

CONTROL OF POLLUTION ACT 1974
PART I

WASTE DISPOSAL LICENCE

THE DELYN BOROUGH COUNCIL

HEREBY GRANT a Waste Disposal Licence, pursuant to an application dated
, in respect of the following:

Full name and address of licence holder	The Secretary, (Operating as Mold Environmental) Castdeep Limited. Yorke House, Grosvenor Street, Mold, Clwyd.
Full name and address of local representative (if any) of licence holder	
Location of site to which this licence relates	Land at Waen Farm, Nercwys Outlined in red on attached Plan A.
Form of deposit or disposal to which this licence relates	Landfill operations.
Types of waste of which deposit or disposal is authorised and any limitation as to quantity	As per attached Condition No. 1.4

This Licence is granted subject to the following conditions:—

as attached

Dated 11th October

19 90 .

(Signed)

Chief Environmental Health ~~Services~~ Officer

THE LICENCE HOLDER SHOULD READ CAREFULLY THE NOTES OVERLEAF.

Health Department,
Civic Offices,
Coleshill Street,
Holywell, Clwyd.
Telephone: 710710

WAEN FARM, LANDFILL SITE, NERCWYS, NR. MOLD, CLWYD

1. General Conditions and Types of Waste

- 1.1 This licence shall relate to the area of land edged round in blue on Plan A attached to this licence henceforth called "the site". No deposit of waste shall take place outside the area of land edged round in red on Drawing No. 1 (attached).
- 1.2 The site shall be operated only between the hours of 7.30 a.m. to 5.00 p.m. on Mondays to Fridays, and 7.30 a.m. to 1.00 p.m. on Saturdays in each week except with the prior written consent of the Disposal Authority. The above specified periods during which the site is permitted to operate shall be termed the working day for the purpose of this licence.
- 1.3 No waste shall be deposited at the site during the hours covered by official lighting up times as published by the Science Research Council (i.e. half an hour after sunset to half an hour before sunrise) unless lighting to a specification agreed with the Disposal Authority has been provided on site.
- 1.4 The types of waste to be deposited at the site shall be as follows subject to paragraph (A) to (F) below:-
 - i) Stone, excavated soil, concrete, slate, clay, tarmac and builders rubble excluding timber.
 - A) The total quantity of waste accepted daily shall not exceed the operational capability of the facilities available on site. If the total quantity of waste accepted daily exceeds the operational capability of the facilities on site, the Disposal Authority may:
 - i) apply conditions limiting the quantity of waste accepted daily until adequate additional facilities are provided;
 - ii) require the operator to provide additional facilities to ensure that waste is properly deposited and adequately covered.
 - B) No waste shall be deposited in drum containers at the site.
 - C) No drum containers shall be deposited on the site.
 - D) No liquid waste or sludges shall be deposited at the site.
 - E) No clinical waste as defined in Regulation 2(1) of the Collection and Disposal of Waste Regulations 1988 shall be deposited at the site.
 - F) No types of waste other than those specifically authorised above shall be deposited at the site and without prejudice to the foregoing.
- 1.5 No waste shall be deposited on site until all the constructional requirements specified in this licence are provided at the site.
- 1.6 All material previously deposited within 25 metres of the Railway Bridge, which is not permitted under Condition 1.4 shall be removed for the site within one month of the date this licence is issued.
- 1.7 The phasing of the operations shall be in accordance with Drawing No. 3.

