

CONSENT NO.

BC0006801



ASiantaeth Yr
Amgylchedd Cymru
Environment
Agency Wales

WATER RESOURCES ACT 1991

SECTION 88 - SCHEDULE 10

(AS AMENDED BY THE ENVIRONMENT ACT 1995)

VARIATION OF CONSENT TO DISCHARGE

TO: Environment Quality Scientist

Dŵr Cymru Cyfyngedig

Pentwyn Road

Nelson

Treharris

CF46 6LY

In pursuance of an application by the consent holder for variation of consent, the **ENVIRONMENT AGENCY** ("The Agency") in pursuance of its powers under the Water Resources Act 1991 **HEREBY VARIES ITS CONSENT** to the making of a discharge **OF SEWAGE EFFLUENT**, as follows:

Secondary Treated Sewage Effluent incorporating the requirements of the Urban Waste Water Treatment Regulations 1994 (UWWTR)

with respect to Modification of Consent No. BC0006801 issued on the 21st day of December 2000

FROM: GARNSWLLT SEWAGE TREATMENT WORKS

AT: LONGELIN, AMMANFORD

TO: RIVER LOUGHOR

HEREAFTER SUBJECT TO the conditions set out in the following schedule(s):

Secondary Treated Sewage Effluent

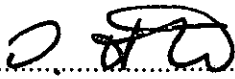
Schedule No. BC0006801 01

UWWT Regulations 1994

Schedule No. BC0006801 01 / U

Subject to the provisions of Paragraphs 7 and 8 of Schedule 10 of the Water Resources Act 1991, no notice shall be served by the Agency, which affects the effect of variations made to this consent, without the agreement in writing of the Consent Holder, during a period of 4 years from the date this variation is issued.

This variation of consent is issued and takes effect on the **31** day of March 2003.

Signed 

Daron Herbert – Environment Management Team Leader

Asiantaeth yr Amgylchedd Cymru

Glan Tawe, 154 Ffordd Sant Helen, Abertawe. SA1 4DF. Ffon 01792 645300. Ffacs 01792 648452

Environment Agency Wales

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DATE ISSUED	31 March, 2003



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CONDITIONS OF CONSENT TO DISCHARGE

Secondary Treated Sewage Effluent ("the Discharge")

**FROM: GARNSWLLT SEWAGE TREATMENT WORKS, LONGELIN,
AMMANFORD**

NATURE

1. The Discharge shall consist solely of secondary treated sewage effluent.

LOCATION

2. The Discharge shall be made in the manner and at the place specified as:
 - (a) discharging via a 1050mm diameter pipe;
 - (b) discharging to the River Loughor;
 - (c) at National Grid Reference SN 61805 09433;
 - (d) shown marked 'Consent Point' on Plan No. BC0006801 attached as Annex 5.

SAMPLE POINT

3. An appropriately labelled sample point shall be provided and maintained at National Grid Reference SN 62067 09860 as shown marked 'WRA Sampling Point' on Plan No. BC0006801 so that a representative sample of the Discharge may be obtained. The Consent Holder shall ensure that all constituents of the Discharge pass through the said sampling point at all times and in any legal proceedings it shall, for the purposes of Section 10 of the Rivers (Prevention of Pollution) Act 1961, be presumed, until the contrary is shown that any sample of the Discharge taken at the said sampling point is a sample of what was discharging into controlled waters.

VOLUME

4. The volume of the Discharge shall not exceed 31,104 cubic metres per day.
5. The Dry Weather Flow of the Discharge shall not exceed 13,132 cubic metres per day.

For the purpose of this condition Dry Weather Flow shall mean the average daily flow to the treatment works during seven consecutive days without rain (excluding a period which includes public holidays) following seven days during which the rainfall did not exceed 0.25 millimetres on any one day.

