

Compliance Assessment Report CAR_NRW0050563

Permit being assessed: CM0029801

For: Greenfield Wastewater Treatment Works, **held by:** DWR CYMRU CYFYNGEDIG

At: Dock Road, Greenfield, Holywell, CH8 7GJ.

Type of assessment carried out: Check Monitoring/Sampling,

Reason: Routine.

On 17/12/2025.

Parts of permit assessed: 3.1.4 (a) For the emission limits in schedule 3 table S3.1 to which this condition applies, no sample of the discharge taken at a time when abnormal operating conditions are adversely affecting the operation of the waste water treatment works, shall be taken into account in deciding whether or not the emission limit has been complied with.

NRW Lead Officer: Amy Chisnell.

Report sent to: CARS mailbox, CARS mailbox, on 04/02/2026.

1. Summary of our findings (full details in section 4)

Part of permitted activity assessed (criteria)	Assessment result	Non-compliant permit condition
WQ-C1 - Water Quality - Emissions and monitoring - Emissions to water	Assessed (A)	

Result types are explained in more detail in the 'Important Information' section below.

2. What action is required?

No action required.

3. What will happen next?

Any non-compliance we have identified and recorded on this form is an offence. It can result in criminal prosecution and/or suspension or revocation of your permit.

At this time, we do not intend to take any further action.

This statement does not stop us from taking additional enforcement action if further relevant information comes to light or offences continue.

4. Details of our assessment

An Urban Waste Water Directive (UWWD) sample was taken at Greenfield WWTW on the 17/12/2025. Samples were taken of both the crude and the final effluent over a period of 24 hours (composite sample).

The final effluent result was a maximum failure for Biological Oxygen Demand (BOD) - 57 mg/l compared to a look up table limit of 25 mg/l and a maximum limit of 50 mg/l. This was the only maximum limit failure for BOD at the site in 2025.

Although a paired crude sample can be used to calculate the BOD percentage removal (BOD crude result = 137mg/l), the calculated percentage removal was below the required threshold on this occasion and did not pass (58.40%).

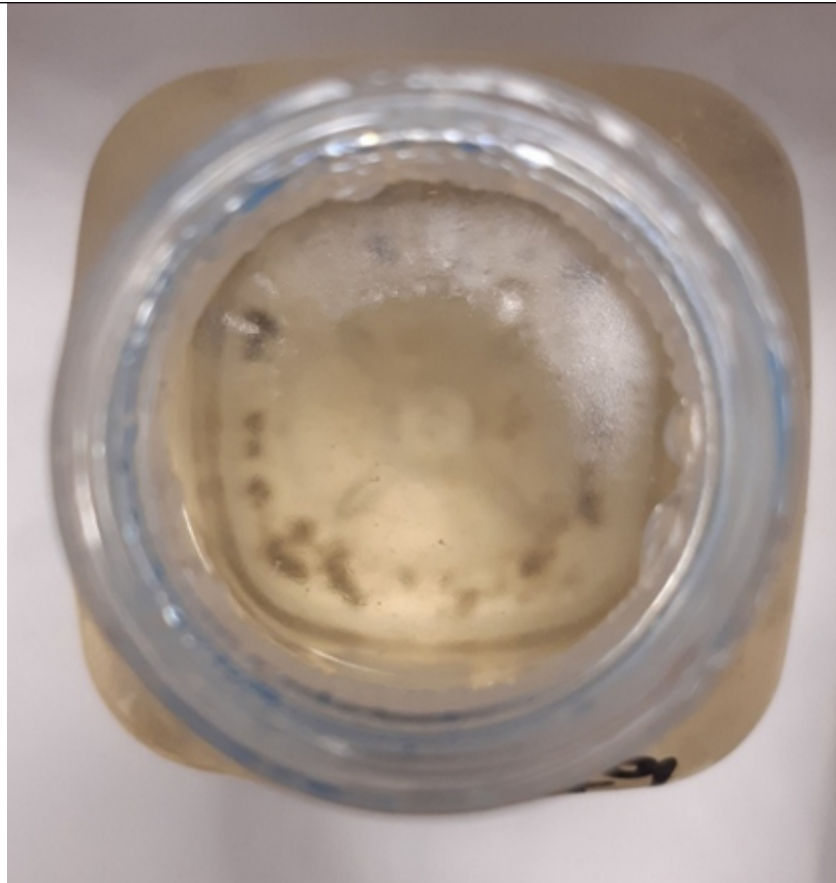
Therefore, this result is classed as a UWW Max Failure.

