

## AML3D OPENS NEW MARKET ENTRY INTO SUBSEA OIL AND GAS SECTOR

## **HIGHLIGHTS**

- AML3D 3D prints the world's largest metal Oil & Gas high-pressure piping component
- Vessel printed using WAM® to the new global API 20S Standard for Additively Manufactured
  Metallic Components for Oil & Gas components
- Successful high pressure testing, witnessed and verified by Lloyd's Register

AML3D (ASX:AL3), a global provider of large-scale metal additive manufacturing technology and solutions, has 3D printed the world's largest high-pressure Oil & Gas piping component to be successfully tested and verified by Lloyd's Register. This demonstrator component was printed as part of AML3D's internal development program and it showcases capabilities in the subsea oil and gas sector.

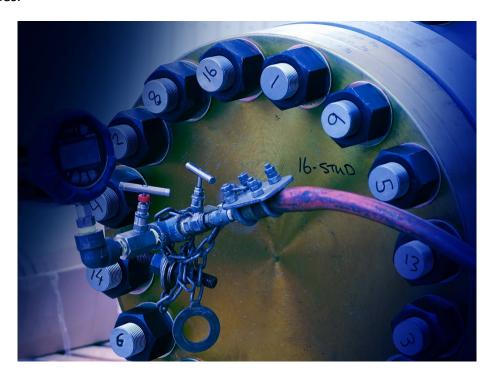


<sup>®</sup> using a high strength wire feedstock.

The 940kg monocoque "piping spool" component is the first of its type to be metal 3D printed and independently pressure tested, in the world. At 850mm in length and 450mm in diameter, the 41mm thick high-pressure piping spool was printed according to the stringent and newly released American Petroleum Institute (API) Standard 20S and has met all test acceptance criteria. Finally, the component underwent industry standard high pressure testing which also passed the acceptance testing for ASME B31.3, a well used American standard for these applications.



The highly pressurized testing was undertaken by Trushape Engineering, specialists in high-pressure piping components testing. The component was pressurized to 34,790kPa and held for an extended period with no loss structural integrity. The testing was independently witnessed and verified by Lloyds Register, one of the worlds leading marine verification authorities.



 $WAM @ DN400 \ to \ DN300, Schedule \ 160 \ reducing \ spool \ undergoing \ testing \ with \ TruShape, \ witnessed \ and \ verified \ by \ Lloyds \ Register.$ 

Typically a high-pressure component of this nature would be found in conditions that are generally within the Safety Critical systems on Oil & Gas facilities, that contain hazardous fluids under very high-pressures that are highly corrosive, and typically have high temperature environments.

Using AML3D's patented WAM®, this high-pressure component was printed as one piece, eliminating the need for using 3 separate components using traditional fabrication and welding methods. At the same time, the WAM® process has introduced improved material properties using a higher strength wire feedstock and optimised process parameters, while reducing the manufacturing time from months to just days.

AML3D believes this part to be a game-changer in the sustainable manufacture of medium to large scale parts for the \$2.1T Global Oil & Gas Exploration and Production Market.<sup>1</sup>

AML3D Managing Director Mr Andrew Sales comments on the achievement:

"AML3D is thrilled with the results from the high pressure testing witnessed and verified by Lloyd's Register. We now have a high level of interest already shown by participants in the Oil & Gas sector and are in discussions with several opportunities. The ability to demonstrate

<sup>&</sup>lt;sup>1</sup> Source: Ibis World, Global Oil & Gas Exporation and Production – Market Size 2005-2027, available https://www.ibisworld.com/global/market-size/global-oil-gas-exploration-production/



to this sector the capabilities and outstanding test results of our patented Wire Additive Manuacturing (WAM®) process opens the door for far greater application."

This announcement has been authorised for release by the Board of AML3D.

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## **About AML3D Limited**

AML3D Limited, a publicly listed technology company founded in 2014, utilises new technologies to pioneer and lead metal additive manufacturing globally. Disrupting the traditional manufacturing space, AML3D has developed and patented a Wire Additive Manufacturing (WAM®) process that metal 3D prints commercial, large-scale parts for Aerospace, Defence, Maritime, Manufacturing, Mining and Oil & Gas. AML3D provides parts contract manufacturing from its Technology Centre in Adelaide, Australia, and is the OEM of ARCEMY®, an industrial metal 3D printing system that combines IIoT and Industry 4.0 to enable manufacturers to become globally competitive.