

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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**SCHLUMBERGER TECHNOLOGY CORPORATION,**  
*Petitioner,*

**v.**

**INTEGRATED DRIVE SYSTEMS LLC,**  
*Patent Owner.*

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**Case IPR2018-00604**  
**Patent 9,644,431**

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**PETITIONER SCHLUMBERGER TECHNOLOGY CORPORATION'S**  
**NOTICE OF APPEAL**

Director of the United States Patent and Trademark Office  
c/o Office of the General Counsel  
Madison Building East, Room 10B20  
600 Dulany Street  
Alexandria, VA 22314-5793

Pursuant to 35 U.S.C. §§ 141(c) and 142 and 37 C.F.R. §§ 90.2(a) and 90.3, Petitioner Schlumberger Technology Corporation hereby appeals to the United States Court of Appeals for the Federal Circuit from the Patent Trial and Appeal Board's Final Written Decision, entered on September 3, 2019 (Paper 40) (a copy of which is attached), and from all underlying and related findings, orders, decisions, rulings, and opinions that are adverse to Schlumberger Technology Corporation.

For the limited purpose of providing the Director with the information requested in 37 C.F.R. § 90.2(a)(3)(ii), Schlumberger Technology Corporation further indicates that the issues on appeal may include, but are not limited to, whether the Board erred in determining that the Petitioner failed to establish by a preponderance of the evidence that claims 1–26 of U.S. Patent No. 9,644,431 are unpatentable, and whether the appointment of the Board's Administrative Patent Judges by the Secretary of Commerce violates the Appointments Clause, U.S. Const., art. II, § 2, cl. 2. Schlumberger Technology Corporation further reserves the right to challenge any finding or determination supporting or relating



**CERTIFICATE OF SERVICE**

Pursuant to 37 C.F.R. § 90.2(a)(1), on November 4, 2019, the foregoing Notice of Appeal was filed electronically with the Board in accordance with 37 C.F.R. § 42.6(b)(1), and mailed to the Director via Priority Mail Express in accordance with 37 C.F.R. §§ 1.10 and 104.2 at the following address:

Director of the U.S. Patent and Trademark Office  
c/o Office of the General Counsel  
P.O. Box 1450  
Alexandria, VA 22313-1450

Pursuant to 37 C.F.R. § 90.2(a)(2), Fed. R. App. P. 15, and Fed. Cir. R. 15, 25, and 52, on November 4, 2019, the foregoing Notice of Appeal was electronically filed with the Court of Appeals for the Federal Circuit via CM/ECF with requisite fees paid via pay.gov. Pursuant to Fed. Cir. R. 15(a)(1), one copy of this Notice of Appeal is being filed by hand with the Clerk's Office of the Federal Circuit on November 4, 2019.

Pursuant to 37 C.F.R. § 42.6(e) and the parties' agreement to accept electronic service, on November 4, 2019 the foregoing Notice of Appeal was served via e-mail on the following attorneys for Patent Owner:

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DATED: November 4, 2019

Respectfully submitted,

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SCHLUMBERGER TECHNOLOGY CORPORATION,  
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Case IPR2018-00604  
Patent 9,644,431 B2

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Before RAE LYNN P. GUEST, DAVID C. McKONE, and  
AVELYN M. ROSS, *Administrative Patent Judges*.

ROSS, *Administrative Patent Judge*.

FINAL WRITTEN DECISION  
*35 U.S.C. § 318(a) and 37 C.F.R. § 42.73*

## I. INTRODUCTION

Schlumberger Technology Corporation (“Petitioner”) filed a Petition requesting *inter partes* review of claims 1–26 of U.S. Patent No. 9,644,431 B2 (Ex. 1001, “the ’431 patent”). Paper 1 (“Pet.”).<sup>1</sup> Integrated Drive Systems LLC (“Patent Owner”) filed a Preliminary Response to the Petition. Paper 6 (“Prelim. Resp.”).

Upon consideration of the Petition, the Preliminary Response, and the parties’ evidence, we determined that Petitioner had demonstrated a reasonable likelihood that it would prevail with respect to at least one claim of the ’431 patent. Paper 7 (“Decision on Institution”). Thus, pursuant to the Supreme Court’s decision in *SAS Institute Inc. v. Iancu*, 138 S. Ct. 1348, 1355 (2018), and the USPTO Guidance<sup>2</sup>, we instituted review of all challenged claims on all challenged grounds. *Id.*

Following institution of trial, Patent Owner filed a Patent Owner Response (Paper 18, “PO Resp.”), Petitioner filed a Reply (Paper 22, “Pet. Reply”), and Patent Owner filed a Surreply (Paper 26, “Surreply”). In support of their respective positions, Petitioner relies on the expert testimony of Robert Schaaf (Ex. 1003, “Schaaf Decl.”; Ex. 1020, “Supp. Schaaf Decl.”) and Patent Owner relies on the testimony of Terje Eilertsen (Ex. 2004, “Eilertsen Decl.”). In addition to the testimony identified above,

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<sup>1</sup> The Petition also identifies Cameron International Corporation as a real party in interest. Pet. 1.

<sup>2</sup> In accordance with USPTO Guidance, “if the PTAB institutes a trial, the PTAB will institute on all challenges raised in the petition.” *See* USPTO, *Guidance on the Impact of SAS on AIA Trial Proceedings* (Apr. 26, 2018), (<https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/trials/guidance-impact-sas-aia-trial>) (“USPTO Guidance”).

Petitioner relies on the fact testimony of Mark W. Hardwick (Ex. 1018 “Hardwick Decl.”; Ex. 1030 “Supp. Hardwick Decl.”) relating to the public accessibility of the Joy Global reference.

