

CASE STUDY

V-LIFE technology
supporting
operators for
over a decade

10+
YEARS

V-LIFE

PROTECTING PRODUCTION IN THE GULF OF MEXICO



250+
Installations

40+
Global Operators

SINCE 2012
Proven in Field Operation

 **VIPER
INNOVATIONS®**

V-LIFE® INSULATION RESISTANCE RECOVERY

**Designed to recover the electrical
integrity of failing subsea circuits.**

The most common cause of subsea electrical failures is the ingress of water into the cable insulation, which decreases the insulation resistance (IR) and may produce short circuits or leakage to earth. These faults often lead to loss of power, operability and production of the subsea system.

If you are experiencing low IR, a timely decision is essential, as ignoring the issue may result in expensive subsea fault-finding interventions and the replacement of cables, equipment and umbilicals; not to mention a very real risk of electric shock.

V-LIFE is a tried and tested preventative and active 'healing' solution for low IR caused by water ingress.

Key Benefits:

- Increases IR without subsea intervention
- Recovers multiple IR failures throughout the system
- Extends the life of failing umbilicals and electrical distribution equipment
- 'Buys time' whilst a new umbilical is procured
- Used as an alternative to installing new, costly and long-lead time umbilicals
- Used to delay early field abandonment
- V-LIFE 'finds' the points of water ingress, no diagnostics required
- Environmentally friendly alternative to CO2 heavy umbilical replacement methods



CASE STUDY

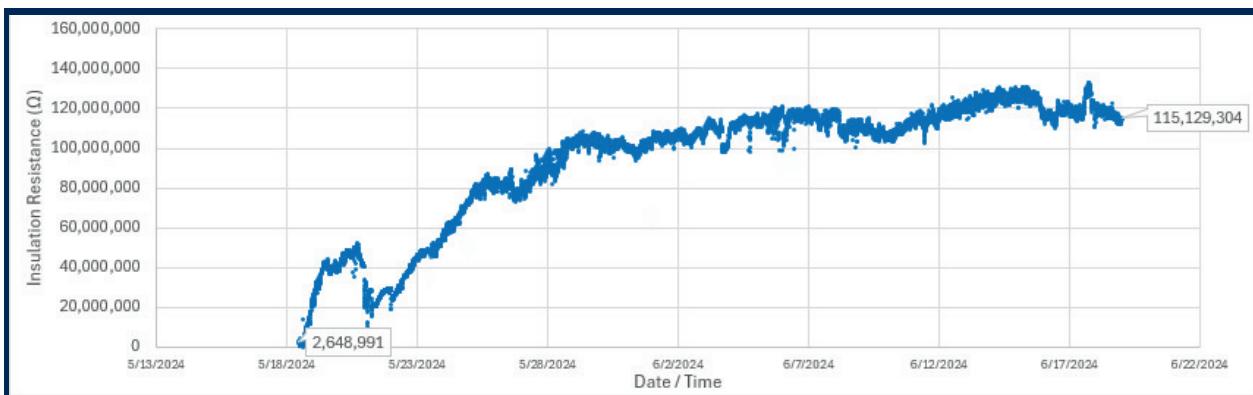
GOM OPERATOR PROTECTS PRODUCTION WITH VIPER'S V-LIFE TECHNOLOGY.

This case study examines how the proactive activation of Viper's technology successfully mitigated a significant threat to the production of a subsea production control system, highlighting the importance in preparation and strategic planning to prevent costly faults.

A major offshore operator in the Gulf of Mexico faced a critical issue when the insulation resistance (IR) within their subsea production control system began to decline sharply. A continued drop in IR would have jeopardized the power supply to multiple wells, risking production losses and operational downtime.

Fortunately, the operator had proactively planned for the installation of V-LIM units during an upcoming platform turnaround. The necessary V-LIM devices were therefore already onsite, and detailed installation procedures had been pre-written. When the unexpected IR drop occurred, this advanced preparation enabled swift action.

Thanks to the preparation of the client, Viper's Engineer was able to quickly mobilise to the asset and begin the installation process. With pre-written procedures in place, the V-LIM units were installed with minimal disruption to ongoing operations and V-LIFE was immediately activated. Within 30 days of installation, the IR increased from $2.5\text{M}\Omega$ to $115\text{M}\Omega$, representing a significant 46-fold improvement.



The quick deployment and effective use of V-LIFE technology achieved significant outcomes. The intervention stopped the impending fault from occurring, preserving the integrity of the power supply to the subsea wells. By avoiding a production halt, the operator safeguarded ongoing oil and gas extraction activities. Additionally, the significant increase in IR ensured a more stable and reliable control system for future operations.

This showcases the importance of strategic foresight and preparation in offshore operations. By planning ahead and having the right technology on hand (being 'V-LIFE Ready'), the operator averted a potentially costly and disruptive event.



The Operator Commented:

"Due to our aging subsea infrastructure, the spectre of developing a ground fault due to deteriorating insulation resistance is ever-present. When the day came and we experienced a concerning drop in insulation resistance, we were able to rapidly mobilize to install V-LIM units and activate V-LIFE technology to recover the circuit thanks to Viper's impressive service support, saving millions in potential lost revenue."





Get in touch with one of our experts today and learn what V-LIFE
could do for you.

For more information visit:

www.viperinnovations.com/us/v-life

or contact one of our experts on:

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www.viperinnovations.com/us