6. The rate of discharge shall not exceed 360 litres per second.



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FLOW MEASUREMENT

7. A continuous flow monitoring and recording system, to a specification provided by the Agency, with on-site visual display from which readings can be readily obtained by the Agency, shall be provided and operated to record the daily volume and instantaneous flow of the discharge.
8. As soon as practicable after completion of the flow system installation the Consent Holder shall employ an independent expert to certify that the installation complies with the Agency's specification. The Consent Holder shall satisfy himself as to the professional competence of the expert. A copy of the certifier's report shall be provided to the Agency when it is available.
9. Records of the flow readings shall be maintained by the Consent Holder and shall be provided to the Agency when requested, in a format specified by the Agency.
10. The Consent Holder shall produce and maintain a quality control manual, approved by the independent expert and to the satisfaction of the Agency, specifying procedures for the calibration, operation and maintenance of the flow monitoring system. The flow system shall be calibrated, operated and maintained by the Consent Holder in accordance with the provisions of the manual. The Consent Holder shall keep a record of these procedures available for inspection by the Agency and provide a copy to the Agency on request.
11. The Consent Holder shall record all failures of the continuous flow system and any other breaks in the flow record. The reasons for these failures and breaks shall be recorded and all steps taken to prevent a re-occurrence. The Consent Holder shall ensure that as far as possible the recorder remains fully operational at all times. Any failures shall be remedied as soon as possible.
12. Flows passing forward to full treatment after the storm overflow shall be measured at the outlet channel, at National Grid Reference SN 62070 09860, or such other point(s) as agreed by the Agency.

COMPOSITION

13. (a) Subject to paragraph (b) below, the Discharge shall not contain more than:
 - (i) 23 milligrammes per litre of biochemical oxygen demand (measured after 5 days at 20°C with nitrification suppressed by the addition of allyl-thiourea);
 - (ii) 4 milligrammes per litre of ammoniacal nitrogen (expressed as N);
 - (iii) 28 milligrammes per litre of suspended solids (measured after drying at 105°C).



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- (b) The limit for any of the relevant parameters set out in paragraph (a) above may be exceeded where, in any series of samples of the Discharge taken at regular but randomised intervals in any period of twelve consecutive months as listed in Column 1 of the table at Annex 1 to this consent, no more than the relevant number of samples, as listed in Column 2 of the said table, exceed the applicable limit for that relevant parameter.

14. The Discharge shall not contain more than:

- (ii) 56 milligrammes per litre of biochemical oxygen demand (measured after 5 days at 20°C with nitrification suppressed by the addition of allyl-thiourea);
- (ii) 18 milligrammes per of ammoniacal nitrogen (expressed as N).

WORKS OPERATION

15. The works shall be operated and the effluent shall be treated in a manner which, so far as reasonable practicable, minimises the polluting effects of the discharge made from the works on controlled waters.

This condition does not require -

- (a) any higher standard to be achieved in relation to any characteristic of the discharge which is specifically regulated by conditions 13 and 14, than is required by those conditions;
- (b) any alteration of the works or a change in the type of treatment used.

UNUSUAL WEATHER CONDITIONS

16. (a) No sample of the discharge, taken at a time when unusual weather conditions are adversely affecting the operation of the sewage treatment works, shall be taken into account in deciding whether or not the conditions 13, 14 and 15 of this consent have been complied with.
- (b) For the purpose of this condition "unusual weather conditions" shall include:
- (i) low ambient temperatures as evidenced by effluent temperatures of 5°C or less, or by the freezing of mechanical equipment in the works;
 - (ii) significant snow deposits;



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- (iii) tidal or fluvial flooding;
 - (iv) weather conditions causing unforeseen loss of power supply to the sewage treatment which could not be ameliorated by the reasonable provision and operation of standby generation facilities.
- (c) On any occasion where unusual weather conditions adversely affect the operation of the sewage treatment works, the Consent Holder shall use its best endeavours to mitigate that adverse effect.
- (d) For a sample of the discharge to be considered for the purposes of (a) above, the Consent Holder shall notify the Agency by telefax or telephone as soon as unusual weather conditions are known to have adversely affected operations and shall confirm the circumstances in writing as soon as possible thereafter (and in any event within 14 days of the occurrence of such conditions). That notification shall include a full description of the unusual weather conditions and their impact on the operation of the works.

RECORDING AND REPORTING

17. (a) The Consent Holder shall establish and operate a documented maintenance programme and record all non-routine actions undertaken that may have adversely affected effluent quality. Copies of the programme shall be made available for inspection by the Agency's officers at all reasonable times.
- (b) On request the Consent Holder shall supply the Agency with a written report on the maintenance and all non-routine actions that may have adversely affected effluent quality.
18. The Consent Holder shall notify the Agency in writing if any known or planned introduction or material change in respect of discharges from trade premises to the sewerage system occurs, that may increase or introduce into the effluent any "dangerous substance" (set out in Annex 2 to this notice as updated from time to time and notified to the Consent Holder in writing), and any other substance considered by the consent holder as having or likely to have a significant effect on the receiving waters.

