

United States District Court,  
S.D. Alabama, Southern Division.

**ITP INTERPIPE, INC. & ITP Interpipe, S.A,**  
Plaintiffs.

v.

**TECHNIP OFFSHORE, INC,**  
Defendant.

No. CA 05-0581-C

**Feb. 1, 2007.**

Bradley R. Byrne, Adams & Reese, LLP, Mobile, AL, Christopher M. Faucett, Edward W. Goldstein, Goldstein, Faucett & Prebeg, LLP, Matthew J.M. Prebeg, Houston, TX, for Plaintiffs.

Michael O. Sutton, Tanya Coate Chaney, Locke Liddell & Sapp LLP, Houston, TX, Kathryn Abbie Thompson Hamilton, Michael E. Upchurch, Frazer, Greene, Upchurch & Baker LLC, Mobile, AL, for Defendant.

***MEMORANDUM OPINION AND ORDER***

**WILLIAM E. CASSADY, United States Magistrate Judge.**

This cause is before the Court on the notice by plaintiffs of the joint list of terms in dispute (Doc. 30), the plaintiffs' opening claim construction brief (Doc. 31), defendant's responsive claim construction brief (Doc. 33), defendant's supplemental submission in support of its claim construction brief (Doc. 35), defendant's second supplemental submission (Doc. 36), and the parties' arguments at the *Markman* hearing FN1 conducted on June 26, 2006. The parties have consented to the exercise of jurisdiction by the Magistrate Judge, pursuant to 28 U.S.C. s. 636(c), for all proceedings in this case. (Doc. 28 ("In accordance with the provisions of 28 U.S.C. 636(c) and Fed.R.Civ.P. 73, the parties in this case consent to have a United States Magistrate Judge conduct any and all proceedings in this case, including the trial, and order the entry of a final judgment, and conduct all post-judgment proceedings.")) Upon consideration of the contents of the briefs, with attachments, and the arguments of counsel, the Court in the body of this decision sets forth the interpretation to be given the terms in dispute. FN2

FN1. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed.Cir.1995), *aff'd*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996).

FN2. Any appeal taken from this memorandum opinion and order and judgment shall be made to the Eleventh Circuit Court of Appeals. (Doc. 28 ("An appeal from a judgment entered by a Magistrate Judge shall be taken directly to the United States Court of Appeals for this judicial circuit in the same manner as

an appeal from any other judgment of this district court."))

## ***DISCUSSION***

### **A. BACKGROUND.**

Ludovic Villatte invented a more efficient insulating technique for pipe-in-pipe assemblies used by oil companies to transport oil and gas from seabeds to facilities at the surface. ( *See* Doc. 33, Exhibit A) The space between the inner pipe and the outer pipe is referred to as the annulus or annular space. The technology covered by the '547 patent, developed by Villatte and assigned to ITP, involves the use of microporous thermal insulation and lowered pressure to reduce the conduction of heat from the inner pipe thereby allowing the transported oil, for instance, to be maintained above a certain minimum temperature and to flow freely rather than becoming viscous or forming solid deposits (i.e., wax blockages or hydrate blockages). ( *See id.*)

The '547 patent was issued on November 14, 2000 and, in general, is directed toward a pipe-in-pipe assembly system in which the insulating material is a self-sustaining plate of open pore-microporous material. ( *See id.*) This insulating material is wrapped around the inner pipe (or tube) and, in its preferred embodiment, is thin enough to leave a free passageway for longitudinal gas flow in the annular space thereby enabling low pressure to be maintained throughout the annular space. ( *See id.*)

According to the joint list filed by the parties on March 18, 2006, the claim terms in dispute are the following: (1) "a free passageway to allow longitudinal gas flow, whereby low pressure is maintained throughout said annular space"; (2) "low pressure"; (3) "maintained"; and (4) "the portion of open pores in the material forming said plate is 85 to 95% based on total pore volume". (Doc. 30)

