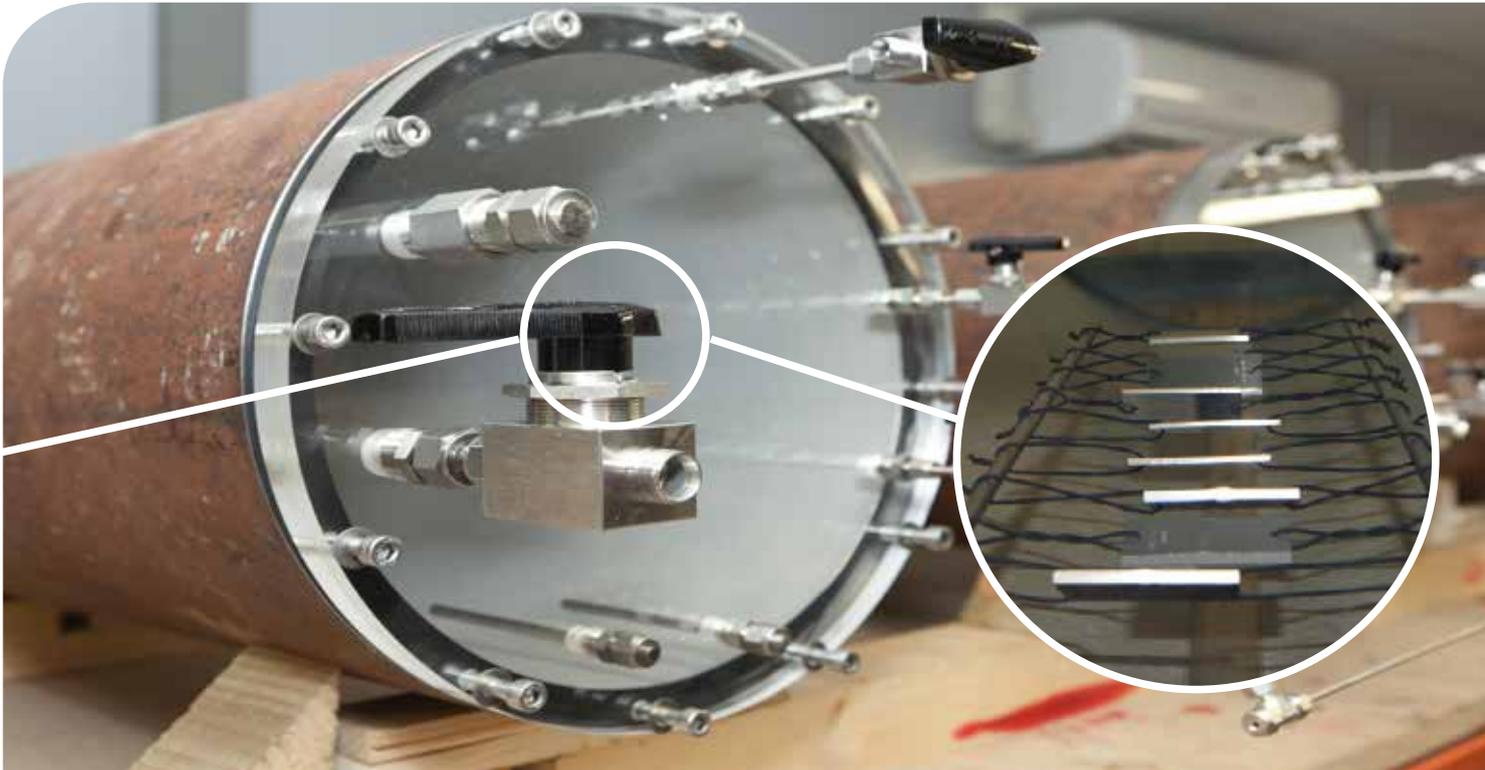


Commissioning of Pipelines

Corrosion Testing and Consultancy



Valued Quality. Delivered.



Installing pipework that has been laid-up for extended periods prior to use presents a range of potential problems.

