

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION**

KATCH KAN HOLDINGS USA, INC.;	§	
KATCH KAN USA, LLC,	§	
	§	
Plaintiffs,	§	
	§	
v.	§	Civil Action No. 3:14-cv-2172-M
	§	
CAN-OK OIL FIELD SERVICES, INC.,	§	
	§	
Defendant.	§	

CLAIM CONSTRUCTION ORDER

On April 14, 2015, with the consent of the parties, the Court held a telephonic hearing to determine the proper construction of the disputed claim terms in United States Patent No. 6,666,287 (“the ’287 Patent”).¹ Having reviewed the claims, specification, prosecution history, and submitted extrinsic evidence, and having considered the parties’ arguments and the applicable law, the Court issues this Claim Construction Order.

I. BACKGROUND OF THE ’287 PATENT

The claims of the ’287 Patent are directed toward a “Method and Apparatus for Enclosing an Oil Drilling Rig” to protect equipment, workers, and the environment from drilling mud and other contaminants that spill during the drilling process. Because the parties dispute whether the term “oil drilling rig” includes certain equipment commonly used in the drilling process, some preliminary information about the drilling process is useful.

The drilling process begins by drilling a surface hole to a predetermined depth of several hundred or thousand feet. Dkt. No. 27 at 2.² Stabilizers, drill collars, and heavy-weight drill pipe, all of which are collectively referred to as the “bottom hole assembly” (“BHA”) weigh

¹ Dkt. No. 35.

² Dkt. No. 27 (Plaintiff’s “Written Tutorial on the Technology Involved in the Patent”). The pin citations refer to the file-stamped page, *e.g.*, Dkt. No. 27 at 2 refers to Page 2 of 13 of Dkt. No. 27.

down the drill bit. *Id.* at 2–3. The BHA is in turn attached to hollow “drill pipes,” which are 3.5 to 5.5 inches in diameter, and up to 30 feet long. *Id.* at 3. The sections of drill pipe are threaded together to form what is known as the “drill string.”³ *Id.* New sections of drill string are regularly added at the rig floor⁴ as the rig drills ahead in the formation and the drill string progresses further below the surface. *Id.*

Hoisting equipment, including a traveling block, a crown block atop a drilling derrick, a drilling line, and a drawworks are used to lower the drill pipe into the well. *Id.* A drawworks is a large winch that spools heavy cable to lift and lower the drill string and other tubular strings used in the drilling process. *Id.* The traveling block and crown block form a pulley system to assist in lifting the drill string, and the derrick and substructure provide further support. *Id.* The substructure is the raised platform or base upon which the derrick is mounted, and may provide space for the wellhead and well control equipment.⁵ *Id.*

After the surface hole is completely drilled, the hole is lined with steel pipe that is cemented in place in the wellbore to prevent the wall of the hole from caving in.⁶ *Id.* at 4. Then,

³ The “drill string” is “[s]everal sections or joints of drill pipe joined together. May also refer to sections or joints of threaded tubing or casing joined together to be used for drilling.” Pl. Ex. 10 at A209 (American Petroleum Institute, API Recommended Practice 54, *Recommended Practice for Occupational Safety for Oil and Gas Well Drilling and Services Operations* (3rd ed. Aug. 1999) (excerpts)) (“API Recommended Practice”).

⁴ The “rig floor” is “the area immediately above the substructure on which the drawworks, the rotary table, and so forth rest.” Pl. Ex. 4 at A124 (Ron Baker, *A PRIMER OF OIL WELL DRILLING*, 185 (6th Ed. 2001) (“PRIMER at 185”).

⁵ See Pl. Ex. 10 at A209, A211 (API Recommended Practice at 6) (defining “derrick” and “substructure”).

⁶ The “wellbore” is defined as “a borehole; the hole drilled by the bit. A wellbore may have casing in it or it may be open (uncased); or part of it may be cased, and part of it may be open. Also called a borehole or hole.” Occupational Safety and Health Administration, Oil and Gas Well Drilling and Servicing eTool, Glossary of Terms, “wellbore,” (July 22, 2015) https://www.osha.gov/SLTC/etools/oilandgas/glossary_of_terms/glossary_of_terms_w.html (“OSHA Glossary of Terms”).

a wellhead⁷ is welded at the surface onto the first string of casing.⁸ *Id.* The wellhead is a permanent part of the well, and is generally not considered part of the oil drilling rig. *Id.* After the surface casing is set and the wellhead is in place, the blowout preventer (“BOP”) is put on top of the wellhead.⁹ *Id.* The BOP controls otherwise uncontrollable pressures in the bore hole, and the BOP closes if high-pressure gas or liquid blows the drilling fluid out of the well bore, or the well “kicks.” *Id.* Plaintiff Katch Kan argues that the BOP is a critical component of the oil drilling rig because surface blowouts waste resources, damage the rig, and hurt or kill people. *Id.* Therefore, Katch Kan contends, a BOP is required to safely drill wells. *Id.* at 5. Can-Ok counters that a BOP is well control equipment, and not part of the “oil drilling rig” in the claims of the ’287 Patent.

“Drilling mud” is a heavy drilling fluid that helps to contain naturally occurring pressures encountered as the well bore advances; it cools and lubricates the drill bit; and it transports cuttings¹⁰ back to the drilling rig where the mud is processed and recirculated for further use. *Id.* The mud is circulated through the drill pipe down to the wellbore and drill bit, where it is then circulated through the casing and annulus.¹¹ *Id.* The portion of the drill pipe above the annulus is in open air, and extends above the surface through the BOPs, which are mounted atop the

⁷ The “wellhead” is “the equipment installed at the surface of the wellbore. A wellhead includes such equipment as the casinghead and tubing head.” OSHA Glossary of Terms, “wellhead,” (July 22, 2015) https://www.osha.gov/SLTC/etools/oilandgas/glossary_of_terms/glossary_of_terms_w.html.

⁸ The “casing” is “pipe installed in the wellbore and usually cemented in place to retain the borehole dimension and seal off hydrocarbon and water-bearing formations.” *Id.* at A208.

⁹ Multiple BOPs may be mounted on the wellhead as part of the “BOP stack.” Dkt. No. 27 at 5–6; *see also* Pl. Ex. 5, Pl. App. 154 (THE ROTARY RIG AND ITS COMPONENTS, Unit 1, Lesson 1 (3rd ed. 1980) (explaining that “blowout preventers” are located beneath the rig at the land’s surface on land rigs, at the water’s surface on platform rigs, and on the seafloor on floating rigs)).

¹⁰ “Cuttings” are rock and soil excavated by the drill bit during the drilling process. Drilling mud is separated from the drill cuttings at the surface so the drilling mud can be reused.

¹¹ The “annulus” is also sometimes referred to as the “annular space,” which is “[t]he space around a pipe in a wellbore, the outer wall of which may be the wall of either the borehole or the casing” Pl. Ex. 5, Pl. App. 153 (The Rotary Rig and its Components, Unit 1, Lesson 1 (3rd ed. 1980) (defining “annulus” and “annular space”)).

wellhead, and through the “flow nipple,” which is mounted atop the BOPs. *Id.* at 6. The flow nipple is a piece of pipe mounted on the BOP with a side outlet that directs the mud returns to the mud conditioning equipment. *Id.* The parties also dispute whether the flow nipple is part of the “oil drilling rig” in the claims of the ’287 Patent.

After each portion of the wellbore is drilled, the drilling stops and the hoisting equipment pulls the drill string back to the drilling rig, a process known as “tripping out.” *Id.* at 7. Tripping out can be a messy process because the drilling mud circulates through the inside and outside of the drill pipe as it is removed from the wellbore, causing mud to spill every time a connection is broken and a joint of drill pipe is removed. *Id.* at 7–8. The drilling mud spills onto the rig floor and drips down into the substructure area, covering the equipment below, including the BOP and flow nipple. *Id.* at 8.

The invention claimed in the ’287 Patent is directed toward a method and an apparatus for enclosing an oil drilling rig that protects the rig from drilling fluid and other contaminants that spill out during the tripping process. *Id.* at 8–9. The lost drilling mud creates environmental risks, remediation expenses, and personnel hazards, and it costs operators time and money to replace the lost drilling mud and clean the rig and surrounding area. *Id.* at 9.

