# CAPABILITY STATEMENT OFFSHORE







BLUE OCEAN MARINE SERVICES

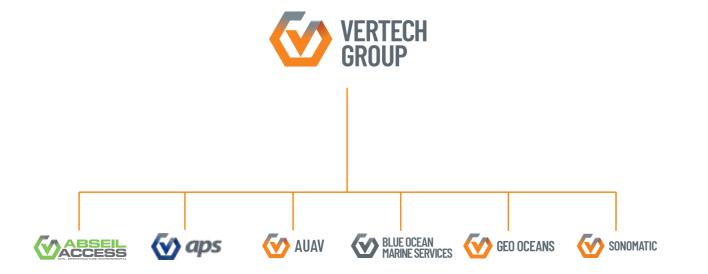
# **THE PURPOSE**

This document is composed to assist our clients and the supply chain in understanding our group operating structure along with a high-level understanding of the benefits, services and specialist packages associated with our capabilities.

# **COMBINED SERVICES**

Vertech Australia, NZ, and USA deliver a comprehensive array of Inspection, Non-Destructive Testing (NDT) and Maintenance packages all underpinned by Innovative Specialist Access Systems.

Our group is made up of complementary and specialist service providers assisting us to innovate in project delivery across multiple market verticals. They include; Geo Oceans an industry leader in Mini-ROV IRM and Subsea Inspection services, Sonomatic who are recognised as a global leader in Specialised NDT, AUAV a specialist Drone and Data Analytics company, APS Industrial Services who deliver Construction, Access and Engineering Services, Blue Ocean Marine Services experts in Offshore Surveys and AUVs as well as Abseil Access in New Zealand who are a Specialist Infrastructure, Engineering and Geotechnical providers.









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# **OFFSHORE PRODUCTION**

Vertech Group has been a critical provider of offshore inspection and maintenance services in the Asia Pacific for over a decade. This success is due to three key factors: a focus on client satisfaction, Vertech's worldclass team of experts, and a diverse suite of innovative solutions. These three pillars united to ensure that our clients get the best result the first time, every time. Vertech's body of work speaks for itself, with our team having delivered countless highly complex scopes such as derrick decommissioning, flare tip replacements, riser IRM, underdeck platform construction and subsea tie-back modification projects.

# ASSET OPERATING EXPERIENCE



# **GROUP ACCREDITATIONS**

- ISO 9001:2015
- ISO 14001:2015
- ISO 29001:2010
- ISO 29001:2010 •
- ISO 45001:2018
- **ABS Hull Gauging Firm** •
- ABS Approved Supplier for UAV
- ABS Remote Inspection Techniques (ROV) •
- **BV** Remote Inspection Techniques
- BV Thickness Measurements of Hull Structures •
- DNV Close up Survey

# WE PRIDE OURSELVES ON OUR



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- DNV NDT on Classification Projects
- DNV Thickness Measuring
- DNV In-Water Survey (ROV)
- Vertech IRATA Operator & Trainer
- Lloyd's Register Remote Inspection (UAV)
- Lloyd's Register Remote Inspection (ROV)
- LR Thickness Measurements of Hull Structure
- NATA Lifting and Lifted Inspection
- NATA Pressure Vessel Inspection
- NATA NDT Inspection

# **OFFSHORE SERVICES**

## NON-DESTRUCTIVE TESTING

Vertech has a wealth of NDT experience across the offshore sector and can provide recommendations and solutions to ensure compliance with international standards. Vertech Group is certified to ISO 17205 as an NDT inspection body by the National Association of Testing Authorities (NATA). Our NDT inspection personnel are highly qualified, skilled and experienced in applying various conventional and advanced inspection and testing methods.

## PRESSURE EQUIPMENT INSPECTION

Vertech has been conducting intrusive and non-intrusive pressure equipment inspections for offshore operators across Australia since its inception. Our statutory pressure equipment inspectors are trained in in-service inspection with either AICIP or API in-service inspection qualifications.

Our inspectors are well-versed in the industry codes and standards and the controls required for safe access to pressure vessels and confined spaces.

## **MARINE CLASS INSPECTION**

Vertech specialises in statutory inspections to classify ships and offshore floating structures using the latest technology, inspection tools and software solutions. Our expert team can also provide ongoing integrity management of Floating Production Storage and offloading facilities (FPSOs), Floating Storage and Offloading vessels (FSOs), Floating Liquefied Natural Gas (FLNG), and Merchant Marine Assets.

