

SERVICE PACKAGE

FRONT END ENGINEERING DESIGN FOR RDVI

THE PURPOSE

This document is composed to assist our clients and the supply chain to help assist them understand the technical capabilities, benefits, services and key team milestones associated with our world leading RDVI Front End Engineering Design Services



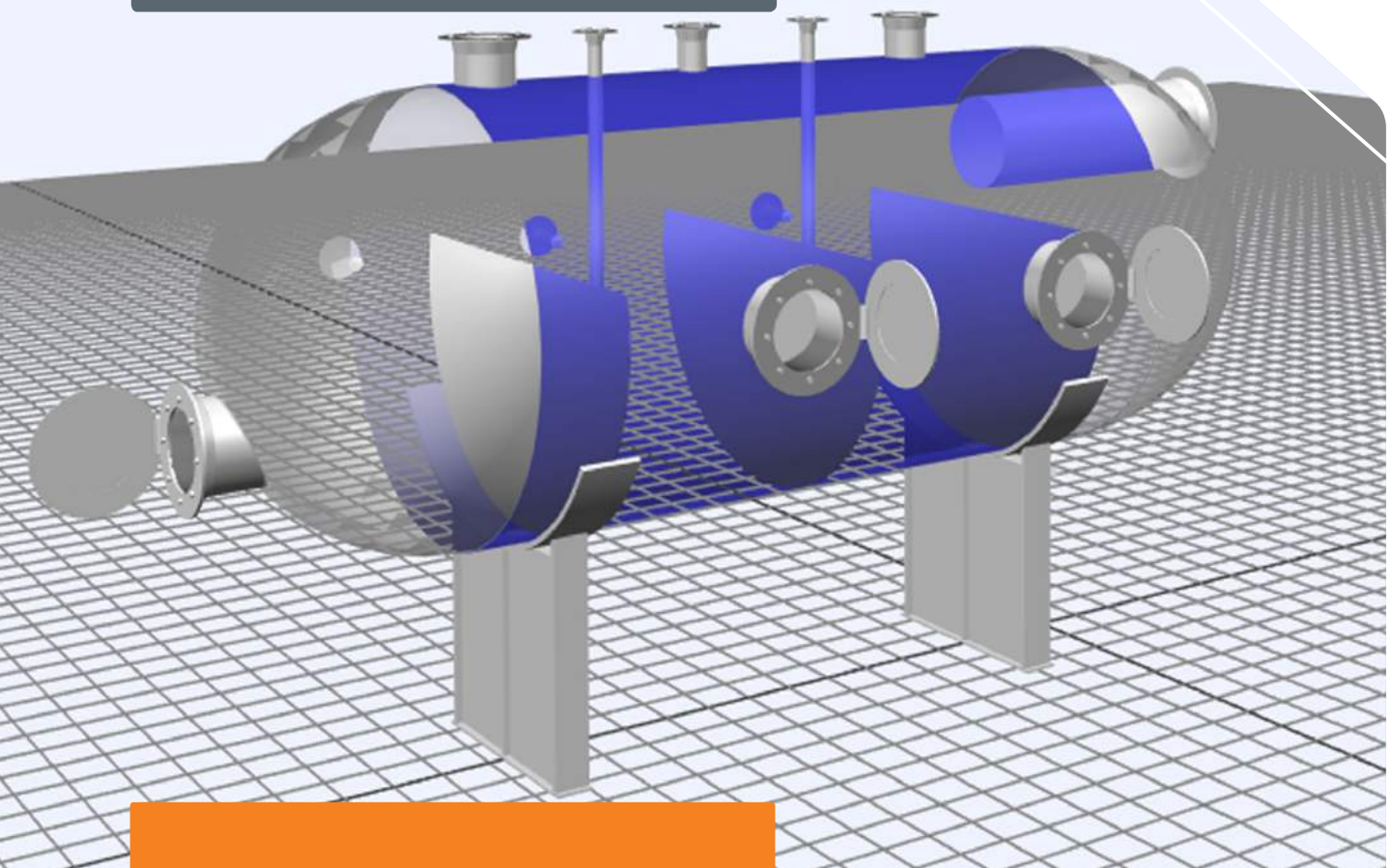
VERITECH GROUP



GEO OCEANS



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RDVI FRONT END ENGINEERING DESIGN

Vertech have a proven track record in optimizing the application of RDVI in Greenfield projects. An RDVI review of Greenfield installations provide the best opportunity to maximise the application of Advanced-RDVI. History has proven that RDVI integration in the Pre-FEED and FEED stages of the project maximises RDVI capabilities and creates the biggest savings, exceptional coverage and reduces Shutdown time frames.