SUBSTANTIAL CHANGE

19. (a) A discharge shall not be made from the works if it would cause a significant increase in the polluting effects of the discharge on controlled waters as a result of a new or altered discharge of trade effluent into the works.
- (b) A discharge of trade effluent into the works is new if -
- (i) it is made by the sewerage undertaker and is of a kind not made into the works by the undertaker immediately before the date of effect of this consent; or



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- (ii) it is made by a third party and the discharge is authorised on or after that date.
- (c) A discharge of trade effluent into the works is altered if -
 - (i) it is made by the sewerage undertaker and its composition or quantity changes significantly on or after the date of effect of this consent; or
 - (ii) it is made by a third party and the alteration of the discharge is authorised on or after that date.
- (d) An increase in the polluting effects of the Discharge on controlled waters is not significant for the purposes of this condition if it relates to any characteristic of the Discharge which is specifically regulated by conditions 13 and 14 of this consent but it may be significant if it is caused by a change in some other characteristic of the Discharge.
- (e) For the purposes of this condition "trade effluent" means -
 - (i) any discharge by the sewerage undertaker other than
 - (1) domestic sewage from premises connected directly or indirectly to the works; or
 - (2) surface water run-off;
 - (b) any discharge by a third party which is authorised under Chapter III of Part IV of the Water Industry Act 1991 or which is only accepted as a result of a contract with the sewerage undertaker.

UNAUTHORISED DISCHARGES

- 20.**
- (a) A discharge made from the works shall not contain any poisonous, noxious or polluting matter or solid waste matter which is attributable to any unauthorised discharge into the works.
 - (b) A discharge into the works is unauthorised if it is made by a third party and either there is no obligation to receive it or conditions subject to which there is an obligation to receive it are not observed.
 - (c) Nothing in this, or any other, condition of this consent prevents anyone from relying on any defence available to them under section 87 of the Water Resources Act 1991.



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CHEMICAL DOSING

21. (a) Subject to paragraph (c) below, the chemical dosing material(s) employed in the phosphorus removal process shall be of an iron salt formulation as notified to the Agency in writing prior to use.
 - (b) The chemical dosing material shall at all times conform to the British Standards specification(s) relating to potable products or other equivalent specification as agreed in writing with the Agency prior to use. Copies of the documentation of the quality assurance system shall be made available for inspection by officers of the Agency at all reasonable times.
 - (c) The chemical formulation of the chemical dosing material shall not be changed without the prior written agreement of the Agency.
22. A telemetry alarm system connected to a 24 hour response system shall be provided and maintained to provide notification of failure or breakdown of the iron dosing plant.
23. The sludge level detector (or turbidity meter) shall be operated and maintained in accordance with good operational practice such that:
- (a) It remains fully operational except at times of unavoidable mechanical or electrical breakdown which shall be attended to, and the Agency informed of the failure, as soon as practicable after the failure;
 - (b) Following a failure all equipment shall be returned to normal operation as soon as practicable;
 - (c) The final settlement tanks shall be desludged at sufficient frequency and in such a manner to prevent excessive carryover of suspended solids

DANGEROUS SUBSTANCES

24. (a) The quantity of List I Substances (as defined in the Dangerous Substances Directive 76/464/EEC) in the Discharge shall not increase above levels in the Discharge on the date of effect of this consent where no specific level is authorised;
- (b) notwithstanding (a) above, the concentration of List I Substances in the Discharge shall not exceed the concentrations specified in "List 1 General Standards" in Annex 3.



