

# Notice of variation and consolidation with introductory note

## The Environmental Permitting (England & Wales) Regulations 2010

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Singleton Birch Limited

Camp Wood  
Melton Ross Quarries  
Barnetby  
Brigg  
North Lincolnshire  
DN38 6AE

### **Variation application number**

EPR/BS9989IJ/V007

### **Permit number**

EPR/BS9989IJ

# Camp Wood

## Permit number EPR/BS9989IJ

### Introductory note

#### This introductory note does not form a part of the notice.

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. Only the variations specified in schedule 1 are subject to a right of appeal.

The variation is to:

- Extend the site boundary to include new cells (10 – 21),
- Revise compliance limits for ammoniacal nitrogen and cadmium, and
- Include the storage (of up to 600 at any one time) and post acceptance handling (snipping - approximately 5,000 tpa) of oversized earth moving tyres (internal diameter >1400mm) and permit the use of UTDAR (Used Tyre Derived Aggregate Replacement – tyre bales) as an engineering material for the formation of a drainage layer in the new cells.

The schedules specify the changes made to the permit.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Application BS9989IJ	05/08/2002	EPR reference: EPR/BS9989IJ/A001
Permit Determined BS9989IJ	29/05/2003	Original permit issued to Singleton Birch Limited
Application for Variation RP3239SW	19/10/2004	EPR reference: EPR/BS9989IJ/V002 Application to add the waste stream Neutralised Unreacted Limenite Residue (NUIR).
Variation determined RP3239SW	23/08/2005	
Application for Variation MP3939LR	08/12/2005	EPR reference: EPR/BS9989IJ/V003 Application for the addition of gypsiferous and sulphate rich waste streams
Variation determined MP3939LR	27/03/2006	
Application EPR/BS9989IJ/V004 (variation)	Duly made 25/09/2015	Administrative variation to add new waste codes.
Application EPR/BS9989IJ/V005 (variation)	Duly made 24/09/2015	Variation to add installation and new waste codes. The administrative variation was applied for after the substantial variation under V005, however was issued before the substantial variation. As a result the administrative and substantial variation labels have been swapped.
Variation determined EPR/BS9989IJ/V004 (PAS billing reference)	12/01/2016	Administrative variation for the addition of new waste codes

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
KP3635RT)		
Variation determined EPR/BS9989IJ/V005 (PAS billing reference CP3434WP)	10/02/2016	Substantial variation for the addition of new waste codes and waste treatment plant.
Environment Agency Landfill Sector Review Permit reviewed Variation determined EPR/BS9989IJ/V006 Permit EPR/BS9989IJ (PAS Ref:GP3836DY)	08/12/2016	Consolidated permit issued in modern condition format.
Application EPR/BS9989IJ/V007 (variation)	Duly made 14/02/2017	Substantial variation to extend site boundary, include the storage and snipping of up to 600 earth moving tyres and acceptance of tyre bales for the purpose of landfill engineering.
Variation determined EPR/BS9989IJ/V007 (PAS billing reference: UP3638DF)	01/03/2018	Varied and consolidated permit issued

End of introductory note

# Permit

## The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies and consolidates

### Permit number

EPR/BS9989IJ

### Issued to

**Singleton Birch Limited** (“the operator”),

whose registered office is

**Melton Ross Quarries**

**Barnetby**

**Brigg**

**North Lincolnshire**

**DN38 6AE**

company registration number 00009433

to operate an installation at

**Camp Wood**

**Melton Ross Quarries**

**Barnetby**

**Brigg**

**North Lincolnshire**

**DN38 6AE**

to the extent set out in the schedules.

The notice shall take effect from 01/03/2018

Name	Date
J Linton	01/03/2018

Authorised on behalf of the Environment Agency

# Schedule 1

The following table summarises the changes to the permit.

Schedules	Description of change
Condition 1.2.1	Financial provision <ul style="list-style-type: none"> <li>Amended to reference provision as revised in variation V007</li> </ul>
Condition 2.2.1	The site <ul style="list-style-type: none"> <li>Amended to reference a red boundary</li> </ul>
Condition 2.6.8	Waste acceptance, total quantity of waste <ul style="list-style-type: none"> <li>Amended to update the pre-settlement drawing reference which includes the extension (cells 10 – 21).</li> </ul>
Table S1.1	Activities <ul style="list-style-type: none"> <li>Amended to include phrases which incorporate, into the activity, the storage and handling (snipping) of oversized tyres prior to disposal and the use of used tyre derived aggregate replacement (UTDAR) for the drainage blanket.</li> </ul>
Table S1.2	Operating Techniques <ul style="list-style-type: none"> <li>Amended to include variation application V007 documents</li> </ul>
Table S1.3	Improvement Conditions <ul style="list-style-type: none"> <li>Amended to extend deadlines for IC2 &amp; IC3</li> <li>Amended to include IC4 requiring the submission of a plan which includes labelled boreholes for cells 8 – 21</li> <li>Amended to include IC5 which requires the submission of proposals for an alternative up-gradient groundwater monitoring borehole (to replace BH1B) that is located closer to the east/south east boundary of the site and is used to derive appropriate EALs.</li> </ul>
Table S1.4	Annual waste input limits <ul style="list-style-type: none"> <li>Increase non-hazardous and gypsum waste from 500,000 tpa to 750,000 tpa</li> </ul>
Table S2.2	Permitted waste types for restoration <ul style="list-style-type: none"> <li>Correction of typo (metaliferous to non-metaliferous) in waste code 01 01 02</li> </ul>
Table S3.1	Leachate level limits <ul style="list-style-type: none"> <li>Amended to include cells of landfill extension (cells 10 – 21)</li> <li>Amended to include reference ‘two leachate monitoring wells in each future cell’</li> </ul>
Table S3.2	Surface water monitoring

Schedules	Description of change
Condition 1.2.1	Financial provision <ul style="list-style-type: none"> <li>• Amended to reference provision as revised in variation V007</li> </ul>
	<ul style="list-style-type: none"> <li>• Amended to revise drawing reference</li> </ul>
Table S3.3	Groundwater limits and monitoring requirements <ul style="list-style-type: none"> <li>• Amended to include revised limits for ammoniacal nitrogen and cadmium</li> </ul>
Table S3.4	Groundwater – other monitoring requirements <ul style="list-style-type: none"> <li>• Amended to include cadmium into annual monitoring parameters list</li> </ul>
Table S3.5	Landfill gas – other monitoring requirements <ul style="list-style-type: none"> <li>• Amended to revise monitoring frequency for parameters (other than Hydrogen Sulphide) from 6 monthly to Quarterly</li> <li>• Amended to include ‘trace gas’ monitoring</li> </ul>
Table S3.6	Leachate – other monitoring requirements <ul style="list-style-type: none"> <li>• Amended to include reference ‘two leachate extraction point in each future cell’</li> </ul>
Schedule 7	Site Plan <ul style="list-style-type: none"> <li>• Amended to include revised site plan with extension</li> </ul>

## Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

# Permit

## The Environmental Permitting (England and Wales) Regulations 2010

### Permit number

EPR/BS9989IJ

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BS9989IJ/V007 authorising,

**Singleton Birch Limited** (“the operator”),

whose registered office is

**Melton Ross Quarries**

**Barnetby**

**Brigg**

**North Lincolnshire**

**DN38 6AE**

company registration number 00009433

to operate an installation at

**Camp Wood**

**Melton Ross Quarries**

**Barnetby**

**Brigg**

**North Lincolnshire**

**DN38 6AE**

to the extent authorised by and subject to the conditions of this permit.