### **B. CLAIM CONSTRUCTION**

Claim construction is a question of law with the starting point being the claim language. *Hockerson-Halberstadt, Inc. v. Avia Group Int'l, Inc.*, 222 F.3d 951, 954 & 955 (Fed.Cir.2000); *see also* *Nystrom v. Trex Co., Inc.*, 424 F.3d 1136, 1142 (Fed.Cir.2005) ("[W]e begin our claim construction analysis with the words of the claim."). A court will give claim terms "their ordinary and accustomed meaning as understood by one of ordinary skill in the art ." *Hockerson-Halberstadt, Inc.*, 222 F.3d at 955 (citation omitted); *see also* *Nystrom*, supra, 424 F.3d at 1142 ("The words of the claim are generally given their ordinary and customary meaning.... The ordinary and customary meaning of a claim term 'is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.' "); *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1342 (Fed.Cir.2001) ("As we have often stated before, as a general rule, all terms in a patent claim are to be given their plain, ordinary and accustomed meaning to one of ordinary skill in the relevant art.... In addition, unless compelled to do otherwise, a court will give a claim term the full range of its ordinary meaning as understood by an artisan of ordinary skill."); *Johnson Worldwide Associates, Inc. v. Zebco Corp.*, 175 F.3d 985, 989 (Fed.Cir.1999) ("The general rule is [ ] that terms in the claim are to be given their ordinary and accustomed meaning."); *Enercon GmbH v. International Trade Comm'n*, 151 F.3d 1376, 1384 (Fed.Cir.1998) ("Claim terms are also to be interpreted so as to give the terms their ordinary meaning, absent some clear special definition."); *Bell Communications Research, Inc. v. Vitalink Communications Corp.* , 55 F.3d 615, 620 (Fed.Cir.1995) (" '[R]esort must be had in the first instance to the words of the claim,' words to which we ascribe their ordinary meaning unless it appears the inventor used them otherwise.").FN3 It is a fundamental principle of patent law that " 'the claims of a patent define the

invention to which the patentee is entitled the right to exclude.' " *Phillips, supra*, 415 F.3d at 1312; *see also id.* ("Because the patentee is required to 'define precisely what his invention is,' the [Supreme] Court explained, it is 'unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms.' "). While it is clear that courts should not ignore any of the other intrinsic information, namely the specification and the prosecution history, *see Glaxo, Inc. v. Novopharm, Ltd.*, 110 F.3d 1562, 1565 (Fed.Cir.1997) (intrinsic evidence consists of the claim language, the specification and the prosecution history), the Federal Circuit has left no doubt that "[t]he claim language itself defines the scope of the claim[.]" and "a construing court does not accord the specification, prosecution history, and other relevant evidence the same weight as the claims themselves, but consults these sources to give the necessary context to the claim language." *Eastman Kodak Co. v. Goodyear Tire & Rubber Co.*, 114 F.3d 1547, 1552 (Fed.Cir.1997), *abrogated on other grounds by Cybor Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448, 1456 (Fed.Cir.1998); *see also Thermalloy, Inc. v. Aavid Engineering, Inc.*, 121 F.3d 691, 692-693 (Fed.Cir.1997) ("[T]he language of the claim frames and ultimately resolves all issues of claim interpretation. In determining the meaning of disputed claim terms, however, a construing court considers the written description, the prosecution history, and extrinsic evidence.... These additional sources provide a context to illuminate the meaning of claim terms.... Nonetheless, throughout the interpretation process, the focus remains on the meaning of claim language."), *cert. denied*, 526 U.S. 1130, 119 S.Ct. 1803, 143 L.Ed.2d 1007 (1999); *York Products, Inc. v. Central Tractor Farm & Family Center*, 99 F.3d 1568, 1572 (Fed.@Cir.1996) ("The claim language [ ] defines the bounds of claim scope.... To determine the meaning of disputed claim terms, however, a construing court may consider other sources, including the patent specification and the administrative record leading to patent issuance.... These additional sources may provide context and clarification about the meaning of claim terms."). Thus, "a court must presume that the terms in the claim mean what they say, and, unless otherwise compelled, give full effect to the ordinary and accustomed meaning of claim terms." *Johnson Worldwide Associates, Inc.*, *supra*, 175 F.3d at 989 (citations omitted); *see also CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed.Cir.2002) ("Generally speaking, we indulge a 'heavy presumption' that a claim term carries its ordinary and customary meaning."). FN4

FN3. "[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed.Cir.2005) (citations omitted), *cert. denied*, 546 U.S. 1170, 126 S.Ct. 1332, 164 L.Ed.2d 49 (2006).