However, the laboratory analysing the samples reported the presence of oil in the final effluent sample - this is visible in a photo provided and the lab also reported a strong odour of oil.

DCWW submitted an exceptional circumstances report waiver request due to Abnormal operating conditions: failure caused by circumstances which were unforeseeable and not due to the fault of the operator or its agents. Details below:

When the sample was taken by the OSM/UWWD sampler, the sample was an X-tube turbidity of 50 JTU. Following the escalation of the sample, site investigations were carried out on the 18/12/2025 to identify why the result was so much higher than what DCWW operators had observed. No initial root cause was identified when carrying out through works investigations, and site data from this period showed it to be performing well.

The BOD result from the sample was released by the accredited third-party lab on the 23/12. The lab were immediately asked to retest the sample as the result seemed much higher than expected, and DCWW were suspicious that there might have been an error at the lab. The lab then confirmed that the initial result would stand, as a second dilution provided a similar result. But upon DCWW questioning, the lab informed that the sample had a strong odour, which was resembling diesel, petrol or paraffin. The lab also confirmed that there was around 1 to 2 ml of an oily layer at the top of the sample bottle, which would have undoubtedly interfered with the BOD result.



The oily substance would have severely impacted the result, and would be the reason for the high BOD result. The lab also confirmed that the bottles are shaken for a sample to be taken, so there would be traces of oil/diesel in the BOD sample pot.

At present, the origin of the oil detected within the sample remains unidentified. However, it is highly probable that an external substance entered the treatment works at the time the UWW sample was collected and subsequently moved through the treatment process, ultimately appearing in the final effluent. During site inspections, small patches of residue were observed on the surface of several settlement tanks, which may have been diesel or oil. Despite these observations, there was no significant or widespread evidence of oil across the site.

As the UWW autosampler collects over a period of 24 hours, the third party influent could have come in overnight, and cleared by the time the operator had come to site the day after, which would correlate with the much lower turbidity the operator was getting compared to the sampler's the day prior. There were also high flows during the UWW sample, which makes it more likely that the oil would have washed through the process quickly. DCWW sampled after the incident and saw no oily substance entering the treatment works, suggesting a single illegal discharge occurred.

The oil/diesel would have interfered with the lab analysis for BOD, but would have also affected the treatment process while it was going through the biological trickling filters, for

example:

- ***Reduced oxygen transfer:***

A layer of oil/fuel on the surface of wastewater can hinder the exchange of oxygen between the water and the air, reducing the amount of dissolved oxygen available for microbial breakdown.

- ***Inhibition of microbial activity:***

Oil/fuel can coat microorganisms involved in BOD reduction, impacting their ability to function effectively and reduce the overall biodegradation of organic matter.

NRW have agreed to accept the exceptional circumstances waiver on this occasion as the WWTW received a 3rd party influent that it was not bound to receive, that led to abnormal operating conditions.

The site usually performs well, and had been performing well before and after the sample was taken, suggesting that the UWW sample was impacted by a third party discharge.

If you have any queries about this report, or to discuss completion of any actions, please contact the NRW Officer named above.

Important information

Legal status of this report

Your permit is issued to you under the Environmental Permitting Regulations. You have a responsibility to comply with the conditions of your permit and prevent pollution/harm to the environment. You must also ensure that you comply with any other relevant legislation that may apply to your site's operations.

This report explains the findings of our assessment and any action you are required to take. We categorise non-compliance using our guidance for assessing non-compliance at regulated sites.

When we find potential non-compliance/s we will normally give you advice on how to maintain compliance.