After institution, Patent Owner filed a contingent Motion to Amend, proposing substitute claims 27 and 28. Paper 17 (“Motion to Amend” or “MTA”). Subsequently, Petitioner filed an Opposition to Patent Owner’s Motion (Paper 23, “MTA Opp.”), Patent Owner filed a Reply in Support of its Motion (Paper 27, “MTA Reply”), and Petitioner filed a Surreply (Paper 32, “MTA Surreply”).

Patent Owner filed a Motion to Exclude certain exhibits. Paper 31 (“MTE”). Thereafter, Petitioner filed an Opposition to Patent Owner’s Motion to Exclude (Paper 34, “MTE Opp.”) and Patent Owner filed a Reply in Support of its Motion to Exclude (Paper 35, “MTE Reply”).

An oral hearing was held on June 3, 2019, and a transcript of the hearing is included in the record (Paper 39, “Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons discussed below, we determine that Petitioner has *not* shown by a preponderance of the evidence that claims 1–26 of the ’431 patent are unpatentable. We also deny Patent Owner’s Motion to Exclude and Motion to Amend with respect to proposed substitute claims 27 and 28.

#### *A. Related Proceeding*

Petitioner identifies a concurrently filed petition for *inter partes* review, IPR2018-00603, as the only related proceeding. Pet. 1.



Figure 2 depicts a schematic illustration of movable rig unit 30 that is capable of relocation across a foundation pad to discrete drilling locations. Ex. 1001, 3:12–29. Movable rig unit 30 has a relocation subsystem (not shown) that uses a set of wheels, a set of tracks, a walking mechanism, or combinations thereof to move movable rig unit 30 across the foundation pad. *Id.* at 3:27–35. Movable rig unit 30 includes rig electrical subsystem 70 (dashed box within rig unit 30) that provides power to the rig equipment. *Id.* at 4:18–34.

The rig electrical subsystem may further include control subsystem 90 that controls the operation and function of the rig equipment and may include a data communications subsystem. *Id.* at 4:34–45. Also depicted is intermediate electrical subsystem 300, which carries power from primary power supply subsystem 400 to rig electrical subsystem 70. *Id.* at 6:6–13. Intermediate electrical subsystem 300 includes intermediate conductor 310, i.e., cabling, that may be spooled on carrier reel 330 to allow the intermediate conductor to play in or out based on the movement of the movable rig unit. *Id.* at 6:22–34, 7:34–8:6. Intermediate electrical subsystem 300 may include input transformer 320 in electrical communication with primary power supply subsystem 400 that “can be configured to transform primary power at [a] primary voltage to intermediate power at a high voltage, where the primary voltage is lower than the high voltage of the intermediate power.” *Id.* at 6:34–63. Also included is primary power supply subsystem 400, located remotely from movable rig unit 30 and which may include powerhouse unit 430 housing, one or more generators 410*a*, 410*b*, and 410*c*. *Id.* at 5:30–48.

*C. Illustrative Claims*

Claims 1, 21, and 24 are the only independent claims. Claims 1, reproduced below, is exemplary of the claimed subject matter.

1. A drilling rig system comprising:
  - a movable drilling rig unit comprising:
    - a mast,
    - rig equipment;
    - a rig electrical subsystem configured for electrical communication with the rig equipment, the rig electrical subsystem configured to deliver power to the rig equipment, the rig electrical subsystem comprising a rig electrical subsystem input transformer; and
    - a relocation subsystem configured to relocate the movable drilling rig unit between plural discrete drilling locations; and
    - an electrical system comprising:
      - a primary power supply subsystem remote from the movable drilling rig unit, wherein the primary power supply remains stationary during movement of the movable drilling rig unit between plural discrete drilling locations; and
      - an intermediate electrical subsystem configured to carry electrical power from the primary power supply subsystem to the rig electrical subsystem, the intermediate electrical subsystem comprising an intermediate conductor configured to carry 4160 VAC.

Ex. 1001, 10:26–49.

*D. Instituted Grounds of Unpatentability*

We instituted *inter partes* review of claims 1–26 of the '431 patent according to following grounds of unpatentability.

<b>Claim(s)</b>	<b>Basis</b>	<b>Reference(s)</b>
1, 7–14, 21–26	35 U.S.C. § 103	Joy, <sup>3</sup> Lestz, <sup>4</sup> and Nabors <sup>5</sup>
2–6	35 U.S.C. § 103	Joy, Lestz, Nabors, and Caterpillar <sup>6</sup>
15–18	35 U.S.C. § 103	Joy, Lestz, Nabors, and Niemi <sup>7</sup>
19, 20	35 U.S.C. § 103	Joy, Lestz, Nabors, and McClung <sup>8</sup>

## II. ANALYSIS

### A. *Level of Ordinary Skill in the Art*

Relying on the testimony of Mr. Schaaf, Petitioner contends that the ordinarily skilled artisan would have possessed “a bachelor’s degree in engineering or equivalent education, and five years of work experience in operating and/or designing earth drilling systems or systems for controlling or delivering power to industrial equipment.” Pet. 14 (citing Ex. 1003 ¶ 19). Patent Owner does not disagree with Petitioner’s description of the level of ordinary skill in the art. *See generally* PO Resp.

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<sup>3</sup> Joy Global Inc., JOYGLOBAL 320XPC ROTARY BLASTHOLE DRILL PRODUCT OVERVIEW (2013) (“Joy”) (Ex. 1004).

<sup>4</sup> US 2014/0251623 A1, to Robert Lestz et al., published September 11, 2014 (“Lestz”) (Ex. 1009).

<sup>5</sup> Nabors, PACE X (1999) (“Nabors”) (Ex. 1005).

<sup>6</sup> Caterpillar Inc., CATERPILLAR LAND RIG SCR POWER MODULES (1999) (“Caterpillar”) (Ex. 1006).

