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Paper 8
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BAKER HUGHES INCORPORATED and
BAKER HUGHES OILFIELD OPERATIONS, INC.,
Petitioners,

v.

PACKERS PLUS ENERGY SERVICES, INC.,
Patent Owner.

Case IPR2016-00598
Patent 7,861,774 B2

Before SCOTT A. DANIELS, NEIL T. POWELL and
CARL M. DEFRANCO, *Administrative Patent Judges.*

DEFRANCO, *Administrative Patent Judge.*

DECISION TO INSTITUTE
37 C.F.R. § 42.108

I. INTRODUCTION

This is a preliminary proceeding to decide whether *inter partes* review of U.S. Patent No. 7,861,774 B2 ("the '774 patent") should be instituted under 35 U.S.C. § 314(a). Packers Plus Energy Services Inc. ("Packers Plus") is the owner of the '774 patent. Baker Hughes Incorporated and

Baker Hughes Oilfield Operations, Inc. ("Baker Hughes") filed a Petition ("Pet.") challenging claims 1–16 of the '774 patent. Rapid Completions LLC, the exclusive licensee of the '774 patent, filed a Preliminary Response ("Prelim. Resp."). After considering the Petition and Preliminary Response, we institute *inter partes* review on all of the challenged claims.

II. BACKGROUND

A. The '774 Patent

The '774 patent describes a tubing string for treating and stimulating flow from particular segments of an oil or gas well formation while sealing off other segments. Ex. 1001, Abstract. Typically, a tubing string is run into a wellbore as a conduit for oil and gas products to flow to the surface. *Id*. at 1:28–48. But when natural formation pressure is insufficient, a well "stimulation" technique is employed, which involves injecting fracturing fluids into the formation to enlarge existing channels and thereby improve inflow into the wellbore. *Id*. at 1:35–39. And, because a wellbore may cross multiple zones within an oil or gas formation, only some of which contain desirable products, the ability to isolate and stimulate certain zones within the formation is key to controlling and optimizing production from the well. Ex. 1009, 113–116, Figs. 7 and 11.

As described in the '774 patent, the tubing string includes a series of ports along its length, with a ball-actuated sliding sleeve mounted over each port, for selectively permitting the release of fluid from certain segments of the tubing string. *Id*. at 2:39–65, 6:37–7:31. Special sealing devices, called "solid body packers," are mounted along the length of the tubing string downhole and uphole of each port. *Id*. at 2:39–65, 6:4–36. The solid body packers are disposed about the tubing string and seal the annulus between

the tubing string and the wellbore wall, thereby dividing the wellbore into a series of isolated segments. *Id.* at 6:18–24. When the sliding sleeve over a particular port is activated to an open position, fluid can pass into one segment of the wellbore but is prevented from passing into adjacent segments by the packers positioned on either side of the port. *Id*. at 6:50–57.

B. The Related District Court Action

The '774 patent is involved in a concurrent district court action, *Rapid Completions LLC v. Baker Hughes Incorporated*, No. 6:15-cv-00724 (E.D. Tex.), which was filed July 31, 2015. Paper 5.

C. The Challenged Claims

Claim 1, the only independent claim at issue, recites a method for "fracturing a hydrocarbon-containing formation accessible through a wellbore." As paraphrased below, the method comprises essentially the following steps:

> "running a tubing string into an open hole and uncased, non-vertical section of the wellbore, the tubing string having a long axis and an inner bore and comprising"
>
> > "a first port" and "a second port" in the wall of the tubing string,
> >
> > "a first sliding sleeve having a seat with a first diameter" and "a second sliding sleeve having a seat with a second diameter smaller than the first diameter," moveable relative to the first and second ports, respectively, between closed and open positions,
> >
> > "a first solid body packer," "a second solid body packer," and "a third solid body packer" mounted between and on either side of the first and second ports "to seal about the tubing string and against a wellbore wall,"

> "expanding radially outward the first, second and third solid body packers" until they set and seal against the wellbore wall and "create a first annular wellbore segment" and "a second annular wellbore segment" between the solid body packers that are "substantially isolated from fluid communication" with each other,
>
> "conveying a fluid conveyed sealing device through the tubing string to pass through the first sliding sleeve and to land in and seal against the seat of the second sliding sleeve moving the second sliding sleeve to the open port position permitting fluid flow through the second port," and
>
> "pumping fracturing fluid through the second port and into the second annular wellbore segment to fracture the hydrocarbon-containing formation."

Ex. 1001, 13:60–15:6.

D. The Asserted Grounds

Baker Hughes challenges claims 1–16 on grounds of obviousness under 35 U.S.C. § 103, asserting that they are unpatentable over the combined teachings of Thomson[1] and Ellsworth.[2] Pet. 5. Baker Hughes asserts additionally that claim 15 is unpatentable as obvious over the combination of Thomson, Ellsworth, and Hartley.[3] *Id*. In further support of these challenges, Baker Hughes proffers the Declaration of Ali Daneshy, Ph.D. (Ex. 1005).

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[1] D.W. Thomson et al., *Design and Installation of a Cost-Effective Completion System for Horizontal Chalk Wells Where Multiple Zones Require Acid Stimulation*, SPE 37482, © Society of Petroleum Engineers (1997) ("Thomson") (Ex. 1002).

[2] B. Ellsworth et al., *Production Control of Horizontal Wells in a Carbonate Reef Structure*, © 1999 CIM 1999 Horizontal Well Conference ("Ellsworth") (Ex. 1003).

[3] U.S. Patent No. 5,449,039, iss. Sep. 12, 1995 ("Hartley") (Ex. 1004).

III. ANALYSIS

In this preliminary proceeding, we determine whether Bakes Hughes has demonstrated a reasonable likelihood that "at least 1 of the claims challenged in the petition" is unpatentable. 35 U.S.C. § 314(a). As always, our goal is "the just, speedy, and inexpensive resolution" of the validity of the challenged claims. 37 C.F.R. § 42.1(b).

A. Claim Construction

In the Petition, Baker Hughes proposes a construction for three claim terms. Pet. 20–22. Packers Plus, in turn, states that it "disagrees" with Baker Hughes's proposed constructions and "intends to dispute them," but offers no construction of its own, except to say "there is no need for the Board to address these disputes now." Prelim. Resp. 19. We recognize that a patent owner is under no obligation to respond to the petition in a preliminary proceeding. Nonetheless, construing the claims at this stage may be necessary to determining whether to institute in the first instance and may also benefit the parties by serving as a road map for trial. That said, however, construing the claims without hearing first from the patent owner poses a risk because, come the time of trial, the patent owner may very well dispute that initial construction in its patent owner response, thereby forcing the Board to revisit the issue and possibly adopt a new construction after interpreting the claims differently in the preliminary proceeding. *See SAS Institute, Inc. v. ComplementSoft, LLC*, Nos. 2015-1346, -1347, 2016 WL 3213103, at *7 (Fed. Cir. June 10, 2016) ("What concerns us is not that the Board adopted a construction in its final written decision, as the Board is free to do, but that the Board 'change[d] theories in mid-stream.'" (quoting *Belden Inc. v. Berk-Tec LLC*, 805 F.3d 1064, 1080 (Fed. Cir. 2015)). So as

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