2. Working Plan, Phasing and Site Preparation

- 2.1 Without prejudice to any other provisions of these conditions, all operations at the site shall be conducted in accordance with the Working Plan. Any alterations to the Working Plan shall require the prior written approval of the Disposal Authority.
- 2.2 Details of any proposed amendments to the Working Plan requiring approval by the Disposal Authority by virtue of condition 2.1 of this licence shall be submitted to the Disposal Authority along with the proposed date of implementation at least one month before the proposed date of such implementation.
- 2.3 All waste shall be deposited in accordance with the details specified in the working plan. Each phase shall be completed before the deposit of waste is commenced in any subsequent phase. Capping and restoration of the completed phase shall then take place during the period when waste is deposited in the subsequent working phase. This system shall continue until all phases have been completed and restored.
- 2.4 Each completed phase shall be provided with capping consisting of a minimum of one metre thickness of clay or other low permeability material. This shall be placed in layers of no more than 0.3 metre thickness to allow adequate compaction.
- 2.5 The capping of the site as required by condition 2.4 of this licence shall be carried out using naturally occurring uncontaminated clay or other low permeability material. This clay or other low permeability material shall also be free from rocks, concrete, boulders, peat, logs, stumps or perishable materials having a volume greater than 0.05 cubic metres.
- 2.6 No waste shall be deposited in any individual phase until all available topsoil has been removed from that phase.

3. Site Control and Site Roads

- 3.1 A site identification board of minimum size 100 cms by 100 cms, of durable material and finish shall be displayed at the site entrance in the position as specified in the Working Plan, showing the site name and licence number, the hours when the site is open for the acceptance of wastes and giving the name, address and telephone number of the operator (and his local agent), and of the Disposal Authority responsible for issuing this licence. It shall also bear the words "NO UNAUTHORISED ACCESS".

Site control

- 3.2 The site shall at all times be manned by the person designated in Condition 3.3 or a deputy notified to the Disposal Authority when it is open for the reception of wastes.
- 3.3 A person shall be designated as responsible for the security, supervision and satisfactory operation of the site and the Disposal Authority shall be notified of such person's name, address and telephone number at which he can be contacted during operational hours. Specified in Condition 1.2. Any change shall be communicated to the Disposal Authority immediately and confirmed in writing.
- 3.4 The terms of this licence shall be made known to all persons manning the site and a copy of this site licence and the Working Plan shall be displayed at the site control office.
- 3.5 All wastes shall be visually inspected immediately on or before deposition on site, to ensure that they conform with the requirements of condition 1.4 of this licence. Wastes which do not conform with the said condition shall be rejected as being unsuitable for disposal at the site and either removed from the site immediately or placed in the skips provided for the removal of unauthorised materials as shown on Drawing No. 2.

- 3.6 A written record shall be kept of the types and quantities of waste deposited, the name of the person or company delivering the waste, the origin of the waste and the registration number of every vehicle bringing such waste to the site. This written record shall be kept at the site office and be made available for inspection by any authorised officer of the Disposal Authority upon demand. A true summary of this information shall be forwarded to the Disposal Authority at one monthly intervals commencing from the date of issue of this licence.
- 3.7 A site diary shall be kept at the site office in which the following data shall be recorded:- fires, site inspections, monitoring results etc. The site diary shall be kept up to date with all results and data being entered into it no later than five working days after they have become available. The site diary shall be made available for inspection by any duly authorised officer of the Disposal Authority.

Storage Tanks

- 3.8 Any tanks, drums, or other containers used for the storage of petroleum or other fuel must be surrounded by an impermeable barrier, capable of impounding 110% of the capacity of the largest tank. The containers referred to above shall be labelled as to the contents thereof and shall at all times be maintained in a condition of good repair with no leakage. All fill and drain pipes shall be in the curtilage of the impermeable bund. If leakage is found to be occurring the tank shall be repaired or replaced if necessary within 7 working days. Any liquid in the bund shall be removed and disposed of.

Fencing and Gates

- 3.9 The site shall be provided with the fencing as specified in Drawing No. 2. The site entrance shall be fitted with lockable gates at least 1.8 m high, capable of preventing entry by persons and vehicles.
- 3.10 The gates required by condition 3.9 of this licence shall be kept locked shut at all times when the site is unattended.
- 3.11 All site fences and gates shall be inspected at intervals of not more than 7 days. Any damage which impairs their effectiveness found during the course of these inspections or at any other time shall be repaired within 2 working days.