At Intertek, our Production and Integrity Assurance team has almost forty years of experience in advising on how best to control corrosion during hydrotesting and long-term wet lay-up.

Seeking pre-commissioning corrosion consultancy prior to and during hydrostatic testing and wet lay-up is an important measure for oil and gas organisations commissioning extensive pipework or pipeline installations.

Following hydrostatic testing, the wet lay-up process may be adopted, providing a practical and cost-effective mothballing strategy.

However, this often involves the use of untreated or inadequately treated locally sourced water, which can pose a risk to the integrity of materials.

Benefits:

- Testing carried out to your requirements and specified conditions.
- Comprehensive testing and monitoring capabilities.
- Decades of practical experience.



Valued Quality. Delivered.



Sludge after hydrotest

Production and Integrity Assurance Offices

Australia - Adelaide
2 Elder Road
Birkenhead. Port, 5015
Tel +61 8 8249 9971

Libya - Tripoli
Al Shaat Road, Souq Al-juma,
P.O Box 3788.
Tel +218 21 351 4534

Malaysia - Kuala Lumpur
No. 7, Jalan Teknologi 3/5A,
Pusat Teknologi Sinar Damansara,
PJU 5, Kota Damansara,
47810 Petaling Jaya,
Selangor, Darul Ehsan.
Tel +603 6156 2200

UAE - Abu Dhabi
Abu Dhabi Technology Center,
Mussafah Industrial Area,
M37, Plot No 90,
P.O. Box No.95484,
Tel + 971 2 447 6106

UAE - Dubai
Millennium Plaza Tower,
14th Floor,
Sheikh Zayed Road,
PO Box 26290.
Tel +971 4 317 8777

UK - Aberdeen
Exploration Drive,
Aberdeen Science and
Energy Park,
Aberdeen, AB23 8HZ,
Tel +44 1224 708 500

UK - Manchester
Bainbridge House,
86-90 London Road,
Manchester, M1 2PW,
Tel +44 161 933 4000

Units 6, 7, 8, 14 & 15,
Longwood Road,
Trafford Park,
M17 1PZ.
Tel + 44 161 245 8016

UK - Oxford,
Unit 6,
Hanborough Business Park
Long Hanborough,
Witney, OX29 8LH,
Tel +44 1993 882 445

Pre-Commissioning Pipework Challenges

Oxygen corrosion and microbial corrosion constitute the major form of pipework degradation during pre-commissioning.

Typical challenges to mitigating this include establishing suitable concentrations of oxygen scavengers, biocides and corrosion inhibitors, estimating the likely period of wet lay-up and ensuring that environmental impact is kept to a minimum.

While it is ideal that pipework is fully protected from degradation prior to commissioning, occasions arise when equipment corrodes after installation as a result of poor pre-commissioning practice.

A standard approach we employ towards post-installation pipework faults is to inspect designs and plans and perform tests to determine failure causes. Following this, we recommend a suitable treatment strategy to rectify existing problems.

Experience and Specialist Knowledge

Our consultancy and testing services in this area are delivered by experienced professionals with specialist knowledge of this discipline.

The guidance we provide aims to safeguard your materials prior to installation. We can also work

with you to remedy the causes of failed pipework.

During pre-commissioning, we offer extensive testing and analysis programmes and water treatment recommendations regarding the control of solids, oxygen and bacteria.

Wet Layup Testing

Chemical evaluation tests like time-kill tests (biocides), bubble tests (corrosion inhibition) and reaction rate tests (oxygen scavengers) are designed to evaluate time-critical performance in flowing systems. For example, fully operational oil production systems where continuous or batch dosing is applied.

These tests are not suitable for evaluating long-term wet layup scenarios where the product is applied and left in-situ for an extend period of time without replenishment.

In these cases, we can recommend and conduct full-scale pipe section simulation laboratory testing.

For this, we utilise monitored spools under temperature-controlled conditions to evaluate ongoing long-term performance when these chemicals are used for wet layup application.



Sulphate-reducing bacteria (SRB).



Microbiologically influenced corrosion mediated by SRB.

production.assurance@intertek.com
www.intertek.com/ep