### **RDVI & ROBOTIC INSPECTION**

Remote digital visual inspection (RDVI) uses and applies digital inspection systems to inspect equipment internally without needing confined space entry (CSE). Our RDVI & Robotics Division's client focus, commitment to innovation, and multidisciplined site-based crews help ensure cost and safety benefits on every project.

## **DRONES & 3D DIGITAL TWINS**

Vertech Group was the first company in Australia to be recognised as an approved service supplier by Lloyd's Register for Unmanned Aerial Vehicle (UAV) inspections of classification vessels and structures. We have successfully deployed UAVs across Australia on FPSOs, fixed platforms, LNG, and mining assets. Our group company, AUAV, were established in 2013 are the only Australian company ranked in the top 20 in the world providing an unrivalled depth of experience in drone surveying, inspection and also provide clients with digital twins of assets through AUAV's proprietary data management software; inSite 3D GIS cloud platform.



# ACCESS MANAGEMENT

Vertech pioneered rope access in Australia, importing the first decking systems to the Asia Pacific region and designing and installing the first offshore safety netting and tension netting systems. Our highly experienced team has installed scaffolding and custom access platforms on offshore assets nationwide. This pedigree and experience give us the expertise to recognise and provide the proper access system for each situation.

## **RIGGING & LIFTING**

Our team use their extensive industry experience to design, implement and review detailed rigging and lifting plans and Safe Work Method Statements (SWMS). Vertech has consistently delivered on some of the most complex rigging projects in the offshore sectors through all phases of an asset's lifecycle with an unparalleled safety record.

## **MECHANICAL & PIPE FITTING**

Underpinned by our range of access services, we provide multi-disciplinary mechanical teams, equipment, and a range of specialist automated tooling to complete high mobility maintenance, upgrade, repair, or remediation services to our client's assets.

## **HIGH-MOBILITY FABRIC MAINTENANCE**

Our team are on hand to perform maintenance and repairs during ongoing drilling campaigns to ensure the structure's longevity. We provide a high-mobility painting and blasting service using single-coat marine coating systems, insulation repairs and a range of composite wrap services.

## **ELECTRICAL & EEHA INSPECTION**

We regularly provide end-to-end project solutions, including engineering design and technical support, product sourcing and procurement, installation and repair, and personnel contracting services. Our offshore customers frequently utilise our multi-skilled electrical and EEHA personnel pool for hazardous area inspections, testing, compliance, installations, cable-pulling and general electrical maintenance.

## **PROJECT & PROGRAM MANAGEMENT**

The key to effective project management is early stakeholder engagement, understanding our clients' principal drivers, effective planning, staff selection, and maintaining strong communication during the entire project or program lifecycle. Using a suite of project management software systems, our highly experienced team works through all scope, guality, and cost boundaries before entering a detailed planning phase that implements everything needed to meet the customers' needs.

# **SPECIALIST PACKAGES**

### **OFFSHORE PRODUCTION - SPECIALIST PACKAGES**

Vertech Group's offshore specialist packages offer real value to our clients by combining our services, products and expertise into one complete solution.



### V-COMM (DECOMMISSIONING PACKAGE)

Vertech's V-COMM Decommissioning Package provides specialist services, systems, and products to support the entire decommissioning cycle. This ensures compliance with regulatory requirements, environmental and safety excellence, and cost efficiency. The package caters to the increasing demand for decommissioning in the offshore petroleum industry in the APAC region.

Vertech offers various services, including Environmental and Project Engineering, Site Surveys, Technical Services, Rigging, Lift Planning, and Subsea Infrastructure Surveying. It also provides Disconnect Support and Topside and jacket support, which includes detailed planning, primary lift rigging, and ROV systems for live feeds.

We have vast experience in decommissioning projects such as the Riser Turret Mooring (RTM) from an FPSO, Goodwyn Alpha (GWA) drill derrick, North Rankin Derrick, and many FPSO disconnects and planning projects.

Our V-COMM package delivers customised decommissioning solutions, ensuring environmental compliance and operational efficiency across the offshore sector.



