

# SERVICE PACKAGE

## REMOTE DIGITAL VISUAL INSPECTION CAMPAIGN SUPPORT

### THE PURPOSE

This document is composed to assist our clients and the supply chain to help assist them to understand the technical capabilities, benefits, services and key team milestones associated with our world leading RDVI Campaign Support Services and our team that makes it all possible.



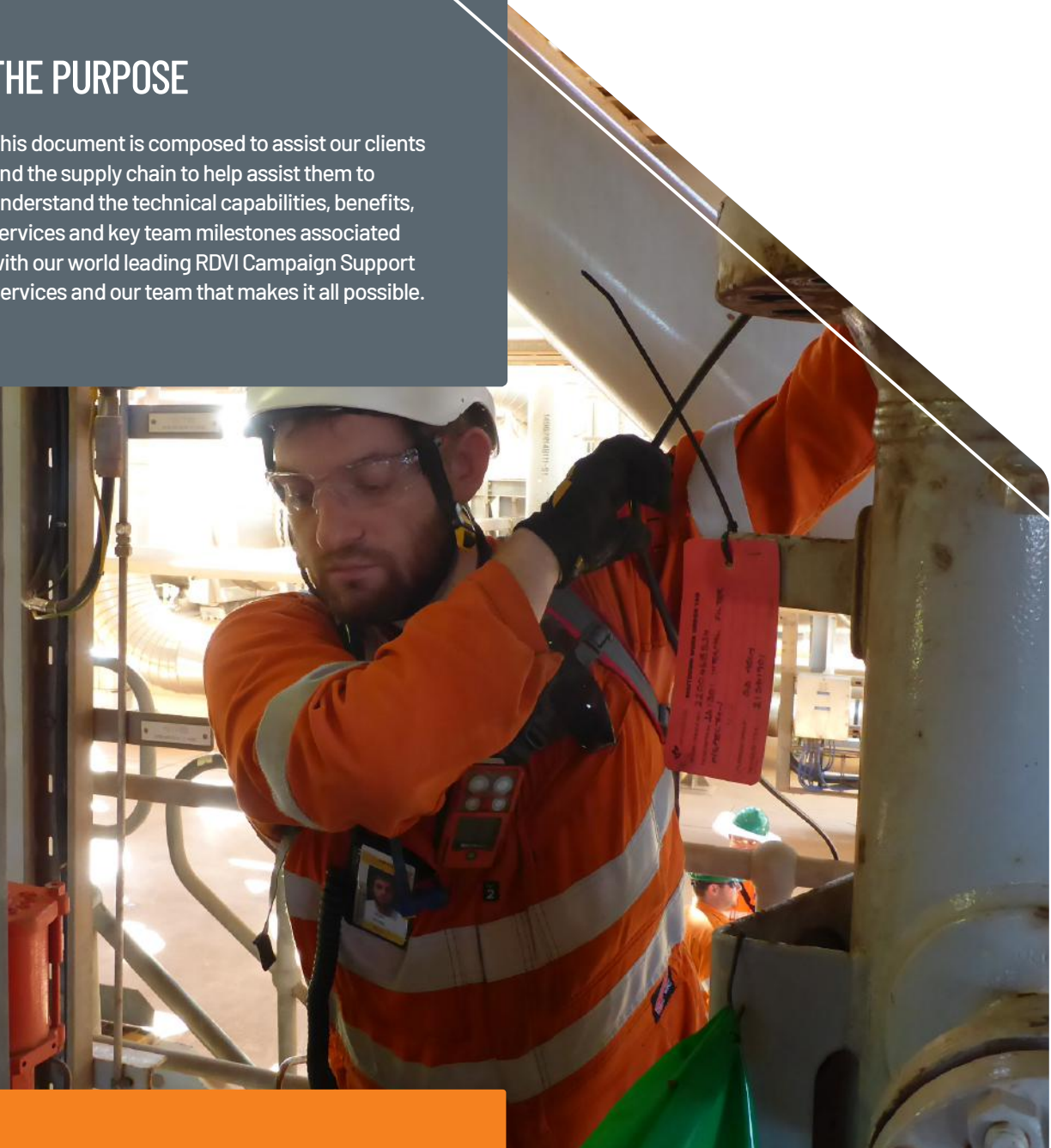
VERITECH GROUP



GEO OCEANS



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# RDVI CAMPAIGN SUPPORT

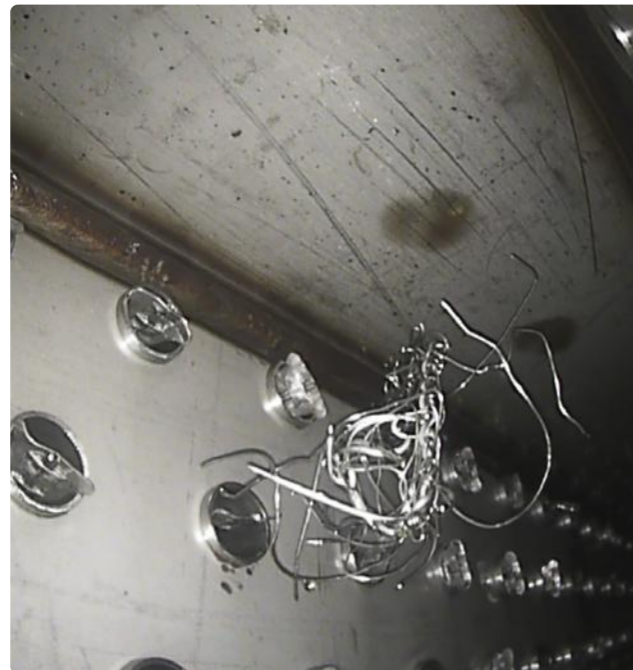
No matter the asset, turnarounds are a major undertaking, often resulting in projects being stretched in terms of time, manpower and technical experience. The Vertech Remote Digital Visual Inspection (RDVI) Campaign Support Package has been carefully curated with the express goal of removing these issues by providing an unparalleled RDVI inspection service that meets the requirements of engineers, planners and regulatory bodies.

When it comes to Remote Digital Visual Inspection, experience is paramount. The Campaign Support Team is backed by a combined 60+ years of experience and an extensive range of proprietary equipment, ensuring our clients get true and accurate results first time, every time.

## PACKAGE BENEFITS

The Campaign Support Package provides the assistance you need to keep your project on time and to budget. Some of the key benefits of this package are:

-  Dedicated, experienced, skilled, motivated and driven RDVI teams.
-  Increased number of repeatable comparable inspections for future degradation analysis.
-  Vertech Group owned, operated and maintained core RDVI equipment.
-  A reduction in number of staff/personnel on site and subsequent logistics.
-  Robust RDVI specific reporting processes.
