IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO

Case No. 1:23-cv-01180-RMR-SBP

DOWNING WELLHEAD EQUIPMENT, LLC,

Plaintiff,

v.

INTELLIGENT WELLHEAD SYSTEMS, INC., INTELLIGENT WELLHEAD SYSTEMS, CORP., and IWS USA CORP.,

Defendant.

DOWNING'S RESPONSE TO IWS'S INITIAL INVALIDITY CONTENTIONS

Pursuant to D.C.COLO.LPtR Rules 10 and 11, and the Scheduling Order, Plaintiff Downing Wellhead Equipment, LLC ("Plaintiff" or "Downing") hereby serves its response to Defendants Intelligent Wellhead Systems, Inc., Intelligent Wellhead Systems, Corp., and IWS USA Corp. (collectively, "Defendants" or "IWS") Initial Invalidity Contentions and Supplemental Invalidity Contentions (collectively, the "Invalidity Contentions"). IWS's Contentions purport to be based on the asserted claims of the Asserted Patents, U.S. Patent Nos. 11,401,779 ("the '779 Patent") and 11,560,770 ("the '770 Patent"), identified in Downing's Initial Infringement Contentions:

'779 Patent: claims 1-3, 6, 8–10, 13, 15, 16–18, 25–28, 31, and 36; and

'770 Patent: claims 1–38.

While the claim charts in IWS's Initial Invalidity Contentions address Claim 13 of the '779 Patent, IWS's Supplemental Invalidity Contentions fail to identify any anticipatory references, obviousness combinations, or motivations to combine references for Claim 13 of the '779 Patent.

Accordingly, IWS's Invalidity Contentions fail to meet IWS's burden to show anticipation or obviousness of Claim 13 of the '779 Patent.

Pursuant to D.C.COLO.LPtR 11, Downing responds that it has already produced documents supporting this Response.

I. Claim Construction

IWS asserts that the Initial Invalidity Contentions are based upon the ordinary and customary meaning of claim terms of the Asserted Claims of the Asserted Patents. Nevertheless, IWS simultaneously asserts that "Defendants' invalidity contentions may take into account Plaintiff's improper or erroneous assertions of infringement and improper or erroneous applications of the claims, including Plaintiff's express or implied claim constructions." Invalidity Contentions at 2. IWS's Invalidity Contentions do not explicitly identify any construction of any claim term or indicate that claim construction is at all relevant to the positions set forth in IWS's Invalidity Contentions. Additionally, IWS's Invalidity Contentions assert that "IWS reserves the right to amend, clarify, and/or supplement these contentions for any appropriate reason." *Id*. Downing reserves the right to address any additional claim construction or invalidity theory later raised by Defendants, including during any related PTO proceedings, in its Rebuttal Invalidity Expert Report.

Pursuant to D.C.COLO.LPtR 10(b)(2), Downing's responses to IWS's Invalidity Contentions contained in the attached charts are based on the plain and ordinary meaning of the claims as understood by a POSITA in light of the Asserted Patents' specifications. Additionally, because the parties have not yet begun the claim construction process, including the exchange of claim terms proposed for construction (*see* Dkt. 28, §8(g)), Downing reserves the right to amend its responses based on any claim construction ordered by the Court.

II. The Asserted Claims are not Invalid Under 35 U.S.C. § 101

IWS's Initial Invalidity Contentions assert that all Asserted Claims of the Asserted Patents are invalid under 35 U.S.C. § 101. As set forth in Downing's Response to IWS's Motion to Dismiss First Amended Complaint (ECF No. 40), incorporated by reference herein, both the '770 Patent and the '779 Patent claim patent-eligible subject matter and are not invalid under 35 U.S.C. § 101.

III. The Asserted Claims are Not Invalid Under 35 U.S.C. § 112

A. '779 Patent

i. Indefiniteness

IWS contends that the following claim terms are indefinite under 35 U.S.C. § 112(b):

Claim	Term
Claims 1, 8, 15, 16, 18, 23, 24, 25, 26, and 28	"permitting performance of a [first/second] hydraulic fracturing operation," "permitting hydraulic fracturing," "permit pumping"
Claims 15, 25, 36	"satisfied [the] one or more flow rate conditions"
Claims 1, 2, 8, 9, 15, 18, 25, 28	"continuously pumped"

Beyond listing the claim term(s), IWS's Invalidity Contentions fail to provide any theory or explanation as to why the identified terms are allegedly indefinite. IWS bears the burden of proving invalidity by clear and convincing evidence and merely stating that "the following claim language is unclear and its scope could not have been determined with reasonable certainty" fails to meet that burden. Invalidity Contentions at 7.