To correct non-compliance, we may:

- require you to take specific actions
- issue a notice
- review the conditions of your permit.

Any advice and guidance we give will be without prejudice to any other enforcement response that we consider may be required.

Assessment results and non-compliance categories (used in section 1):

Assessment result	Description
Assessed (A)	Assessed or assessed in part, no evidence of non-compliance found
Action only (X)	Action required for the permit condition assessed to avoid non-compliance. No non-compliance scored at this time
Ongoing (O)	Ongoing non-compliance, not scored

Non-compliance category	Description
C1 Major	Potential to have a major, serious, persistent and/or extensive impact or effect on the environment, people and/or property
C2 Significant	Potential to have a significant impact or effect on the environment, people and/or property
C3 Minor	Potential to have a minor or minimal impact or effect on the environment, people and/or property
C4 No environmental impact	Non-compliance at a regulated site that cannot foreseeably have any impact on the environment, people and/or property

Full list of water quality action criteria (used in section 1 and 2):**WQ A: Management**

- WQ-A1 General management

WQ B: Operations

- WQ-B1 Permitted activities
- WQ-B2 The site
- WQ-B3 Operating techniques
- WQ-B4 Improvement programme
- WQ-B5 Pre-operational conditions

WQ C: Emissions and monitoring

- WQ-C1 Emissions to water
- WQ-C2 Emissions to land
- WQ-C3 Emissions of substances not controlled by emission limits
- WQ-C4 Monitoring
- WQ-C5 Installation of monitoring boreholes

WQ D: Information

- WQ-D1 Records
- WQ-D2 Reporting
- WQ-D3 Notifications

Enforcement response

Any non-compliance with a permit condition is an offence and we may take legal action against you. Action we take can include prosecution, serving a notice on you and/or suspension or revocation of your permit. See our Enforcement and Sanctions Guidance for further information.

Data protection notice

You should make sure that anyone named in this report knows that the information it contains will be processed by Natural Resources Wales to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s).

We may also use and/or disclose the report in connection with:

- offering or providing you with our literature or services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law
- assessing customer service satisfaction and improving our service
- Freedom of Information Act or Environmental Information Regulations requests.

We may also pass it on to our agents or representatives to do these things on our behalf.

Disclosure of information – this report will be available to view on-line

If you think this report contains commercially confidential information that should not be placed on our public register, you must contact your local Natural Resources Wales office within **fifteen working days** of receiving this report, using the contact details in the accompanying email or letter. You must give a full explanation of why it should not be added to our public register, including specifying which information is commercially confidential. We will assess your request and respond to you within twenty working days to let you know if we agree to your request.

Disputing the Content of this Compliance Assessment Report Form

If you disagree with the content of this Compliance Assessment Report form, you should submit your concerns, in writing, to the regulating officer who issued it within **15 working days** of its issue. This will be treated as a **Stage 1 review**.

If you are not satisfied with the outcome of the stage 1 review, you may request a **Stage 2 appeal**. This request must be submitted **within 21 working days** of receiving the response from the stage 1 review.

Further details on our review and appeal process are available at: [Natural Resources Wales / Appeal a regulatory decision from Natural Resources Wales](#)

Concerns Not Related to the Content of this Compliance Assessment Report Form

If your concerns do not relate to the content of the Compliance Assessment Report form, you should first attempt to resolve the issue with the regulating officer or their line manager.

If the issue remains unresolved, please contact our **Customer Contact Team**:

- **Telephone:** 0300 065 3000 (Monday to Friday, 09:00–17:00)
- **Email:** enquiries@naturalresourceswales.gov.uk

They will provide details on how to escalate your concerns through our **Complaints and Commendations procedure**.

If you are dissatisfied with our response, you may contact the **Public Services Ombudsman for Wales**:

- **Telephone:** 0300 790 0203
- **Email:** ask@ombudsman.wales

Welsh Language Standards

We are committed to establishing Natural Resources Wales as a naturally bilingual organisation. We will provide compliance reports in your preferred language.