<sup>7</sup> US 2007/0096538 A1, to Timo Niemi et al., published May 3, 2007 (“Niemi”) (Ex. 1008).

<sup>8</sup> US 2011/0280104 A1, to Guy L. McClung, III, published November 17, 2011 (“McClung”) (Ex. 1007).

In our Decision on Institution, we adopted Petitioner’s definition of the skilled artisan. Decision on Institution 11–12. Neither party challenges that determination and we maintain it on the complete record.

*A. Claim Construction*

In an *inter partes* review, claim terms in an unexpired patent are construed according to their broadest reasonable interpretation in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b) (2017).<sup>9</sup> In determining the broadest reasonable construction, we presume that claim terms carry their ordinary and customary meaning. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). A patentee may define a claim term in a manner that differs from its ordinary meaning; however, any special definitions must be set forth in the specification with reasonable clarity, deliberateness, and precision. *See In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

Petitioner proffers claim constructions for the terms “relocation subsystem configured to relocate the movable drilling rig unit between plural discreet drilling locations” and “powerhouse unit.” Pet. 16, 21. Petitioner asserts that “relocation subsystem configured to relocate the movable drilling rig unit between plural discrete drilling locations” invokes

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<sup>9</sup> A recent amendment to this rule does not apply here, because the Petition was filed before November 13, 2018. *See* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Oct. 11, 2018) (amending 37 C.F.R. § 42.100(b) effective November 13, 2018). At the time of the filing of the Petition in this proceeding, the applicable claim construction standard was set forth in 37 C.F.R. § 42.100(b) (2017).

means-plus-function language and is therefore necessarily limited to the corresponding structures identified in the Specification. *Id.* at 16–18. According to Petitioner, “[t]he only potential disclosure in the specification for performing the claimed function is the recital of ‘a walking mechanism, a set of wheels, a set of tracks, or combinations thereof’” (*id.* at 18 (citing Ex. 1001, 3:26–30)), but “the term ‘walking mechanism’ does not refer to any definite structure, as it is merely the combination of a functional term (‘walking’) with another nonce word (‘mechanism’)” (*id.* at 19). Therefore, Petitioner asserts that “for the purposes of this IPR, the BRI of a ‘relocation subsystem configured to relocate the movable drilling rig unit between plural discrete drilling locations’ is ~~a walking mechanism~~, a set of wheels, a set of tracks, or combinations thereof, or equivalents thereof,” that is, relocation subsystem must exclude a walking mechanism. *Id.* at 20 (strikethrough by Petitioner). Petitioner also contends that a “powerhouse unit” is simply “a structure housing a power supply.” *Id.* at 21 (emphasis omitted).

In our Decision on Institution we declined to construe the identified terms because express construction was unnecessary to resolve the dispute between the parties. Decision on Institution 12. With respect to “relocation subsystem” we determined that “neither party disputes that the prior art of record describes ‘a set of tracks’ (*see, e.g.*, Ex. 1004, 6 (describing a crawler type system that includes track pads)), one of the alleged examples of corresponding structure, or that the set of tracks described in the ’431 patent provides sufficient structure.” *Id.* at 11–13; *see also* Pet. 20 (“In any event, the determination of whether a ‘walking mechanism’ qualifies as corresponding structure is immaterial to this petition, as the prior art relied

[upon] in this petition clearly illustrates and discloses a set of tracks for relocating the movable drilling rig.”); Prelim. Resp. 10 (disputing that only the claimed “rig electrical subsystem” and “primary power supply subsystem” were missing from Joy). Furthermore, Patent Owner did not dispute Petitioner’s definition of “powerhouse unit” (Prelim. Resp. 9–10 (stating that “no construction is necessary”)) or that a “powerhouse unit” was present in the prior art (*id.* at 17–18). Patent Owner reiterated its belief in the Patent Owner Response, stating that “Patent Owner agrees that no construction is necessary.” PO Resp. 6.

Accordingly, and based on the complete record, we maintain our position that no claim construction is necessary.

*B. Unpatentability of Claims 1–26 in view of Joy (among others)*

Petitioner contends the subject matter of (1) claims 1, 7–14, and 21–26 would have been obvious over the combination of Joy, Lestz, and Nabors (Pet. 22), (2) claims 2–6 would have been obvious over the combination of Joy, Lestz, Nabors, and Caterpillar (*id.* at 60), (3) claims 15–18 would have been obvious over the combination of Joy, Lestz, Nabors, and Niemi (*id.* at 68), and (4) claims 19 and 20 would have been obvious over the combination of Joy, Lestz, Nabors, and McClung (*id.* at 80).

Patent Owner argues, *inter alia*, that “Petitioner has failed to prove that Joy is a ‘printed publication’ because there is insufficient evidence that Joy was ‘publicly accessible.’” PO Resp. 7.

Because each of Petitioner’s challenges relies on Joy, the threshold issue for each of Petitioner’s grounds is whether Petitioner has shown by a preponderance of the evidence that Joy is in fact prior art to the ’431 patent.

Therefore, before we consider the underlying merits of Petitioner’s challenges, we first address whether Petitioner has made a sufficient showing that Joy was publicly accessible, thereby qualifying as a printed publication in accordance with 35 U.S.C. §§ 102 and 311(b). We conclude that Joy does not qualify as a printed publication.

### 1. Principles of Law

Our governing statutes provide “[a] petitioner in an *inter partes* review may request to cancel as unpatentable 1 or more claims of a patent only on a ground that could be raised under section 102 or 103 and only on the basis of prior art consisting of patents or printed publications.” 35 U.S.C. § 311(b). Although Patent Owner challenges whether Joy is a printed publication, the burden remains on Petitioner to demonstrate unpatentability. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (*citing Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1326–27 (Fed. Cir. 2008)) (discussing the burden of proof in an *inter partes* review). Petitioner must demonstrate by a preponderance of the evidence that the challenged claims are unpatentable—including showing that the references relied upon are patents or printed publications. *See* 35 U.S.C. §§ 311(b), 316(e); *E.g., Nobel Biocare Servs. AG v. Intradent USA, Inc.*, 903 F.3d 1365, 1375 (Fed. Cir. 2018), *as amended* (Sept. 20, 2018).