The invention claimed in the ’287 Patent discloses securing a base to the oil drilling rig with a substantially taut covering that is secured at one edge to the perimeter of the base, and at the other end, is suspended from a frame or cables under the rig floor. *Id.* at 10. Katch Kan’s commercial embodiment is called the Adjustable Containment Enclosure (“ACE”). *Id.*

The relevant, disputed claims in the ’287 Patent are provided below:

1. A method of enclosing an oil drilling rig, comprising the steps of:

providing a base and a flexible sheet-form covering having a first edge and second edge;
securing the base to the oil drilling rig and securing the first edge of the covering around a perimeter of the base; and

securing the second edge of the covering to the drilling rig in spaced relation to the base, thereby maintaining the covering in a substantially taut condition forming a tubular enclosure.

2. The method as defined in claim 1, the second edge of the covering being secured to a substantially planar peripheral frame.

5. The method as defined in claim 1, the base including an oil containment basin.

6. A method of enclosing an oil drilling rig, comprising the steps of:

providing a base with an oil containment basin, a substantially planar frame, and a flexible sheet-form covering having a first edge and second edge;

securing the base to the oil drilling rig and the first edge of the covering around a perimeter of the base;

securing the second edge of the covering around a perimeter of the frame; and

suspending the frame from the drilling rig in spaced relation to the base with the covering in a substantially taut condition to form a tubular enclosure.

7. In combination:

an oil drilling rig;

a base secured to the oil drilling rig;

a flexible sheet-form covering having a first edge and second edge, the first edge of the covering being secured around a perimeter of the base, the second edge of the covering being secured to the drilling rig in spaced relation to the base, thereby maintaining the covering in a substantially taut condition forming a tubular enclosure.

8. The combination as defined in claim 7, the second edge of the covering being secured to a substantially planar peripheral frame.

11. The combination as defined in claim 7, wherein the base includes an oil containment basin.

12. In combination:

an oil drilling rig;

a base secured to the oil drilling rig, the base including an oil containment basin adapted to capture and contain any oil which falls onto the base;

a flexible sheet-form covering having a first edge and second edge, the first edge of the covering being secured around a perimeter of the base, the second edge of the covering being secured to a substantially planar peripheral frame, the frame being suspended from the drilling rig in spaced relation to the base, thereby maintaining the covering in a substantially taut condition forming a tubular enclosure.

II. APPLICABLE LAW

The construction of disputed claims is a question of law reserved solely for the court.

Markman v. Westview Instruments, Inc., 52 F.3d 967, 971–72 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996). “Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc) (internal citations omitted). Therefore, a proper construction “stays true to the claim language and most naturally aligns with the patent’s description of the invention.” *Id.* (internal citations omitted).

“It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Id.* at 1303 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). Courts first “look to the words of the claims themselves . . . to define the scope of the patented invention.” *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996) (citation omitted). The words in a claim are “generally given their ordinary and customary meaning,” but “a patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, as long as the special definition of the term is clearly stated in the patent specification or file history.” *Id.* (citation omitted). The “ordinary and customary meaning” of

the words of a claim is “the meaning that the term[s] would have to a person of ordinary skill in the art in question at the time of the invention.” *Phillips*, 415 F.3d at 1312–13.

When the meaning of a term to a person of ordinary skill in the art is unclear, a court must consult other sources, including “the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.” *Id.* at 1314 (internal citations omitted). A court must also take into account the context in which the term is used in an asserted claim or related claims in the patent, keeping in mind that “the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Id.* at 1313. The specification is “always highly relevant to the claim construction analysis” and is “the single best guide to the meaning of a disputed term.” *Id.* at 1315 (quoting *Vitronics*, 90 F.3d at 1582). For instance, should the specification indicate that a claim term has been given a special definition by the patentee that is different from the definition the term would otherwise be assigned, the inventor’s lexicography controls. *Id.* at 1316 (citation omitted). Similarly, should the specification reveal an intentional disclaimer or disavowal of claim scope by the patentee, the claim scope dictated by the specification is dispositive. *Id.* (citation omitted).

If it is in evidence, a court should also consider the prosecution history, including prior art and the record of proceedings before the PTO. *Id.* at 1317 (citing *Markman*, 52 F.3d at 980). However, the prosecution history is considered to be less reliable than the specification for claim construction purposes, if only because what it illustrates is an ongoing negotiation between the patentee and the PTO, not necessarily the final product. *Id.*

Finally, in construing claims, a court may consider extrinsic evidence, which includes “expert and inventor testimony, dictionaries, and learned treatises.” *Id.* (citing *Markman*, 52

F.3d at 980). Technical dictionaries may help a court “‘better understand the underlying technology’ and the way in which one of skill in the art might use the claim terms.” *Id.* (quoting *Vitrionics*, 90 F.3d at 1584 n. 6). Expert testimony may also be useful to “provide background on the technology at issue, to explain how an invention works, to ensure that the court’s understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field.” *Id.* (citations omitted).

Although extrinsic evidence can “shed useful light on the relevant art,” it is considered “less significant than the intrinsic record” *Id.* (quoting *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 862 (Fed. Cir. 2004)). In other words, “extrinsic evidence may be useful to the court, but it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence.” *Id.* at 1319. Consequently, “a court should discount any expert testimony ‘that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent.’” *Id.* at 1318 (quoting *Key Pharms. v. Hercon Labs. Corp.*, 161 F.3d 709, 716 (Fed.Cir.1998)).

III. LEVEL OF ORDINARY SKILL IN THE ART

In determining the level of ordinary skill in the art, the court may consider: “(1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field.” *Envtl. Designs, Ltd. v. Union Oil Co. of California*, 713 F.2d 693, 696 (Fed. Cir. 1983). “These factors are not exhaustive but are merely a guide to determining the level of ordinary skill in the art.” *Daiichi Sankyo Co. Ltd. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007).

Here, the parties essentially agree that a person of ordinary skill in the art would have a bachelor's degree in engineering with at least two years of experience in drilling, completion, and working over oil wells. Katch Kan acknowledges that a person with no engineering degree, but with four years of experience in the tools and techniques of enclosing drilling rigs and preventing contamination of a rig area, would also be one of ordinary skill in the art. Pl. Open Br. at 5 (citing Pl. App. D at A25–A26 (Fleckenstein Decl. ¶ 17)). The required years of experience may vary based on education attained above a bachelor's degree. *Id.* Can-Ok also notes, and Katch Kan does not dispute, that such a person would also understand the environmental concerns raised by the drilling operation, including concerns about the toxicity of drilling fluids, and the costs associated with mitigating these concerns. Def. Resp. Br. at 5 (citing Def. App. A at A4–A5 (John F. Lacy Decl. ¶ 8)).

Considering the foregoing factors and the parties' submissions, the Court finds as a matter of fact that a person of ordinary skill in the art would have a bachelor's degree in engineering and at least two years working in drilling, completing, or working over oil wells; alternatively, a person with no engineering degree must have worked for at least four years in the drilling industry, specifically with the tools and techniques of mitigating environmental and related worker safety hazards on drilling rigs.

IV. CONSTRUCTION OF AGREED TERMS

Claim Term/Phrase	Agreed Construction
flexible sheet-form covering	One or more connected portions of pliable material used to form a covering
substantially taut condition	A condition in which the edges of the flexible sheet-form covering are pulled away from each other enough to form a tubular enclosure
tubular enclosure	A hollow, elongated envelope or container that is not necessarily cylindrical
substantially planar peripheral frame	A supporting structure that is largely flat, such as a ring, that defines a perimeter of the tubular enclosure
substantially planar frame	A supporting structure that is largely flat, such as a ring

In view of the parties' agreements on the proper construction of each of the foregoing terms, and the Court's conclusion that such constructions are correct, the Court hereby **ADOPTS AND APPROVES** the parties' agreed constructions.

V. CONSTRUCTION OF DISPUTED TERMS

The parties dispute the meaning and scope of the terms “oil drilling rig,” “securing the base to the oil drilling rig,” and “a base secured to the oil drilling rig.” The Court will collectively refer to the latter two terms as the “securing terms.”

A. “oil drilling rig”

Disputed Term	Katch Kan’s Proposal	Can-Ok’s Proposal	Court’s Construction
Oil drilling rig '287 Patent, Claims 1, 6, 7, and 12	A collection of equipment used to drill a wellbore, including a derrick or mast, hoisting mechanism, and attendant surface equipment above the wellhead	The machine used to drill a wellbore. In onshore operations, the rig includes virtually everything except living quarters. Major components of the rig include the mud tanks, the mud pumps, the derrick or mast, the drawworks, the rotary table or topdrive, the drillstring, and the power generation and auxiliary equipment, but not the BOP, flow nipple, or wellhead	A collection of equipment used to drill a wellbore, including a derrick or mast, hoisting mechanism, and attendant surface equipment above the wellhead

a) Intrinsic Evidence

1. Parties’ Positions

The issue before the Court is whether “oil drilling rig,” as that term is used in the relevant claims of the '287 Patent, includes the BOP and flow nipple. Katch Kan argues that the term “oil drilling rig” carries its plain and ordinary meaning, which includes the BOP and flow nipple along with other components below the rig floor. Can-Ok excludes the BOP and flow nipple from its construction of oil drilling rig, arguing that, as well control equipment, those items are not required to drill a wellbore, and therefore, not part of the oil drilling rig.

