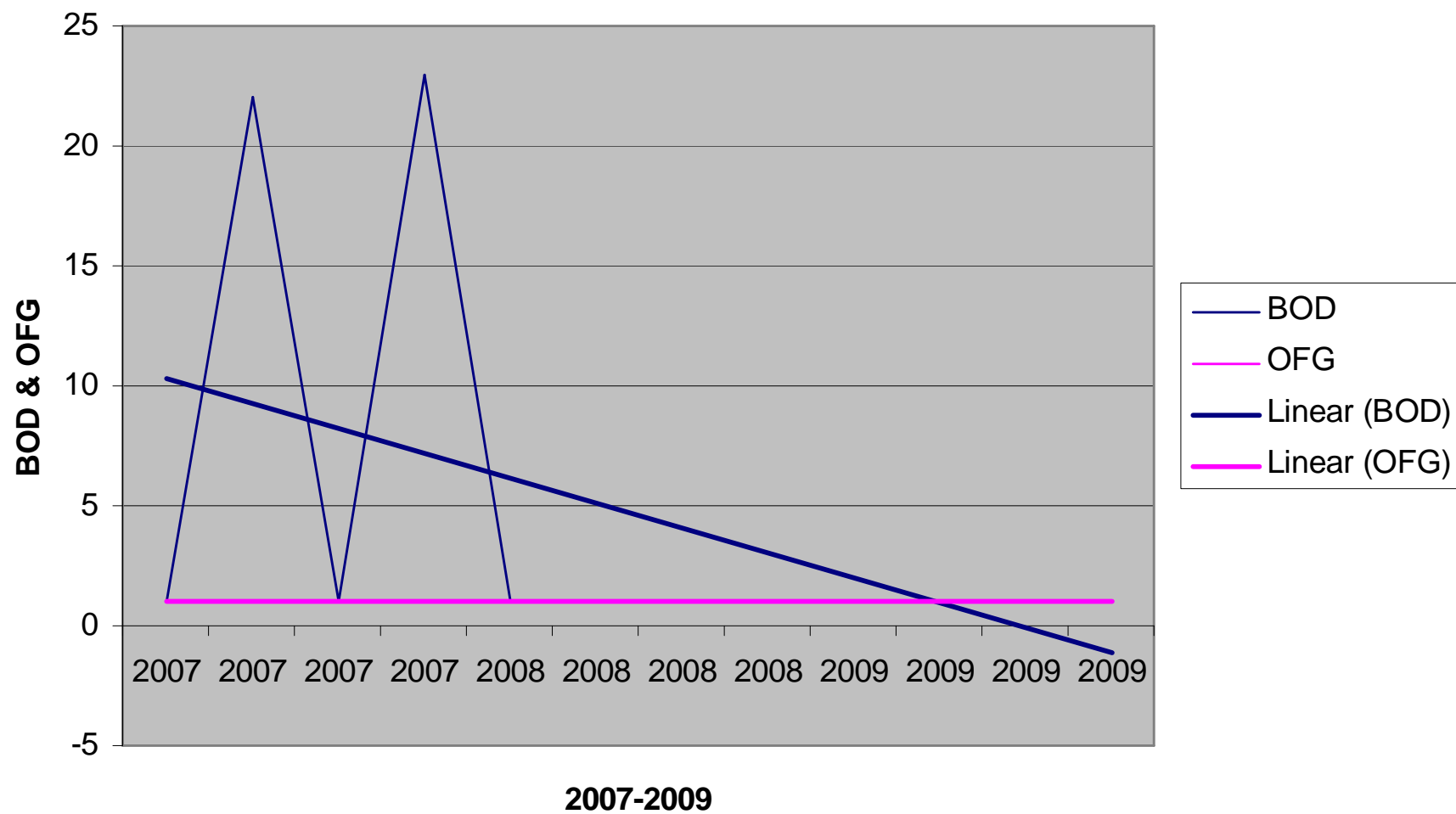
07-09 SW4 TDS Trends



07-09 SW4(location 