Importantly, 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. This court explained that point well in *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed.Cir.1998):

It is the person of ordinary skill in the field of the invention through whose eyes the claims are construed. Such person is deemed to read the words used in the patent documents with an understanding of their meaning in the field, and to have knowledge of any special meaning and usage in the field. The inventor's words that are used to describe the invention-the inventor's lexicography-must be understood and interpreted by the court as they would be understood and interpreted by a person in that field of technology. Thus the court starts the decisionmaking process by reviewing the same resources as would that person, *viz.*, the patent specification and the prosecution history.

*Id.* (other citations omitted).

FN4. In *CCS Fitness, Inc.*, the Federal Circuit stated that a court may constrict the ordinary meaning of a

claim term in any one of four ways. *Id.*

First, the claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer and clearly set forth a definition of the disputed claim term in either the specification or prosecution history. Second, a claim term will not carry its ordinary meaning if the intrinsic evidence shows that the patentee distinguished that term from prior art on the basis of a particular embodiment, expressly disclaimed subject matter, or described a particular embodiment as important to the invention.

Third, ... a claim term also will not have its ordinary meaning if the term "chosen by the patentee so deprive[s] the claim of clarity" as to require resort to the other intrinsic evidence for a definite meaning. Last, as a matter of statutory authority, a claim term will cover nothing more than the corresponding structure or step disclosed in the specification, as well as equivalents thereto, if the patentee phrased the claim in step-or means-plus-function format.

*Id.* at 1366-1367 (internal citations omitted); *see* Johnson Worldwide Associates, Inc., *supra*, 175 F.3d at 990 ("Our case law demonstrates two situations where a sufficient reason exists to require the entry of a definition of a claim term other than its ordinary and accustomed meaning. The first arises if the patentee has chosen to be his or her own lexicographer by clearly setting forth an explicit definition for a claim term.... The second is where the term or terms chosen by the patentee so deprive the claim of clarity that there is no means by which the scope of the claim may be ascertained from the language used."). As indicated above, after a court looks to the claim language it will then look to the rest of the intrinsic evidence "beginning with the specification FN5 and concluding with the prosecution history, FN6 if in evidence." *Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1331 (Fed.Cir.2001) (footnotes added); *cf.* *Rexnord Corp.*, *supra*, 274 F.3d at 1342 ("Once a disputed claim term is identified by the parties and its plain meaning to the ordinarily skilled artisan is ascertained by the court, the next step is to examine the written description and the drawings to confirm that the patentee's use of the disputed terms is consistent with the meaning given to it by the court.").FN7

FN5. "[I]t is always necessary to review the specification to determine whether the inventor has used any terms in a manner inconsistent with their ordinary meaning. The specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication." *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996) (citation omitted).

FN6. Reference to the specification and prosecution history is balanced with the principle that it is impermissible to read a particular embodiment into the claim. *Comark Communications, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed.Cir.1998) ("We have previously stated that '[w]hile ... claims are to be interpreted in light of the specification and with a view to ascertaining the invention, it does not follow that limitations from the specification may be read into the claims.' "); *see also* *IMS Tech., Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1433 (Fed.Cir.) ("[T]he written description merely describes the preferred embodiment, and to limit 'data block' to the sequence of variables disclosed would be to impermissibly read a particular embodiment into the claim."), *cert. dismissed*, 530 U.S. 1299, 121 S.Ct. 24, 147 L.Ed.2d 47 (2000). In other words, "[w]hile examples disclosed in the preferred embodiment may aid in the proper interpretation of a claim term, the scope of a claim is not necessarily limited by such examples." *Ekchian v. Home Depot, Inc.*, 104 F.3d 1299, 1303 (Fed.Cir.1997); *see also* *Specialty Composites v. Cabot Corp.*, 845

F.2d 981, 987 (Fed.Cir.1988) ("[P]articular embodiments appearing in the specification will not generally be read into the claims.").

FN7. "These additional sources may provide context and clarification about the meaning of claim terms." York Products, Inc., supra, 99 F.3d at 1572; *see also* Thermalloy, Inc., supra, 121 F.3d at 693 ("These additional sources provide a context to illuminate the meaning of claim terms.").