### V-FLARE (FLARE TIP IRM PACKAGE)

Vertech offers a comprehensive V-Flare Package that caters to the onshore and offshore flare tips' maintenance, remediation, and replacement needs. The package is customised to meet each client's unique requirements and utilises advanced inspection techniques, non-destructive testing (NDT), specialist systems, and rope access.

Some of the services provided by Vertech include pre-mobilisation training, integrated activity planning, UAV inspections, and remediation and repair work. Vertech uses UAVs to conduct thorough flare surveys, emphasising early engagement and detailed planning for efficient, safe, and customised execution. The company also offers flare tip replacement and maintenance services, including structural repairs, application of coatings, ignitor frame replacement, navigation aids replacement, and enhanced NDT.

Vertech's V-Flare package combines advanced technology, meticulous planning, and skilled execution to ensure efficient and safe management of flare tip projects for the energy sector.



### V-LIFT (LGI MANAGEMENT PACKAGE)

Vertech's V-LIFT Package provides specialist cranes and lifting equipment services focusing on efficiency, quality, and compliance. The package offers turnkey solutions prioritising safety, cost-effectiveness, and operational efficiency for oil, gas, and drilling operators. We hold accreditations such as LEEA, NDT, IRATA, and API, ensuring compliance with regulations and high accreditation standards.

Our team provides comprehensive inspection and maintenance services for lifting equipment, with DROPS surveys and access solutions like rope access, scaffolding, and safety netting. Vertech's NDT services include a range of inspections, API Crane inspections, and successful management of inspections and compliance for various projects.

This comprehensive package ensures the safe, efficient, and compliant operation of lifting equipment in the oil and gas industry.



### V-CLASS (CLASS INSPECTION PACKAGE)

Vertech's Marine Class Inspection department offers various services for classifying ships and offshore structures. Their team of professionals specialises in statutory inspections for marine assets, including tank surveys and special surveys.

Vertech employs the latest technology to provide efficient, high-quality, and compliant inspection reports, models, and data sets across the globe. They provide engineering and repair capabilities to support marine class inspections and ongoing integrity management of maritime assets.

Our services include repair plans, survey planning, vessel modelling, 360° mapping surveys, fatigue management, manned and unmanned marine services, and subsea inspections.

We have completed complex inspections on every FPSO in Australia and New Zealand and merchant shipping vessels, tugs, and defence vessels. They use advanced robotics to reduce manned inspections.

Examples of our projects include cargo and ballast tank inspections, baseline class inspection services for floating facilities under construction, hull integrity inspections, and decommissioning planning for FPSOs.

Vertech's approach demonstrates its commitment to innovation, safety, and quality in the maritime sector.



### WATER BALLAST AND CARGO OIL TANK INSPECTIONS

Utilising advanced ROV inspection technologies, GVI, CVI, UTM and other NDT methods, we conduct tank inspections to meet the specific Class requirements of each asset.

Our tank inspections are performed without emptying the tank of fluid, thereby reducing facility downtime while avoiding costly and dangerous Confined Space Entry (CSE) procedures.

### HULL & MOORING UWILD / IN-WATER SURVEYS

We deploy our ROVs directly from the facility, eliminating the need for costly carbon-emitting support vessels.

Periodic or special surveys are tailored to the individual assets, considering the client's age and condition, class requirements and engineering needs.

Cleaning General and Close Visual Inspections are performed and supported with cleaning, CP, UTMs, penetration isolations, sea chest blanking, angle measurements, chain gauging and other NDT inspections as required.

Remote live data feeds can be supplied to support remote inspection and class attendance.

### JACKETS, RISERS, SUBSEA FIELD INSPECTION

We have extensive experience performing ROV inspections of jackets, caissons, risers, mooring systems and subsea infrastructure, including pipelines, spools, wellheads and anode skids. We can deploy directly from platforms or vessels of opportunity.

Inspections and ROV interventions include anything from GVI/CVI, freespan, CP, UTM, FMD, marine growth assessment and spot cleaning to bulk cleaning, dredging, advanced NDT inspections (e.g. corrosion mapping, crack detection) and subsea repairs.



### SUBSEA ADVANCED NDT INSPECTION

Working in collaboration with Sonomatic, Geo Oceans has extensive experience in the development and ROV deployment of miniaturised subsea advanced NDT inspection tools to create high-accuracy corrosion maps of sections of pipelines, spools, hulls, infrastructure or to survey critical welds.