7) Nitrates/Nitrites/Total Phosphorus Trends

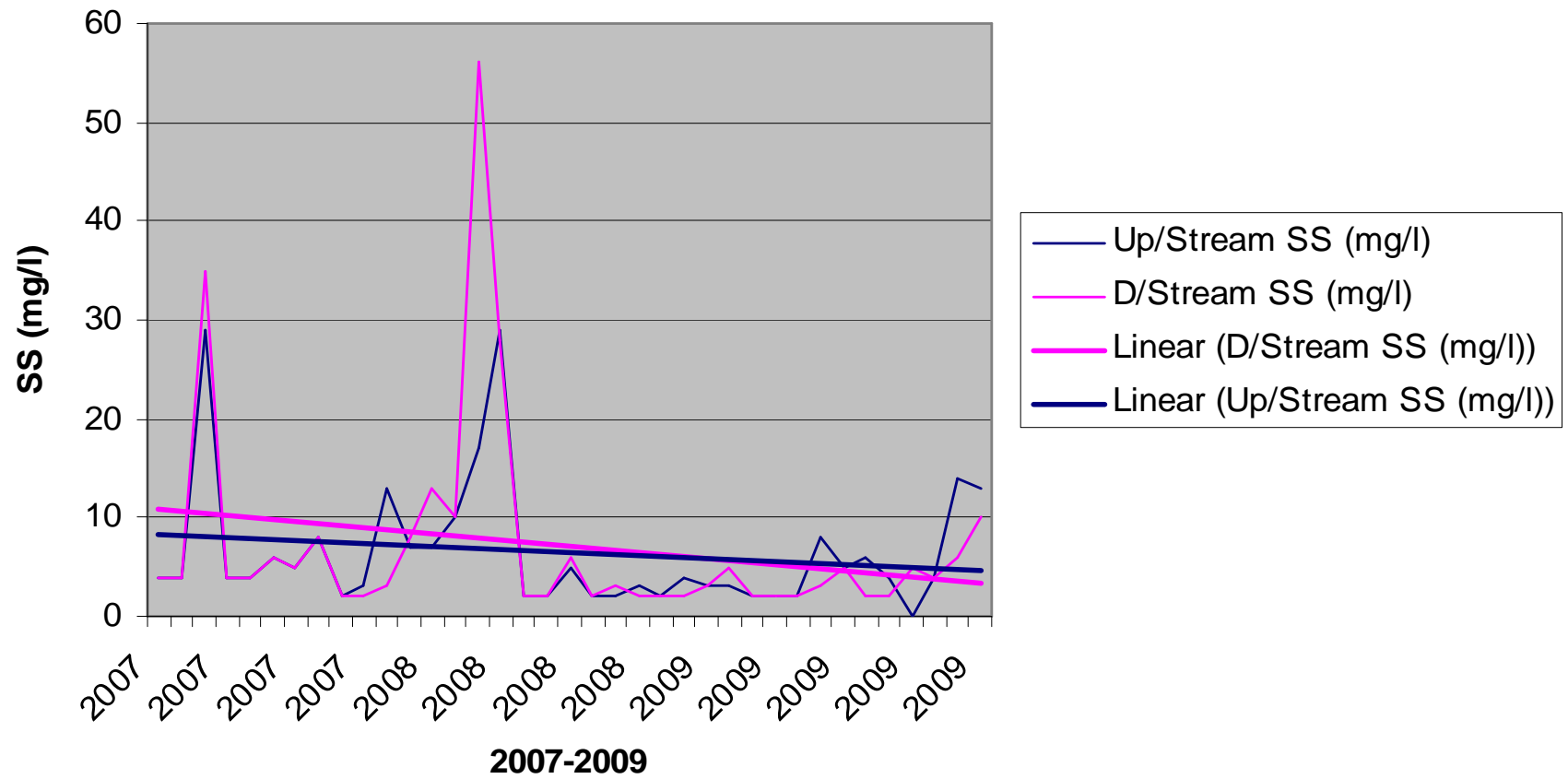