Name	Date
J Linton	01/03/2018

Authorised on behalf of the Environment Agency

# Conditions

## 1 Management

### 1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
  - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

### 1.2 Finance

- 1.2.1 The financial provision for meeting the obligations under this permit set out in the agreement made between the operator and the Environment Agency dated 29<sup>th</sup> May 2003 as varied most recently on 01/032018 shall be maintained by the operator throughout the subsistence of this permit and the operator shall produce evidence of such provision whenever required by the Environment Agency.
- 1.2.2 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover all of the following:
- (a) the costs of setting up and operating the landfill;
  - (b) the costs of the financial provision required by condition 1.2.1; and
  - (c) the estimated costs for the closure and aftercare of the landfill.

### 1.3 Energy efficiency

- 1.3.1 The operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
  - (b) Review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
  - (c) Implement any appropriate measures identified by a review.

### 1.4 Efficient use of raw materials

- 1.4.1 The operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
  - (b) maintain records of raw materials and water used in the activities;
  - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
  - (d) take any further appropriate measures identified by a review.



## **1.5 Avoidance, recovery and disposal of wastes produced by the activities**

1.5.1 The operator shall:

- (a) take appropriate measures to ensure that waste produced by the activities is avoided or reduced, or where waste is produced it is recovered wherever practicable or otherwise disposed of in a manner which minimises its impact on the environment;
- (b) review and record at least every four years whether changes to those measures should be made; and
- (c) take any further appropriate measures identified by a review.

## **2 Operations**

### **2.1 Permitted activities**

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).

### **2.2 The site**

2.2.1 The activities shall not extend beyond the site, being the land shown edged in red on the site plan at schedule 7 to this permit.

### **2.3 Operating techniques**

2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

2.3.3 For the following activities referenced in schedule 1, table S1.1 (A2) Any raw materials or fuels listed in schedule 2 table S2.5 shall conform to the specifications set out in that table.

### **2.4 Improvement programme**

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

## 2.5 Landfill Engineering

- 2.5.1 No construction of any new cell of the landfill shall commence until the operator has submitted construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.5.2 Where the operator proposes to construct any new cell other than the first cell, but proposes no change from the design of the most recently approved cell which could have any impact on the performance of any element of the design, no construction of the new cell shall commence until the operator has submitted a cell layout drawing and the Environment Agency has confirmed that it is satisfied with the cell layout drawing.
- 2.5.3 The construction of a new cell shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
  - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.5.4 No disposal of waste shall take place in a new cell until the operator has submitted a CQA Validation Report and the Environment Agency has confirmed that it is satisfied with the CQA Validation Report.
- 2.5.5 No construction of landfill infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.5.6 The construction of the landfill infrastructure shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
  - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.5.7 The operator shall submit a CQA Validation Report within four weeks of the completion of the construction of the relevant landfill infrastructure or other time period agreed in writing with the Environment Agency.
- 2.5.8 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.5.5 and 2.5.6 do not apply and the relevant landfill infrastructure may be constructed, provided that the construction proposals are submitted to the Environment Agency as soon as practicable.
- 2.5.9 For the purposes of conditions 2.5.1, 2.5.2, 2.5.4 and 2.5.5, the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the relevant construction proposals or CQA Validation Report, either:
- (a) confirmed whether or not it is satisfied; or
  - (b) informed the operator that it requires further information.
- 2.5.10 Where the Environment Agency has required further information under condition 2.5.9(b), the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the further information, either:
- (a) confirmed whether or not it is satisfied; or
  - (b) informed the operator that it requires further information.

## 2.6 Waste acceptance

- 2.6.1 For the following activities referenced in schedule 1, table S1.1 (A1) Wastes shall only be accepted for disposal if:
- (a) they are listed in schedule 2, table S2.1 and
  - (b) they are non- hazardous waste or gypsum waste and
  - (c) they are not whole used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400mm), and
  - (d) they are not shredded used tyres, and
  - (e) they are not liquid waste (including waste waters but excluding sludge), and
  - (f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown, and
  - (g) all the relevant waste acceptance procedures have been completed, and
  - (h) they fulfil the relevant waste acceptance criteria, and
  - (i) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria, and
  - (j) they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment, and
  - (k) they are wastes with a code beginning with 07 05 and 16 03, they shall exclude waste medicinal products and pharmaceutically active waste materials arising from their manufacture.
  - (l) They fulfil the relevant waste acceptance criteria and comply with the WAC limits set out in schedule 2 table S2.4.
- 2.6.2 For the following activities referenced in schedule 1, table S1.1 (A2) waste shall only be accepted for treatment if:
- (a) it is of a type and quantity listed in schedule 2, table S2.3; and
  - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.6.3 Wastes shall only be accepted for restoration where:
- (a) they are listed in schedule 2, table S2.2 and
  - (b) they are accepted in accordance with a restoration plan approved in writing by the Environment Agency.
- 2.6.4 For the following activities referenced in schedule 1, table S1.1 (A1) Gypsum and other high sulphate bearing waste shall only be disposed of in cells where no biodegradable waste is accepted. Wastes disposed of in a cell with gypsum and other high sulphate bearing wastes must meet the relevant waste acceptance criteria.
- 2.6.5 The operator shall:
- (a) visually inspect without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill and waste at the point of deposit; and
  - (b) be satisfied that the waste conforms to the requirements of condition 2.6.1.
- 2.6.6 Where the operator has taken samples to establish that the waste is in conformity with the documentation submitted by the holder then the samples taken shall be retained for at least one month and results of any analysis for at least two years.
- 2.6.7 The operator on accepting each delivery of waste shall provide a receipt to the person delivering it.

- 2.6.8 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing number ESID4 Rev 0 dated September 2016.
- 2.6.9 The quantity of waste that is deposited or recovered in the landfill in any year shall not exceed the limits in schedule 1 table S1.4.
- 2.6.10 The operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery and, where practicable, origin of any waste that is received for disposal or recovery and of the identity of the producer, or in the case of municipal waste and multiple collection vehicles, of the collector of such waste. Any information regarded by the operator as commercially confidential shall be clearly identified in the record.