### **METROLOGY AND PHOTOGRAMMETRY**

Our Mini-ROV inspection systems include imaging technologies for accurate size and area measurements. A camera array (stereo or mono) acquires high-definition video and images that can be processed for scaled measurements and 3D modelling.

The 3D models can calculate size and area measurements for localised corrosion mapping purposes or quantitative assessment of the remaining anode percentages. These 3D models can also be compared against the 'as built' (baseline) model of the anodes to create a 'deviation' model that displays the level of material loss.

### MARINE HABITAT SURVEYS USING GO VISIONS™

Geo Oceans has an award-winning benthic habitat mapping and monitoring capability utilising the GO VisionsTM software to support regulatory environmental approvals for new construction projects (wharves, jetties, pipelines, offshore wind farms) or for decommissioning projects (pipelines, subsea cables, wells, jackets, nearshore infrastructure).



### SUBSEA INSPECTION

Sonomatic Subsea is a leading provider of advanced subsea inspection technologies, including ROV and diver-deployed robotic systems. With 30+ years of experience, we design, develop, and build our inspection systems and scanners to meet specific client requirements.

Our unique and innovative inspection solutions enable clients to manage the integrity of aging assets while making informed and cost-effective decisions crucial to plant safety and longevity. We have a proven track record of safely delivering subsea inspection services for over three decades.

### **PIPELINE INSPECTION**

Sonomatic specialises in pipeline inspections to deliver high-quality data. We offer topside and subsea services to ensure pipeline integrity. We provide innovative statistical analysis methods to help operators make informed decisions regarding pipeline inspection and integrity assessments.

Sonomatic's advanced subsea pipeline inspection services utilise cutting-edge technology to effectively detect potential issues, collect precise data, and assess pipeline conditions to ensure the integrity and reliability of underwater energy infrastructure. This reduces downtime, maintenance costs, and enhances safety and environmental protection.

### **BESPOKE INSPECTION SOULTIONS**

Sonomatic is a relationship-driven company that constantly provides its clients with the best possible service using the most specialised technology. We always offer a bespoke solution to individual projects by selecting the most appropriate products and techniques from our wide range of equipment and software.

This can range from the total planning-to-reporting package offered by our Integrity Support Services division to one-off inspection reports by specialist engineers using the most sophisticated and advanced flaw detection methodologies.



### **TANK CLEANING & INSPECTION**

Storage tanks typically contain large volumes of valuable but potentially hazardous fluids. As such, inspection is a critical element of the integrity management of storage tanks. The objective of the inspection is to provide information on the tank's condition. This information should be used to support effective integrity management decisions. Historically, storage tank inspection has relied on entry with the tank out of service. Opening storage tanks for internal inspection is a lengthy and challenging process.

The tank will be unavailable during the internal inspection and must be drained and cleaned before entry is possible. There are also safety hazards associated with personnel entry for inspection. Remote Internal Inspection (RII) methods offer an attractive alternative as they can be conducted whilst the tank is in-service and do not require vessel entry. Sonomatic's technicians are experienced in using various inspection techniques on numerous assets in many environments.

### **INTEGRITY ENGINEERING**

### **NON-INTRUSIVE INSPECTION**

Sonomatic is a pioneer in Non-Intrusive Inspection (NII) with global implementation. Our experienced team combines advanced data science and cutting-edge engineering capabilities to offer complete NII campaign services worldwide. We are committed to providing quality solutions that meet the highest safety and efficiency standards while ensuring an auditable trail for each department. NII is becoming an alternative approach to traditional Internal Visual Inspection (IVI) for pressure vessels, with some organizations aiming to eliminate vessel entry by 2026.

Sonomatic's Integrity Services Department provides engineering and operational support to clients, combining experience in the field with specialised engineering, planning, execution, data analytics, statistical methods, and custom software development. We specialise in advanced, non-intrusive inspections and provide objective analysis through effective planning. Sonomatic's practical statistical methods for inspection planning through simulation position us to support the integrity management sector's transition to increased data-driven decision-making.



### **AERIAL SURVEY & MAPPING**

AUAV offers top-tier aerial surveying and mapping services using state-of-the-art drones and skilled surveyors. We aim to provide the highest guality results with centimetre-level accuracy, enabling our clients to make agile decisions. Our maps and survey data have a 1-3cm resolution per pixel, and our 3D terrain models are accurate to approximately 50mm horizontally and 50-80mm vertically.