Notwithstanding IWS's deficient disclosure, each of the claim terms identified above would have been readily understood by a POSITA in view of the '779 Patent's specification and understanding of the relevant field of technology. For example, "permitting performance of a [first/second] hydraulic fracturing operation," "permitting hydraulic fracturing," and "permit

pumping" is described in the '779 Patent's specification such that a POSITA would have been able to understand the meaning and scope of the terms. *See, e.g.,* '779 Patent, 2:7-22, Figs. 1A-1B; 4:17-58, Figs. 12-16E; 5:26-37, Figs. 19A-20; 5:41-61; 6:44-7:35; 13:28-14:49. Further, "satisfied [the] one or more flow rate conditions" is described in the '779 Patent's specification such that a POSITA would have been able to understand the meaning and scope of the term. *See, e.g.,* '779 Patent, 2:18-22, Fig. 1B; 4:9-21, Figs. 10-12, 4:50-58, Figs. 16D-E, 5:26-31, Fig. 19A, 13:28-52. Lastly, "continuously pumped" is described in the '779 Patent's specification such that a POSITA would have been able to understand the meaning and scope of the term. *See, e.g.,* '779 Patent, 4:9-21, Figs. 10-12, 4:17-58, Figs. 12-16E; 13:28-14:49. The evidence cited herein is preliminary, exemplary only, and provided without the benefit of expert discovery or claim construction. Accordingly, Downing reserves the right to supplement these disclosures.

B. '770 Patent

i. Indefiniteness

IWS contends that the following claim term is indefinite under 35 U.S.C. § 112(b):

Claim	**Term**
Claims 1, 14, 27	"in response to determining that the fluid communicated via the manifold has satisfied one or more conditions"

Beyond listing the claim term(s), IWS's Contentions fail to provide any theory or explanation as to why the identified terms are allegedly indefinite. IWS bears the burden of proving invalidity by clear and convincing evidence and merely stating that "the following claim language is unclear and its scope could not have been determined with reasonable certainty" fails to meet that burden. Invalidity Contentions at 8.

Notwithstanding IWS's deficient disclosure, each of the claim terms identified above would have been readily understood by a POSITA in view of the '770 Patent's specification and understanding of the relevant field of technology.

For example, the patent examiner clearly understood the scope of the claim element as he expressly discussed the element in his notice of allowance and concluded that the prior art failed to disclose "the key features of 'in response to determining that the fluid communicated via the manifold has satisfied one or more conditions'" and as such, the claims were allowable. U.S. Pat. Appl. No. 17/878,493, Notice of Allowance at 2. Moreover, the '770 Patent's specification contains sufficient description of the claim term which would have allowed a POSITA to understand the meaning and scope of the term. *See, e.g.*, '770 Patent, 12:14-38, 13:43-54, 13:67-14:8, 15:31-40, 18:25-29, 18:60-63, 19:12-15; 19:50-52, 20:18-20. The evidence cited herein is preliminary, exemplary only, and provided without the benefit of expert discovery or claim construction. Accordingly, Downing reserves the right to supplement these disclosures.

ii. Written Description and Enablement

The Contentions assert that the following claim term lacks written description and enablement under 35 U.S.C. § 112(a):

Claim	**Term**
Claims 1, 14, 27	"in response to determining that the fluid communicated via the manifold has satisfied one or more conditions"

IWS's Invalidity Contentions fail to provide any theory or explanation as to why the identified term allegedly fails to satisfy 112(a). IWS bears the burden of proving invalidity by clear and convincing evidence and merely stating that "[t]here is no support or enablement in the specification for at least this limitation" fails to meet that burden. Invalidity Contentions at 8.

Further, to the extent IWS later asserts written description or enablement theories based on any other term, IWS's Invalidity Contentions fail to identify any other claim terms.

