

**Expert Declaration in IPR2014-00216
for U.S. Patent No. 6,179,053 by Dallas for
Lockdown Mechanism for Well Tools Requiring Fixed-Point Packoff**

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I. Introduction

1. Stinger Wellhead Protection Inc. of Oklahoma City, OK was incorporated in Texas in August 1988 to provide wellhead protection service to the oil and gas industry. Stinger provides services in the U.S., Canada and internationally. On 30 January 2001 L. Murray Dallas of Fairview, Texas, an executive with Stinger, was awarded U.S. Patent No. 6,179,053 (“the ’053 Patent”), which related to Stinger’s wellhead protection services. In May 2005 Oil States International, Inc., now Oil States Energy Services LLC (“OSES”), acquired Stinger, including rights to its patents.

2. OSES filed a lawsuit against Petitioner Greene’s Energy Group, LLC (“Greene’s” or “Petitioner”) for infringement of the ’053 Patent in 2012. On December 3, 2013, Petitioner filed the instant *inter partes* review challenging the validity of the ’053 Patent. OSES retained the law firm Morgan, Lewis & Bockius, LLP of Houston, Texas to handle both the litigation and the *inter partes* review. Morgan, Lewis & Bockius, LLP contacted Wooley & Associates, Inc. to assist with certain technical issues and to provide expert opinions.

3. This report contains facts, opinions and conclusions based on my training and experience and the information reviewed at the time of this writing. The Appendix lists the documents that were provided to me. My resumé is also presented in the Appendix along with my recent testimony.

4. 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.

5. 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 Greene's experts, I may have opinions to rebut those expert opinions.

II. Basic Fracturing and Wellhead Protection Processes

6. A petroleum operating company drills a well for the purpose of reaching a productive reservoir containing oil or gas at a particular depth and location in a geologic structure. After drilling, it is sometimes necessary to stimulate the reservoir to improve productivity. This section describes general concepts for drilling and completion, fracture stimulation and the use of wellhead protection devices.

1. Drilling

7. To accomplish the drilling of a well, typically a petroleum operator contracts with a drilling contractor which provides the drilling rig and crew to

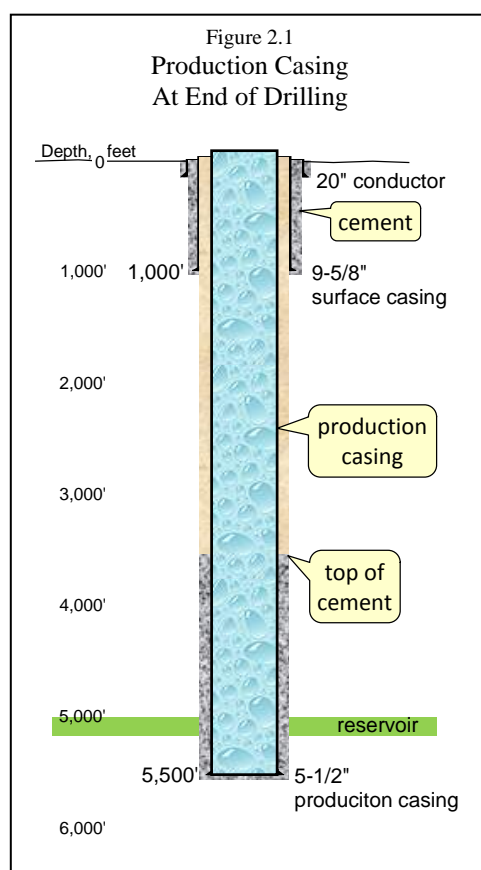
operate it. The drilling rig runs a drill bit on drill pipe, and rotating the bit drills the well.

8. After drill bits and drill pipe have drilled an oil or gas well, casing (steel pipe) is run in the well to hold the borehole open for future operations. When the casing is in place cement is pumped down the inside of the casing, out the bottom and around the outside of the casing between the casing and the open hole.

9. Figure 2.1 shows a typical wellbore at the end of drilling. In this example 20" diameter conductor pipe was set near the surface, through which a 12-1/4" hole was drilled to approximately 1,000'. At that depth 9-5/8" surface casing was run and cemented in the hole to protect shallow drinking water and provide structural support for deeper drilling.

10. Through the inside of the 9-5/8" casing a 7-7/8" bit was run and drilled to total

depth of 5,500'. At that depth, the drill pipe and drill bit were pulled out of the hole, and well logs were run to determine if the target reservoir appeared to be capable of commercial production. If well logs and other data indicated the well was not productive then cement plugs are set and the well is abandoned. For the



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