## **2.7 Leachate levels**

- 2.7.1 The limits for the level of leachate listed in schedule 3 table S3.1 shall not be exceeded.

## **2.8 Closure and aftercare**

- 2.8.1 The operator shall maintain a closure and aftercare management plan.

## **2.9 Landfill gas management**

- 2.9.1 The operator shall take appropriate measures, including, but not limited to, those specified in any approved landfill gas management plan, to:
- (a) collect landfill gas; and
  - (b) control the migration of landfill gas.
- 2.9.2 The operator shall use the collected landfill gas to produce energy. If the collected landfill gas cannot be used to produce energy, the operator shall use appropriate measures to flare or treat the gas in accordance with an approved landfill gas management plan.
- 2.9.3 The operator shall:
- (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a revised landfill gas management plan;
  - (b) implement the revised landfill gas management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

# **3 Emissions and monitoring**

## **3.1 Emissions to water, air or land**

- 3.1.1 The limits in Schedule 3 shall not be exceeded.
- 3.1.2 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 table S3.2.
- 3.1.3 The operator shall prevent the input of any hazardous substances from the activities into groundwater.
- 3.1.4 The operator shall submit to the Environment Agency a review of the Hydrogeological Risk Assessment:
- (a) between nine and six months prior to the sixth anniversary of the granting of the permit, and
  - (b) between nine and six months prior to every subsequent six years after the fourth anniversary of the granting of the permit.

- 3.1.5 For the following activities referenced in schedule 1, table S1.1 (A2) Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on systematic appraisal of the risk of contamination.

### **3.2 Emissions of substances not controlled by emission limits**

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

### **3.3 Odour**

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
  - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### **3.4 Noise and vibration**

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

### **3.5 Monitoring**

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring and any other actions specified in the following tables in schedule 3 to this permit:
- (a) Leachate specified in tables S3.1 and S3.6;
  - (b) Point source emissions specified in table S3.2;
  - (c) Groundwater specified in tables S3.3 and S3.4;
  - (d) Landfill gas specified in table S3.5; and
  - (e) Surface water specified in table S3.7.
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 A topographical survey of the site referenced to ordnance datum shall be carried out and shall be used to produce a plan of a scale adequate to show the surveyed features of the site:

- (a) annually, and
- (b) prior to the disposal of waste in any new cell or new development area of the landfill, and
- (c) following closure of the landfill or part of the landfill.

## **3.6 Pests**

- 3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.
- 3.6.2 The operator shall:
- (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution hazard or annoyance from pests;
  - (b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

# **4 Information**

## **4.1 Records**

- 4.1.1 All records required to be made by this permit shall:
- (a) be legible;
  - (b) be made as soon as reasonably practicable;
  - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
  - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
    - (i) the results of groundwater monitoring;
    - (ii) sub-surface landfill gas monitoring;
    - (iii) leachate levels, quality and quantities;
    - (iv) landfill gas generation and collection;
    - (v) waste types and quantities;
    - (vi) the specification and as built drawings of the basal, sidewall and capping engineering systems.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

## **4.2 Reporting**

- 4.2.1 The operator shall send reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 A report or reports on the performance of the activities over the previous year ('the annual report') shall be submitted to the Environment Agency by 31st January each year or such other date as may

be agreed in writing by the Agency, with the exception of 4.2.2(c) that must be provided by the end of February each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the risk assessments submitted in relation to this installation and any agreed amendments thereto. The review will include written descriptions of the improvements made to operational performance during the year, action plans developed and planned improvements for the coming year;
- (b) the energy consumed at the site, reported in the format set out in schedule 4 table S4.3
- (c) the annual production/treatment set out in schedule 4 table S4.2;
- (d) the topographical surveys required by condition 3.5.3 other than those submitted as part of a CQA validation report;
- (e) the volumetric difference (reported in cubic metres) between the most recent topographical survey and the previous annual topographical survey i.e. the additional volume of the landfill void that is occupied by waste;
- (f) an assessment of the settlement behaviour of the landfill body based on the difference between the most recent topographical survey and previous annual topographical survey for the areas of the landfill which did not receive waste between the surveys;
- (g) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey;
- (h) a plan(s) ('the monitoring and extraction point plan – MEPP') showing the locations of existing and any new leachate and landfill gas extraction and all monitoring points.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) using the forms specified in schedule 4 table S4.4 or other reporting format as agreed in writing with the Environment Agency; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.2.5 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

## 4.3 Notifications

- 4.3.1 (a) In the event that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
  - (i) inform the Environment Agency,
  - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
  - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) in the event of a breach of any permit condition the operator must immediately—

- (i) inform the Environment Agency, and
- (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.4 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

## **4.4 Interpretation**

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.



# Schedule 1 – Operations

<b>Table S1.1 activities</b>				
<b>Activity reference</b>	<b>WFD Annex I and II operations (where applicable)</b>	<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity</b>	<b>Limits of specified activity</b>
A1	D5 –Specially engineered landfill; R5 - the recycling or reclamation of inorganic material and R10 – Land treatment resulting in benefit to agriculture or ecology	Section 5.2 Part A(1)(a), The disposal of waste in a landfill.	Landfill for non-hazardous waste and landfill restoration	Receipt, handling, storage and disposal of wastes, including post acceptance 'snipping' of oversized tyres (for handling and landfill stability purposes) and emplacement, consisting of the types and quantities specified in conditions 2.6, as an integral part of landfilling.  Baled tyres (Used Tyre Derived Aggregate Replacement, UTDAR) are also to be used in the engineering of the landfill drainage blankets.
A2	D9 – Physico-chemical treatment of waste	Section 5.4, Part A(1)(a)(ii), Physico-chemical treatment of non-hazardous waste	The stabilisation of titanium dioxide waste with lime prior to disposal in a facility with a capacity exceeding 50 tonnes per day	The stabilisation of titanium dioxide waste shall only be permitted following compliance with the improvement condition 2 specified in table S1.3 of the permit.  Waste arising from the production of titanium dioxide pigment using Chloride process  Treatment shall be limited to 500 tonnes per day of titanium dioxide waste.  Waste types as specified in table S2.3
<b>Directly Associated Activities</b>				
A3	D15 – Storage pending treatment		Temporary storage of titanium dioxide waste pending submission to physico-chemical treatment.	Waste arising from the production of titanium dioxide pigment using the Chloride Process.  Activity to be authorised following compliance with the improvement condition 2 table S1.3

<b>Table S1.1 activities</b>				
<b>Activity reference</b>	<b>WFD Annex I and II operations (where applicable)</b>	<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity</b>	<b>Limits of specified activity</b>
A4	N/A		Temporary storage of waste (leachate)	Leachate arising from the landfill.
A5	D6 – release to water body except seas/ oceans		Discharges of site drainage from the landfill	From surface water management system to point of entry to controlled waters.