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25. (a) The quantity of List II Substances (as defined in the Dangerous Substances Directive 76/464/EEC) in the Discharge shall not increase above the levels in the Discharge on the date of effect of this consent where no specific level is authorised;
- (b) notwithstanding (a) above, the Discharge shall not contain quantities of any List II Substance such as to cause or contribute to the concentration of that substance in the receiving water exceeding the relevant Environmental Quality Standard (EQS).
26. (a) The Consent Holder shall maintain records that demonstrate to the satisfaction of the Agency:
- i) knowledge and understanding by the Consent Holder of the composition of materials supplied to them and of any changes in formulation of process inputs to the collecting, sewerage and/or treatment system;
- ii) any changes in processes that may result in a change in the Dangerous Substances composition of the effluent discharge.
- (b) The Consent Holder, at a time scale and frequency agreed by the Agency, shall undertake and record an audit to identify any additions or changes to the concentrations and loads of Dangerous Substances in the effluent since the date of issue of the consent.
- (c) The audit procedure is to be previously agreed in writing by the Agency.
- (d) The records kept in accordance with paragraphs a and b above shall be made available to the Agency on request.
27. At the request of the Agency, the Consent Holder shall undertake any necessary investigations and provide an assessment of the source and quantity of specified List I and List II Substances (as defined in the Dangerous Substances Directive 76/464/EEC) within the discharge.
28. If the Agency believes that the load of one or more Dangerous Substances has increased, it may at any time after the issue of this discharge consent, modify this consent by written notification to include specific limits for List I and List II Substances as defined in the Dangerous Substances Directive (76/464/EEC), or any Substance with a non-statutory EQS. This includes any period during which the Agency would otherwise be prohibited from modifying the consent.

MONITORING AND REPORTING

29. The Consent Holder shall carry out the monitoring programme, attached as Annex 4, reporting as specified therein.



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CONDITIONS OF CONSENT TO DISCHARGE

Secondary Treated Sewage Effluent ("the Discharge")

**FROM: GARNSWILT SEWAGE TREATMENT WORKS, LONGELIN,
AMMANFORD**

URBAN WASTE WATER TREATMENT REGULATIONS

- U0.** (a) The Consent Holder shall comply with the Urban Waste Water Treatment (England and Wales) Regulations 1994 ('the Regulations').
- (b) For the purpose of conditions U1 and U2 below, interpretations and references to a numbered regulation or Schedule shall have the meaning as in the Regulations, unless otherwise indicated.
- U1** (a) The Discharge derives from an agglomeration with a population equivalent of more than 15,000, discharging to freshwaters in a sensitive area as identified under Part I(a) of Schedule 1.
- (b) The Consent Holder shall inform the Agency in writing of any change, or proposed change, to the population equivalent such as would make a material change to the application of the Regulations and shall, on request, inform the Agency in writing of the actual population equivalent.
- (c) The Discharge shall be subject to Regulation 5(1) and shall satisfy the relevant requirements of Part I of Schedule 3, and conform to the Total Phosphorus requirements of Table 2 to that Schedule.
- U2** (a) The Consent Holder shall provide apparatus for the purpose of:
- (i) measuring or recording the volume, rate of flow, nature, composition or temperature, and
 - (ii) collecting samples of any waste water,
- as is necessary to ensure compliance with paragraph (b) below.
- (b) The Consent Holder shall monitor the Discharge to verify compliance with the requirements of condition U1(c) above in accordance with control procedures as set out in Part II of Schedule 3.
- (c) The Consent Holder shall provide to the Agency any information collected in complying with paragraph (b) above in a manner agreed with the Agency.



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- U3** Condition U2 above shall apply for the purpose of verifying compliance with the Directive from the date as specified in the relevant paragraph of Regulation 5 as incorporated into this consent under condition U1(c) above.
- U4** (a) An appropriately labelled sample point shall be provided and maintained at National Grid Reference SN 62191 09923, as shown marked 'UWWTD Crude Sewage Sampling Point' on the attached Plan No. BC0006801 01 / U, or some other point as agreed in writing with the Agency, so that a representative sample of the Influent may be obtained.
- (b) An appropriately labelled sample point shall be provided and maintained at National Grid Reference SN 62079 09859, as shown marked 'UWWTD Final Effluent Sampling Point' on the attached Plan No. BC0006801 01 / U, or some other point as agreed in writing with the Agency, so that a representative sample of the Discharge may be obtained.