Katch Kan relies on the specification of the '287 Patent, which provides that the claimed invention is directed toward “a method and apparatus for enclosing an oil drilling rig.” '287 Patent at 1:6-7. The described apparatus encloses an area of the oil drilling rig that is below the rig platform. *See id.* at 3:19-20 (describing “[t]he use and operation of covering **14** for enclosing an area **10** of oil drilling rig **16**”); *id.* at 2:56-57 (describing number **10** of Figure 1 as illustrating an enclosed area of a drilling rig); *id.* at 2:60-62 (describing the preferred embodiment as encompassing an oil basin suspended by cables **18** at a position approximately 8 feet below a platform **20** of drilling rig **16**). Thus, Katch Kan argues, if the apparatus encloses an oil drilling rig, and the specification teaches that the apparatus encloses an area below the rig floor, then an oil drilling rig must include components below the rig floor, like the BOP and flow nipple. Pl. Open. Br. at 6. Katch Kan notes that the area enclosed by the “covering” is the “enclosed area of a drilling rig,” not the enclosed area *below* a drilling rig, and the specification teaches that the area eight feet below the rig floor is enclosed by the invention, an area that includes the BOP and flow nipple. *See id.* at 2:56-57, 3:20-21.

Katch Kan further contends that in the Background of the Invention, the patentee stated “[i]t has become the practi[c]e in the industry to cover an area of a drilling rig working with tarps in a geographical area with strong prevailing winds.” *Id.* at 1:20-22. According to Katch Kan, the claims of the '287 Patent are similarly directed toward covering an area *of a drilling rig*, and the specification teaches that area includes the components below the rig floor. *See id.* at 3:8-14, 19-20, 23, 50-57, 61-62 (describing the preferred embodiment as enclosing an area of an oil drilling rig by suspending a base and taut covering eight feet below the rig floor). According to Katch Kan, the objective of the claimed invention is to protect the area below the rig floor, where drilling mud spills during the tripping process onto the attendant surface equipment, including the BOP and flow nipple. *See id.* at 1:11-13 (“When drill pipe is tripped from an oil well, the

exterior of the drill pipe is covered with oil and the interior of the pipe invariably contains drilling fluid.”).

Katch Kan also relies on U.S. Patent No. 5,634,485 (“the ’485 Patent”), which was invented by the inventor of the ’287 Patent, Quinn Holtby, and discloses a catch pan secured to a flow nipple below the rig floor. ’485 Patent at 1:35-36 (“What is required is [a] method and apparatus for retrofitting drilling rigs with a catch pan.”); *id.* at 1:44-49 (“Secondly, secure the body to a flow nipple disposed below an opening in a drilling platform”); *id.* at 3:3-8 (Secondly, secure catch pan **10** to a flow nipple **32** disposed below an opening **34** in a drilling platform **36**.”); *id.* at Figs. 1-2. Thus, Katch Kan argues that, in the ’485 Patent, the flow nipple is part of the oil drilling rig, and the catch pan in the ’485 Patent is similar to the cylindrical base and taut covering in the ’287 Patent. Pl. Open Br. at 8–9.

Katch Kan also relies on U.S. Patent No. 6,386,225 (“the ’225 Patent”), another of Holtby’s patents, and prior art to the ’287 Patent, as disclosing the oil drilling rig extending from the rig floor to the ground, which suggests the drilling rig includes the area and equipment below the rig floor and above the ground. Pl. Reply Br. at 3 (citing ’225 Patent at Fig. 6; *id.* at 3:35-38).

Finally, Katch Kan relies on the Notice of Allowability in the prosecution history of the ’287 Patent, in which the Examiner at the United States Patent and Trademark Office (“PTO”) cited to the ’485 Patent in his Statement of Reasons for Allowance. *See* Pl. Open. Br. at 9 (citing Pl. Ex. 2 at A73-74 (Notice of Allowability) (“The prior art of record includes Holtby ’485 which discloses a catch pan for a drilling rig. The pan is secured to the flow nipple.”). Katch Kan argues that the Examiner’s Statement of Reasons for Allowance confirms that the flow nipple, which is below the rig floor, is part of the oil drilling rig.

Can-Ok responds that the intrinsic evidence offers no guidance on whether an oil drilling rig includes the BOP and flow nipple. Def. Resp. Br. at 8. Can-Ok notes that, in the specification, the oil drilling rig **16** and drilling platform **20** are depicted in Figure 1 as being the same component, and the only guidance in the '287 Patent is the single embodiment that illustrates the invention in an area "approximately 8 feet below a platform of [the] drilling rig." *Id.* (citing '287 Patent at Fig. 1; *id.* at 2:61-62, 3:47). Acknowledging that the invention encloses an area underneath a drilling platform, Can-Ok argues that the invention does not necessarily enclose all equipment below the platform. *Id.* According to Can-Ok, because the claims are directed toward a method and apparatus for containing drilling mud that spills from drill string during the tripping process, the apparatus only encloses the drill string above the BOP, where it is suspended eight feet below the rig floor and *above* the BOP.¹² Def. Resp. Br. at 6, 9.

Can-Ok relies on the '485 Patent to argue that the flow nipple and drilling rig are two separate things. Def. Resp. Br. at 11. For instance, as the drilling rig settles down during the first week on site, the pressure from the settling rig causes the catch pan attached by a collar to the flow nipple to slide down the flow nipple. '485 Patent at 2:11-12 ("During that 7 day period the drilling rig may settle down as much as 5 inches."); *id.* at 3:21-25 ("As the drilling rig settles, the weight of the drilling rigs [sic] will come to rest upon catch pan **10** pushing it downward relative to flow nipple **32**."); *id.* at 4:7-8, 17-20, 33-41 ("As the drilling platform settles, such settling is accommodated by movement of the cylindrical interior sealing surface of the cylindrical collar relative to the annular seal."). Thus, according to Can-Ok, in the '485 Patent,

¹² Can-Ok argues that the nature of the tripping process "necessarily means the apparatus described in the '287 Patent is suspended eight feet below the drilling floor and sits *above* the BOP," but Can-Ok does not say why this is necessarily so, nor does its illustration on page six of its claim construction brief detail the spatial relationship between the BOP and the invention claimed in the '287 Patent. *See* Def. Resp. Br. at 6, 9. The implication appears to be that drilling fluid will not spill from the drill string on any attendant surface equipment situated level with or below the BOP. *See id.*

the flow nipple stays in place while the drilling rig and catch pan move downward. Def. Resp. Br. at 11.

Can-Ok also relies on the '225 Patent, which discloses a catch pan “installed on wellhead **28** so that body **12** of catch pan **10** is suspended by lines **32** that extend from below a drilling rig floor **34** of a drilling rig **36**,” and claims a “method of use of a modular catch pan for wellheads,” including a “pan body suspended by lines extending below a drilling rig.” '225 Patent at 3:35-38, 4:66-67, 6:12-14. Thus, Can-Ok argues that Figure 1 in the '287 Patent and Figure 6 in the '225 Patent bear a striking resemblance, and both show that Holtby drew a distinction between the drilling rig and the area and equipment below it.

Can-Ok argues that Holtby borrowed aspects of the '225 Patent and '485 Patent when he drafted the specification of the '287 Patent because the '287 Patent reflects the '485 Patent's disclosure of a catch pan attached to a flow nipple separate from the drilling rig, and the '287 also reflects the '225 Patent in that the pan is suspended beneath a drilling rig. Def. Resp. Br. at 12–13 (*comparing* '287 Patent at 2:59-65, 3:45-48 *with* '225 Patent at Fig. 6). Thus, Can-Ok contends that Holtby's own prior art shows that he knew how to precisely describe and illustrate securing his inventions to a BOP or flow nipple, but he did not do so, which suggests the invention is not attached to either the BOP or flow nipple, and therefore, Can-Ok argues an oil drilling rig does not include those items. *Id.* at 13.