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Application	Leachate management .The response to questions B2.3 given in section 10.0 of document reference Working Plan Issue 2 of the application	05/08/02
Application	Landfill Gas Management The response to question B2.3 given in section 9.0 of document reference Working Plan Issue 2 of the application.	05/08/02
Application	Surface water management. The response to question B2.3 given in section 6.8 of document reference Working Plan Issue 2 of the application	05/08/02
Application	Handling of incoming wastes, including discharge and emplacement. The response to question B2.3 given in section 6.4, 6.5 and 6.6 of document reference Working Plan Issue 2 of the application	05/08/02
Application	Odour management. The response to question B2.3 given in section 8.6 of document reference Working Plan Issue 2 of the application	05/08/02
Application	Control of birds, vermin and insects. The response to question B2.3 given in section 8.2 of document reference Working Plan Issue 2 of the application	05/08/02
Application	Control of windblown materials, including litter The response to question B2.3 given in section 8.1 of document reference Working Plan Issue 2 of the application	05/08/02
Application	Control of dirt. The response to question B2.3 given in section 5.5 of document reference Working Plan Issue 2 of the application.	05/08/02
Variation application	Control of emission of dusts and aerosols to air. Section 8.3.3 contained in the document entitled Camp Wood Landfill Working Plan modified section 8.3.3 submitted with the PPC Variation application dated 30/11/05	08/12/05
Variation application (EPR/BS9989IJ/V005)	Working Plan v2 – September excluding operating techniques and references to lime stabilisation of titanium dioxide.	11/11/15
Variation application (EPR/BS9989IJ/V005) Response to Schedule 5 Notice questions 3 and 5.	Section 3.0 and table 11/6 of the Camp Wood Landfill Working Plan v2 (September 2015). Table 5 – Fugitive Emissions Risk Assessment and Management Plan of H1 Environmental Risk	11/11/15

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
	<p>Assessment v2 (April 2015)</p> <p>Section 8.</p> <p>Section 8.33 of the Camp Wood Landfill Working plan v2 (Sept 2015)</p>	
Variation application (EPR/BS9989IJ/V005) Response to Schedule 5 Notice	<p>Amended Hydrogeological Risk Assessment dated November 2015.</p> <p>H1 environmental risk assessment report (April 2015 rev 1), Table 6 – accidents risk assessment and management plan and risk management measures for security and vandalism.</p> <p>Response to question 7 on fire risk from storage of tyres on site prior to disposal and control measures specified in the fire risk assessment for storage of tyres.</p> <p>Section 11.7 of the Camp Wood Landfill Working Plan v2 (September 2015)</p>	11/11/15
Variation application (EPR/BS9989IJ/V007)	<p>Hydrogeological Risk Assessment Review dated December 2016, excluding EALs for Chloride in table 2-9, 3-2 &amp; 4-4, the proposed compliance limits for Sulphate and Chloride in table 4-4, the whole of table 4-1, the whole of table 4-3 and reference to 'current leachate compliance limits' with regards to cell 4 in section 4.1.1.</p> <p>Amended Stability Risk Assessment dated December 2016.</p> <p>Environment Setting and Installation Design (6) document, dated September 2016.</p> <p>Section 4 of the Non-Technical Summary: Technical Standards</p> <p>Environmental Risk Assessment, dated December 2016, risk assessment and management plan tables 4-1, 4-2, 4-3 &amp; 4-4.</p>	23/12/2016
Variation application (EPR/BS9989IJ/V007) response to Schedule 5 Notice dated 1 <sup>st</sup> June 2017	Responses to Questions 1 – 4, 6, 8, 9, 15 – 19, 21 – 26 & 28 – 30.	25/07/2017

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Variation application (EPR/BS9989IJ/V007) response to 'outstanding Schedule 5 Notice information' request dated 21 <sup>st</sup> August 2017 Response to email for further information request dated 23 <sup>rd</sup> August 2017	Answers to all questions WAMITAB and up to date Continuing Competence certificates	15/09/2017

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
1	A Permitted Installation Decommissioning plan prior to surrender shall be produced in consultation with the Agency and in accordance with Council Directive 1999/31 EC on The Landfill of Waste (26 April 1999). It shall specify the detailed procedures the Operator proposes to implement upon the Permitted Installation being considered by the Agency to be suitable to decommission prior to surrender. The plan will be subject to approval by the Agency in writing and shall not be considered accepted or acceptable until such approval is given.	1 year prior to closure
2	<p>The operator shall submit a revised proposal in writing to the Environment Agency for approval. The proposal must contain the following:</p> <ul style="list-style-type: none"> <li>• Details of process testing for the stabilization/solidification of titanium dioxide waste undertaken at an established waste treatment facility using waste treatment equipment that complies with the requirements of sector guidance note S5.06.</li> <li>• Details of the proposed controlled and enclosed method of stabilising/solidifying titanium dioxide waste in accordance with Section 2.1.5 of IPPC 5.06. This should include detail of appropriate measures to contain lime dust.</li> <li>• Demonstration of how homogenous mixing will be achieved.</li> <li>• Demonstration that the treated waste complies with the waste acceptance criteria for the Camp Wood Landfill Site.</li> <li>• Consideration of alternative non-hazardous mixing agents (e.g. non-hazardous waste) that meet the Camp Wood Landfill waste acceptance criteria.</li> <li>• Dates for the implementation of individual measures.</li> </ul> <p>The proposal must not include:</p> <ul style="list-style-type: none"> <li>• the use of excavator bucket or JCB</li> <li>• the use of Modifirm as a binder, unless evidence is provided to demonstrate the paper sludge ash used in the mixture complies with the end of waste criteria.</li> </ul> <p>The proposals shall be implemented in accordance with the Environment Agency's written approval.</p>	31/12/2018

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
3	The Operator shall submit to the Environment Agency for approval a proposed annual tonnage limit for the acceptance of waste for restoration. Following approval from the Environment Agency the limit shall be incorporated in Table S1.4.	31/01/2018
4	<p>Submit a written plan to the Environment Agency for approval. The plan must contain labels for all proposed leachate monitoring and extraction boreholes in cells 8 – 21.</p> <p>The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission of the plan.</p> <p>You must implement the plan as approved, and from the date stipulated by the Environment Agency.</p>	01/09/2018
5	<p>Submit a written proposals to the Environment Agency for approval. The proposals must contain details for an alternative up-gradient groundwater monitoring point (to replace BH1B) that is located closer to the east/south east boundary of the site and is used to derive appropriate EALs. These proposals should be made available to your compliance officer as part of the CQA validation. The proposals must contain dates for the implementation of individual measures.</p> <p>The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission of the plan.</p> <p>You must implement the proposals as approved.</p>	01/09/2018

<b>Table S1.4 Annual waste input limits</b>	
<b>Category</b>	<b>Limit Tonnes/ Year</b>
Non-hazardous waste	750,000
Gypsum waste	
Waste for restoration	As agreed in accordance with IC3 in Table S1.3.