### **3D DIGITAL TWINS (InSite)**

AUAV's InSite software is a cloud-based drone data presentation and asset inspection platform. Its features include 3D site capture, integration with other systems, customisable options, and versatile data display capabilities. The software is geared towards clear data capture, essential for in-depth analysis and informed decision-making in drone operations and data processing services.

### **DETAILED CLOSE VISUAL INSPECTION**

Drones are crucial for detailed, safe, and efficient visual inspections in infrastructure maintenance, construction, and energy. With high-resolution cameras and advanced stabilisation technologies, drones can inspect structures like bridges, wind turbines, and high-rise buildings, reducing the need for human inspectors in dangerous or hard-to-reach areas. The agility of drones captures a wide range of angles and perspectives, providing comprehensive visual data that speeds up the inspection process, increases accuracy, and improves maintenance decisions. Using drones exemplifies the integration of technology in modernising and optimising industrial and maintenance practices, making them safer, more efficient, and cost-effective.



Aerial thermography provides an efficient method for capturing temperature anomaly data over large areas. Typical uses include the identification of underground fires, solar farm defects, gas leaks and potential water ingress behind concrete structures. The most widespread use of drone-based thermal capture is on grid-scale solar assets, where data on up to 700,000 panels can be captured in a week.

### LIDAR

Drone-based LiDAR is an aerial surveying technique for generating point cloud data for topographical surveys. AUAV has extensive experience in collecting, processing and delivering LiDAR data for mining, engineering power sector and environmental clients. With hundreds of points per square meter, the data is beneficial for surveying areas with vegetation, analysing power line infrastructure and landslip analysis.

### THERMAL

### **AERIAL PHOTOGRAMMETRY**

Photogrammetry is the term used for creating very accurate 3D data from photographs. This is a speciality of AUAV, where our team routinely captures and processes models with 100,000 high-resolution images to create digital twins of assets. These digital twins have resolutions between 1cm and 1mm, enabling the engineering inspection of assets, tendering for remediation or demolition, facilitating design works or various virtual reality applications. AUAV have developed a bespoke online platform, inSite,



### SITE INVESTIGATION

We deliver comprehensive site investigation and appraisal services, including detailed surveys and advanced monitoring systems. We specialize in habitat mapping and use autonomous underwater vehicles (AUVs) equipped with the latest sensors and imaging technology to conduct thorough surveys, even in inaccessible marine environments. Our commitment to providing accurate, actionable data for marine projects sets us apart.

### SUBSEA POSITIONING

We utilise advanced Ultra Short Baseline (USBL) systems to accurately control and manage AUV surveys. These systems determine the position of dynamic subsea targets by transmitting and receiving acoustic signals between a submerged transceiver and a target beacon. Our services extend beyond supporting our AUV activities and provide precise navigational and positional support for various other applications, including ROV inspection, sediment and water sampling, drop-camera surveys, towed instrumentation surveys, and search and recovery exercises.

### **METOCEAN SURVEYS**

Blue Ocean Marine Services offers a comprehensive metocean service for offshore projects. Our specialised monitoring services cater to shallow and deep marine environments, evaluating directional waves, currents, water quality, and more. We provide water level monitoring, advanced weather forecasting, sediment sampling, and real-time monitoring systems, ensuring up-to-date data for immediate decision-making. Our services also include visual surveys and hydrographic surveys to map underwater topography. All our services are tailored to deliver detailed and reliable metocean data for our clients' offshore projects.



### **REGULATORY COMPLIANCE**

Increased marine activity and environmental accountability have increased the demand for ocean monitoring programs. Ocean robotic platforms have proven highly effective in enhancing ocean survey techniques. Blue Ocean Marine Services has executed numerous data acquisition campaigns to ensure offshore compliance. Our services include PFW discharge monitoring, dredging and spoil disposal monitoring, PAM, UXO surveys, water and sediment testing, scour monitoring, real-time monitoring, and data harvesting.

