

Title: Testing Gas Lift Equipment for Offshore Applications Proves Synergistic to Land Based Applications

Author(s): Steve Long, Weatherford

In many industries, technology improvements in high end devices eventually improves performance in lower cost like devices. The same is true in that gas lift equipment development for deepwater gas lift applications can help improve gas lift equipment designs used in land based gas lift wells. Today's standards and client specifications for deepwater gas lift equipment requires extraordinary demands on equipment. The cost of intervention in deepwater installations due to an equipment failure is extremely high so the cost is justified. One would think that deepwater gas lift applications are a separate technology pool from standard land applications, but this is not necessarily the case. One example is that high injection pressure gas lift applications are becoming more popular in the U.S. Land Gas Lift Applications. Booster compressors are being used for higher gas lift injection pressures to produce higher fluid rates. The injection pressures and injection volumes applied are similar to deepwater offshore high pressure gas lift applications. Extensive testing to determine the actual pressure ratings and cycle life of a gas lift valve are also of paramount importance in deepwater applications. The testing and learnings of equipment required for deepwater high pressure gas lift applications can be of tremendous value to standard injection pressure operated gas lift equipment designs, materials selection, and supplier selection. This paper is the result of approximately 10 years of research and development for deepwater gas lift applications which has helped an equipment supplier improve equipment offerings for land based gas lift applications.