Site Access and Roads

- 3.12 Access roads of at least 50 m length and 6 m width shall be constructed by the laying of 0.3 metre of compacted hardcore, or clean rubble, to a height of 0.15 above the ground they traverse.
- 3.13 The primary site road as required by condition 3.16 shall be maintained in good repair. Any potholes shall be repaired within five working days.
- 3.14 Wheel cleaning apparatus shall be provided, properly maintained and used as necessary to ensure that no mud or stones, wastes or any other debris from the site is deposited on the public highway.

4. Site Operations

- 4.1 No material shall be burned within the boundaries of the site.
- 4.2 Any outbreaks of fire on the site shall be treated as an emergency and steps taken to extinguish it immediately.
- 4.3 Any outbreak of fire on the site shall be notified forthwith to the Disposal Authority.

- 4.4 Solid waste shall be compacted and formed into a layer as soon as possible after deposit and not later than at the end of the working day in which the waste was deposited.
- 4.5 The depth of a layer of waste shall not exceed 3 metres after initial compaction.
- 4.6 Any working faces and flanks shall not have gradients steeper than 1 in 3.
- 4.7 Each layer of waste and covering material shall be laid to a fall to encourage surface water run off.
- 4.8 Not less frequently than once a week any loose waste which may be lying on the site shall be gathered and disposed of in such a way as to keep the site tidy.
- 4.9 Litter screens shall be available on site to be positioned immediately downwind of the working face having regard to the manoeuvring needs of vehicles. The screens shall be positioned as and when the strength of the wind dictates or during periods prescribed by the Disposal Authority.
- 4.10 Material arrested by the litter screens shall be removed not later than the end of the working day so as to maintain the efficiency of the screens and the tidiness of the site.
- 4.11 Any waste material which is blown against the boundaries of the site or which is blown from the site shall be removed before the end of the working day.
- 4.12 The site shall be inspected at least once in each week for infestation by insects and vermin. De-infestation measures shall be applied as necessary. Records of dates of inspections, disinfection measures applied and notification to the Local Authority under Section 3 of the Prevention of Damage by Pests Act 1949 are to be kept in the site diary.
- 4.13 Waste, once deposited, shall not be excavated on the site without prior written permission of the Waste Disposal Authority.

5. Surface Water Drainage and Leachate Control

Surface Water Drainage

- 5.1 The 12" land drain on the bed of the former Railway Line shall be examined and put in good order to ensure an unobstructed flow of surface water is available along the complete length of the site. The drainage system shall be maintained in good working order.

Leachate Control

- 5.2 A leachate monitoring chamber shall be constructed at the location shown on Drawing No. 1 within 3 months of this licence being issued. Construction details of the chamber shall be agreed by the Disposal Authority before its construction.
- 5.3 Water samples shall be taken from the said leachate monitoring chamber at six monthly intervals from the date of commencement of this licence. The samples shall be analysed for the full schedule of parameters detailed in Appendix 3 and the results of the analysis forwarded to the waste disposal Authority within one month of the sample being taken.
- 5.3 All water and leachate analysis results shall be written into the site diary as required to be kept by condition 3.6 of this licence.