Can-Ok argues that the '287 Patent's prosecution history is of little assistance because the patent was allowed without rejection by the Examiner, or argument by Holtby. Def. Resp. Br. at 9 (citing *Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1345 (Fed. Cir. 2005)). Can-Ok contends that because Holtby did not take a position on the scope of the claims during prosecution, the prosecution history cannot be used to limit the claims. *Id.* Can-Ok also argues that the Examiner's Statement of Reasons for Allowance in the Notice of Allowability, unless

expressly adopted by the applicant, are not limiting or even useful in determining claim scope. *Id.* at 10 (citing *ACCO Brands, Inc. v. Micro Sec. Devices, Inc.*, 345 F.3d 1075, 1079 (Fed. Cir. 2003)).

2. Analysis

The Court finds the intrinsic evidence teaches that “oil drilling rig” in the ’287 Patent includes the BOP and flow nipple, along with other equipment below the rig floor. The invention is directed toward “a method and apparatus for enclosing an oil drilling rig.” ’287 Patent at 1:6-7. The specification teaches that the claimed invention seeks to enclose and protect the equipment below the rig floor. *See* ’287 Patent at 1:11-13 (“When drill pipe is tripped from an oil well, the exterior of the drill pipe is covered with oil and the interior of the pipe invariably contains drilling fluid.”); *id.* at Fig. 1 (illustrating the drill pipe **24** as extending from the platform **20** down below the base **12**); *id.* at 2:62-65 (“Circular base **12** has a central opening **22** to accommodate a drill pipe that extends vertically through enclosed area **10**.”). Because the invention is directed toward enclosing an area of an oil drilling rig, and the specification teaches that the invention encloses an area below the rig floor, “oil drilling rig” must necessarily include equipment below the rig floor, and nothing in the claims or specification excludes the BOP or flow nipple from being among that equipment.

There is no dispute that the claims relate to the area below the rig platform. *See* Def. Resp. Br. at 8 (“Can-Ok does not dispute that the ’287 patent describes a method of enclosing an area underneath a drilling platform.”). Nor do the parties dispute that the BOP and flow nipple are below the rig platform. Dkt. No. 27 at 4 (illustrating the BOP as below the platform); *id.* at 6 (stating that the flow nipple is mounted atop the BOP). In its description of the preferred embodiment, the ’287 Patent states that “base **12** is secured to a drilling rig by suspending it by cables at a position approximately 8 feet below a platform **20** of a drilling rig **16**.” ’287 Patent at

2:59-65. The flexible sheet-form covering of the invention is attached to the circular base of the invention to enclose an area below the rig floor. *See id.* at Fig. 1, *id.* at 2:56-59 (depicting the enclosed area of the drilling rig **10**, which includes a circular base **12**, such as an oil containment basin, and a flexible sheet-form covering **14**). If the area below the rig floor is part of the oil drilling rig, then that area and the equipment in it, including the BOP and flow nipple, must also be part of the oil drilling rig.

In referencing the area enclosed by the “covering,” the ’287 Patent discusses the “enclosed area of a drilling rig.” *Id.* at 3:20-21. The enclosed area is described as being *of* a drilling rig, not *below* a drilling rig. *See id.* at 3:19-20 (“The use and operation of covering **14** for enclosing an area **10** of oil drilling rig **16**”) (emphasis added); *see also id.* at 1:20-22 (“[I]t has become the practise [sic] in the industry to cover an area *of* a drilling rig with tarps”) (emphasis added). Thus, the preferred embodiment and the Background of the Invention teach that the claimed invention encloses an area that is “of,” *i.e.*, part of, the drilling rig. *See id.* at Fig. 1; Pl. Open. Br. at 7 (demonstrating the spatial relationships between the components of the invention and the platform). Accordingly, “oil drilling rig” must include the area and equipment below the rig floor, commonly referred to as the “substructure,” an including the BOP and flow nipple. *See* ’287 Patent at Fig. 1.

Can-Ok argues that the invention does not enclose all of the equipment below the rig platform, and specifically does not enclose the BOP or flow nipple. Def. Resp. Br. at 8–9. However, Can-Ok offers no persuasive evidence from the specification or claims that justifies why the claimed invention encloses some of the equipment below the rig platform, making that equipment part of the “oil drilling rig,” but not the BOP and flow nipple, both of which are susceptible to being covered in drilling mud and contaminants during the tripping process, as they are both in the open-air area where the drill string leaves the well bore. *See* ’287 Patent at

1:10-19 (“When drill pipe is tripped from an oil well, the exterior of the drill pipe is covered with oil and the interior of the pipe invariably contains drilling fluid [T]he strong winds tend to blow oil from the drilling rig onto the surrounding environment.”).¹³

The prosecution history of the ’287 Patent further supports the Court’s construction of “oil drilling rig.” In the Notice of Allowability for the ’287 Patent, the Examiner’s Statement of Reasons for Allowance noted that “[t]he prior art of record includes [the ’485 Patent] which discloses a catch pan for a drilling rig. The pan is secured to the flow nipple.” Pl. Ex. 2 at A73-74 (Notice of Allowability). Thus, the Examiner observed that the flow nipple was part of the drilling rig in the ’485 Patent, and there is no intrinsic evidence that suggests Holtby sought to exclude the flow nipple as part of the drilling rig in the ’287 Patent.

Can-Ok contends that, because Holtby did not take a position on the scope of the claims during prosecution, the prosecution history cannot be used to limit the claims, and that an Examiner’s Statement of Reasons for Allowance in the Notice of Allowability, unless expressly adopted by the applicant, are not limiting or useful in determining claim scope. Def. Resp. Br. at 9–10.

The Federal Circuit has recognized that that an Examiner’s Statement of Reasons for Allowance “will not necessarily limit a claim.” *Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1345 (Fed. Cir. 2005) (citing *ACCO Brands, Inc. v. Micro Sec. Devices, Inc.*, 346 F.3d

¹³ Can-Ok seeks to diminish the usefulness of the specification, but the Court finds that the specification is helpful in discerning whether the equipment below the rig floor, including the BOP and flow nipple, are part of the oil drilling rig. That the oil drilling rig in Figure 1 of the ’287 Patent arguably depicts the same structure as the drilling platform supports the Court’s construction. Because the equipment below the rig floor in Figure 1 is shown as being below both the oil drilling rig *and* the drilling platform, it follows that the oil drilling rig **16** includes what is below the drilling platform **20** in Figure 1. *See* ’287 Patent at Fig. 1. Otherwise, the oil drilling rig would be limited to the drilling platform, a proposition that would exclude the invention’s preferred embodiment. *See id.* at 2:59-64 (“In the illustrated embodiment, base **12** is an oil containment basin which is secured to a drilling rig **16** by suspending it by cables **18** at a position approximately 8 feet below a platform **20** of the oil drilling rig **16**.”).

1075, 1079 (Fed. Cir. 2003)). An “applicant’s silence regarding statements made by the examiner during prosecution, without more, cannot amount to a clear and unmistakable disavowal of claim scope.” *Id.* (internal quotation marks and citation omitted).

Can-Ok relies on *Salazar* to preclude any reference to the Notice of Allowability, but neither of the cases relied upon by Can-Ok stand for that proposition. Indeed, *Salazar* considered whether “unilateral statements of an examiner in stating reasons for allowance can create a clear and unambiguous disavowal of claim scope and give rise to prosecution history estoppel.” 414 F.3d at 1345. Here, Katch Kan is relying on the Notice of Allowability for a different reason—to support its construction of oil drilling rig as including the flow nipple. In contrast, the principle of *Salazar* would estop Katch Kan from asserting a broader claim scope than it had argued before the PTO, but no such contention is asserted here. The Notice of Allowability is probative, and supports the Court’s construction of “oil drilling rig,” because it describes the flow nipple as being part of the oil drilling rig in the ’285 Patent, which is cited as prior art in the ’287 Patent, and issued to the same inventor.

The prior art references cited by the ’287 Patent, including the ’485 Patent, further support the Court’s construction of “oil drilling rig.” The ’485 Patent teaches that a catch pan used to contain drilling fluids is retrofitted on a “drilling rig.” ’485 Patent at 1:35-36, 1:44-49, 3:3-8, Figs. 1-2. In the ’485 Patent, the catch pan’s point of attachment—the flow nipple—is considered part of the drilling rig, and is below the rig floor. *Id.* at 1:44-51, 3:3-4.