-  A reduction in sim-ops clashes and high risk activities.
-  Dedicated and robust procedures for inspection of all types of assets, plants, processes and pressure equipment.
-  Increased process integrity data capture for process/operations.
-  Increased data availability for asset integrity management assessments.
-  A reduction in Confined Space Entries (CSE) & intrusive access requirements.
-  Bespoke & specialist access tooling.
-  Full turnkey solution.



## COMMONLY INSPECTED ASSETS

- |                                   |  |                                  |
|-----------------------------------|--|----------------------------------|
| ABSORBERS                         | DEHYDRATION BEDS                       | PRESSURE PIPING                  |
| AVIATION & AERODERIVATIVE ENGINES | ELECTRICAL EXCHANGERS                  | PROCESS CONTROLS - VALVES ETC.   |
| ACID GAS INCINERATORS             | FIN FAN EXCHANGERS                     | PROPANE/ETHYLENE/METHANE CHILLER |
| AIR & NITROGEN RECEIVERS          | FLARE KNOCK OUT DRUM                   | REBOILER EXCHANGERS              |
| BOILERS                           | FLOW METERS                            | REGENERATION PACKAGES            |
| COIL SYSTEMS                      | GENERATORS (ELECTRIC MOTOR)            | SCRUBBERS                        |
| COLUMNS                           | HEADERS                                | SEPARATORS & CONDENSERS          |
| COMBUSTION ENGINES                | HEAT RECOVERY STEAM GENERATORS         | SHELL & TUBE EXCHANGERS          |
| COMPRESSORS                       | MEMBRANE FILTERS                       | STEAM SYSTEMS                    |
| DE-AERATORS                       | PRINTED CIRCUIT HEAT EXCHANGERS (PCHE) | TURBINES (STEAM & GAS)           |