Landfill Gas Control

- 5.5 Gas monitoring wells shall be provided in the locations specified on Drawing No. 1 and in accordance with the details shown on Drawing No. 4. The wells will be progressively constructed as levels are raised and will be taken through the top of the finished land form.
- 5.6 Monitoring for the methane, carbon dioxide, lower explosive limit and oxygen components of landfill gas shall be carried out on each gas monitoring well. Monitoring shall be carried out by taking a minimum of three repeat readings from each monitoring point at intervals of not more than one month.
- 5.7 The equipment to be used to determine gas concentrations in the monitoring boreholes shall be capable of giving readings in:-
 % Methane (CH₄) by volume
 % LEL (Lower Explosive Limit) 10% and 100% scales
 % Oxygen (O₂) by volume
 % Carbon Dioxide (CO₂) by volume
- 5.8 Gas detection equipment used for landfill gas monitoring shall be calibrated in accordance with the manufacturer's instructions for the gas it is intended to monitor.
- 5.9 The results of the gas monitoring required by conditions 5.5 to 5.8 of this licence shall be written into the site diary as required to be kept by condition 3.6 of this licence. A true copy of these results shall be forwarded to the Disposal Authority at six monthly intervals. The parameters to be measured and recorded in the site diary shall include (1) Lower Explosive Limit (2) Methane (3) Oxygen and (4) Carbon dioxide. The form of record keeping should be as indicated in Appendix 2 of this licence or in a form approved by the disposal authority.
- 5.10 If at any time gas levels greater than 1% flammable gas or 1.5% carbon dioxide above background levels, by volume in air, are detected in any sub-surface monitoring point situated outside the area of waste deposit then the gas control system shall be deemed to be inadequate. The Disposal Authority shall be informed before the end of the following working day, and this information shall also be confirmed in writing within seven days.

6. Conditions Relating to Badger Setts

- 6.1 All active badger setts shall be fenced off from the landfilling operations with post and wire fencing to British Standard BS1722 Part 3. The fences should be a minimum of 12 metres from the sett entrances unless otherwise agreed with the Disposal Authority. The fence shall be at least 1 m high and the top of the posts marked with high visibility tape or paint. The fencing shall be inspected weekly and damage repaired within 3 working days.
- 6.2 No waste shall be deposited over any active badger setts.
- 6.3 No waste shall be deposited within 15 m of any active badger sett,
- 6.4 No plant, machinery, or vehicles shall be allowed to run over, or encroach within 15 m of any badger sett.
- 6.5 Any waste material, tins, hollow vessels, paper, other loose debris, or windblown material which encroaches within 15 m of the badger setts, or collects against the fencing shall be removed daily.

6.6 No waste shall be deposited within 30 m of the badger setts during the months of January to March inclusive. No waste shall be deposited within 20 m of the badger setts during the months of April to June inclusive.

7. Definitions

7.1 Working Plan shall mean the working statement, and accompanying drawings for this site submitted to, amended and approved by the disposal authority which form part of this licence.

7.2 Disposal Authority shall mean Delyn Borough Council, Civic Offices, Coleshill Street, Holywell, Clwyd.

7.3 Duly Authorised Officer shall mean any person authorised in writing by the Disposal Authority pursuant to Section 91(1) of the Control of Pollution Act 1974.

7.4 Licence Holder shall mean the person or persons to whom this licence is granted.

7.5 Biodegradable shall mean material which may be broken down by the action of micro-organisms.

7.6 Leachate shall mean liquid which seeps through the landfill and by doing so extracts substances from the deposited waste.

7.7 The Act shall mean the Control of Pollution Act 1974 as amended.

7.8 Environmental Hazard shall have the meaning contained in Section 4(50) of the Control of Pollution Act 1974.

7.9 Bund except for any specified in condition shall mean an embankment of clay, hardcore, bricks, stone, concrete, excavated road materials, subsoil or topsoil, but shall not contain plastics, paper, materials containing asbestos, or containers.

7.10 Cell shall mean the compartment within a landfill in which waste is deposited. The boundaries of each cell shall be as specified in the Working Plan.

7.11 Capping shall mean the covering of the landfill with clay or other low permeability material to inhibit the penetration of liquid.