The determination of whether a document is a “printed publication” under 35 U.S.C. § 102 is a legal conclusion and “involves a case-by-case inquiry into the facts and circumstances surrounding the reference’s disclosure to members of the public.” *In re Klopfenstein*, 380 F.3d 1345,

1350 (Fed. Cir. 2004); *Kyocera Wireless Corp. v. Int’l Trade Comm’n*, 545 F.3d 1340, 1350 (Fed. Cir. 2008). Public accessibility is “the touchstone in determining whether a reference constitutes a ‘printed publication.’” *In re Hall*, 781 F.2d 897, 898–99 (Fed. Cir. 1986). “A given reference is ‘publicly accessible’ upon a satisfactory showing that such document has been disseminated *or* otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence, can locate it.” *Bruckelmyer v. Ground Heaters, Inc.*, 445 F.3d 1374, 1378 (Fed. Cir. 2006) (emphasis added) (citing *In re Wyer*, 655 F.2d 221, 226 (CCPA 1981)). “[A] variety of factors may be useful in determining whether a reference was publicly accessible.” *In re Lister*, 583 F.3d 1307, 1312 (Fed. Cir. 2009). One such factor is whether a party intended to make the reference public. *Wyer*, 655 F.2d at 227. Other factors include the length of time the reference was displayed, the expertise of the audience to which it was displayed, whether the displaying party had a reasonable expectation that the reference would not be copied, efforts made to prevent copying, and the ease or simplicity with which the reference could have been copied. *Klopfenstein*, 380 F.3d at 1350–51. “Evidence of routine business practice can be sufficient to prove that a reference was made [publicly] accessible.” *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1568–69 (Fed. Cir. 1988). And, a copyright notice *may* be evidence of publication<sup>10</sup>, but generally such a notice does not “establish when a

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<sup>10</sup> “Whenever a work protected under this title is published in the United States . . . a notice of copyright . . . *may* be placed on publicly distributed copies from which the work can be visually perceived.” 17 U.S.C. § 401(a) (emphasis added).

document was publicly accessible under patent law.” *Stryker Corp. v. Karl Storz Endoscopy-Am., Inc.*, Case IPR2015-00677, slip op. at 18–19 (PTAB Sept. 2, 2015) (Paper 15); *see also Microsoft Corp. v. Corel Software, LLC*, Case IPR2016-01083, slip op. at 13–14 (PTAB Dec. 1, 2016) (Paper 14) (“The copyright notice, alone, however, sheds virtually no light on whether the document was publicly accessible as of that date, therefore additional evidence is typically necessary to support a showing of public accessibility.”).

In other words, a determination of whether a document is a printed publication must be based on factual findings directed to how, why, and when one of ordinary skill in the art *could have* accessed the document prior to the critical date of the invention. In this case, Petitioner has not provided sufficient facts to support a determination that Joy is a printed publication within the meaning of 35 U.S.C. §§ 102 and 311(b).

## 2. Parties’ Positions

Petitioner, relying on the testimony of Mr. Butler, asserts that Joy “was published on the internet by September 18, 2013 and is thus prior art under § 102(a)(1).” Pet. 3 (citing Ex. 1012). Petitioner also directs our attention to the 2013 copyright notice as evidence “further confirming that it qualifies as prior art under § 102(a)(1).” *Id.* (citing Ex. 1004, 8).

Patent Owner did not raise the issue of whether Joy had been shown to be a printed publication in its Preliminary Response. *See generally* Prelim. Resp. In its Patent Owner Response, however, Patent Owner asserts that Petitioner failed to show that Joy qualifies as “a ‘printed publication’ because there is insufficient evidence that Joy was ‘publicly accessible.’”

PO Resp. 7–8. Patent Owner contends that “Petitioner’s only evidence for Joy’s public accessibility is a declaration from the Internet Archives,” which, even if accurate, “offers *no* evidence that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence could locate Joy.” *Id.* at 7.

Petitioner contends that persons interested in the subject matter, would have located Joy. Pet. Reply 3–5. Relying on the testimony of Mr. Hardwick—a former Senior Vice President and Managing Director of P&H Equipment Company, a division of Joy Global—submitted with the Reply, Petitioner argues that “Joy Global was one of the top drilling equipment companies in the world” and that “MinePro, a Joy Global subsidiary, hosted a website with product brochures that were freely available for download.” *Id.* at 2–4 (citing Ex. 1018 ¶¶ 13, 19, 20, 22). Mr. Hardwick further testifies that “the MinePro website was indexed by Google and also had a search function internal to the website itself” but that additional search engine optimization efforts were not undertaken “because it was the marketing team’s view that P&H was and is well-known in the industry, and as such, optimization efforts were deemed by myself and others as not necessary.” Ex. 1018 ¶ 28; Pet. Reply 4. Petitioner further asserts that “[t]he MinePro website was regularly accessed” by engineers or customers who were directed to the website. Pet. Reply 4 (citing Ex. 1018 ¶ 29). According to Petitioner, additional marketing efforts involved regular magazine publications that highlighted new product releases, including the 320XPC rig<sup>11</sup>, and meetings “to educate the sales force and also . . . in-person

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<sup>11</sup> The 320XPC rig is the subject of Joy. *See generally* Joy (Ex. 1004).

meetings with potential customers.” *Id.* at 4–5 (citing Ex. 1018 ¶¶ 21, 33–37). Petitioner further argues that “Joy Global regularly attended the MINExpo trade show” where videos, brochures, and models of products (including the 320XPC rig) were displayed. *Id.* at 5 (citing Ex. 1018 ¶¶ 38–42, 44). Petitioner explains that following the trade show, Joy Global’s products were reviewed by industry journals and online sources. *Id.* (citing Ex. 1018 ¶ 44; Ex. 1023; Ex. 1025; Ex. 1026; Ex. 1027). Therefore, Petitioner reasons that persons interested in drilling rig systems would have located Joy.