## VERTECH INTEGRATED EQUIPMENT

**Equipment  
Manufacturer  
Relationships**

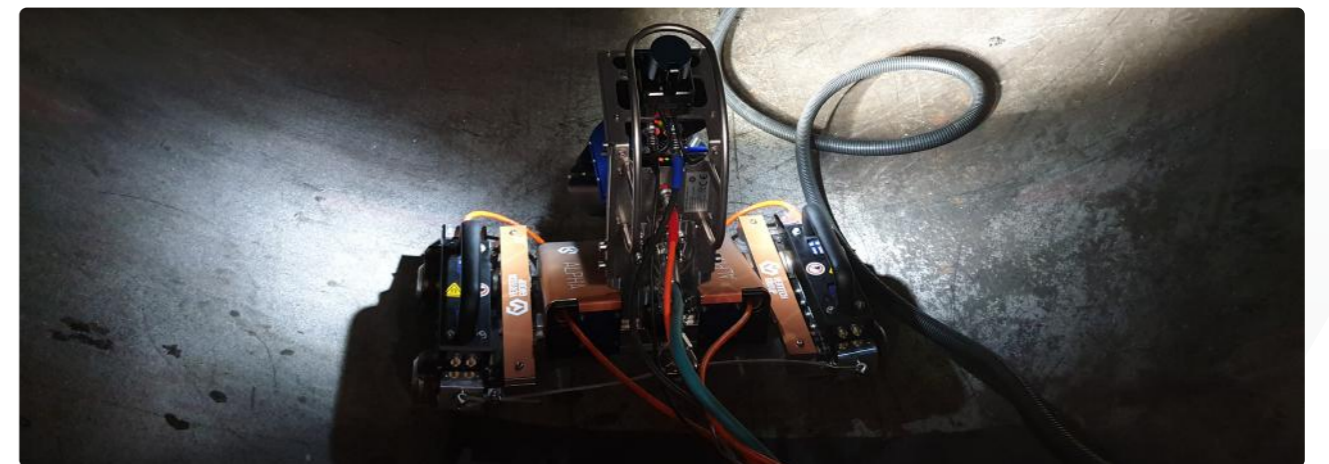
Vertech has an extensive range of standard and custom made systems and tooling. Our team also works directly with leading Original Equipment Manufacturers (OEMs) to improve many of the standardised systems to include advanced functions, resulting in a higher level of detection and integration. Over the years, several of these innovations have been so successful in our previous projects that OEMs have recognised their value and integrated them into their open market products.

**Vertech  
Custom  
Tooling**

Knowing and understanding key inspection locations is a skill that only comes with many years of practice and on-site experience. In many specialised situations, the tooling we require to take the inspection system to these locations simply doesn't exist or isn't readily available. For these projects our team have built their own sets of custom tools. These specialist access tools are exclusive to Vertech and help us deliver more efficient and accurate results.

**Owning &  
Maintaining  
Equipment**

We understand that with the tight time frames of a shutdown, our customers value speed and efficiency. As such, the Vertech RDVI Team own, maintain and operate all of their core inspection systems. This ensures that all sets of equipment and associated access tooling are fully serviceable when mobilised to site. We also keep a supply of the most crucial parts, lenses, adapters associated accessories on hand so if a mishap were to occur, we have capacity to ensure there are no major delays to the project.