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ANNEX 1

TABLE

<u>Column 1</u>	<u>Column 2</u>
Number of samples taken in any period of 12 months	Maximum number of samples permitted to exceed limit for given determinand
4-7	1
8-16	2
17-28	3
29-40	4
41-53	5
54-67	6
68-81	7
82-95	8
96-110	9
111-125	10
126-140	11
141-155	12
156-171	13
172-187	14
188-203	15
204-219	16
220-235	17
236-251	18
252-268	19
269-284	20
285-300	21
301-317	22
318-334	23
335-350	24
351-365	25



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ANNEX 2

- | | |
|--|------------------------------|
| 1. Mercury and its compounds | 2. Cadmium and its compounds |
| 3. Hexachlorocyclohexane
(lindane and related compounds) | 4. Carbon tetrachloride |
| 5. DDT (the isomers of 1,1,1-trichloro-2,2 bis{p-chlorophenyl} ethane) | |
| 6. Pentachlorophenol (PCP) | 7. Aldrin |
| 8. Dieldrin | 9. Endrin |
| 10. Isodrin | 11. Hexachlorobenzene (HCB) |
| 12. Hexachlorobutadiene (HCBd) | 13. Chloroform |
| 14. Polychlorinated biphenyls | 15. Dichlorvos |
| 16. 1,2-Dichloroethane | 17. Trichlorobenzene |
| 18. Atrazine | 19. Simazine |
| 20. Tributyltin compounds | 21. Triphenyltin compounds |
| 22. Trifluralin | 23. Fenitrothion |
| 24. Azinphos-methyl | 25. Malathion |
| 26. Endosulfan | 27. Lead |
| 28. Chromium | 29. Zinc |
| 30. Copper | 31. Nickel |
| 32. Arsenic | 33. *Iron |
| 34. *pH outside range 5.5 to 9.0 | 35. *Boron |
| 36. Vanadium | 37. PCSD'S |
| 38. Cyfluthrin | 39. Sulcofuron |
| 40. Flucifuron | 41. Permethrin |
| 42. 4-Chloro-3-methyl-phenol | 43. 2-Chlorophenol |
| 44. 2,4-Dichlorophenol | 45. 2,4-D (ester) |
| 46. 2,4-D (non ester) | 47. 1,1,1-Trichloroethane |
| 48. 1,1,2-Trichloroethane | 49. Bentazone |
| 50. Benzene | 51. Biphenyl |
| 52. Chloronitrotoluenes | 53. Demeton |
| 54. Dimethoate | 55. Linuron |
| 56. MCPA | 57. Mecoprop |
| 58. Mevinphos | 59. Napthalene |
| 60. Omethoate | 61. Toluene |
| 62. Triazophos | 63. Xylene |
| 64. Cyanide | 65. Azinphos-ethyl |
| 66. Fenthion | 67. Parathion |
| 68. Parathion-methyl | 69. Trichloroethylene |
| 70. Tetrachloroethylene | 71. Dioxins |
| 72. PAHs | 73. Nonyl phenol |
| 74. Nonyl phenyl ethoxylate | 75. Di-ethylhexyl phthalate |
| 76. Bisphenol-A | 77. Diazinon |
| 78. Chlorfenvinphos | 79. Chlorotoluron |
| 80. Isoproturon | 81. Diuron |
| 82. Propetamphos | 83. Flumethrin |
| 84. Amitraz | 85. High-Cis Cypermethrin |
| 86. Cyromazine | 87. Deltamethrin |
| 88. Cypermethrin | |

This list is applicable as at 1 December 1998 and will be updated as and when changes to the relevant legislative requirements occur.

*Notification to the Agency by the Consent holder is only required in respect of changes to trade effluents likely to cause significant changes to the pH value, and/or iron or boron concentrations, of the crude sewage.



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ANNEX 3

List 1 General Standards for Discharges Authorised Using Control Regime B

	Substance	Limit Total Concentration (ug/l)
1.	Aldrin	0.02
2.	Dieldrin	0.02
3.	Endrin	0.01
4.	Isodrin	0.01
5.	Cadmium	10.0
6.	Carbon tetrachloride	24.0
7.	Chloroform	24.0
8.	DDT (all isomers)	0.05
9.	para-para-DDT	0.02
10.	Hexachlorobenzene	0.06
11.	Hexachlorobutadiene	0.2
12.	Hexachlorocyclohexane	0.2
13.	Mercury	2.0
14.	Pentachlorophenol	4.0
15.	Trichlorobenzene	0.8
16.	1,2-Dichloroethane	20.0
17.	Trichloroethylene	20.0
18.	Tetrachloroethylene	20.0





ANNEX 4

MONITORING PROGRAMME

SAMPLE POINT

- (i) SN 62067 09860 as shown marked 'WRA Sampling Point' on Plan BC0006801 in Annex 4.