Petitioner also contends that Joy was publicly accessible. *Id.* at 6–7. In particular, Petitioner relies on “the copyright date and testimony from both Mr. Schaaf and Mr. Butler of the Internet Archive that they personally had actually accessed Joy,” as evidence of public accessibility. *Id.* (citing Ex. 1003 ¶ 34; Ex. 1012). Petitioner further contends that as “a dated technical document,” Joy’s very purpose is public disclosure. *Id.* at 7.

Patent Owner responds that “none of Mr. Hardwick’s testimony concerns the public accessibility of Ex. 1004 [Joy],” and “Mr. Hardwick was not employed by P&H on September 18, 2013.” Surreply 3 (emphasis omitted) (citing Ex. 1012, 5; Ex. 1018 ¶ 9). Rather, Mr. Hardwick left P&H more than three years before the time period about which he testified. *Id.* Patent Owner further contends that Mr. Hardwick’s testimony that the product brochures were downloaded and that the MinePro website both was indexed by Google and had an internal search function is not based on his personal knowledge; rather, it is speculative and without evidentiary support. *Id.* at 4–5. Patent Owner also contends that Mr. Hardwick’s testimony about 2008 “meetings,” where information about the 320XPC rig was presented

and where he passed out copies of a 320XPC brochure at the 2008 MINExpo, is unrelated to Joy (i.e., Ex. 1004) because Joy purports to be a 2013 document. *Id.* at 6.

### 3. Analysis

On this record, we agree with Patent Owner that Petitioner failed to establish, by the preponderance of the evidence, that Joy is a printed publication under controlling case law. Petitioner's basis for arguing that Joy is a printed publication is based on actual distribution (Tr. 12:7–8; Pet. Reply 3, 6) and on its position that Joy was publicly accessible. Pet. Reply 2–7.

Here, Petitioner presents evidence that Joy was posted to a website on the Internet in 2013, as evidenced by the testimony of Mr. Butler, which states that Joy is a copy of a document on a website archived by the Internet Archive. *See* Ex. 1012. But, evidence of availability—even public availability—is not evidence of “public *accessibility*.” That a person *might* have been able to locate Joy through public means is not evidence that Joy was “made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence, can locate it.” *Bruckelmyer*, 445 F.3d at 1378. Petitioner's evidence of public accessibility amounts to little more than the 2013 copyright date and the testimony of Mr. Butler that Joy was available on the Internet by September 18, 2013. Pet. 3; Pet. Reply 6. Missing from Petitioner's evidence is what would have led the ordinarily skilled artisan, interested in drilling rig systems, to seek out the MinePro website and once there, locate Joy. Petitioner provides no evidence of any steps the skilled artisan could or

would have taken to find Joy or where it was located on MinePro's website in 2013.

Petitioner attempts to fill the gap with the testimony of Mr. Mark Hardwick who was employed by P&H Equipment Company from 1988–2010. Ex. 1018 ¶ 9. Mr. Hardwick's testimony, though substantial, fails in a critical aspect: Mr. Hardwick's personal knowledge of the operations of the P&H Equipment Company, a division of Joy Global, is limited to 2010 and preceding years, while Petitioner infers from that testimony that P&H's operations and practices were the same in 2013.<sup>12</sup>

Mr. Hardwick testifies that during his tenure (i.e., 1988–2010) product brochures, like Joy, were part of Joy Global's marketing strategy. For example, Mr. Hardwick explains that

As part of its marketing efforts, MinePro hosted a webpage intended to provide information to customers and potential customers. . . . In particular, the MinePro webpage hosted product brochures for all of the products available for purchase at the time. These product brochures were designed by a member of my team, and I would review and approve each brochure before they were distributed to the public. [*id.* ¶ 20].

For each brochure, my team would typically order approximately two thousand hard copies for distribution throughout the U.S., Canada, and other English-speaking countries. We would order more hard copies of the brochures as needed. These brochures, including earlier versions of the 320XPC brochure, were also published in Spanish and widely distributed to South American

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<sup>12</sup> Petitioner does not, however, rely on Mr. Hardwick's conclusions (e.g., Ex. 1018 ¶¶ 25, 26, 30–32) that the operations and practices were believed to have been the same in its briefing, though Petitioner does direct our attention to ¶ 32 at the oral hearing. Tr. 10:20–11:22, 13:3–14, 46:16–20.

customers. Approximately every one or two years, the marketing team would re-evaluate the product brochures and determine whether and which brochures needed to be updated. When brochures were updated, we published new copies of the brochures and destroyed old copies of the brochures. [*id.* ¶ 21].

These product brochures were freely available for download on the MinePro website . . . . At conventions and in advertising campaigns, MinePro regularly directed its customers to its webpage to obtain more information. [*id.* ¶ 22].

The MinePro website regularly was visited by internal maintenance and purchasing personnel, engineers from consulting companies, customers or potential customers, competitors, students of mining universities, and mining publications. In particular, engineers employed either by consulting firms or customers would access these brochures when they began to create plans for new mining projects. It is my recollection that these engineers preferred to be able to access the product information both in print form and electronically, and this was one reason that my team included all product brochures on the MinePro webpage. The engineers would also pull specifications from the MinePro website to include in their plans for the new projects. [*id.* ¶ 29].