Can-Ok argues that the ’485 Patent describes a flow nipple and drilling rig as two separate things. ’485 Patent at 2:11-12 (“During that 7 day period the *drilling rig* may settle down as much as 5 inches.”); *id.* at 3:21-25 (“As the *drilling rig* settles, the weight of the drilling rig [sic] will come to rest upon catch pan **10** pushing it downward *relative to the flow nipple 32.*”) (emphasis added). However, because of the weight of the settling rig, the downward

movement of the catch pan in the '485 Patent, relative to the flow nipple does not necessarily indicate that the drilling rig and flow nipple are separate things. Can-Ok recognizes that the diesel-powered electric generator and transmission lines are part of the drilling rig, yet that equipment is located on the ground, and would necessarily be stationary while the rig settles. *See* Def. Resp. Br. at 5. The catch pan would also move *relative* to the electric generator as the drilling rig settles, yet that fact does not mean the electric generator is not part of the drilling rig. *See* '485 Patent at 3:21-25; Pl. Reply Br. at 2 (citing Pl. Ex. 5 at A142 (ROTARY RIG at 9); Pl. Ex. 8 at A188 (OSHA Illustrated Glossary)).

The specification of the '485 Patent does not exclude either a flow nipple or the BOP from being part of the drilling rig. The '485 Patent teaches that the catch pan is secured to a flow nipple below the drilling platform, and the invention is described as a “method and apparatus for retrofitting drilling rigs with a catch pan.” *See* '287 Patent at 3:3-4, 1:35-36. Therefore, if retrofitting a drilling rig with a catch pan requires a person of ordinary skill in the art to secure the catch pan to the flow nipple, the flow nipple is part of the drilling rig. *See id.* The claimed invention in the '287 Patent, issued to Holtby after the issuance of the '485 Patent, is only claiming a new apparatus, not a new type of oil drilling rig without a flow nipple.

The '225 Patent further supports the Court's construction. The '225 Patent claims “a method of use of a modular catch pan for wellheads” including a “pan body suspended by lines *extending below a drilling rig.*” '225 Patent at 4:66-67, 6:12-14. Figure 6 of the '225 Patent identifies item **34** as the “drilling rig floor,” and identifies item **36** as the “drilling rig.” *Id.* at 3:35-38. The drilling rig is depicted as extending from the drilling rig floor down to the ground, which means the rig reasonably includes the area and equipment below the rig floor and above the ground, such as the BOP and flow nipple. *See id.*

For these reasons, the Court finds that the intrinsic evidence, including the specification, the prior art references, and the prosecution history, supports the Court's construction of "oil drilling rig."

b) Extrinsic Evidence

1. Parties' Positions

Katch Kan also relies on industry treatises, technical dictionaries and glossaries, industry documents, and expert testimony to support its proposed construction of "oil drilling rig."

According to Katch Kan, industry treatises explain that "[t]he main function of a rotary rig is to drill a hole, or as they say in the oil patch, to 'make a hole.'" Pl. Ex. 4 at A89 (PRIMER at 77); *see also* Pl. Ex. 5 at A134 (ROTARY RIG at 1) (a "rotary drilling rig" is designed to produce a "hole"). The components of the oil drilling rig are divided into four main systems: the power system, the hoisting system, the rotating system, and the circulating system. *Id.* The flow nipple is part of the annulus that is connected to the mud return line, and therefore, part of the circulating system, and in turn, part of the oil drilling rig. Pl. Ex. 4 at A116-19 (PRIMER at 111-13, Fig. 126); Pl. Ex. 5 at A146-49 (ROTARY RIG at 13-16, Fig. 17). The components of the circulating system are typically positioned above the BOP. Pl. Ex. 7 at A183 (Preston Moore, DRILLING PRACTICES MANUAL (2d Ed. 1986) at 504, Fig. 14-1) ("DRILLING MANUAL"). BOPs are well control equipment, and Katch Kan argues that well control equipment is considered part of the drilling rig. Pl. Ex. 5 at A133, A159-52 (ROTARY RIG at 16-19); Pl. Ex. 7 at A171, A177 (DRILLING MANUAL at 6, 12).

Katch Kan notes that PRIMER and ROTARY RIG define rig in an expansive manner. Pl. Ex. 4 at A124 (PRIMER at 185) (defining "rig" as "the derrick or mast, drawworks, and attendant surface equipment of a drilling unit"); Pl. Ex. 5 at A155 (ROTARY RIG at 37) (defining "rig" as "the derrick or mast, drawworks, and attendant surface equipment of a drilling or workover

unit”). Katch Kan argues that a BOP is part of the “attendant surface equipment.” *See* Pl. Ex. 7 at A182 (DRILLING MANUAL at 503) (identifying BOPs as surface equipment).

Katch Kan also relies on the Schlumberger Oilfield Glossary, which defines “drilling rig” as including “virtually everything except living quarters,” and its major components “include the mud tanks, the mud pumps, the derrick or mast, the drawworks, the rotary table or topdrive, the drillstring, the power generation equipment and auxiliary equipment.” Pl. Ex. 6 at A161 (Schlumberger Glossary at 1/1). Katch Kan argues that the BOP falls within auxiliary equipment, and the flow nipple is part of the circulation system, and easily part of “virtually everything except living quarters.” *Id.* at A160 (defining “circulation system” as including the “bell nipple”). Katch Kan also cites other technical dictionaries and glossaries to support its construction. *See* Pl. Ex. 8 at A187-89 (OSHA Illustrated Glossary) (including BOP, substructure, and annulus as “Drilling Rig Components”); Pl. Ex. 9 at A195 (McGraw-Hill Dictionary of Scientific and Technical Terms (5th ed. 1994)) (defining “rig” as a “tripod, derrick, or drill machine complete with auxiliary and accessory equipment needed to drill”).

Furthermore, Katch Kan relies on the American Petroleum Institute’s Recommended Practice for Occupational Safety for Oil and Gas Well Drilling and Servicing Operations, which also defines “drilling rig” broadly and explains that, if “there is any indication that a well will flow . . . blowout prevention equipment shall be installed and tested.” Pl. Ex. 10 at A209, A215 (API Recommended Practices at 4, 10). “Shall” is used when the word has universal application to the specific activity. *Id.* at A202. Thus, according to Katch Kan, a person of ordinary skill in the art would understand a BOP to be part of the required equipment for a drilling rig. Pl. Open Br. at 14.

Katch Kan also relies on standard industry drilling contracts and rig inventories, including those for rigs that have installed Can-Ok’s accused device. The “Drilling Bid Proposal

and Daywork Drilling Contract – U.S.”, “Exhibit A,” provided by the International Association of Drilling Contractors (IADC), identifies the “Drilling Rig” as an item to be delivered by the drilling contractor. Pl. Ex. 11 at A226. The contractor must provide a complete drilling rig with substructure and BOP. *Id.* at A226-27. The rig inventories for rigs on which Can-Ok has installed the allegedly infringing devices identify the substructure and BOP as part of the rig components. Pl. Ex. 12 at A232; Pl. Ex. 13 at A234; Pl. Ex. 14 at A236; Pl. Ex. 15 at A238; Pl. Ex. 15 at A240; Pl. Ex. 17 at A242.

Finally, Katch Kan rests on its expert, Dr. Fleckenstein, who states that a person of ordinary skill in the art would understand that the phrase “oil drilling rig” includes the substructure, BOP, and flow nipple, in part, because the invention is disclosed as being eight feet below the platform. Pl. App. D at A25-33 (Jan. 28, 2015 Decl. of William Fleckenstein ¶¶ 16-28); Pl. App. E at A46-59 (Feb. 23, 2015 Decl. of William Fleckenstein ¶¶ 1-23). Fleckenstein opines that the rig must include a flow nipple as part of the circulation system, and a BOP as a necessary part of the rig. Pl. App. D at A28-29 (Jan. 28, 2015 Decl. of William Fleckenstein ¶¶ 22-23). In contrast, he urges that a wellhead is not part of the rig because it is permanently attached to the well, whereas the BOP and flow nipple are temporarily installed to the well during drilling. *Id.* at A29-A30; Pl. App. E at A53-54 (Feb. 23, 2015 Decl. of William Fleckenstein ¶ 14).

Can-Ok argues that the extrinsic evidence supports its construction. For example, ROTARY RIG and PRIMER refer to “auxiliary equipment” as that used to “keep the mud in good shape,” but the BOP and flow nipple do neither. Def. Resp. Br. at 13–14 (citing Pl. Ex. 4 at A121-23 (PRIMER at 116-18); Pl. Ex. 5 at A146-49 (ROTARY RIG at 13-16)). Furthermore, Can-Ok argues that neither ROTARY RIG nor PRIMER mention the BOP or flow nipple as part of the

circulating system. *Id.* at 14 (citing Pl. Ex. 4 at A115-23 (PRIMER at 110-18); Pl. Ex. 5 at A146-49 (ROTARY RIG at 13-16)).