## Schedule 2 – List of permitted wastes

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	Description
<b>01</b>	<b>Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals</b>
<b>01 01</b>	<b>wastes from mineral excavation</b>
01 01 02	wastes from mineral non-metalliferous excavation
<b>01 03</b>	<b>wastes from physical and chemical processing of metalliferous minerals</b>
01 03 06	tailings other than those mentioned in 01 03 04 and 01 03 05
01 03 99	waste not otherwise specified
<b>01 04</b>	<b>wastes from physical and chemical processing of non-metalliferous minerals</b>
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
01 04 10	dusty and powdery wastes other than those mentioned in 01 04 07
<b>05</b>	<b>Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal</b>
<b>05 01</b>	<b>wastes from petroleum refining</b>
05 01 16	sulphur-containing wastes from petroleum desulphurisation
<b>05 07</b>	<b>wastes from natural gas purification and transportation</b>
05 07 02	wastes containing sulphur
<b>06</b>	<b>Wastes from inorganic chemical processes</b>
<b>06 01</b>	<b>wastes from the manufacture, formulation, supply and use (MFSU) of salts and their solutions and metallic oxides</b>
06 01 99	not otherwise specified
<b>06 06</b>	<b>wastes from the MFSU of sulphur chemicals, sulphur chemical processes and desulphurisation processes</b>
06 06 03	wastes containing sulphides other than those mentioned in 06 06 02
06 06 99	Wastes not otherwise specified
<b>06 11</b>	<b>wastes from the manufacture of inorganic pigments and opacifiers</b>



<b>Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste</b>	
<b>Waste code</b>	<b>Description</b>
06 11 01	calcium-based reaction wastes from titanium dioxide production
<b>07</b>	<b>Wastes from organic chemical processes</b>
<b>07 03</b>	<b>wastes from the MFSU of organic dyes and pigments (except 06 11)</b>
07 03 12	sludges from on-site effluent treatment other than those mentioned in 07 03 11
<b>10</b>	<b>Wastes from thermal processes</b>
<b>10 01</b>	<b>wastes from power stations and other combustion plants (except 19)</b>
10 01 19	wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
<b>10 06</b>	<b>wastes from copper thermal metallurgy</b>
10 06 01	slags from primary and secondary production
<b>10 12</b>	<b>wastes from manufacture of ceramic goods, bricks, tiles and construction products</b>
10 12 08	Waste gypsum from the manufacture of gypsum based construction products
<b>10 13</b>	<b>wastes from manufacture of cement, lime and plaster and articles and products made from them</b>
10 13 01	waste preparation mixture before thermal processing
10 13 04	wastes from calcination and hydration of lime
10 13 06	particulates and dust (except 10 13 12 and 10 13 13)
10 13 07	sludges and filter cakes from gas treatment
10 13 13	solid wastes from gas treatment other than those mentioned in 10 13 12
10 13 14	waste concrete and concrete sludge
10 13 99	waste not otherwise specified
<b>11</b>	<b>Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydro-metallurgy</b>
<b>11 01</b>	<b>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)</b>
11 01 10	sludges and filter cakes other than those mentioned in 11 01 09
11 01 99	waste not otherwise specified
<b>16</b>	<b>Wastes not otherwise specified in the list</b>

<b>Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste</b>	
<b>Waste code</b>	<b>Description</b>
<b>16 01</b>	<b>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)</b>
16 01 03	end-of-life tyres
<b>17</b>	<b>Construction and demolition wastes (including excavated soil from contaminated sites)</b>
<b>17 05</b>	<b>Soil (excluding excavated soil from contaminated sites), stones and dredging spoil</b>
17 05 04	Soil and stones and other than those mentioned in 17 05 03
<b>17 08</b>	<b>gypsum-based construction material</b>
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01
<b>19</b>	<b>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</b>
<b>19 02</b>	<b>wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)</b>
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05
<b>19 12</b>	<b>wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified</b>
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11

<b>Table S2.2 Permitted waste types for restoration</b>	
<b>Waste code</b>	<b>Description</b>
<b>01</b>	<b>Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals</b>
01 01	wastes from mineral extraction
01 01 02	wastes from mineral non-metalliferous extraction
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
<b>02</b>	<b>Wastes from Agriculture, Horticulture, Aquaculture, Forestry, Hunting and Fishing, Food Preparation and Processing.</b>
02 04	wastes from sugar processing
02 04 01	soil from cleaning and washing beet

<b>Table S2.2 Permitted waste types for restoration</b>	
<b>Waste code</b>	<b>Description</b>
<b>17</b>	<b>Construction and demolition wastes (including excavated soil from contaminated sites)</b>
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03
<b>19</b>	<b>Wastes from Waste Management Facilities, Off-site Waste Water treatment plants and the Preparation</b>
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified.
19 12 09	Minerals (for example sand, stones)
<b>20</b>	<b>Municipal Wastes (Household waste and similar commercial, industrial and institutional wastes) including separately collected fractions</b>
20 02	garden and park wastes (including cemetery waste)
20 02 02	Soil and stones

<b>Table S2.3 Permitted waste types and quantities for lime stabilisation</b>	
<b>Maximum quantity</b>	<b>Subject to compliance with the improvement condition 2 specified in table S1.3 of the permit, the total quantity of waste accepted at the site for stabilisation (A2 activity as specified in table S1.1), shall not exceed 182,500 tonnes per year.</b>
<b>Waste code</b>	<b>Description</b>
<b>06</b>	<b>Wastes from inorganic chemical processes</b>
06 11	Wastes from the manufacture of inorganic pigments and opacifiers
06 11 01	Calcium based reaction wastes from titanium dioxide production

<b>Table S2.4 WAC limits</b>	
<b>Component</b>	<b>Limit</b>
TOC	<3%
DOC	<800 mg/kg

<b>Table S2.5 Raw materials and fuels</b>	
<b>Description</b>	<b>Specification</b>
To be authorised subject to compliance with improvement condition 2 table S1.3	-

## Schedule 3 – Emissions and monitoring

Table S3.1 Leachate level limits and monitoring requirements			
Monitoring point reference/Description	Limit	Monitoring frequency	Monitoring standard and method
<b>Operational Cells or Phases</b> (Any cells or phases that do not have a final engineered cap agreed in accordance with the landfill engineering condition, 2.5)			
<p>Leachate compliance and monitoring points Cells 6, 8, 9 &amp; 10 – 21. Two leachate monitoring wells in each future cell As shown on drawing ESID6 Environmental Monitoring dated September 2016 and on plan submitted in response to IC4</p>	3m above cell base	Monthly	As specified in Environment Agency Guidance TGN02 (February 2003) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Or as otherwise agreed with the Agency as part of a leachate monitoring plan.
<p>Leachate compliance and monitoring points Cells 5 &amp; 7. Two leachate monitoring wells in each future cell As shown on drawing ESID6 Environmental Monitoring dated September 2016 and on plan submitted in response to IC4</p>	5m above cell base		
<b>Non Operational Cells or Phases</b> (Any cells or phases that have a final engineered cap agreed in accordance with the landfill engineering condition, 2.5) <sup>*1</sup>			

