

Compliance Assessment Report CAR_NRW0050777

Permit being assessed: CM0066701

For: Llwyn Onn Water Treatment Works, **held by:** Hafren Dyfrdwy Cyfyngedig

At: Llwyn Onn, Cefn Road, Abenbury, Wrexham, LL13 0NY.

Type of assessment carried out: Check Monitoring/Sampling,

Reason: Routine.

On 13/02/2026.

Parts of permit assessed: 3.1.1 The limits given in schedule 3 table S3.1 shall not be exceeded.

NRW Lead Officer: Amy Chisnell.

Report sent to: CARS HD Cymru, The Operator, on 20/03/2026.

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 | C2 Significant | 3.1.1 The limits given in schedule 3 table S3.1 shall not be exceeded. |

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

2. What action is required?

| Criteria | Action needed | Complete by |
|----------|---|-------------------|
| WQ-C1 | Investigate the cause of the failure and inform NRW of the actions taken to prevent reoccurrence. | Already completed |

Action criteria codes are listed in the 'Important information' section below.

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.

You are non-compliant with your permit.

We are currently considering taking enforcement action against you for the non-compliance recorded above. We will contact you in due course.

4. Details of our assessment

On the 13th of February 2026, there was an OSM upper tier failure for suspended solids at Llwyn Onn WTW.

The permitted limit is 50mg/l and the result was 55 mg/l. This is classed as a maximum failure and therefore is considered to have the potential to have a C2 - significant environmental effect.

Hafren Dyfrdwy (HD) were asked to carry out an investigation into the cause of the failure and provide actions taken to prevent reoccurrence.

HD provided the following explanation:

Llwyn Onn WTW is a surface water treatment work that has Dissolved Air Flotation (DAF) clarification, Granular activated carbon (GAC) and Rapid Gravity Filtration (RGF). Each of these treatment processes generates process waters containing particulates that are deposited into the -water tanks before entering sludge treatment onsite.

Centrate from the dewatering process enters wash water tanks that provide a degree of settlement prior to entering the 'bottom lagoon'. Due to the nature of these tanks, there is no inbuilt control over the settlement process - it is a gravitational flow.

The 'bottom lagoon' is relatively shallow (approximately 40cm deep), and consequently susceptible to the impact of rainfall and associated run-off from adjacent land which can disturb the settlement process.

Prolonged rainfall preceding and on the day of the OSM sample increased solids loading onto the sludge treatment process. Due to a combination of solids overloading and reduced settlement capacity, this resulted in temporary increased solids carryover into the discharge.

The bottom lagoon is monitored through daily water quality testing. The desludging of the wash water tanks and bottom lagoon is undertaken under a local contract, whereby sludge is removed and returned to the sludge holding tanks (pre-Centrifuge) for dewatering, routinely this is done. On reviewing the desludging regime, the previous drawdown of sludge prior to the OSM sample was last completed on the 31/01/2026.

To further remove solids within the sludge treatment process, off-site tankering is planned to fully empty and clean the bottom lagoon and associated wash water tanks.

Following the on-site investigations, sampling and maintenance review, the following steps have been actioned:

- Fully empty and clean the wash-water tanks and lagoon
- Review onsite testing and trigger set-points for daily discharge monitoring and wash water tank cleaning triggers
- Optimise centrifuge process performance to improve centrate quality during higher flows and loading.
- Evaluate the use of sedimentation barriers to protect the lagoon from increased run-off
- Improve the existing OSM sample point including access pathway, sampling weir and install continuous online turbidity monitoring.

- Investigating modifications to the existing wash water tank, including sludge blanket detection.
- Investigating automated alert/failsafe options of the discharge point.

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.