07-09 SW4(location 7) BOD & OFG Trends

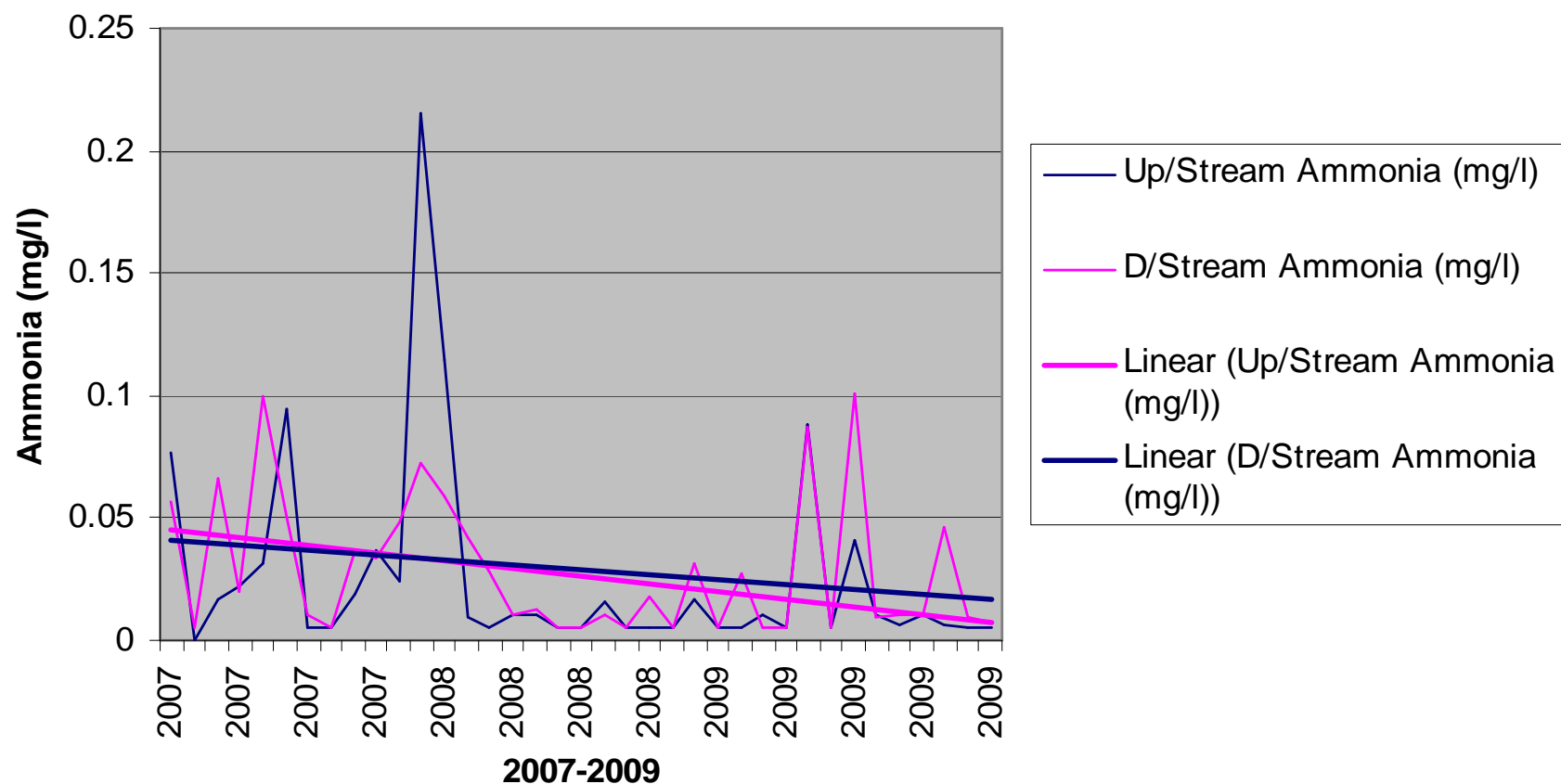


Appendix 3