<b>Table S3.1 Leachate level limits and monitoring requirements</b>			
<b>Monitoring point reference/Description</b>	<b>Limit</b>	<b>Monitoring frequency</b>	<b>Monitoring standard and method</b>
Leachate compliance and monitoring points Cells 1, 2 & 4. As shown on drawing ESID6 Environmental Monitoring dated September 2016	3m above cell base	Monthly	As specified in Environment Agency Guidance TGN02 (February 2003) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Or as otherwise agreed with the Agency as part of a leachate monitoring plan.
Leachate compliance and monitoring points Cell 3. As shown on drawing ESID6 Environmental Monitoring dated September 2016	5m above cell base		

Notes: \*1 as cells become non-operational they will be added to this schedule

**Table S3.2 Point source emissions to water (other than sewer) – emission limits and monitoring requirements**

Emission point Ref. & Location	Parameter	Source	Limit (incl unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
SW3 as detailed on drawing ESID6 Environmental Monitoring dated September 2016.	Ammoniacal nitrogen Chloride Suspended Solids pH electrical conductivity Manganese Total Sulphates BOD Cadmium	Surface water runoff	No limit	Spot Sample	Monthly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit ( <a href="http://www.gov.uk">www.gov.uk</a> ) or such other subsequent guidance as may be agreed in writing with the Environment Agency

**Table S3.3 Groundwater – emission limits and monitoring requirements**

Monitoring point reference	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
BH11B, BH3B, BH10, BH11A, BH7B, BH20 & BH21, BH22, BH23 & BH24 (NB: If BH20 and BH21 boreholes are dry on attempting to take a sample, they will be substituted for BH12 & BH4a) – As shown on Drawing ESID6 Environmental Monitoring dated September 2016	Ammoniacal - N	0.39 mg/l	Spot Sample	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u><a href="#">risk assessments for your environmental permit (www.gov.uk)</a></u> or such other subsequent guidance as may be agreed in writing with the Environment Agency
	Chloride	250 mg/l			
	Sulphate	250 mg/l			
	Cadmium	0.0044 mg/l			

<b>Table S3.4 Groundwater – other monitoring requirements</b>			
<b>Monitoring Point Ref./Description</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
Up gradient MEPP	Water level, electrical conductivity, chloride, ammoniacal nitrogen, pH,	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your environmental permit (www.gov.uk)</u> or such other subsequent guidance as may be agreed in writing with the Environment Agency
	total alkalinity, magnesium, potassium, total sulphates, calcium, sodium, chromium, copper, iron, lead, nickel, zinc, manganese, cadmium	Annually	
	Hazardous substances	Annually for first six years of operation then every two years	
Down or cross gradient MEPP	Water level, electrical conductivity, chloride, ammoniacal nitrogen, pH,	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your environmental permit (www.gov.uk)</u> or such other subsequent guidance as may be agreed in writing with the Environment Agency  After the initial 6 year monitoring period for hazardous substances, if the results of quarterly or annual monitoring suggest an increase in contamination, the operator shall also undertake a full leachate hazardous substances screen.
	total alkalinity, magnesium, potassium, total sulphates, calcium, sodium, chromium, copper, iron, lead, nickel, zinc, manganese, cadmium	Annually	
	Hazardous substances detected in leachate	Annually for first six years of operation then every two years	
MEPP	Base of monitoring point (mAoD)	Annually	



**Table S3.5 Landfill gas – other monitoring requirements**

Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
In waste gas monitoring boreholes or sealed leachate wells as shown on Drawing ESID6 Environmental Monitoring dated September 2016	Methane Carbon Dioxide Oxygen Carbon Monoxide Differential pressure Atmospheric pressure	Quarterly	Calibrated handheld monitoring instrument	For cells or phases which have no active gas extraction. Gas extraction system shall be installed and extraction commenced once monitoring shows onset of methane production in waste at a rate that can be sustainably extracted. Once gas extraction has commenced in a particular cell or phase, there is no longer a requirement to carry out this monitoring.
	Hydrogen Sulphide	Annually	Calibrated handheld monitoring instrument or Tedlar Bag sample in accordance with LFTGN04 (Version 3 March 2010) or other such subsequent guidance as may be agreed in writing with the Environment Agency or a method agreed with the Environment Agency.	
One in waste borehole or one leachate well per cell	Trace gas	Annually	Trace gas analysis in accordance with LFTGN04 v 3.0 2010 or a trace gas characterisation method agreed with the Environment Agency or such other subsequent guidance as may be agreed in writing with the Environment Agency	The concentration of trace gas components shall be assessed against the assumptions made in the Landfill gas risk assessment and dispersion modelling.

<b>Table S3.6 Leachate – other monitoring requirements</b>				
<b>Monitoring point reference or description</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other specifications</b>
<b>Operational Cells or Phases</b> <b>(Any cell or phases that do not have a final engineered cap agreed in accordance with condition 2.5)</b>			At leachate compliance point as listed in table S3.1.	
MEPP One leachate extraction point in each future cell	pH, EC, total alkalinity, ammoniacal nitrogen, Chloride, COD, BOD, cadmium, chromium, copper, lead, nickel, iron, arsenic, magnesium, potassium, total sulphates, calcium, sodium, zinc, manganese	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u><a href="#">risk assessments for your environmental permit (www.gov.uk)</a></u> or such other subsequent guidance as may be agreed in writing with the Environment Agency	None
MEPP One leachate extraction point in each future cell	Hazardous substances	Annually		None
MEPP One leachate extraction point in each future cell	Depth to base (mAoD)	Annually		None
<b>Non Operational Cells or Phases</b> <b>(Any cell or phases that have a final engineered cap agreed in accordance with condition 2.5)</b>				

<b>Table S3.6 Leachate – other monitoring requirements</b>				
<b>Monitoring point reference or description</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other specifications</b>
MEPP	pH, EC, total alkalinity, ammoniacal nitrogen, Chloride, COD, BOD, cadmium, chromium, copper, lead, nickel, iron, arsenic, magnesium, potassium, total sulphates, calcium, sodium, zinc, manganese,	Annually		
MEPP	Hazardous substances	Once every four years		None
MEPP	Depth to base (mAoD)	Annually		

<b>Table S3.7 Surface water – other monitoring requirements</b>				
<b>Monitoring Point Ref. /Description</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other specifications</b>
MEPP	Visual Oil and Grease Ammoniacal nitrogen Chloride Suspended Solids pH electrical conductivity	Monthly	Spot sample	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u><a href="#">risk assessments for your environmental permit (www.gov.uk)</a></u> or such other subsequent guidance as may be agreed in writing with the Environment Agency

## Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

<b>Table S4.1 Reporting of monitoring data</b>		
<b>Parameter</b>	<b>Reporting period</b>	<b>Period ends</b>
Leachate and/ or groundwater level As specified by schedule 3, table S3.1	Every 3 months	31 March, 30 June, 30 September, 31 December
Point source emission to water (other than sewer) As specified by schedule 3, table S3.2	Every 3 months	31 March, 30 June, 30 September, 31 December
Emission to groundwater As specified by schedule 3, table S3.3	Every 3 months	31 March, 30 June, 30 September, 31 December
Other groundwater monitoring As specified by schedule 3, table S3.4	Every 3 months	31 March, 30 June, 30 September, 31 December
Other Landfill gas monitoring As specified by schedule 3, table S3.5	Every 3 months	30 June, 31 December
Hydrogen Sulphide monitoring	Every 12 months	31 December
Other leachate monitoring As specified by schedule 3, table S3.6	Every 12 months	31 December
Other surface water monitoring As specified by schedule 3, table S3.7	Every 12 months	31 December
Meteorological data Landfill Directive, annex III, section 2	Every 12 months	31 December

\* - where the reporting period is 12 months, you may submit this information as part of the 'annual report' required by condition 4.2.2.

<b>Table S4.2: Annual production/treatment</b>	
Leachate: Disposed of off-site; Disposed of to any onsite effluent treatment plant; Recirculated into the waste mass. Accepted from offsite for treatment at any onsite effluent treatment plant.	Cubic metres/year

<b>Table S4.3 Performance Parameters</b>			
<b>Parameter</b>	<b>Frequency of assessment</b>	<b>Annual total</b>	<b>Unit</b>
Energy used (including for leachate treatment)	Annually		MWh of electricity or natural gas

<b>Table S4.4 Reporting Forms</b>		
<b>Media/parameter</b>	<b>Reporting Format</b>	<b>Date of Form</b>
Leachate	Form leachate 1 or other reporting format to be agreed in writing with the Environment Agency	05/12/2016
Controlled water	Form Water 1 or other reporting format to be agreed in writing with the Environment Agency	05/12/2016
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with the Environment Agency	05/12/2016
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with the Environment Agency	05/12/2016
Waste Return	E-waste Return Form	-
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Environment Agency	

# Schedule 5 – Notification

This page outlines the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

## Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

<b>(a) Notification requirements for any incident or accident which significantly affects or may significantly affect the environment</b>	
<b>To be notified within 24 hours of detection</b>	
Date and Time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

<b>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

<b>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Measures taken, or intended to be taken, to stop the emission	

<b>Time periods for notification following detection of a breach of a limit</b>	
<b>Parameter</b>	<b>Notification period</b>

<b>(c) Notification requirements in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment</b>	
<b>To be notified within 24 hours of detection</b>	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

## Part B to be supplied as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

<b>Name*</b>	
<b>Post</b>	
<b>Signature</b>	
<b>Date</b>	

\* authorised to sign on behalf of the operator

## Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“annually” means once every year.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“Background concentration” means such concentration of that substance as is present in:

- For emissions to surface water, the surface water quality up-gradient of the site; or
  - For emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge; or
  - For emissions of landfill gas, the ground or air outside the site and not attributable to the site.
- (a) “Cell layout drawing” means: A drawing or drawings of the proposed new cell that illustrate(s) in sufficient detail:
- (i) the location of the new cell on the site;
  - (ii) the proposed level (Above Ordnance Datum) of the base of the excavation;
  - (iii) the proposed finished levels of all containment and leachate drainage layers;
  - (iv) the positions of leachate management infrastructure; and
  - (v) the positions of landfill gas infrastructure (if appropriate).
- (b) A detailed written explanation of any minor design changes from the most recently approved cell that result from the new cell layout. This would include, for example:
- (i) changes to slope length and gradient within the cell;
  - (ii) new leachate or landfill gas infrastructure construction design;
  - (iii) slope stability issues such as new basal excavation level; and/or
  - (iv) depth of waste.

“Construction Proposals” means written information, at a level of detail appropriate to the complexity and pollution risk, on the design, specifications of materials selected, stability assessment (where relevant) and the construction quality assurance (CQA) programme in relation to the New Cell or Landfill Infrastructure.

“CQA Validation Report” means the final “as built” construction and engineering details of the New Cell or of the Landfill Infrastructure. It must provide a comprehensive record of the construction and must include, where relevant:

- The results of all testing required by the CQA programme - this must include the records of any failed tests with a written explanation, details of the remedial action taken, referenced to the appropriate secondary testing;
- Plans showing the location of all tests;
- “As-built” plans and sections of the works;
- Copies of the site engineer’s daily records;
- Records of any problems or non-compliances and the solution applied;



- Any other site specific information considered relevant to proving the integrity of the New Cell or Landfill Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the Construction Proposals.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations 2010, SI 2010 No.675. Words and expressions used in this permit which are also used in those Regulations have the same meanings as in those Regulations.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

“exceeded” means that a value is above a permitted limit, or where a range of values or a minimum value is set as a permitted limit it means a value outside that range or below the minimum value, whichever is applicable.

‘Hazardous property’ has the meaning in Annex III of the Waste Framework Directive

“Hazardous substances” as defined by the Environmental Permitting (England and Wales) Regulations 2010, SI 2010 No.675, schedule 22 and listed in our Hydrogeological risk assessment guidance, annex J to our H1 risk assessment guidance.

‘Hazardous waste’ has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 (as amended)

“Landfill Infrastructure” means any specified element of the:

- permanent capping;
- temporary capping (i.e. engineered temporary caps not cover materials);
- leachate abstraction systems;
- leachate transfer, treatment and storage systems;
- surface water drainage systems;
- leachate monitoring wells;
- groundwater monitoring boreholes;
- landfill gas monitoring boreholes;
- landfill gas management systems;
- lining within the installation.

within the site.

“Liquids” means any liquid other than leachate within the engineered landfill containment system.

“List of Wastes” means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended from time to time.

“LFTGN 05” means Environment Agency Guidance for monitoring enclosed landfill gas flares.

“LFTGN 07” means Environment Agency Guidance on monitoring landfill gas surface emissions.

“LFTGN 08” means Environment Agency Guidance for monitoring landfill gas engines.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"inert waste" means waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater

"Medicinal product" means any medicine licensed by the Medicines and Healthcare products Regulatory Agency (MHRA) or their predecessors under the Medicines Act 1968, section 130.

"M2" means Environment Agency Guidance Monitoring of stack emissions to air.