### SUBSEA INSPECTION

Blue Ocean Marine Service offers cost-effective and efficient subsea inspection surveys using Autonomous Underwater Vehicles (AUV) and Remotely Operated Vehicles (ROV). These portable technologies require only a small specialist team and can be mobilised quickly. Our successful pipeline inspections demonstrate that these vehicles can deliver exceptional survey results while reducing project costs, schedules, logistical efforts, and risks. Our subsea inspection services include pipeline inspection, infrastructure position surveys, cable route surveys, leak detection surveys, general visual inspections (GVI), and scour monitoring.

### EMERGENCY RESPONSE

Blue Ocean Marine Services provides efficient emergency response services for environmental and infrastructural crises. Our expert technicians are trained for rapid deployment, while our AUV fleet enables quick mobilisation. Our services include oil spill response, infrastructure surveys, and pollution monitoring. We also provide scour monitoring and water and sediment testing for thorough environmental assessment. Our emergency response offers comprehensive solutions for safeguarding the environment and marine infrastructure.

# **KEY CONTACTS**

# **VERTECH**

### Adam Haling

**Commercial Manager** T: +61 (8) 6168 7600 M: +61 475 509 140 E: Adam.Haling@vertechgroup.com.au

### Craig Davies

**Group Development Manager** T: +61 (8) 6168 7600 M: +61 429 222 409 E: Adam.Haling@vertechgroup.com.au

### Bruce McKenzie

**Department Manager - Integrity & Inspection** T: +61 (8) 6168 7600 M: +61 487 473 713 E: Bruce.Mckenzie@vertechgroup.com.au

### **Donovan Rheeders**

Department Manager - Projects & Shutdowns T: +61(8)61687600 M: +61439110880 E: Donovan.Rheeders@vertechgroup.com.au

### **Rob Porter**

Department Manager - Frontline & Ad Hoc T: +61(8) 6168 7600 M: +61 497 327 024 E: Rob.Porter@vertechgroup.com.au

### Sam Kirk

Project Manager - New Zealand T: +64 6751 0910 M: +64 272 519 986 E: Sam.Kirk@vertechgroup.co.nz

# **SONOMATIC**

### Alex Cesan

General Manager - Australia & NZ T: +61 498 442 666 E: Alex.Cesan@sonomatic.com.au

### Zach McCann

Region Manager - South East Asia T: +60 12 555 1569 | M: +61 404 797 670 E: Zach.Mccann@sonomatic.com.my

### **Graham Marshall**

Subsea Project Manager - Europe & Africa T: +44 (0) 1224 823 960 E: Graham.Marshall@sonomatic.com

# **GEO OCEANS**

### **Nick Veitch**

Managing Director T: +61 (8) 6168 7611 M: +61 400 352 134 E: Nick.Veitch@geooceans.com.au

### lan Collins

Subsea Inspection Manager T: +61(8)61687611 M: +61448669 E: lan.Collins@geooceans.com.au

### **Ray Gard**

**Operations Coordinator** T: +61 (8) 6168 7611 M: +61 491 953 000 E: Ray.Gard@geooceans.com.au

### Pete Tawse

**Operations Manager - International** T: +61(8) 6168 7611 M: +1 346 550 4092 E: Pete.Tawse@geooceans.com.au

### John Hebert

**Operations Manager USA** T: +61(8)61687611 | M: +12813129431 E: John.Hebert@geooceans.com.au

### Andy Younger

Project Manager - UK/Africa/Middle East T: +61(8) 6168 7611 M: +44 7780 119 614 E: Andy.Younger@geooceans.com.au

# **AUAV**

### **James Rennie**

**Managing Director** T: 1300 738 521 | M: +61 497 070 576 E: James.Rennie@auav.com.au

# **BLUE OCEAN MARINE SERVICES**

Keith Wallace
General Manager
T: +61(8)62638785   M: +61409557002
E: Keith.Wallace@blue-ocean.com.au

### Esteban Cesan

**General Manager - Americas** T: +1 832 977 0303 E: Esteban.Cesan@sonomatic.com

### Gordon Reid

Region Manager - Middle East T: +9712 6580708 E: Gordon.Reed@sonomatic.com

### Charles Loader

General Manager - Europe & Africa T: +44 (0) 1925 414000 M: +44 (0) 7376 714765 E: Charles.Loader@sonomatic.com

### Vaman Purohit

**Business Development - Sales** T: 1300 738 521 M: +61 405 878 120 E: Vaman.Purohit@auav.com.au

### **Company Contact Information**

T: +61 8 6263 8785 E: Info@blue-ocean.com.au