CHEMICAL DETERMINANDS AND FREQUENCIES

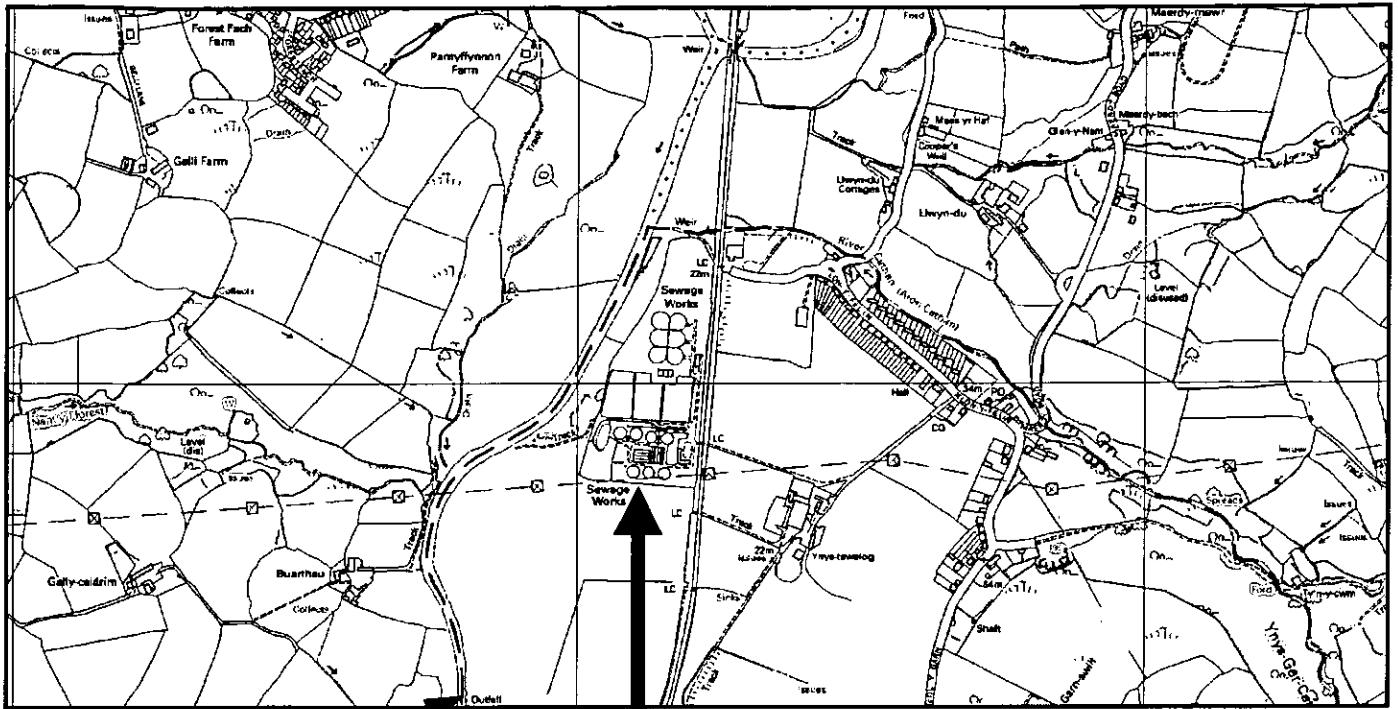
- (i) Iron, total as Fe (Microgrammes per litre);
- (ii) Arsenic, total as As (Microgrammes per litre);
- (iii) Cadmium, total as Cd (Microgrammes per litre);
- (iv) Chromium, total as Cr (Microgrammes per litre);
- (v) Copper, total as Cu (Microgrammes per litre);
- (vi) Cyanide, total as CN (Microgrammes per litre);
- (vii) Lead, total as Pb (Microgrammes per litre);
- (viii) Nickel, total as Ni (Microgrammes per litre);
- (ix) Zinc, total as Zn (Microgrammes per litre);

The determinands listed above will be sampled monthly, with three samples to be taken each time over a period of 30 minutes. The results of the monitoring shall be submitted to the agency after a period of 12 months and 24 months

A UKAS accredited laboratory shall be used in the analysis of the above determinands.



GARNSWLLT STW FINAL EFFLUENT LONGELIN, AMMANFORD



**Consent
Point**