Can Ok argues that ROTARY RIG and PRIMER describe the BOP as a separate component used on a drilling rig to control well kicks and prevent blowouts. *Id.* (citing Pl. Ex. 5 at A149-52 (ROTARY RIG at 16-19); Pl. Ex. 4 at A107-10 (PRIMER at 95-98)). Can-Ok asserts that the definitions of “rig” in ROTARY RIG and PRIMER exclude well control equipment as being part of “attendant surface equipment.” Def. Resp. Br. at 14 (citing Pl. Ex. 4 at A124 (PRIMER at 185) (defining “rig” as “the derrick or mast, drawworks, and attendant surface equipment of a drilling unit”); Pl. Ex. 5 at A155 (ROTARY RIG at 37) (same)). Can-Ok argues that “attendant” means the surface equipment must support the derrick or mast and the drawworks. *Id.* According to Can-Ok, “attendant surface equipment” must assist in drilling a wellbore, something well control equipment does not accomplish. *Id.*

Can-Ok urges that ROTARY RIG distinguishes between a BOP and drilling rig, describing the BOP as being beneath the rig. Def. Resp. Br. at 14–15 (citing Pl. Ex. 5 at A154 (ROTARY RIG at 30) (“Blowout preventers on land rigs are located beneath the rig”). Regarding the Schlumberger Oilfield Glossary, Can-Ok argues the definition of “drilling rig” is necessarily limited by its lead sentence—“The machine used to drill a wellbore,” and neither a BOP or flow nipple are used to drill a wellbore. *Id.* at 15–16 (citing Pl. Ex. 6 at A161 (defining “drilling rig” as “[t]he machine used to drill a wellbore. In onshore operations, the rig includes virtually everything except living quarters. Major components of the rig include . . . auxiliary equipment.”)). Although the definition includes “auxiliary equipment,” Can-Ok argues that “auxiliary” is defined as providing help, and well control equipment does not help drill a wellbore. *Id.* at 16 (citing Def. Ex. 7 at A118 (“auxiliary,” Merriam-Webster’s Collegiate Dictionary (11th ed.) (Mar. 3, 2015), *available at* <http://www.merriam-webster.com>)). Can-Ok

concedes that well control equipment is necessary at a certain depth, but only if the well is flowing. *Id.* Can-Ok argues that the other dictionaries on which Katch Kan relies similarly demonstrate that a BOP is not required unless the well flows. *Id.* (citing Pl. Ex. 5 at A154 (ROTARY RIG at 30); Pl. Ex. 10 at A215 (API Recommended Practices at 10)).

Regarding the API's Recommended Practice definition of "drilling rig," Can-Ok argues that "drilling rig" is defined as including "equipment and machinery assembled primarily for the purpose of drilling or boring a hole in the ground," and a BOP is only required if there is an indication the well will flow. *Id.* (citing Pl. Ex. 10 at A209, 215). Can-Ok contends that Katch Kan conflates the requirements for drilling with the requirements for controlling a well. Def. Resp. Br. at 16. If there is no indication the well will flow, a BOP is not required. *Id.* Can-Ok notes that industry publications also describe a BOP as well control equipment. *Id.* at 17 (citing Pl. App. C at A10-13; Pl. Ex. 4 at A121-23; Pl. Ex. 5 at A146-49; Pl. Ex. 10 at A215).

Finally, Can-Ok rests on its own expert's testimony, Dr. Lacy, who states that "oil drilling rig" is not a commonly used term in the industry, and a BOP is an accessory to a rig, not part of it. Def. App. A at A5-A6 (Decl. of John F. Lacy ¶ 10). Lacy acknowledges that a drilling rig may include the substructure, but not the BOP. *Id.* at A6. He opines that a BOP is an accessory to drilling, delivered to a drill site with other accessories, sometimes by a different contractor than the contractor that provides the rig. *Id.* Lacy relies on the definition of "drilling rig" from the Schlumberger Oilfield Glossary to support his construction of the term, in that it includes only those items that are "attached to and required for the functioning of the main structure of the rig," and Lacy argues that a BOP is not required for the rig to function, even if it is required for safety and regulatory reasons. *Id.* at A6-A7 (Decl. of John F. Lacy ¶ 11). Lacy also notes that PRIMER distinguishes the BOP from the drilling rig by noting that the rig floor is elevated to "make[] room under the rig for special high-pressure valves and other equipment that

the crew connects to the well's casing.” *Id.* at A7 (quoting Def. Ex. 5 at A56 (PRIMER at 69)). Can-Ok refutes Dr. Fleckenstein's focus on the fact that the BOP and flow nipple are not permanently attached to the wellhead, and therefore, are part of the drilling rig. Def. Resp. Br. at 17. Can-Ok notes that the annulus, openhole, and casing strings are permanent, and mud flows through them all; however, Dr. Fleckenstein's emphasis on the distinction between temporary and permanent equipment would exclude those items as part of the drilling rig. *See* Def. Resp. Br. at 17 (citing Pl. Ex. 5 at A148 (ROTARY RIG at 15); Pl. Ex. 6 at A160 (Schlumberger Oilfield Glossary)).

2. Analysis

The extrinsic evidence further supports the Court's construction of “oil drilling rig,” as including the BOP and flow nipple. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015) (explaining that a district court will often need to make factual findings about the extrinsic evidence it consults to ascertain the background and ordinary meaning of a claim term). As the Court interprets the industry treatises, ROTARY RIG and PRIMER, they support a broad construction of drilling rig that encompasses the flow nipple and BOP. ROTARY RIG defines “rig” as “the derrick or mast, drawworks, and attendant surface equipment of a drilling or workover unit.” Pl. Supp. Ex. 5 at A279 (ROTARY RIG at 37). ROTARY RIG also illustrates “The Rig and its Components” as including the BOP. *See* Pl. Ex. B at A133. A “component” is typically defined as a part or element of a larger whole, making the BOP a part or element of the rig. *See* “component,” Merriam-Webster's Online Dictionary, (2015), <http://www.merriam-webster.com/dictionary/component> (July 20, 2015).

ROTARY RIG further categorizes the BOP as “well control equipment,” and describes it as being “on a drilling rig.” *See* Pl. Ex. B at A149 (ROTARY RIG at 16). An object can be both on something and part of something. For example, the drawworks is defined in ROTARY RIG as “the

hoisting mechanism on a drilling rig.” Pl. Supp. Ex. 5 at A276 (ROTARY RIG at 32). Can-Ok does not dispute that the drawworks is part of a drilling rig. *See* Def. Resp. Br. at 14 (“Both the PRIMER and ROTARY RIG define a ‘rig’ as ‘the derrick or mast, drawworks, and attendant surface equipment of a drilling unit.’”).

Contrary to Can-Ok’s argument, the ROTARY RIG does not define “rig” as encompassing only the equipment used to drill a wellbore. Its definition does not articulate a narrow purpose for the components of a rig, but rather, describes the objects and equipment that are considered part of the rig, including the seemingly catchall category of “attendant surface equipment.” *See* Pl. Supp. Ex. 5 at A279 (ROTARY RIG at 37) (defining “rig” as “the derrick or mast, drawworks, and attendant surface equipment of a drilling or workover unit”). The BOP and flow nipple do not need to directly support the drilling of a well bore to constitute parts of the drilling rig; rather, they need only support the drilling unit, which the flow nipple and BOP do through mud circulation and preservation of the rig’s structure from potential blowout damage. *See id.*

PRIMER also defines “rig” as “the derrick or mast, drawworks, and attendant surface equipment of a drilling unit.” Pl. Ex. 4 at A124 (PRIMER at 185). The “attendant surface equipment of a drilling unit” appears to encompass a wide variety of equipment, including “auxiliary equipment,” which “keep[s] the mud in good shape.” *See id.* at A121. The flow nipple helps to keep the mud in good shape because it helps to transfer the mud from the drill pipes to the reconditioning equipment. *See* Dkt. No. 27 at 6 (“The ‘flow nipple’ . . . has a side outlet to direct the mud returns to the shale shaker and other mud conditioning equipment . . .”). Also, the annulus is described in PRIMER as a component of a rig circulating system. Pl. Ex. 4 at A118 (PRIMER at 113). The annulus extends through the flow nipple, which suggests the circulation system depicted in PRIMER also includes the flow nipple. *See id.* at A117 (describing “circulating equipment” as the equipment through which mud circulates).