07-09 Munhin Up/Down Stream Suspended Solids Trends

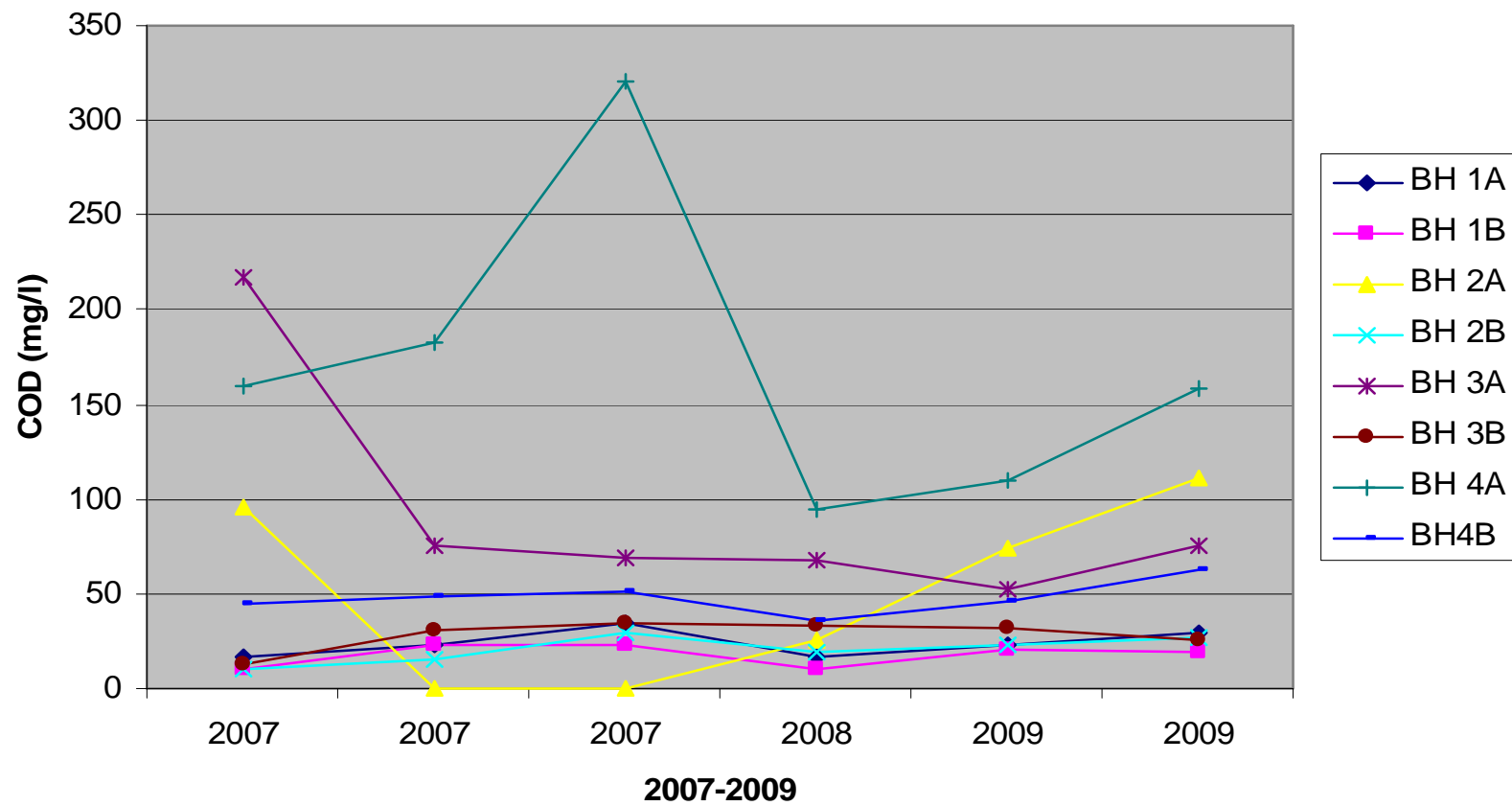