"New Cell" means any new cell, part of a cell or other similar new area of the site where waste deposit is to commence after issue of this permit and can comprise:

- groundwater under-drainage system;
- permanent geophysical leak location system;
- leak detection layer;
- sub-grade;
- barriers;
- liners;
- leachate collection system;
- leachate abstraction system;
- separation bund/layer;
- cell or area surface water drainage system;
- side wall subgrade and containment systems;

for the New Cell.

"MEPP" Monitoring and extraction point plan, required by condition 4.2.2(h) to specify extraction points and routine monitoring locations.

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"No impact" means that the change made to the construction process will not affect the agreed design criteria, specification or performance in a way that has a negative effect.

"Pests" means Birds, Vermin and Insects.

"Previous year" means the 12 month period preceding the month the annual report is submitted in.

"quarter" means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

"Relevant waste acceptance procedures" means the procedure for the acceptance of waste at landfills and the associated sampling and test methods specified in the Council Decision Annex (2003/33/EC, European Council of 19 December 2002).

"Relevant waste acceptance criteria" means the waste acceptance criteria and the associated sampling and test methods specified in the Council Decision Annex (2003/33/EC, European Council of 19 December 2002).

"Review of the Hydrogeological Risk Assessment" means a written review of the hydrogeological risk assessment included in the Application, together with any other parts of the Application that addressed the requirements of the EP Regulations. The review shall assess whether the activities of disposal or tipping for the purpose of disposal of waste authorised by the permit continue to meet the requirements of the EP Regulations.

'Sustainably extracted' means where suction can be applied to the extraction wells such that a flow rate of landfill gas, with a methane content capable of either being combusted, or treated by bio-oxidation, can be extracted without increasing the risk of air ingress to the waste or inducing aerobic degradation within the waste.

'Waste code' - See 'List of Wastes'.

"WFD" means Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste [and repealing certain Directives] – the Waste Framework Directive.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means the standards included in Environment Agency Guidance for Monitoring Enclosed Landfill Gas Flares LFTGN 05 or Guidance for Monitoring Landfill Gas Engine Emissions LFTGN 08

Where the following terms appear in the waste code list in Tables S2.1, S2.2 or S2.3 they have the meaning given below:

'hazardous substance' means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008;

'heavy metal' means any compound of antimony, arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as hazardous substances;

'polychlorinated biphenyls and polychlorinated terphenyls' ('PCBs') means PCBs as defined in Article 2(a) of Council Directive 96/59/EC'.

Article 2(a) says that 'PCBs' means:

- polychlorinated biphenyls
- polychlorinated terphenyls
- monomethyl-tetrachlorodiphenyl methane, Monomethyl-dichloro-diphenyl methane, Monomethyldibromo-diphenyl methane
- any mixture containing any of the above mentioned substances in a total of more than 0,005 % by weight;

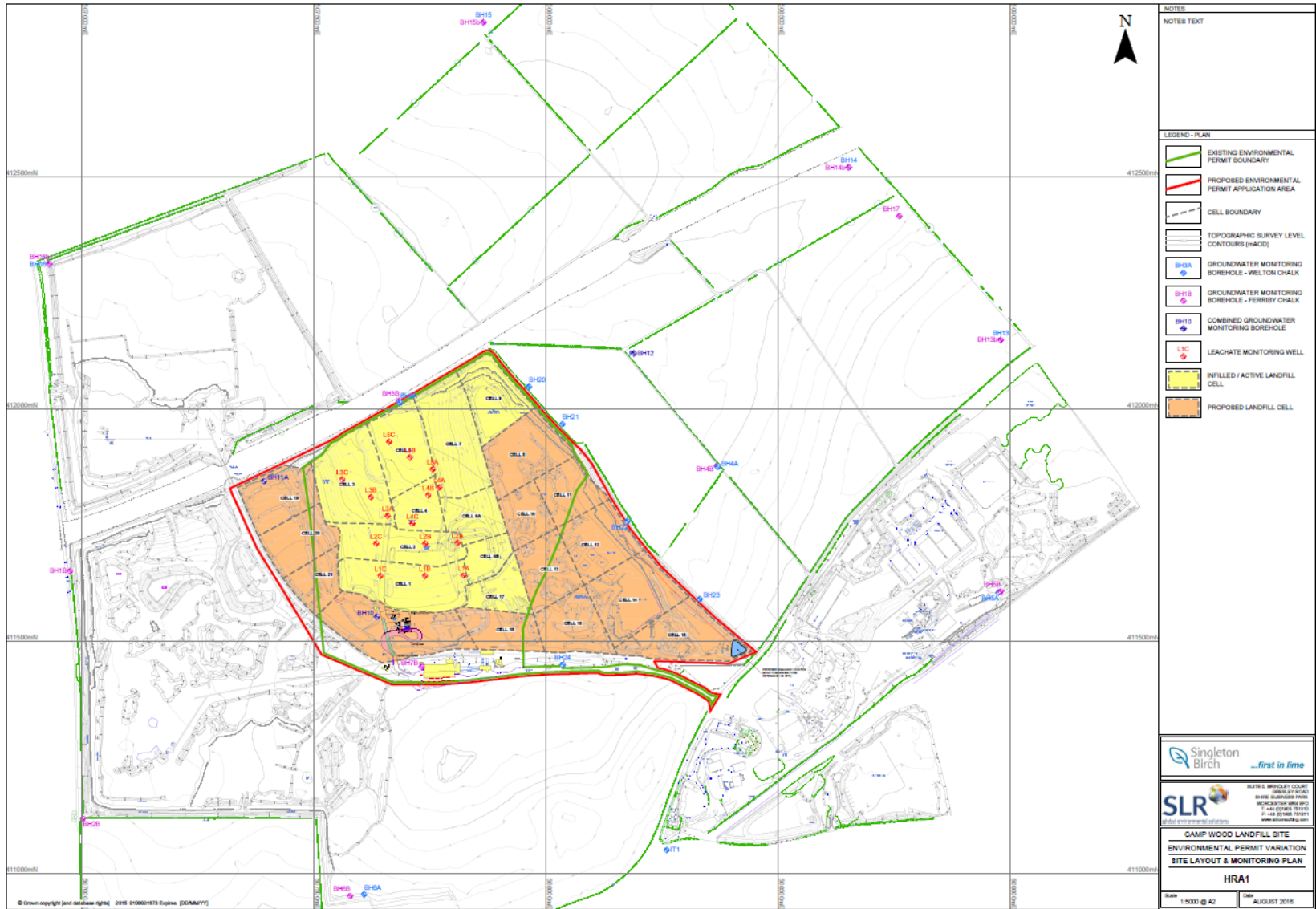
'transition metals' means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances;

'stabilisation' means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste;

'solidification' means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste;

'partly stabilised wastes' means wastes containing, after the stabilisation process, hazardous constituents which have not been changed completely into non-hazardous constituents and could be released into the environment in the short, middle or long term.

# Schedule 7 – Site plan



END OF PERMIT

Permit number  
EPR/BS9989IJ