7.12 Operating shall mean the deposit of waste or acceptance of waste for deposit and all matters incidental thereto.

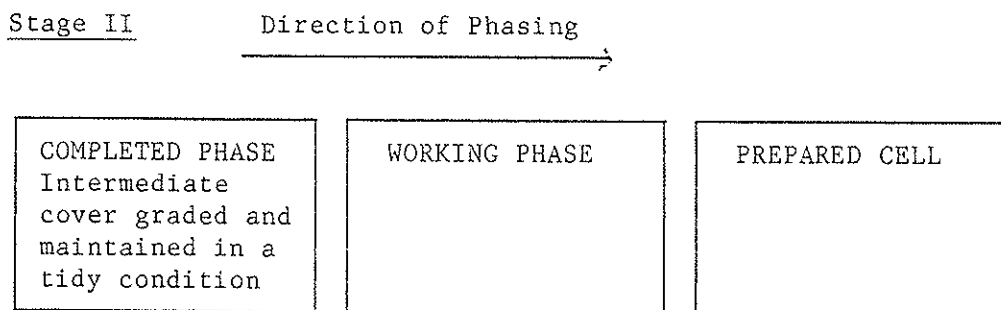
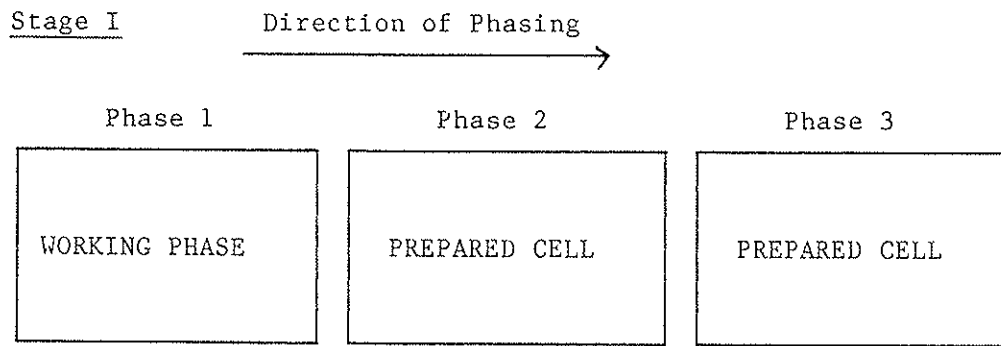
7.13 Site Diary shall mean a daily record of all site operations as required and specified in these conditions.

7.14 Lower Explosive Limit shall mean the lowest percentage concentration by volume of a mixture of a flammable gas with air which will propagate flame at 25°C and atmospheric pressure.

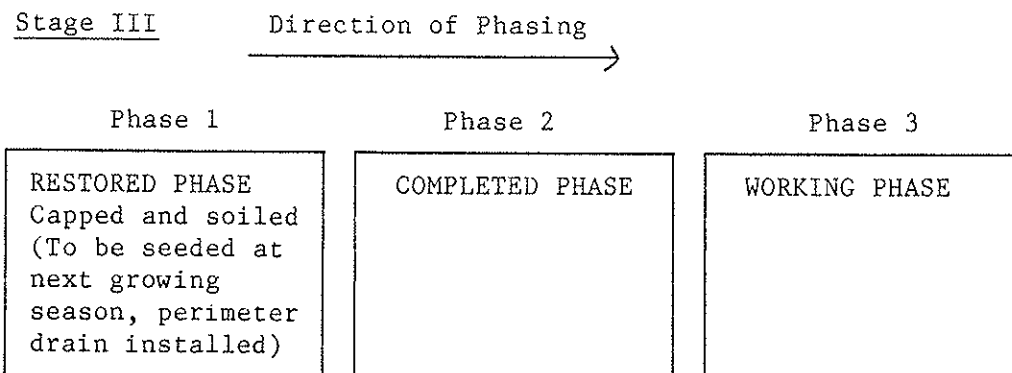
7.15 Drum Container shall mean any container in which material is stored, but such containers having storage capacities less than 5 litres or alternatively greater than 250 litres shall not be regarded as drum containers for the purposes of this licence.