Notwithstanding IWS's deficient disclosure, the '770 Patent specification clearly provides support and enablement for the limitation "in response to determining that the fluid communicated via the manifold has satisfied one or more condition." *See, e.g.*, '770 Patent, 12:14-38, 13:43-54, 13:67-14:8, 15:31-40, 18:25-29, 18:60-63, 19:12-15; 19:50-52, 20:18-20. The evidence cited herein is preliminary, exemplary only, and provided without the benefit of expert discovery or claim construction. Accordingly, Downing reserves the right to supplement these disclosures.

iii. 35 U.S.C. § 112(d)

IWS's Invalidity Contentions assert that the following claims are invalid under 35 U.S.C. § 112(d):

'770 Patent claims 4, 8, 9, 17, 21, and 30.

IWS's Invalidity Contentions fail to provide any theory or explanation as to why the identified claims allegedly do not satisfy 112(d). IWS bears the burden of proving invalidity by clear and convincing evidence and merely stating that "the claims do not further limit the base claim or intervening claim(s), and as a result a person of skill in the art would not understand the intended scope of the claims" fails to meet that burden. Invalidity Contentions at 8.

Notwithstanding IWS's deficient disclosure, each of the identified claims properly narrow the scope of the independent and/or intervening claims by further incorporating an additional limitation. This is clear from the language of the claims themselves that the dependent claims cited herein add additional element(s) not otherwise present in the independent claims. A person of skill in the art would understand the scope of the additional recited elements and understand that they are in compliance with 112(d).

IV. The Asserted Claims are Not Invalid Under 35 U.S.C. §§ 102 and 103

The asserted claims of the Asserted Patents are not anticipated or rendered obvious by any alleged prior art reference or combination of references identified by IWS's Invalidity Contentions. Downing's specific responses to IWS's Invalidity for grounds based on 35 U.S.C. §§ 102 and 103 are set forth in detail in the attached **Exhibits A-I**.

A. Priority Date[1]

As set forth in Downing's response to IWS's Interrogatory No. 1, which is incorporated by reference herein, the earliest effective filing date of the '779 and '770 Patents is May 17, 2021, which claim priority to U.S. Provisional Application No. 63/189,663 ("the '663 Provisional"), filed on May 17, 2021. *See* Downing's Rsp. to IWS's Interrog. No. 1 at 7-10.

As further set forth in Downing's response to IWS's Interrogatory No. 1, which is incorporated by reference herein and described in more detail below, Downing contends that the subject matter of the Asserted Claims of the '779 and '770 Patents was disclosed as early as September 1, 2020, such that any of IWS's asserted prior art references with a prior art date after September 1, 2020, are removed as prior art under one or more of the exceptions set forth in 35 U.S.C. § 102(b).

B. Prior Art

IWS's Invalidity Contentions fail to show that each of the prior art references qualify as prior art to the Asserted Patents.

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[1] *See SNIPR Techs. Ltd. v. Rockefeller Univ.*, 72 F.4th 1372, 1375–76 (Fed. Cir. 2023) ("Before the AIA's passage, prior art referred to certain documents available before the actual date of invention. Under the AIA, prior art now refers to certain documents available before the 'effective filing date of the claimed invention.'…Congress also removed the statutory requirement for 'priority of invention' entitling only the first inventor to a patent and eliminated the mechanisms for determining such priority.") (citations omitted).

i. D.C.Colo.LPtR 8(b)(1)

D.C.Colo.LPtR 8(b)(1) required IWS to provide "[a]n explanation, including the relevant statutory language, of how the item qualifies as prior art." IWS has failed to provide this information Collectively, for all asserted prior art references, IWS generally states in the heading of each of its claim charts for the '779 and '770 Patent (attached as Appendix A ('779 Patent) and Appendix B ('770 Patent) to the Invalidity Contentions) that "the following prior art under at least 35 U.S.C. §§ 102(a)(1), (a)(2), and/or 103." IWS fails to identify the specific statute under which IWS alleges the asserted reference constitutes prior. Accordingly, IWS has failed to comply with D.C.Colo.LPtR 8(b)(1) and has failed to meet its burden.

ii. 35 U.S.C. § 102(a)

Under 35 U.S.C. § 102(a)(1), prior art may include patents which issued, or printed publications which were publicly available, prior to the effective filing date of the claimed invention. Under 35 U.S.C. § 102(a)(2), prior art may include patents issued under section 151, or applications for patent published or deemed published under section 122(b), which were effectively filed before the effective filing date of the claimed invention.