In addition to discussing how MinePro provided access to product brochures through its website and industry conventions, Mr. Hardwick testified that his sales team provided product brochures at sales presentations. *Id.* ¶¶ 33–35.

Mr. Hardwick’s testimony, however, is of limited value because it does not account for Joy Global’s marketing practices from his departure in 2010 forward, and thus cannot support the allegation that Joy was publicly available in 2013. Mr. Hardwick admits that “the particular 320XPC brochure at issue in this matter that is Exhibit 1004 published in 2013 after I left P&H.” *Id.* ¶ 27. Petitioner attempted to cure this defect at the oral

hearing (Tr. 10:6–13:26) by directing our attention to Mr. Hardwick’s testimony that “[a]fter [he] left the company in 2010 and continuing through 2013, MinePro and P&H’s marketing practices remained the same as those described above, including its practice of publishing product brochures via its website and in print.” *Id.* ¶ 32. Mr. Hardwick testifies, without specific details, that he followed the company closely after he left in 2010, was a shareholder, toured the company’s convention booths, kept in touch with former colleagues,<sup>13</sup> and visited the company’s websites. *Id.* Though Mr. Hardwick testifies that he was “keen to watch outcomes of strategies [he] was instrumental in developing and executing,” he fails to provide any details, by way of specific examples or observations, that establish MinePro and P&H’s marketing practices in fact remained the same.<sup>14</sup> *Id.*; *see also* Tr. 10:3–11:19 (noting the lack of factual evidence to support Mr. Hardwick’s conclusion). Mr. Hardwick provides no detail about when and how he accessed MinePro’s website after 2010, what pages he went to when he did access the website, or, to the extent he did not access Joy itself on the MinePro website, what the pages he did access demonstrate regarding the public accessibility of Joy, i.e., evidence of the sort that would have been

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<sup>13</sup> To the extent Mr. Hardwick bases his testimony about the 2013 practices of MinePro on discussions with former colleagues, those discussions presumably would be hearsay. *See* Fed. R. Evid. 801.

<sup>14</sup> While much of Mr. Hardwick’s testimony supports the position that the 320XPC rig may have been publicly known prior to 2013 (*see, e.g.*, Ex. 1018 ¶¶ 33–35 (sales meetings), ¶ 37 (magazine), ¶¶ 38–42 (trade shows)), a petition for *inter partes* review must be supported by patents or printed publications—in this case Joy—and not public knowledge generally. 35 U.S.C. § 311(b).

directly probative of public accessibility of Joy as a website publication. Thus, Mr. Hardwick's testimony does little to speak to the public accessibility of Joy itself.

Petitioner also directs our attention to exemplary case law in support of its positions (Tr. 6:1–12:19), but examination of those cases does not compel a different conclusion. The first two cases—*Nobel Biocare Services AG v. Instradent USA, Inc.*, 903 F.3d 1365 (Fed. Cir. 2018) and *GoPro, Inc. v. Contour IP Holding LLC*, 908 F.3d 690 (Fed. Cir. 2018)—each involved a product catalog distributed at a conference. Petitioner appears to argue that Joy Global distributed the Joy reference at a MINExpo trade show. Pet. Reply 5 (citing Ex. 1018 ¶¶ 38–42, 44). But, unlike the present case, the facts surrounding the distribution of the product catalogs in *Nobel Biocare* and *Contour* were corroborated by actual conference attendees who either personally received or distributed the product catalogs at issue in the case. *Nobel Biocare*, 903 F.3d at 1376–77; *Contour* 908 F.3d at 694–95. In contrast, Mr. Hardwick testifies that he or his team distributed product brochures *similar* to Joy between 1988–2010 (Ex. 1018 ¶¶ 20–21, 33–35, 38–42) and that he saw a then-current version of a 320XPC brochure at a MINExpo trade show in 2012 (*id.* ¶ 42), each of which occurred prior to Joy's 2013 date.

Petitioner's reliance on *Voter Verified* and *Blue Calypso* fares no better. Each of those cases involved the question of whether a particular website, where an online article was posted, was sufficiently known such that persons interested in the subject matter at issue would be independently aware of the web address for each website. *See generally Voter Verified, Inc. v. Premier Election Sols., Inc.*, 698 F.3d 1374 (Fed. Cir. 2012) and *Blue*

*Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331 (Fed. Cir. 2016). In *Voter Verified*, “the *uncontested evidence* indicate[d] that a person of ordinary skill interested in electronic voting would have been independently aware of the Risks Digest as a prominent forum for discussing such technologies” and that “Risks Digest was well known to the community interested in the risks of computer automation.” *Voter Verified*, 698 F.3d at 1380–81 (emphasis added).

In contrast, in *Blue Calypso*, the court determined that the record evidence did not support a finding that “a person interested in e-commerce and peer-to-peer marketing would be independently aware of the web address for Dr. Ratsimor’s personal page” or that an Internet search would have located the report. *Blue Calypso*, 815 F.3d at 1349–50; *see also Nautilus, Inc. v. Icon Health & Fitness, Inc.*, Case IPR2017-01363, slip op at 18 (PTAB Nov. 28, 2018) (Paper 33) (explaining that “what little evidence is available in the record on this issue tends to show that skilled artisans were not aware of TuffStuff or its SixPack trainer”). The Federal Circuit stressed that “[t]he record is devoid of any evidence that a query of a search engine before the critical date, using any combination of search words, would have led to Ratsimor appearing in the search results.” *Blue Calypso*, 815 F.3d at 1350. Here, the evidence of whether a person interested in drilling rig systems would have known of Joy Global and that information on Joy Global’s products was available through the MinePro website is, at best, conflicting. Patent Owner’s expert, Mr. Terje Eilertsen, testifies that he has never heard of Joy Global’s 320XPC rig, despite his nearly 40 years in the field. Ex. 2004 ¶ 35. Mr. Hardwick testifies, without a stated basis, that

“Joy Global was one of the top five mining and drilling equipment companies in the world.” Ex. 1018 ¶ 13.