Industry glossaries, technical dictionaries, and industry documents also broadly define oil drilling rig to include attendant surface equipment like the BOP and flow nipple. The Schlumberger Oilfield Glossary defines “drilling rig” as including “virtually everything except living quarters.” *See* Pl. Ex. 6 at A161. According to the Schlumberger Oilfield Glossary, major components of the rig include auxiliary equipment, which reasonably includes the BOP, and the flow nipple is included within “virtually everything” because it is identified in the Glossary’s definition of “circulation system.” *See id.* at A160-61 (defining “circulation system” as the “[t]he complete path that the drilling fluid travels. Starting at the main rig pumps, major components include . . . the bell nipple”); Dkt. No. 27 at 6 (explaining that the flow nipple is also called the “bell nipple” or “pitcher nipple”). Other dictionaries and glossaries support the Court’s construction. *See* Pl. Ex. 8 at A187-89 ((OSHA Glossary) (identifying item 10 blowout preventer and item 57 substructure as components of the drilling rig); Pl. Ex. 9 at A195 (McGraw-Hill Dictionary of Scientific and Technical Terms) (defining “rig” as having “auxiliary and accessory equipment needed to drill”).

Although Can-Ok argues that the Schlumberger Oilfield Glossary limits rig components to those required to drill a wellbore, this proposed interpretation is belied by the Glossary’s notably broad definition of “drilling rig” as encompassing “auxiliary equipment” and “virtually everything except living quarters.” Pl. Ex. 6 at A161. The BOP and flow nipple reasonably fall within “auxiliary equipment” and “virtually everything except living quarters.” *See id.*

The industry documents, and particularly the rig inventory documents, also indicate that the BOP and flow nipple are part of the drilling rig. Can-Ok contends that a BOP is not part of a drilling rig because it is not necessary to drill a hole and is only installed upon a determination that the well will flow. However, Can-Ok’s own expert admits that “the BOP is necessary for oil

drilling,” and “a BOP is required for all oil drilling.” Def. App. A at A6-A7 (Lacy Decl. ¶¶ 10-11).

Finally, the parties’ respective expert declarations favor the Court’s construction. Dr. Fleckenstein opines that the “portion of the drilling rig below the rig floor normally consists of a portion of the blowout prevention equipment, in some cases a rotating head [or flow nipple].” Pl. App. D at A26 (Jan. 28, 2015 Decl. of William Fleckenstein ¶ 19). He explains that “it is commonly understood that the circulating system is part of the rig” because it serves “key functions in drilling a well and making [a] hole,” and one of ordinary skill in the art would recognize that the embodiment described in the ’287 Patent is designed to provide an enclosure surrounding and attached to rig components that are commonly below the rig floor, such as a BOP and flow nipple, to protect against contamination of that area by wellbore fluids. *Id.* at A26-27. In fact, he states that the BOP and flow nipple are advantageous locations to secure an embodiment of the invention. *Id.* at A27.

On the other hand, Mr. Lacy states that the “term ‘oil drilling rig’ is not an ordinary term or a term ordinarily used in the oil and gas industry, making it “vague and undefined.” Def. App. A at A5. He claims that the term “drilling rig” is the more commonly used term in the field. *Id.* at A6. Lacy opines that a drilling rig might include a substructure, but not the BOP, because it is an “accessory for drilling.” *Id.* The distinction Mr. Lacy draws between an “oil drilling rig” and “drilling rig” is not supported by the claims of the ’287 Patent, which appear to use “drilling rig” and “oil drilling rig” interchangeably. *See* ’287 Patent at 4:18-22 (“securing the base to the oil drilling rig and securing the first edge of the covering around a perimeter of the base; and securing the second edge of the covering to the drilling rig in spaced relation to the base . . .”). Notably, Can-Ok does not argue that “drilling rig” should be construed differently than “oil drilling rig,” as those terms are used in the claims of the ’287 Patent. Finally, Dr. Lacy’s

definition of “drilling rig” would exclude many accessories for drilling, which is contradicted by the industry treatises, technical dictionaries, and industry documents, which define “drilling rig” broadly to include those accessories. *See* Pl. Ex. 4 at A124 (“attendant surface equipment of a drilling unit”; Pl. Ex. 5 at A155 (“attendant surface equipment of a drilling or workover unit”); Pl. Ex. 6 at A161 (“virtually everything except living quarters,” and “auxiliary equipment”).

c) Conclusion

Based on the foregoing intrinsic and extrinsic evidence, the Court construes “oil drilling rig” to mean “a collection of equipment used to drill a wellbore, including a derrick or mast, hoisting mechanism, and attendant surface equipment above the wellhead.”

B. “Securing” Terms

Disputed Term	Katch Kan’s Proposed Construction	Can-Ok’s Proposed Construction	Court’s Construction
“securing the base to the oil drilling rig” ’287 Patent, Claims 1 and 6	Connecting with or suspending the base from the rig such that the rig supports the base	Physically attaching the base to the oil drilling rig by suspending it from cables attached to the oil drilling rig and by clamps to physically attach the base to the drill pipe	Connecting with or suspending the base from the rig such that the rig supports the base
“a base secured to the oil drilling rig” ’287 Patent, Claims 7 and 12	A base connected with or suspended from the rig such that the rig supports the base	A base physically attached to the oil drilling rig by suspending it from cables attached to the oil drilling rig and by clamps to physically attach the base to the drill pipe	A base connected with or suspended from the rig such that the rig supports the base

a) Intrinsic Evidence

1. Parties' Positions

Katch Kan argues that the '287 Patent uses the word “secured” and its variants numerous times, and that the term has its ordinary meaning—connecting two objects together in some manner with one object supported in a set position. Pl. Open. Br. at 22. Katch Kan notes that the claim terms relate to “securing” a “base” to an “oil drilling rig,” and that “secured” is used extensively and consistently throughout the '287 Patent with its ordinary meaning. *Id.* at 22–23 (citing '287 Patent at 1:40, 1:42-43, 1:57-59, 2:12-13, 2:59-60, 2:64-65, 3:4-8, 3:11-12, 3:24-25, 3:28-31, 3:34-36, 3:45, 3:47-48, 3:50-53, 3:55-56).

Katch Kan argues that the specification makes it clear that “securing” means connecting or attaching. *Compare* '287 Patent at 1:50-51 *with id.* at 1:57-58. Katch Kan asserts that the word “secure” does not dictate a set way in which one element is connected to another, and the ways in which two elements can be “secured” vary. Pl. Open. Br. at 23–24 (citing '287 Patent at 1:51-53, 2:60-61, 3:45-46, Fig. 1 (securing via suspending by cable); *id.* at 3:24-27, 3:30-31, 3:35-36, Figs. 2-4 (securing via threading elements together)).

Katch Kan also argues that the meaning of “secured” in the '287 Patent is supporting an element, or holding that element in a fixed position. Pl. Open. Br. at 24. The '287 Patent discloses that the “base is secured in position,” '287 Patent at 1:57, and that the second edge of the covering is raised and “secured in spaced position” relative to the base, to maintain the covering taut. *Id.* at 1:58-60. Further, Katch Kan contends that the figures of the '287 Patent show that the base is being supported and held in place, by being connected to the drilling rig, or by being suspended from the drilling rig. *See id.* at Figs. 1, 5, 6. According to Katch Kan, if the base and covering are not supported and held in position, they cannot enclose the portion of the

drilling rig below the rig floor to prevent fluids from contaminating the surrounding area. *Id.* at 1:34-35, 1:55-61, 3:61-67.

Can-Ok takes issue with Katch Kan's efforts to have the Court interpret only "secured" and not "securing," because Can-Ok asserts that the parties disagree about the phrases in Claims 1 and 6, as well as Claims 9 and 12. Def. Resp. Br. at 20 n. 5. Can-Ok argues that the '287 Patent's specification shows that the base is "secured" in place by cables suspending it from the drilling platform *and* by clamps holding it to the drill pipe. Def. Resp. Br. at 19 (citing '287 Patent at 2:59-65, 3:45-48). Can-Ok contends that no other means or methods of attaching the base are illustrated or disclosed. *Id.* As a result, Can-Ok asserts that the single-embodiment disclosure mandates a narrower construction of the claims than would otherwise be called for. *Id.* at 20. Can-Ok argues that a narrow construction avoids a potential invalidity question under 35 U.S.C. § 112(1). *Id.*

Can-Ok concedes that the claims do not dictate exactly how the base is secured to the oil drilling rig, but notes that the specification twice states that the base must be secured both by cables from the drilling platform and clamps on the drill pipe. *Id.* at 21 (citing '287 Patent at 2:59-65, 3:45-48). Can-Ok argues that the base is "secured" in place *both* by cables suspending it from the drilling platform *and* by clamps holding it to the "drill pipe." *Id.* at 21–22.

