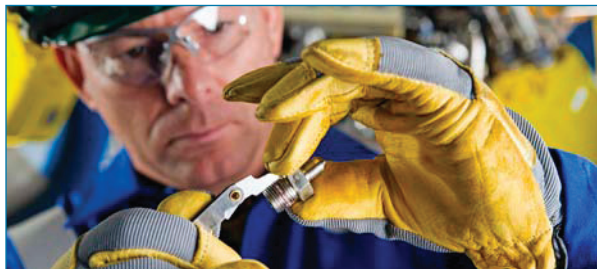


# CASE STUDY

## Integrity Management Services for Shell UK Limited



### Background

Hydrasun has been a key supplier to Shell in the UK North Sea for over 30 years.

In 2002 Hydrasun was awarded a contract by Shell UK for the provision of Hose Management Services, including supply of hoses and associated products, which was renewed in 2007 and 2013 following further tenders. Shell extended the scope of Integrity Management Services supplied by Hydrasun in 2014 to include Small-Bore Tubing (SBT) Systems.

### Customer Issue

Industry regulators have been applying increasing pressure on Operators in the UK to reduce hydrocarbon leaks and spillages to sea. Data gathered by the industry regulators has focused attention on the largest contributors to unplanned releases within the industry, including Flexible Hose Assemblies (FHA's) and Small-Bore Tubing (SBT) Systems.

Through initially UKOOA and more recently the Energy Institute, guidelines were published to reduce operational, safety and environmental risks associated with FHA's and SBT.

By implementing formal processes and controls to maintain the integrity of FHA's and SBT in a standardised manner across all equipment packages and assets, Shell would be able to demonstrate compliance with these guidelines and reduce hydrocarbon releases and environmental spillages.

Industry regulators are now increasingly focused on the need to improve production efficiency in the North Sea. Through implementing a risk based inspection (RBI) approach Shell would be able to focus control measures on safety critical and production critical systems.

### Hydrasun Solution

Through their involvement in the development of the industry guidelines for the management of FHA's and SBT, Hydrasun was ideally placed to implement a fully compliant and effective integrity assurance programmes across all Shell UK assets. Working closely with Shell, Hydrasun also ensured compliance with Shell's own internal standard Operating and Maintenance Procedures.

RBI programmes have been developed and all FHA's and SBT systems are inspected by Hydrasun OPITO / ECITB qualified Surveyors. Inspection data is recorded using Ex rated handheld data collection devices and uploaded into the Hydrasun Integrity Management Database. The RBI performance data is reported to Shell through a web based integrity assurance reporting tool, Hydralink.

Hydrasun has also supported Shell in the integration of Maintenance data into the Shell SAP Maintenance System to ensure any necessary remedial work is effectively planned and executed.

### Result

Through a focus on customer needs, Hydrasun has delivered a fully compliant and effective Integrity Management programme for FHA's and SBT across all Shell UK assets that have significantly reduced the potential for loss of production, loss of hydrocarbon containment and environmental spillage.

By implementing a strategy clearly focused on Shell's business needs, Hydrasun was able to provide enhanced value for money delivering improvements in operational reliability and overall lifecycle maintenance costs whilst reducing Shell's potential exposure in the areas of lost production, health, safety and environmental compliance and business reputation.

### At a glance...

#### Customer

Shell UK Limited

#### Location

UK North Sea

#### Customer Issue

- Lack of formal processes and controls to manage major contributors to HCR leaks.
- Compliance with Industry guidelines & Shell procedures
- Integration of results from inspection programme into Maintenance Management System

#### Hydrasun Solution

Standardised Integrity management process for FHA's and SBT across all assets through development of risk based inspection programmes, delivered & managed by skilled personnel, combined with a web based Integrity Assurance tool and integration of data into Shell Maintenance Management system.

#### Benefits

- Improved production efficiency through preventing potential equipment and plant trips from failures of production critical FHA's or SBT.
- Demonstrate formal processes and controls are in place to maintain FHA and SBT integrity
- Ensure compliance with legislative requirements and industry / Shell guidelines
- Reduce potential hydrocarbon loss of containment and improve asset performance
- Sustainable improvement in safety and environmental performance
- Reduce overall life cycle maintenance costs

Multiple Solutions - One Company





Hydrasun Group  
Gateway Business Park  
Moss Road  
Aberdeen  
AB12 3GQ

Tel: +44 (0)1224 618618  
e-mail: [integritymanagement@hydrasun.com](mailto:integritymanagement@hydrasun.com)  
[www.hydrasun.com](http://www.hydrasun.com)