In its Invalidity Contentions, IWS asserts six different printed publications or other purported public disclosures as alleged prior art references. IWS also fail to meet its burden to establish that each of these alleged prior art references were publicly available as of the date asserted by IWS, as required by 35 U.S.C. § 102(a)(1). Additionally, IWS's Invalidity Contentions assert two patent references (e.g., *Cherewyk* '227 and *Krupa*) where IWS initially identified (in its Initial Invalidity Contentions), an application filing date and publication date after the May 17, 2021, earliest effective filing date of the Asserted Patents. (*See* Initial Invalidity Contentions at 17–18). Based on these disclosed dates, the asserted references are not prior art. IWS subsequently served Supplemental Invalidity Contentions asserting a different prior art date, after the deadline

IWS was required to do so. (*See* Supplemental Invalidity Contentions at 2–3). Notwithstanding IWS's untimely attempt to identify an earlier alleged prior art date for *Cherewyk* '227 and *Krupa*, IWS failed to establish that these references are entitled to the earlier filing and/or priority date.

iii. 35 U.S.C. § 102(b)

Under 35 U.S.C. §§ 102(b)(1)(B) and 102(b)(2)(B), public disclosures and disclosures appearing in patents or patent applications shall not be prior art to a claimed invention if the subject matter disclosed was publicly disclosed by the inventor or joint inventor prior to such public disclosure or the earliest effective filing date of a patent or patent application. As set forth in Downing's response to IWS's Interrogatory No. 1, which are incorporated by reference herein, and as supported by IWS's document production, the subject matter of the Asserted Claims of the '779 and '770 Patents was disclosed at least as early as September 1, 2020. Downing's Resp. to IWS Interrog. No. 1 at 7-10. Accordingly, the following asserted references are not prior art under 35 U.S.C. § 102(b)(1)(B) and/or § 102(b)(2)(B):

Abbreviated Name	Patent/Publication Number/Article Name	Country	Filing/Priority Date[2]	Publication Date
Krupa	2022/0268141	U.S.	2/25/2021	8/25/2022
Jaaskelainen	2022/0112796	U.S.	10/9/2020	4/14/2022
Yeung	2021/0396117	U.S.	1/27/2021	12/23/2021
Cherewyk '227	2022/0099227	U.S.	9/25/2020	3/31/2022

Additionally, under 35 U.S.C. §§ 102(b)(1)(A) and 102(b)(2)(A), public disclosures and disclosures appearing in patents or patent applications shall not be prior art to a claimed invention if the subject matter disclosed was "made…by another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor" (§ 102(b)(1)(A)) or was "obtained directly or indirectly from the inventor or a joint inventor" (§ 102(b)(2)(A)). While discovery

[2] Downing identifies the alleged "Filing/Priority Date" set forth in IWS's Supplemental Invalidity Contentions; however, by doing so, Downing does not waive its contention that IWS is not entitled to rely on such asserted date(s).

ongoing and Downing intends to seek discovery on this issue, Downing has reason to believe that the subject matter disclosed in *Krupa* was obtained directly or indirectly from one or more of the joint inventors of the Asserted Patents. Accordingly, in addition to the reasons set forth above, *Krupa* may also not be prior art under § 102(b)(1)(A) and/or § 102(b)(2)(A).

C. 35 U.S.C. § 102

As set forth above and in **Exhibits A-I**, IWS's Invalidity Contentions fail to meet IWS's burden to show that any purported prior art reference anticipates any asserted claim of the Asserted Patents. As set forth above, IWS's Invalidity Contentions also fail to show that each of the asserted references qualify as prior art or that they disclose each and every limitation of the asserted claims. For example, IWS's Invalidity Contentions merely provide citations to each alleged prior art reference and do not provide any explanation of how the cited portions of each asserted reference discloses each limitation. Accordingly, Downing's Response to IWS's Invalidity Contentions is based on what Downing has been able to discern from the list of citations that IWS provided in its Invalidity Contentions. While IWS's Invalidity Contentions purportedly "reserves all rights to rely on other portions of the identified references to support its contentions and/or defenses" (*see* Initial Invalidity Contentions at 9), to the extent IWS later asserts a theory of anticipation based on another portion of an asserted reference describing different subject matter, such a theory has not been properly disclosed by IWS's Invalidity Contentions as required by the Local Rules and, therefore, has been waived. Further, while IWS's Invalidity Contentions purportedly "reserves the right to assert or argue that the reference inherently discloses the limitation" (*see* Initial Invalidity Contentions at 9), IWS's Invalidity Contentions failed to disclose any theory that any anticipatory reference inherently discloses any claim limitation or points to any limitation as being necessarily present in any disclosure and, therefore, IWS has waived any such theory.