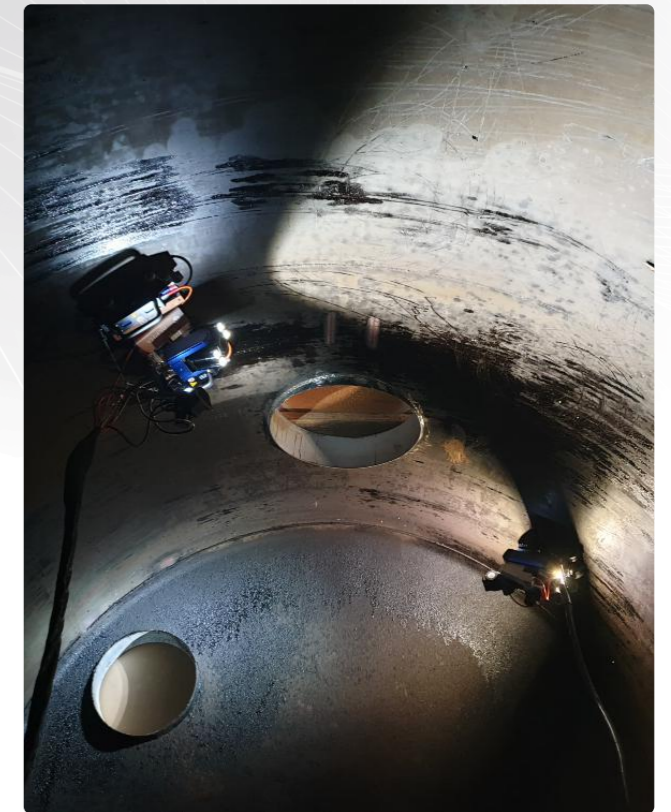
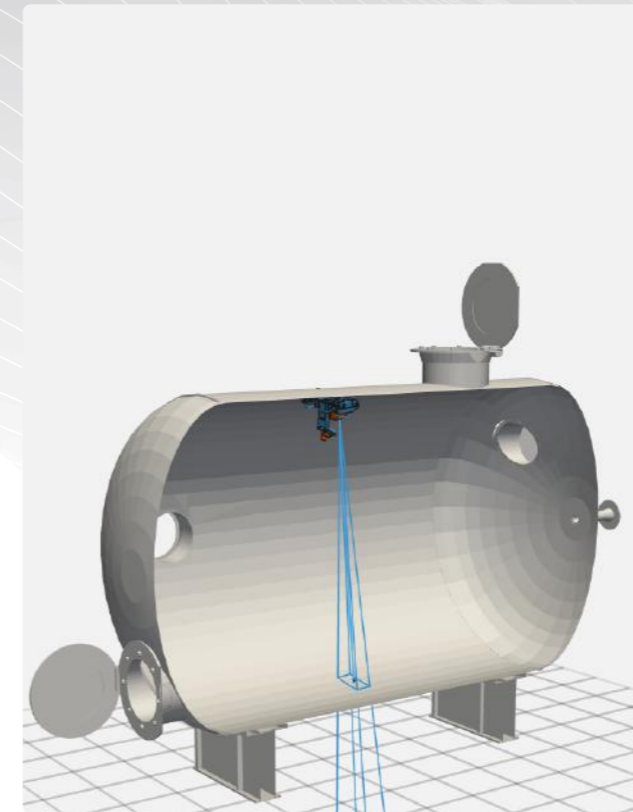


# OUR TEAM

To get the right results you need the right people, with the right training. Vertech is proud to have the worlds most experienced RDVI technicians as part of their team, ensuring that you get an accurate outcome the first time, every time.

Our team of specialists have a combined 60+ years of in-field execution experience and are equipped with an extensive range of proprietary equipment. They can offer an integrated execution and inspection approach that meets the requirements of your engineers, planners and statutory inspectors, helping you get results even when your contracted day-to-day resources are stretched.

Our recruiting process is extremely thorough, requiring each applicant to display skills across a wide range of areas in the initial stage before progressing. Our RDVI specific training program fully prepares our team for the field by being educated in six areas; systematic inspection procedures, degradation identification, tooling identification competency, tooling application competency, process optimisation training and safety training.



With our teams vast experience we bring more to each and every inspection. Being able to draw upon the years of global experience on degradation and operational issues, allows us to help you further reduce risk and increase your confidence in being able to operate the plant reliably and safely.

## TO GET THE RIGHT RESULTS, YOU NEED THE RIGHT PEOPLE.

### SYSTEMATIC INSPECTION PROCEDURES

RDVI technicians are trained in; systematic inspection procedures to enable higher levels of coverage; how to record, secure and prepare data in a logical format for communication; and how to correctly perform the post inspection review processes.