The claims ... are part of "a fully integrated written instrument," consisting principally of a specification that concludes with the claims. For that reason, claims "must be read in view of the specification, of which they are a part." As we stated in *Vitronics*, the specification "is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." FN8 FN8. "Although the written description may aid in the proper construction of a claim term, limitations, examples, or embodiments appearing only there may not be read into the claim." Kraft Foods, Inc. v. International Trading Co., 203 F.3d 1362, 1366 (Fed.Cir.2000); *see also* Bell Atlantic Network Services, Inc. v. Covad Communications Group, Inc., 262 F.3d 1258, 1270 (Fed.Cir.2001) ("We are mindful of the fact that limitations from the specification may not be read into the claims.... We recognize that there is sometimes 'a fine line between reading a claim in light of the specification, and reading a limitation into the claim from the specification.' ... In *Johnson Worldwide*, we held that the meaning of a claim term was not limited by its specific usage in the written description of a preferred embodiment.... We reasoned that the '[v]aried use of a disputed term in the written description demonstrates the breadth of the term rather than providing a limited definition.' "); *Enercon GmbH*, supra, 151 F.3d at 1384 (" 'Generally, particular limitations or embodiments appearing in the specification will not be read into the claims.' "); *cf.* SRI International v. Matsushita Elec. Corp. of America, 775 F.2d 1107, 1121 n. 14 (Fed.Cir.1985) ("That a specification describes only one embodiment does not require that each claim be limited to that one embodiment.").

...

The importance of the specification in claim construction derives from its statutory role. The close kinship between the written description and the claims is enforced by the statutory requirement that the specification describe the claimed invention in "full, clear, concise, and exact terms." In light of the statutory directive that the inventor provide a "full" and "exact" description of the claimed invention, the specification necessarily informs the proper construction of the claims. In *Renishaw*, this court summarized that point succinctly:

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. The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction.

Consistent with that general principle, our cases recognize that the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs. In other cases, the specification may reveal an intentional disclaimer, or disavowal, of claim scope by the inventor. In that instance as well, the inventor has dictated the correct claim scope, and the inventor's intention, as expressed in the specification, is regarded as

dispositive.

The pertinence of the specification to claim construction is reinforced by the manner in which a patent is issued. The Patent and Trademark Office ("PTO") determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." Indeed, the rules of the PTO require that application claims must "conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description." It is therefore entirely appropriate for a court, when conducting claim construction, to rely heavily on the written description for guidance as to the meaning of the claims.

In addition to consulting the specification, we have held that a court "should also consider the patent's prosecution history, if it is in evidence." The prosecution history, which we have designated as part of the "intrinsic evidence," consists of the complete record of the proceedings before the PTO and includes the prior art cited during the examination of the patent. Like the specification, the prosecution history provides evidence of how the PTO and the inventor understood the patent. Furthermore, like the specification, the prosecution history was created by the patentee in attempting to explain and obtain the patent. Yet because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes. Nonetheless, the prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.

Phillips, *supra*, 415 F.3d at 1315 & 1316-1317 (internal citations omitted; footnotes added).

In addition to considering intrinsic evidence, district courts can also rely on extrinsic evidence, "which 'consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises[.]' " in claim construction. *Id.* at 1317 (citations omitted). The Federal Circuit has cautioned that it is improper for a court to rely upon extrinsic evidence when the intrinsic evidence is unambiguous. *Bell & Howell Document Management Products Co. v. Altek Systems*, 132 F.3d 701, 706 (Fed.Cir.1997); *see also Hockerson-Halberstadt, Inc.*, *supra*, 222 F.3d at 955 ("If the meaning of a claim is unambiguous from the intrinsic evidence, then a court may not rely on extrinsic evidence for purposes of claim construction."); *Kegel Co., Inc. v. AMF Bowling, Inc.*, 127 F.3d 1420, 1426 (Fed.Cir.1997) ("[W]hen 'an analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed claim term,' it is improper to rely on extrinsic evidence."); *Scriptgen Pharmaceuticals, Inc. v. 3-Dimensional Pharmaceuticals, Inc.*, 79 F.Supp.2d 409, 411 (D.Del.1999) ("[I]f the meaning of a disputed claim term is clear from the intrinsic evidence ... that meaning, and no other, must prevail; it cannot be altered or superseded by [expert] witness testimony or other external sources simply because one of the parties wishes it were otherwise."); *cf. Nystrom*, *supra*, 424 F.3d at 1145 ("What *Phillips* now counsels is that in the absence of something in the written description and/or prosecution history to provide explicit or implicit notice to the public-i.e., those of ordinary skill in the art-that the inventor intended a disputed term to cover more than the ordinary and customary meaning revealed by the context of the intrinsic record, it is improper to read the term to encompass a broader definition simply because it may be found in a dictionary, treatise, or other extrinsic source."); *Interactive Gift Express, Inc.*, *supra*, 256 F.3d at 1332 ("But extrinsic evidence may never be used 'for the purpose of varying or contradicting the terms in the claims.' "). Primarily, extrinsic evidence is looked upon as an aid in understanding the underlying technology. *Id.*; *see also Generation II Orthotics Inc. v. Medical Technology Inc.*, 263 F.3d 1356, 1366 (Fed.Cir.2001) ("Although