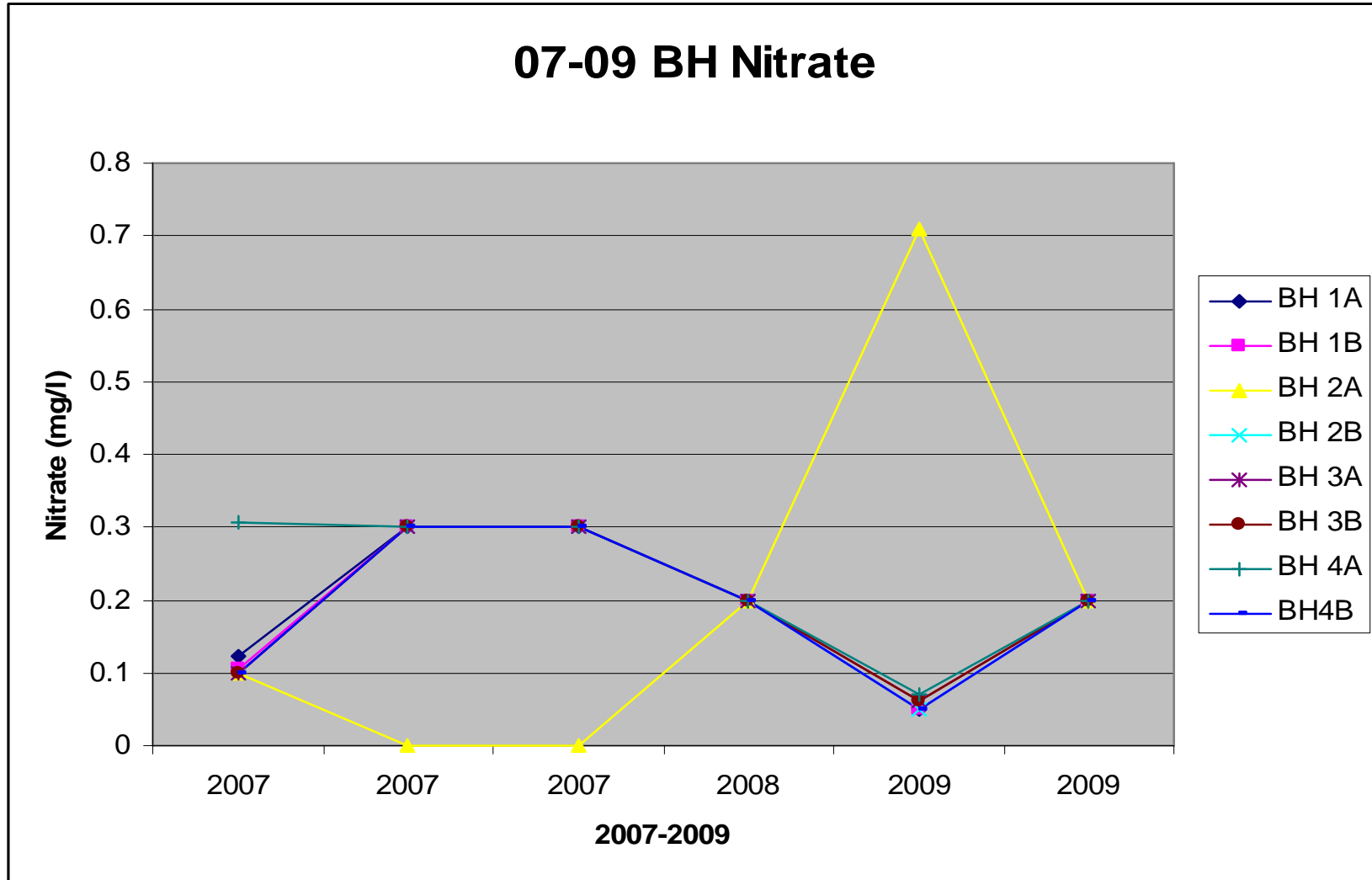
07-09 Munhin Up/Down Stream Ammonia Trends