7.16 Operational Capability. The quantity of waste handled daily at the site which can be landfilled to the standards required by this licence using the plant, manpower, cover material and other facilities available on site.

Schematic Explanation of Progressive Restoration: Condition 2.6.

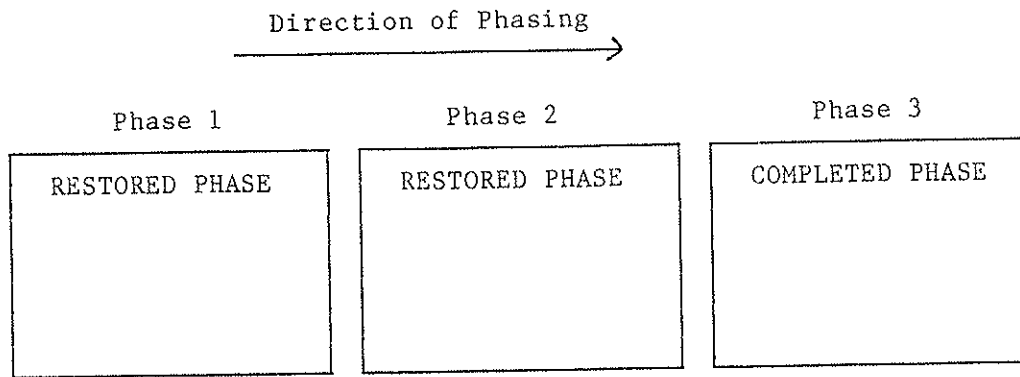


The completed phase (phase 1) shall be capped and restored in conjunction with waste deposit in the subsequent working phase (phase 2). Waste deposit shall not take place in any subsequent prepared cell until waste deposit in the working phase (phase 2) is complete and not until the previous completed phase (phase 1) is restored.



The completed phase (phase 2) shall be capped and restored during the period of waste deposit in the subsequent working phase (phase 3).

Stage V



Site now ready for complete restoration.

The above system can be applied to any number of phases or sequence of phases depending upon the operational size of each phase.

FORM OF REPORTING

The way in which monitoring results should be reported is shown in figure (1). This is an example part of a landfill gas site register. Licence holders wishing to present their monitoring results in an alternative format should check with the Waste Disposal Authority but it must be remembered that the Authority will have to cross reference monitoring information from a large number of sites and so the use of a standard format is preferable.

Figure 1

[illegible]

Borehole		% Vol. CO ₂					ppm H ₂ S					Ground Pressure / Gas Flux	
REF	Depth cm	30/6	7/7	13/7	26/7	3/8	20/6	7/7	13/7	26/7	3/8		
1A	9	40	41	40	40	26	0	0	0	0	0		
1B	20	1	3	2	3	6	0	0	0	0	1		
2A	10	0	0	5	0	1	15	0	0	0	0		
2B	20	3	4	8	8	20	0	0	0	0	0		
3A	10	0	0	0	0	0	0	0	0	0	0		
3B	20	40	32	30	30	25	10	10	12	15	2		
4A	5												
4B	11												
4C	20												
5A	5												
5B	10												
5C	20												