D. 35 U.S.C. § 103

As set forth above and in **Exhibits A-I**, IWS's Invalidity Contentions fail to meet IWS's burden to show that any purported prior art reference, alone or in combination with any other asserted reference, renders obvious any asserted claim of the Asserted Patents. As set forth above, IWS's Invalidity Contentions fail to show that the asserted references qualify as prior art or that a reference or combination of references discloses or renders obvious each and every limitation of the asserted claims. While IWS's Invalidity Contentions purportedly "reserves all rights to rely on other portions of the identified references to support its contentions and/or defenses" (*see* Initial Invalidity Contentions at 9), to the extent IWS later asserts a theory of anticipation based on another portion of an asserted reference describing different subject matter, such a theory has not been properly disclosed by IWS's Invalidity Contentions as required by the Local Rules and has, therefore, been waived. Further, while IWS's Invalidity Contentions purportedly "reserves the right to assert or argue that the reference inherently discloses the limitation and/or that it would have been obvious to a person of ordinary skill in the art in view of the disclosure" (*see* Invalidity Contentions at 9), the contentions fail to disclose any inherency or single reference obviousness theories and, therefore, IWS has waived any such theory.

IWS's Initial Invalidity Contentions also lists numerous generic, boilerplate motivations to combine without reference to any particular asserted reference. As Downing explained during the Parties' conferral process, IWS's Initial Invalidity Contentions fail to provide "separately for each item of prior art or combination of items of prior art, an explanation of how the item or combination of items renders the asserted claims obvious" as required by D.C.COLO.LPtR 8(b)(3). IWS's Supplemental Invalidity Contentions purport to provide a motivation to combine for each asserted obviousness combination; however, as set forth in more detail in **Exhibits A-I**, IWS's alleged motivations to combine remain generic and boilerplate and fail to meet the disclosure

requirements of D.C.COLO.LPtR 8(b)(3) and, therefore, IWS has failed to meet its burden. Downing objects to any improper attempt by IWS to later assert different or additional motivation to combine rationales in violation of the Local Rules.

Further, for each identified combination, IWS's Supplemental Invalidity Contentions generally repeat boilerplate language stating that a POSITA would have been motivated to combine the references "because they are in the same field of endeavor and aim to solve a similar problem." *See, e.g.*, Supplemental Invalidity Contentions at 4. To the extent IWS contends that the references are analogous art because the two references are in the same field of endeavor or aim to solve a similar problem, the Supplemental Invalidity Contentions improperly compare the two references with one another rather than the claimed invention. Further, IWS's Supplemental Invalidity Contentions assert that the "references are all in the same or analogous arts for oil and gas well systems, including drilling, completion, and production technologies." Initial Invalidity Contentions at 14. IWS's Invalidity Contentions characterization of the field of endeavor of the claimed invention and problems it aims to solve are overbroad and sweep in a vast amount of art that is not analogous. Accordingly, IWS's alleged motivations to combine are insufficient and IWS has failed to meet its burden on this issue.

V. Inventorship of the Asserted Patents is Proper

IWS's Invalidity Contentions assert that "IWS expects to obtain significant discovery related to the issue of inventorship" and "IWS reserves all rights to assert this defense based on future discovery." Initial Invalidity Contentions at 19. However, Downing has produced documents and served an interrogatory response on the issue of inventorship, describing that the named inventors of the Asserted Patents are the correct and only inventors of each of the asserted claims. Downing Rs. to Interrog. No. 2 at 13-16. Notwithstanding, IWS has failed to articulate any theory of improper inventorship or any facts supporting the same and has, thus, waived any such theory.

DATED: January 19, 2024

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ATTORNEYS FOR DOWNING WELLHEAD EQUIPMENT, LLC

CERTIFICATE OF SERVICE

I hereby certify that on January 19, 2024, I electronically served the foregoing via email on all counsel of record.

/s/ Tiffany M. Cooke
Tiffany M. Cooke