Katch Kan first counters that only when all other claim construction tools have been utilized should the Court construe a claim because of potential invalidity. Pl. Reply Br. at 10. Katch Kan argues that Can-Ok offers no evidence that the '287 Patent does not satisfy the written description or enablement requirements of § 112, and those defenses are not part of Can-Ok's invalidity contentions. *Id.* Moreover, Katch Kan argues that the written description requirement does not require that every detail be spelled out in a specification, and the '287 Patent need not describe every possible means of securing the base to the drilling rig—it is

directed at a “method and apparatus for enclosing an oil drilling rig,” not a “method of securing” or a new “apparatus for securing.” *Id.*

Katch Kan also counters that, absent a clear intent of the patentee to limit the scope of the claims via words of manifest exclusion or restriction, the Federal Circuit rejects the notion that claims must be construed as limited to a single disclosed embodiment. Pl. Reply Br. at 8 (citing *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004)). Katch Kan argues it could have limited the claims by stating that a given feature was used in all embodiments contemplated and disclosed, or by distinguishing close prior art in the prosecution history, including an express limitation in the specification, or identifying a particular structure as “important to the invention.” *Id.* at 8-9. However, none of these circumstances are present in the ’287 Patent. *Id.* at 9. Katch Kan argues that the mere repetition in the written description of a preferred aspect of a claimed invention does not limit the scope of an invention the claims describe in different and broader terms. *Id.* In one case, the Federal Circuit refused to limit the scope of claims to a particular feature even when that feature was recited twenty-one times in describing a preferred embodiment. *Id.* (citing *Medegen MMS, Inc. v. ICU Med., Inc.*, 317 F. App’x 982, 985–87 (Fed. Cir. Nov. 20, 2008)).

Alternatively, Katch Kan counters that the nature of the disclosure of the illustrated embodiment in the ’287 Patent is misconstrued by Can-Ok to provide no variances in the method for securing. In fact, the patent expressly states that the invention need not be practiced in the manner of the illustrated embodiment. Pl. Reply Br. at 9 (citing ’287 Patent at 4:8-11).

Can-Ok also argues that the ’225 Patent, which is cited as prior art, shows that the catch pan is secured by an adapter collar, which is clamped around the wellhead. Def. Resp. Br. at 23 (citing ’225 Patent at 2:42-48, 58-61). The catch pan in the ’225 Patent also includes loops to attach lines to the catch pan, and the ’225 Patent states that the catch pan is typically installed on

the wellhead so that the body of the catch pan is suspended by lines that extend from below a drilling rig floor. *Id.* (citing '225 Patent at 3: 35-39, 6:12-13). Can-Ok argues that the inventor was aware of the suspended-pan design because the '225 Patent application was submitted only seven months before the '287 Patent was issued, and he intended to apply the same design to the '287 Patent. *Id.* at 24. According to Can-Ok, Holtby drafted the '287 Patent to require the base to be clamped to the drill pipe, just as the pan is clamped to the wellhead in the '225 Patent. *Id.*

Katch Kan argues that its constructions are supported by the '485 Patent, which is prior art referenced by the '287 Patent, because in that patent, the catch pan is “secured” by positioning the two halves of the pan around the circumference of the flow nipple and latching the two portions of the pan together, thus securing the catch pan and holding it in place. Pl. Open Br. at 26–27 (citing '485 Patent at 1:44-49, 3:3-8, Figs. 1-2).

2. Analysis

Can-Ok’s entire narrow construction is premised on reading the single preferred embodiment as a limitation on the claims of the '287 Patent. This theory was explained and foreclosed in *Phillips*:

[A]lthough the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments. In particular, *we have expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment.* That is not just because section 112 of the Patent Act requires that the claims themselves set forth the limits of the patent grant, but also because persons of ordinary skill in the art rarely would confine their definitions of terms to the exact representations depicted in the embodiments. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (emphasis added).

The specification of the '287 Patent demonstrates that the terms “secure,” “securing,” and their variants carry their plain and ordinary meaning—connecting two elements together and/or

suspending one element from another.¹⁴ *See* '287 Patent at 1:51-53 (“The second edge of the covering is secured to the drilling rig in spaced relation to the base.”); *id.* at 60-61 (“base **12** is an oil containment basin which is secured to a drilling rig **16** by suspending it by cables **18** at a position approximately 8 feet below a platform **20** of drilling rig **16**”); *id.* at 3:45-46 (same); *id.* at Fig. 1 (depicting how the constituent elements of the invention are secured to the drilling rig); *id.* at 3:24-27 (“Lower portion **32** and upper portion **34** of covering **14** are secured together by threading a first cable **42** through eyelets **44** located on lower portion **32** and upper portion **34**); *id.* at 3:30-31 (“A second cable **46** can be used to secure first edge **28** around perimeter of base **12** as shown in the illustrated embodiment, although it will be appreciated that other methods such as the use of carabineers can also be employed to secure first edge **28** to base **12**.”).

Furthermore, the specification teaches that “securing” means to support or hold an element in a fixed position. *Id.* at 1:57-60 (“The base is secured in position . . . the second edge of the covering is then raised and secured in spaced position to the base”); *id.* at 3:57-60 (“The base is secured in position, the first edge of the covering is attached to the base, the second edge of the covering is then raised and secured in spaced position to the base to maintain the covering in a taut condition”). Supporting and holding the base and covering in position helps achieve the objective of the claimed invention—preventing drilling fluids from contaminating the area surrounding the rig. *See id.* at 1:17-19, 1:34-35, 1:55-61, 3:61-67.

The prior art references of the '287 Patent also support a broader construction. The '485 Patent uses the term “secure” in its ordinary manner—to connect or support. '485 Patent at 1:44-49 (“Secondly, secure the [pan-like] body to a flow nipple disposed below an opening in a drilling platform by positioning the semi-circular indentations with depending semi-cylindrical

¹⁴ In the Court’s view, the “securing” terms used in the disputed claims carry the same meaning, and the Court declines Can-Ok’s invitation to construe the “securing” terms in Claims 1 and 6 differently than those in Claims 7 and 12. *See* Def. Resp. Br. at 20 n. 5.

collars [on opposite] sides of the flow nipple, and using the latching means to secure the interior edges in abutting relation.”). In that instance, “secure” is used to mean “position” and “latch,” not “suspend” and “clamp.” *See id.* Can-Ok relies only on the preferred embodiment in the specification to support its limiting construction of “secure.” Because it is improper for Can-Ok to read in limitations from the preferred embodiment of the ’287 Patent, it would be equally impermissible to do so by importing the preferred embodiment of the ’225 Patent, as Can-Ok asks the Court to do.

The preferred embodiment of the ’287 Patent’s specification should not be used to limit the term “secured” to require both suspending and clamping the base. The intrinsic evidence supports the Court’s construction of the “securing” terms as set out in the chart above.

b) Extrinsic Evidence

Katch Kan argues that the extrinsic evidence, including dictionaries, confirm that “secure” means to “firmly fix (connect), or to hold stable (support).” Pl. Open. Br. at 27 (citing Pl. Ex. 18 at A247; Pl. Ex. 19 at A252-53).

Can-Ok does not offer any extrinsic evidence to support its construction, but rather, relies exclusively on the preferred embodiment in the ’287 Patent’s and ’225 Patent’s specifications. The extrinsic evidence supports the Court’s construction of the “securing” terms.

c) Conclusion

Based on the foregoing intrinsic and extrinsic evidence, the Court construes the “securing” terms to mean “connecting the base with or suspending the base from the rig such that the rig supports the base” and “a base connected with or suspended from the rig such that the rig supports the base.”

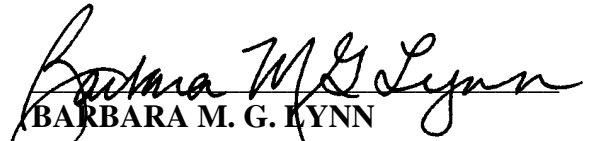
VI. CONCLUSION

For the foregoing reasons, the Court hereby **ADOPTS** the claim constructions as set forth above.

The parties may not refer, directly or indirectly, to each other's claim construction positions in the presence of the jury. The parties are also ordered to refrain from mentioning in the presence of the jury any portion of this opinion, other than the actual constructions adopted by the Court.

SO ORDERED.

August 3, 2015.


BARBARA M. G. LYNN
UNITED STATES DISTRICT JUDGE
NORTHERN DISTRICT OF TEXAS