Our most experienced technicians and engineers are able to directly integrate into your design & asset integrity teams to:

- ✔ Ensure Advanced-RDVI is best applied
- ✔ Reduce mechanical / scaffold / crane costs and resources
- ✔ Reduce risk in the operation phase of the plant's life cycle
- ✔ Reduce sim-ops clashes
- ✔ Select the best access points to enable the inspection to be completed with integrity
- ✔ Reduce number of staff/personnel on site and subsequent logistics
- ✔ Increase the number of repeatable comparable inspections for future degradation analysis
- ✔ Future proof access requirements to enable on-line inspections, hydrocarbon enriched inspections and the application of remote NDT techniques
- ✔ Reduce Shutdown time frame & cost
- ✔ Increase process integrity data capture for process/operations
- ✔ Reduce Confined Space Entries & Intrusive access requirements
- ✔ Reduce safety risk profiles and high risk activities
- ✔ Increase confidence in forward maintenance planning and risk assessment
- ✔ Increase inspection coverage to build confidence in operating the plant
- ✔ Increase data availability for your Asset Integrity Management assessments
- ✔ Increase alignment and integration with other NII techniques for qualitative inspection results

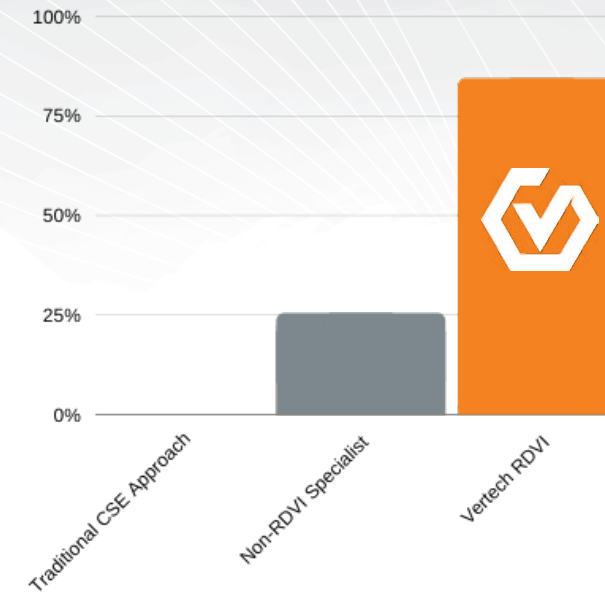
Throughout our history of executing this type of specialist work, we have seen a number of non-RDVI specialists attempt this, achieving limited success. This is not an issue for our team, as we have the experience, learnings and knowledge that can only come from 20 years of dedicated RDVI work.

On top of this, each of our technicians have a true passion for what they do and a natural desire to achieve great results. Our team carries a sense of pride in being able to provide our clients with higher levels of coverage so they can have the confidence to operate their plant safely.

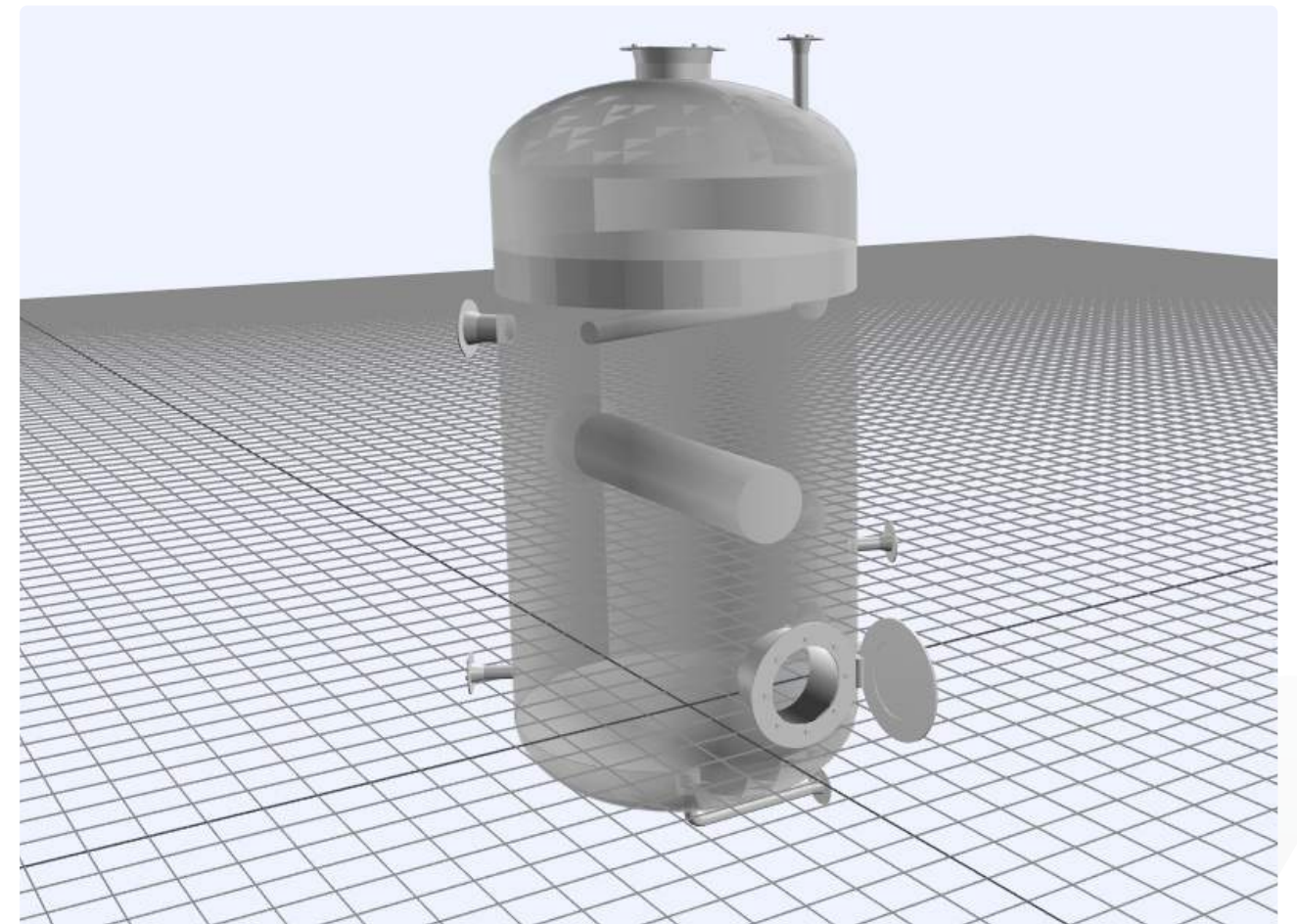
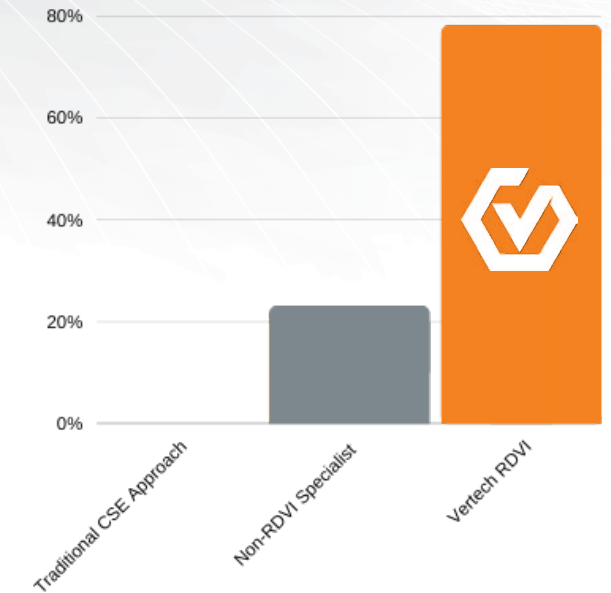