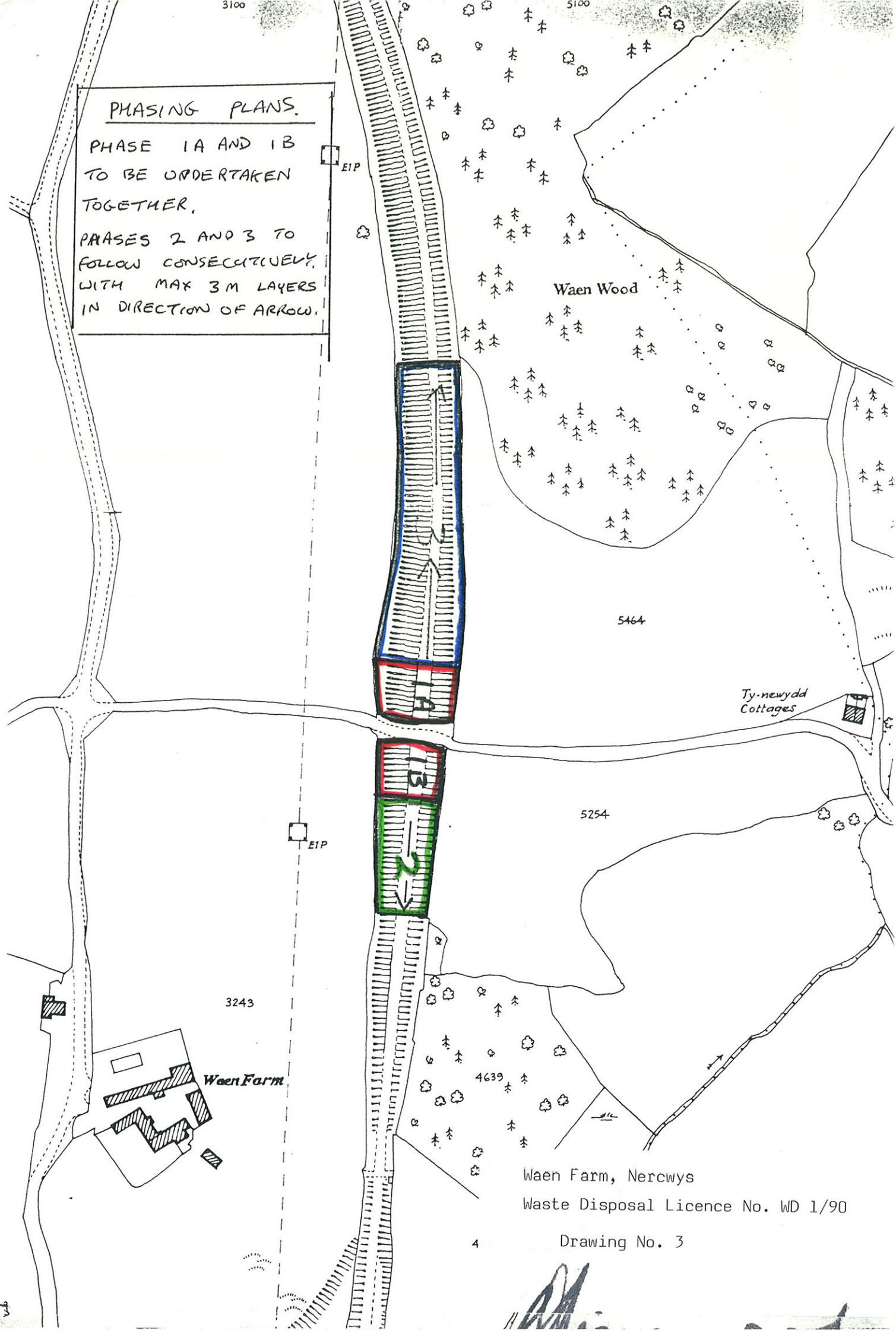
Leachate parameters to be analysed at six monthly intervals

- (1) Biological Oxygen Demand
- (2) Chemical Oxygen Demand
- (3) Ph
- (4) Ammonia Mg/L
- (5) Chloride Mg/L
- (6) Iron Mg/L
- (7) Zinc
- (8) Electrical Conductivity
- (9) Total Organic Carbon

PHASING PLANS.

PHASE 1A AND 1B
TO BE UNDERTAKEN
TOGETHER.