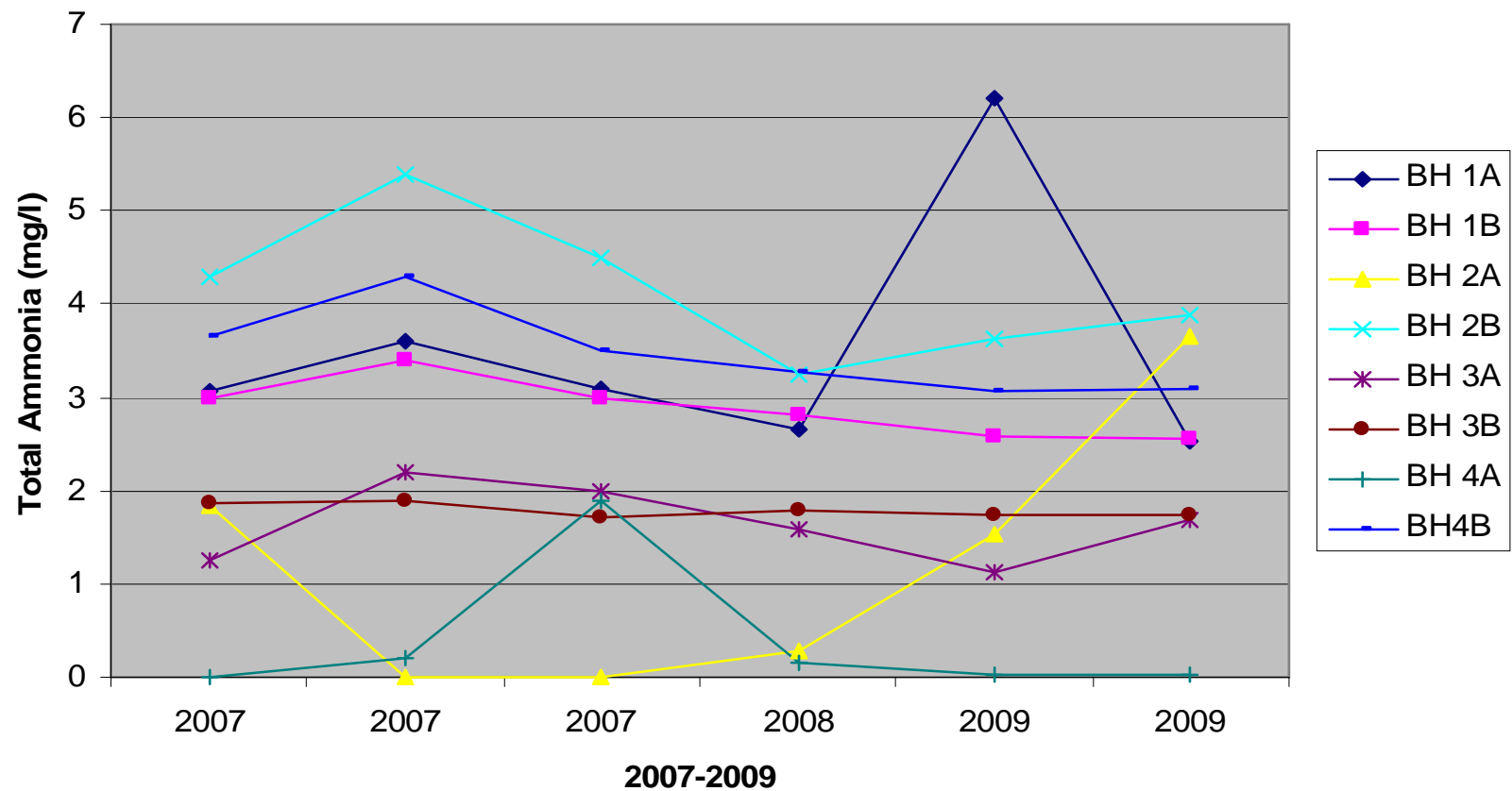
Appendix 4

07-09 BH's COD (mg/l)

