Expert Declaration in IPR2016-01786 & IPR2016-01827 for U.S. Patent No. 8,851,951 by Rutledge entitled "Sucker Rod Apparatus and Method"

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I. <u>Introduction</u>

A. Background and Qualifications

- 1. My name is Gary R. Wooley. I am currently President of Wooley & Associates, Inc., a petroleum and mechanical engineering consulting firm. A copy of my current *curriculum vitae* more fully setting forth my experiences and qualifications is submitted herewith in the Appendix to this Report.
- 2. I have more than 40 years of petroleum industry experience most of which has been in the upstream sector dealing with drilling, completions, production, reservoir performance and other subjects including artificial lift such as rod pumping. I received my university training at Louisiana State University in Baton Rouge, Louisiana and was awarded a B.S. in Mechanical Engineering in 1969, an M.S. in Engineering Science in 1970 and Ph.D. in Engineering Science with minors in Applied Mathematics and Mechanical Engineering in 1972.
- 3. I was trained in the petroleum industry by four major oil companies, Shell, Chevron, Humble (Exxon) and ARCo and have been a consulting engineer since 1978 with clients that include all of the major oil companies, service contractors and supply companies and many smaller companies. I have conducted laboratory and field tests, developed computer models, and designed and evaluated downhole oilfield equipment. I have worked on multiple artificial lift projects including rod pumps.



- 4. This report contains facts, opinions and conclusions based on my training and experience and the information reviewed at the time of this writing. My resumé is also presented in the Appendix along with my recent testimony.
- 5. This report contains my general opinions, but obviously not all details are included. If asked questions on these facts and opinions or other subjects, I may have opinions not specifically listed herein. There may be documents and testimony that support my opinions that are not included herein.
- 6. As additional information is examined, these facts, opinions and conclusions may be changed and/or supplemented. Upon review of additional documents and testimony I may supplement or revise my opinions. Also, after reading reports by defendants' experts, I may have opinions to rebut those expert opinions.

B. Engagement

7. I have been retained by John Crane, Inc. and John Crane Production Solutions, Inc. ("John Crane") in connection with the Petitions for Inter Partes Review ("IPR") of U.S. Patent No. 9,045,951 ("the '951 Patent"), Case Nos. IPR2016-01786 and IPR2016-01827. I submit this declaration in support of John Crane's requests for IPR of the '951 Patent. I understand that my testimony will be submitted for the purposes of testimonial evidence in IPR2016-01786 and IPR2016-01827 to be considered before the Patent Trial and Appeal Board



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