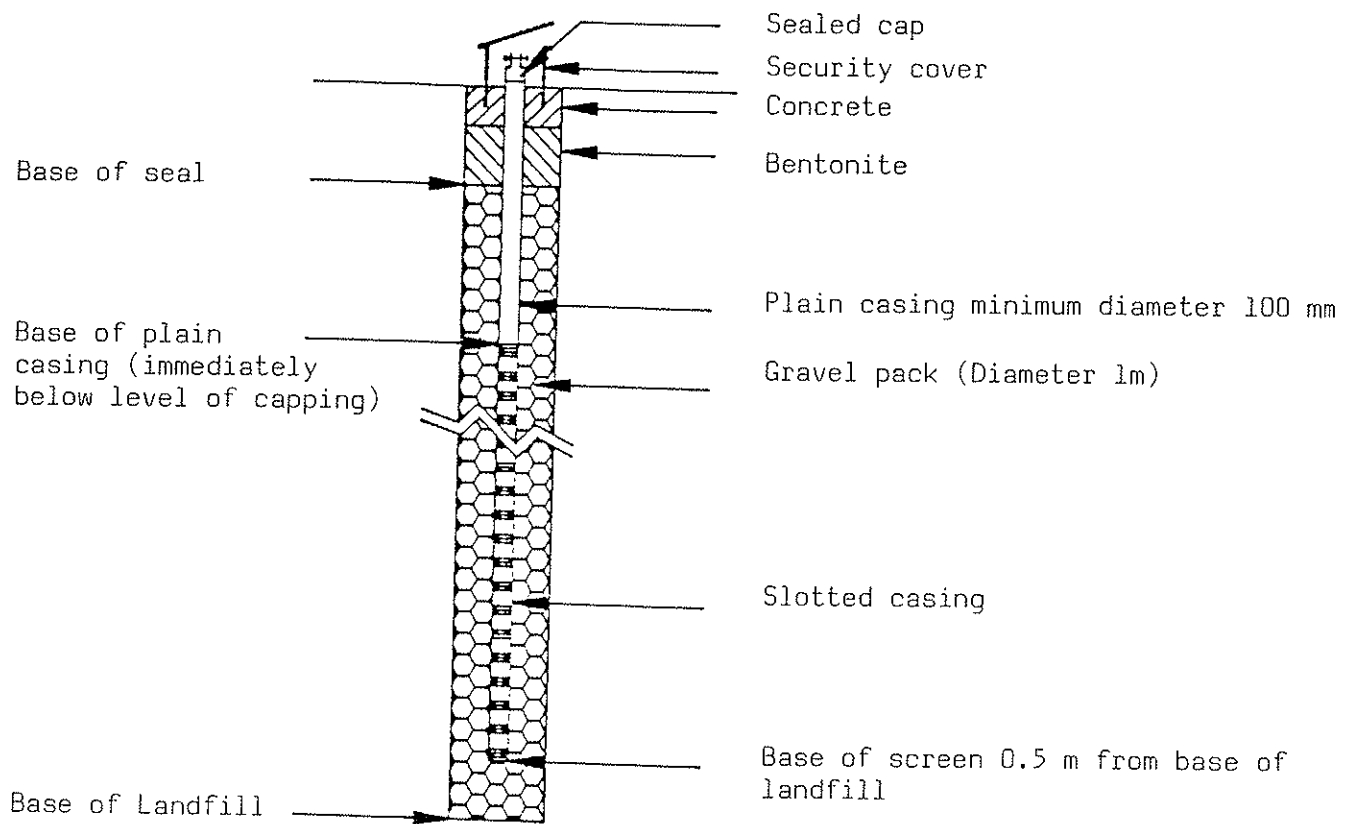
PHASES 2 AND 3 TO
FOLLOW CONSECUTIVELY,
WITH MAX 3M LAYERS
IN DIRECTION OF ARROW.



Waen Farm, Nercwys

Waste Disposal Licence No. WD 1/90

Drawing No. 3



Constructional details of a
Gas Monitoring Well inside
landfill area.

Drawing No. 4
Waen Farm, Nercwys
Waste Disposal Licence WD 1/90

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