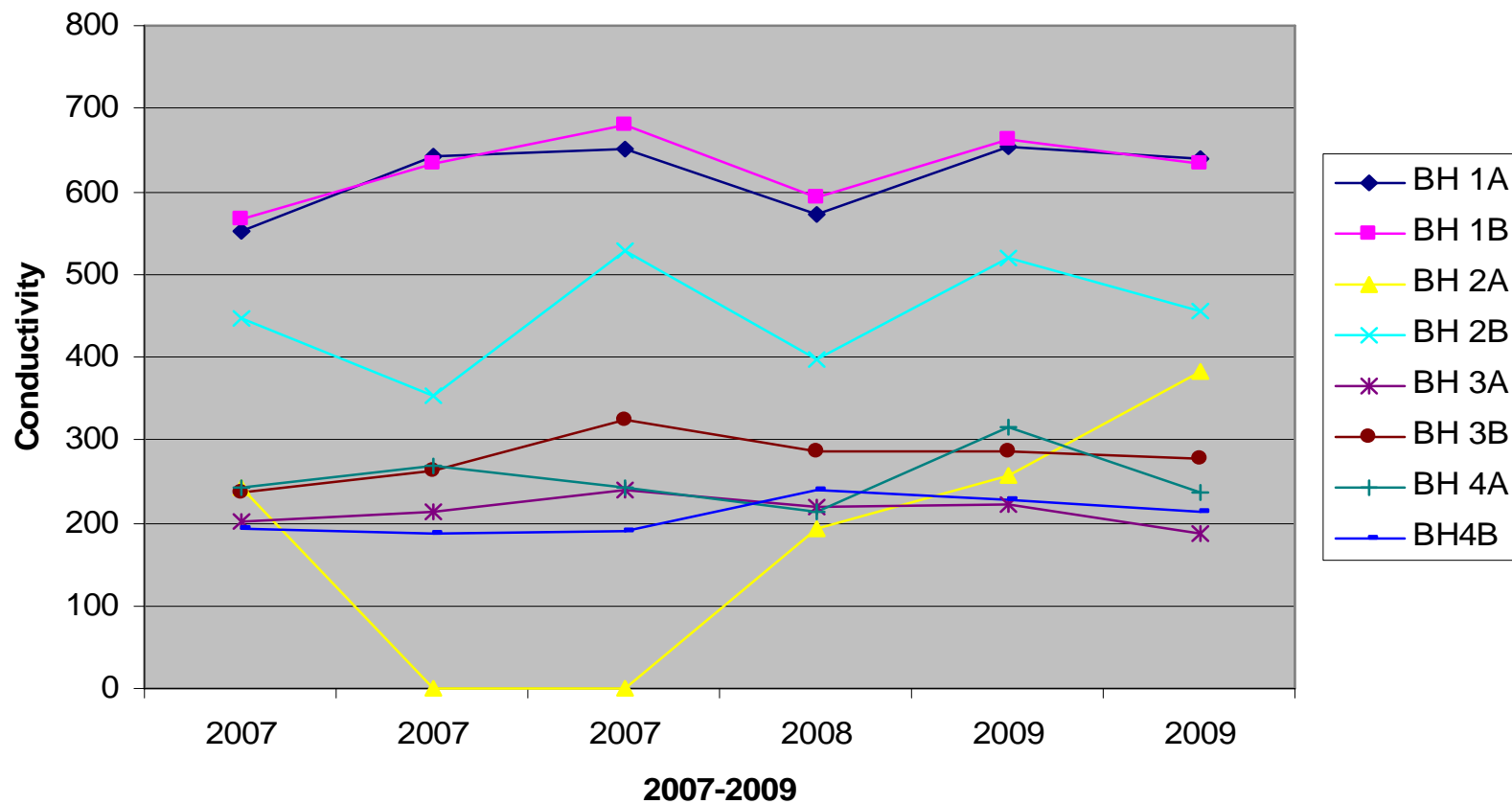




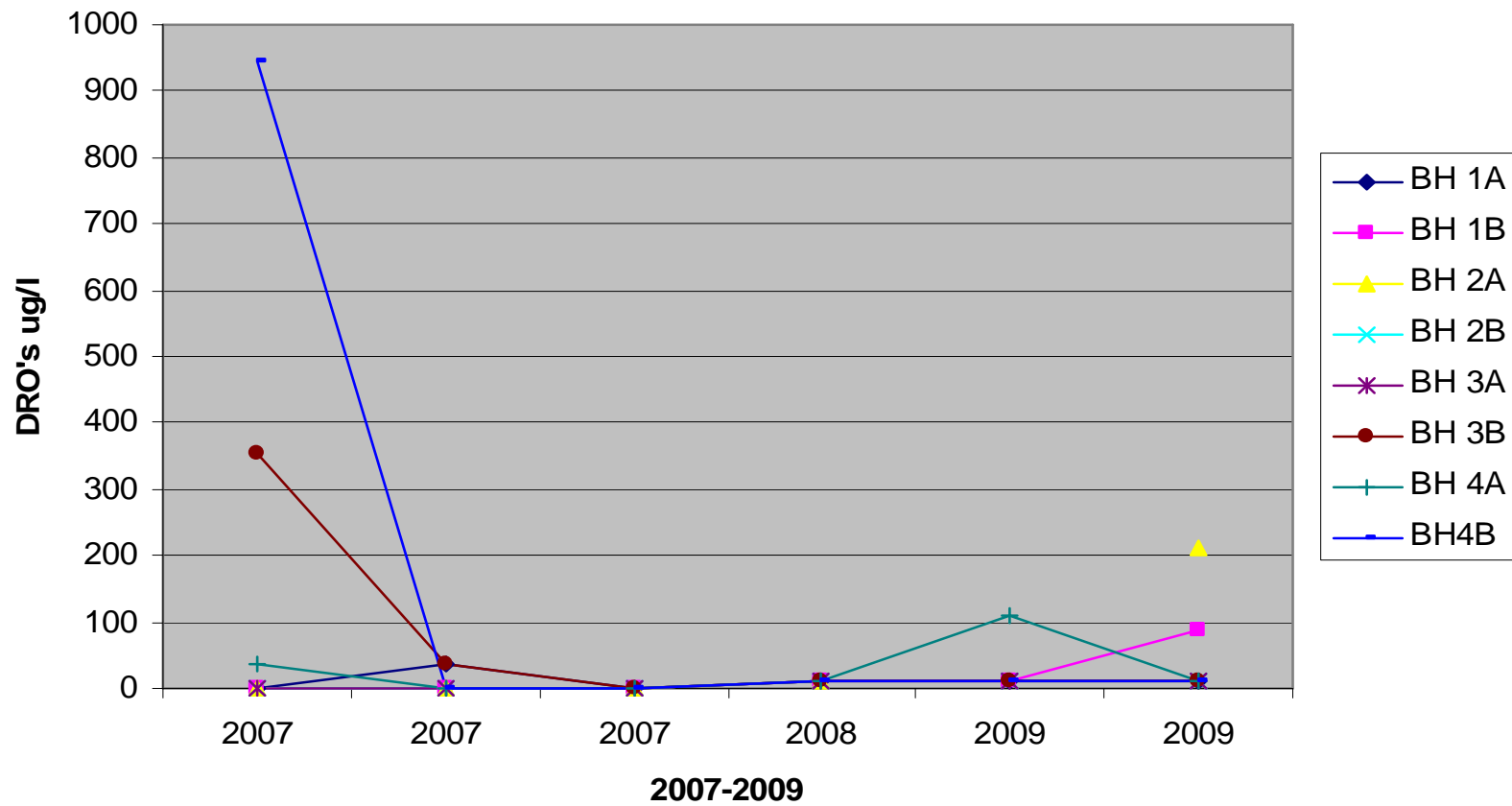
07-09 BH's Total Ammonia



07-09 BH Conductivity



07-09 BH's Diesel Range Organics



Appendix 5

Appendix 6