Furthermore, and similar to *Blue Calypso*, while Mr. Hardwick testifies that it was his “understanding” that the MinePro website was indexed by search engines in 2010 (*id.* ¶ 28), there is no evidence in the record of what search words or specific Internet query, applied to which search engines, would return either the MinePro website or Joy to a requester in 2013. In fact, Mr. Hardwick testified that MinePro did not engage in any search-engine optimization in 2010. *Id.* In any case, Mr. Hardwick does not testify as to what his understanding is based on. We give Mr. Hardwick’s testimony on this point little weight.

To the extent Petitioner is arguing that the Joy reference was actually distributed, e.g., through actual downloads from the MinePro website or at a sales meeting or trade show, Mr. Hardwick’s testimony does not support such a finding because Mr. Hardwick does not testify as to personal knowledge of Joy in the relevant time period. Mr. Hardwick testifies that the “product brochures were freely available for download.” Ex. 1018 ¶ 22. In support, he states that MinePro directed its customers to its webpage at conventions and in advertising campaigns. *Id.* Mr. Hardwick, however, points to no evidence that this happened after he left in 2010. Mr. Hardwick also testifies that he handed out brochures like Joy at sales meetings, but offers no evidence that others did the same after he left, or that Joy was distributed at any particular sales meeting after 2010. *Id.* ¶¶ 33–36. Mr. Hardwick’s testimony as to his belief as to practices after 2010, for which he has no personal knowledge, is entitled to little weight.

As to trade shows, MINExpo, particularly taking place in 2008 and 2012, is the only specific trade show on which Mr. Hardwick testifies. *Id.* ¶¶ 38–42. At no time does Mr. Hardwick testify that Joy, dated 2013, was disseminated at MINExpo in either 2008 or 2012. Further, Petitioner admitted at the oral hearing that there was no such MINExpo conference in 2013, when Petitioner alleges Joy would have been distributed at conferences, and that the earliest that Joy would have been distributed at a MINExpo conference would have been 2016. Tr. 17:9–18 (“JUDGE McKONE: But one thing we know is that the 2013 document was not handed out at a MINExpo, because there -- in 2013, because there was no MINExpo in 2013? MR. ROSE: Again, Your Honor, you’re right. There was no MINExpo in 2013. JUDGE McKONE: So, the earliest that we can rely on this -- rely on cases of presenting it at an expo or a conference would be 2016, that would be earliest date that we could give this document based on that reason. Isn’t that correct? MR. ROSE: For that particular document.”). Thus, Petitioner offers no persuasive evidence that Joy was actually distributed to skilled artisans before the critical date.

In short, the present record lacks persuasive evidence, testimonial or otherwise, that persons interested in drilling rig systems in 2013 would have been aware of Joy Global’s 320XPC rig or the MinePro website in 2013 such that mere presence of Joy on the MinePro website would have made Joy publicly accessible to persons concerned with the art before the critical date of the ’431 patent. Similarly, the present record lacks persuasive evidence, testimonial or otherwise, that Joy was distributed at any sales meetings or trade shows at any time, and particularly before the critical date of the ’431 patent. Accordingly, we determine that Petitioner has failed to

show by a preponderance of the evidence that Joy is in fact prior art to the '431 patent.

### III. MOTION TO EXCLUDE

Patent Owner filed a Motion to Exclude Exhibits 1018, 1021, 1023–1028 (MTE 1) and, in its Reply, in support of its Motion, Patent Owner further seeks to exclude Exhibits 1030–1032 (MTE Reply 4–5).

#### A. *Exhibit 1018*

Patent Owner moves to exclude Exhibit 1018, the declaration of Mark W. Hardwick. MTE 1. Mr. Hardwick was employed by P&H Equipment Company, a division of Joy Global Inc., from 1988–2010, ultimately rising to the level of Senior Vice President and Managing Director. Ex. 1018 ¶ 9. Patent Owner moves to exclude Mr. Hardwick's testimony as lacking personal knowledge under Federal Rules of Evidence 602 because Mr. Hardwick left Joy Global's employ in 2010. MTE 2–4. In particular, Patent Owner criticizes Mr. Hardwick's testimony based on certain beliefs he possesses that are not based on personal knowledge. *Id.* (citing Ex. 1018 ¶¶ 22, 24–27, 30). In addition, Patent Owner moves to exclude Mr. Hardwick's testimony regarding his beliefs under Federal Rules of Evidence 701 as improper lay witness opinion testimony. *Id.*

We are not persuaded by Patent Owner's arguments that the evidence on which Petitioner relies must be excluded from the record. Petitioner does not rely on Mr. Hardwick's testimony in Exhibit 1018 ¶¶ 24–27 and 30 that Patent Owner seeks to exclude. *See generally* Pet. Reply. Because Petitioner does not rely on Exhibit 1018 ¶¶ 24–27 and 30, we deny Patent Owner's motion to exclude these paragraphs as moot.

With respect to Exhibit 1018 ¶ 22, Patent Owner objects to Mr. Hardwick’s statement that “[he] believe[s] that [the product brochures] in fact were downloaded numerous times” because “he offers no evidence to support his ‘belief.’” MTE 2–3. But, Petitioner does not rely upon Mr. Hardwick’s beliefs that the product brochures were downloaded multiple times. *See generally* Pet. Reply. Instead, Petitioner relies on Mr. Hardwick’s testimony that the “product brochures were freely available for download on the MinePro website” and that “MinePro regularly directed its customers to its webpage to obtain more information.” *See id.* at 4. These statements have not been objected to and appear to be based on Mr. Hardwick’s experiences as an employee of the P&H Equipment Company. Therefore, we similarly deny Patent Owner’s motion to exclude ¶ 22 of Exhibit 1018 as moot.