### DEGRADATION IDENTIFICATION

Our team has been trained in degradation identification and detection utilising 2D imagery. This is important as technicians have to know what they are looking at to ensure all relevant data is captured.

### TOOLING IDENTIFICATION COMPETENCY

Vertech technicians are trained across a range of digital camera systems so they know what camera is required & why, how to set it up correctly and what specific lenses need to be applied to get the best results.

### TOOLING APPLICATION COMPETENCY

Our team is trained in the use and application of specialist support tooling that we design and build to ensure cameras are placed in the right focal ranges, giving the clearest view of possible degradation.

### PROCESS OPTIMISATION TRAINING

Vertech RDVI technicians are trained in process and operational aspects to ensure they can detect and highlight indications of process reliability, helping your operational team run your facility at the highest efficiency.

### SAFETY TRAINING

Our team have been trained to safely use, operate and get equipment into high level work environments without causing sim-ops conflicts, incidents and accidents.

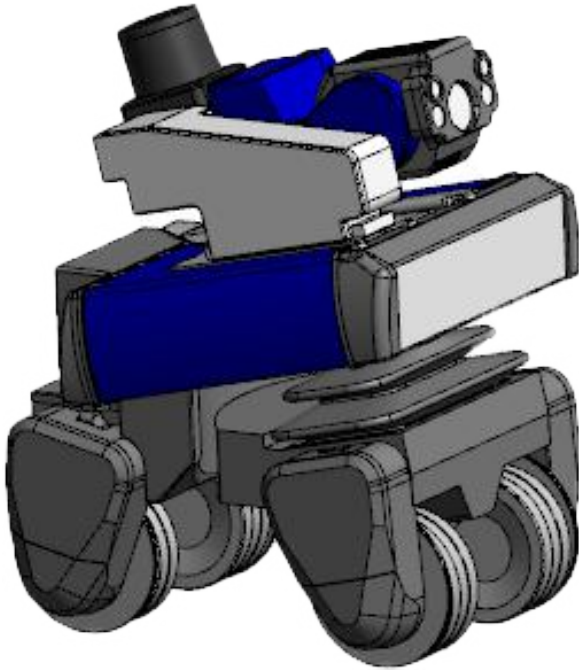
# OUR TEAM'S MILESTONES

Over the last 20 years, we have been trailblazers in the RDVI industry, setting the standard for others to follow. Despite this, our highly experience team is never satisfied with resting on laurels and to grow their knowledge and skill set. Our year on year innovations and improvements have put us on solid ground for 2020.

Our previous successes build a foundation for new knowledge, some of those key milestones are:

Year	Milestone Description
2001	Advanced-RDVI application to reduce turnaround by 35%
2002	Developed global Advanced-RDVI reporting standard and format
2003	Offshore hook up completions & close up inspections and QA/QC inspections
2005	Executed Advanced RDVI across an entire offshore gas platform, reducing turnaround time, head count and increasing level of coverage
2006	Successfully executed RDVI in hydrocarbon enriched atmospheres with non-IS electrical equipment in an LNG storage tank whilst in full operation
2008	Executed multiple turnarounds with multiple teams simultaneously while integrating with the Asset Integrity Team to reduce reporting and sign off timeframes
2010	Performed Greenfield Pre-FEED reviews with owners and operators across the globe
2011	Developed procedures and processes to screen and apply RDVI to the right applications as per DVN-GP-103 (HOIS-RP-103), setting new global standard
2012	Developed one off robotics for specialist header inspections to perform remote UT and Advanced RDVI
2013	Completed Advanced RDVI Review of Offshore Gas Platform and highlighted unforeseen risk areas to client based on historical RDVI data and developed emergent work plans
2014	Executed Advanced RDVI on offshore gas platform and completed emergent work scopes as per unforeseen items highlighted the previous year came to light still finishing ahead of schedule
2015	Started full Advanced RDVI base lines, QA/QC programs & Completions/Close up Inspections for Greenfield facilities.
2019	Initiated robotic inspection across a range of large and complex pressure equipment

# CONTACTS



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