BENEFITS OF FEED RDVI

POTENTIAL REDUCTIONS IN S/D TIMES



POTENTIAL REDUCTIONS IN S/D COSTS



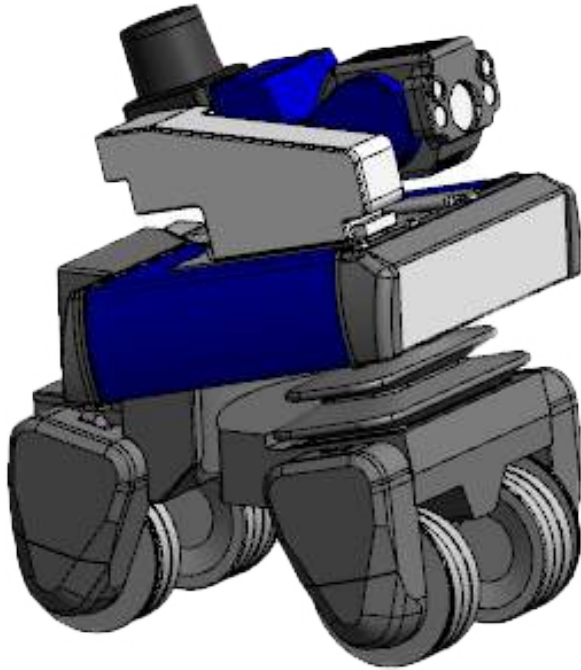
OUR TEAM'S MILESTONES

Over the last 20 years, our team has been at the forefront in the RDVI industry, setting the standards for others to follow. Despite this, our highly experienced team is never satisfied with resting on their laurels, preferring to grow their knowledge and skill set. Our team's year on year innovations and improvements have put us on solid ground for 2020.

Our previous successes have built a foundation for key industry innovations.

| Year | Milestone Description |
|------|--|
| 2001 | Advanced RDVI applied to reduce turnaround resources by up to 35%. |
| 2002 | Developed global RDVI reporting standard and work pack formats. |
| 2003 | Executed offshore hook up completions / close up inspections and QA/QC inspections using Advanced RDVI technology and methods. |
| 2005 | Executed 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 several large turnarounds with multiple teams simultaneously while integrating with the Asset Integrity Team, reducing 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 using the DNV-GP-103 (HOIS-RP-103), setting a 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 an offshore gas platform, highlighting foreseen risk areas to client based on historical RDVI data and developed emergent work scopes. |
| 2014 | Executed Advanced RDVI on offshore gas platform as per 2013 review and planning. Unforeseen items highlighted the previous year came to pass. Turnaround was still able to finish 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. |

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