*B. Exhibits 1021 and 1023–1028*

Patent Owner also moves to exclude Exhibits 1021 and 1023–1028.<sup>15</sup> MTE 1. Patent Owner contends that Exhibits 1021 and 1023–1028 are

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<sup>15</sup> Exhibit 1021 is a webpage print out from the Phelps Dodge page from the Arizona Experience website. Ex. 1020 ¶ 11. Exhibits 1023 and 1024 are articles available from the E&MJ Engineering and Mining Journal website and the Kentucky Coal Education website, respectively. Ex. 1029 ¶¶ 4–5. Exhibit 1025 is titled “Technical Report: Feasibility Study of the Rose Deposit and Resource Estimates for the Mills Lake Deposit” provided to Alderon Iron Ore Corp. *Id.* ¶ 6. Exhibits 1026 and 1027 are YouTube videos showing the 320XPC drilling rig and the MINExpo 2012, respectively. *Id.* ¶¶ 7–8. Exhibit 1028 is a presentation titled “Examples of Various Kinds of Drilling Rigs” available from the Missouri University of Science and Technology website. *Id.* ¶ 9.

inadmissible hearsay and that the exhibits have not been properly authenticated. *Id.* at 4–7.

With reference to Exhibit 1021, Petitioner relies on Exhibit 1021 to illustrate that a foundation pad may be useful in blast hole drilling. Ex. 1020 ¶¶ 11–13. Because we do not reach the merits of Petitioner’s grounds of unpatentability, we need not consider Exhibit 1021. Accordingly, we deny Patent Owner’s Motion to Exclude Exhibit 1021 as moot.

Petitioner relies on Exhibits 1023–1028 to establish that Joy Global and the 320XPC rig “were featured in numerous articles and other Internet sources during the relevant time period” to support Petitioner’s position that persons interested in the subject matter could have located Joy’s website. Pet. Reply 5, n.4. However, evidence that Joy Global and the 320XPC rig were known does not establish that Joy was publicly accessible in 2013 to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence could have located Joy or would have sought out the MinePro website. Therefore, we deny Patent Owner’s motion as moot, because, even if considered, Petitioner’s evidence is unpersuasive.

*C. Exhibits 1030–1032*

Patent Owner contends Exhibits 1030–1032, including Mr. Hardwick’s Supplemental Declaration (Ex. 1030), 320XPC sales documents (Ex. 1031), and a P&H press release detailing the release of the 320XPC rig (Ex. 1032), are improper supplemental evidence and should be excluded. MTE Reply 4–5.

On this matter, we agree with Patent Owner that much of the information in Exhibits 1030–1032 is improper supplemental evidence. As

we have previously explained, supplemental evidence is evidence offered solely for the purpose of supporting the admissibility of previously filed evidence—in this case, the Hardwick Declaration (Ex. 1018)—and is filed in response to a motion to exclude. 37 C.F.R. § 42.64(b)(1)–(2); *see generally HandiQuilter, Inc. v. Bernina Int’l AG*, Case IPR2013-00364, slip op. at 2–3 (PTAB Jun. 12, 2014) (Paper 30). Supplemental information, in contrast, is evidence supporting the merits of Petitioner’s case and must be submitted within one month of institution or, if later, with Board authorization and only after a showing that consideration of the supplemental information would be in the interests-of-justice. 37 C.F.R. § 42.123(a)–(b); *see generally HandiQuilter*, slip op. at 2–3.

Here, with the possible exception of Exhibit 1032 and paragraph 8 of Exhibit 1030, none of the supplemental materials supplied by Petitioner addresses the objections raised by Patent Owner in its Motion to Exclude and is therefore improper supplemental evidence and will not be considered. 37 C.F.R. § 42.64(b)(2). And, though Exhibit 1032 appears to be a copy of an August press release, which perhaps supports Mr. Hardwick’s testimony that he “believe[s] MinePro would have issued such a press release on its website for the introduction of the 320XPC to the market,” such additional support is unnecessary as we deny Patent Owner’s Motion to Exclude Exhibit 2018 ¶¶ 22, 24–27 and 30 because Petitioner does not rely on this particular testimony. *See generally* Pet. Reply. Because we do not consider Exhibits 1030–1032, Patent Owner’s Motion to Exclude is denied as moot.

*D. Conclusion*

For the reasons stated above, we deny Patent Owner's Motion to Exclude Exhibits 1018, 1021, 1023–1028, and 1030–1032 as moot.

IV. CONTINGENT MOTION TO AMEND

Patent Owner filed a contingent Motion to Amend original claims 19 and 20 and replace them with substitute claims 27 and 28. MTA 1. Because we determine that Petitioner has failed to show by a preponderance of the evidence that original claims 1–26 of the '431 patent are unpatentable, we do not consider Patent Owner's contingent request to replace claims 19 and 20 with substitute claims 27 and 28. Accordingly, Patent Owner's Motion to Amend is denied as moot.

V. CONCLUSION

We conclude that Petitioner has failed to satisfy its burden of demonstrating, by a preponderance of the evidence, that the subject matter of claims 1–26 of the '431 patent is unpatentable.

ORDER

Accordingly, it is:

ORDERED that Petitioner fails to establish by a preponderance of the evidence that claims 1–26 of the '056 patent are unpatentable; and

FURTHER ORDERED that Patent Owner's Motion to Amend is denied; and

FURTHER ORDERED that Patent Owner's Motion to Exclude is denied; and

FURTHER ORDERED that because this is a final written decision, parties to the proceeding seeking judicial review must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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