the patent file may often be sufficient to permit the judge to interpret the technical aspects of the patent properly, consultation of extrinsic evidence is particularly appropriate to ensure that his or her understanding of the technical aspects of the patent is not entirely at variance with the understanding of one skilled in the art.' "); *EMI Group North America, Inc. v. Intel Corp.*, 157 F.3d 887, 892 (Fed.Cir.1998) ("In *Cybor* the court reaffirmed that extrinsic evidence including expert testimony is not to be relied upon for purposes of claim interpretation, other than to aid the judge in understanding the technology; such evidence is only 'an aid to the court in coming to a correct conclusion as to the true meaning of the language employed in the patent.' "), *cert. denied*, 526 U.S. 1112, 119 S.Ct. 1756, 143 L.Ed.2d 788 (1999).

[W]hile extrinsic evidence "can shed useful light on the relevant art," we have explained that it is "less significant than the intrinsic record in determining 'the legally operative meaning of claim language.' "

Within the class of extrinsic evidence, the court has observed that dictionaries and treatises can be useful in claim construction. We have especially noted the help that technical dictionaries may provide to a court "to better understand the underlying technology" and the way in which one of skill in the art might use the claim terms. Because dictionaries, and especially technical dictionaries, endeavor to collect the accepted meanings of terms used in various fields of science and technology, those resources have been properly recognized as among the many tools that can assist the court in determining the meaning of particular terminology to those of skill in the art of the invention. Such evidence, we have held, may be considered if the court deems it helpful in determining "the true meaning of language used in the patent claims."

We have also held that extrinsic evidence in the form of expert testimony can be useful to a court for a variety of purposes, such as 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. However, conclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court. Similarly, 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."

We have viewed extrinsic evidence in general as less reliable than the patent and its prosecution history in determining how to read claim terms, for several reasons. First, extrinsic evidence by definition is not part of the patent and does not have the specification's virtue of being created at the time of patent prosecution for the purpose of explaining the patent's scope and meaning. Second, while claims are construed as they would be understood by a hypothetical person of skill in the art, extrinsic publications may not be written by or for skilled artisans and therefore may not reflect the understanding of a skilled artisan in the field of the patent. Third, extrinsic evidence consisting of expert reports and testimony is generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence. The effect of that bias can be exacerbated if the expert is not one of skill in the relevant art or if the expert's opinion is offered in a form that is not subject to cross-examination. Fourth, there is a virtually unbounded universe of potential extrinsic evidence of some marginal relevance that could be brought to bear on any claim construction question. In the course of litigation, each party will naturally choose the pieces of extrinsic evidence most favorable to its cause, leaving the court with the considerable task of filtering the useful extrinsic evidence from the fluff. Finally, undue reliance on extrinsic evidence poses the risk that it will be used to change the meaning of claims in derogation of the "indisputable public records consisting of the claims, the specification and the prosecution history," thereby undermining the public notice function of patents.

In sum, 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. Nonetheless, because extrinsic evidence can help educate the court regarding the field of the invention and can help the court determine what a person of ordinary skill in the art would understand claim terms to mean, it is permissible for the district court in its sound discretion to admit and use such evidence. In exercising that discretion, and in weighing all the evidence bearing on claim construction, the court should keep in mind the flaws inherent in each type of evidence and assess that evidence accordingly.

Phillips, *supra*, 415 F.3d at 1317-1319 (internal citations omitted); *see also id.* at 1322 ("[W]e do not intend to preclude the appropriate use of dictionaries. Dictionaries or comparable sources are often useful to assist in understanding the commonly understood meaning of words and have been used both by our court and the Supreme Court in claim interpretation.... A dictionary definition has the value of being an unbiased source 'accessible to the public in advance of litigation.' ... As we stated in *Vitronics*, judges are free to consult dictionaries and technical treatises 'at any time in order to better understand the underlying technology and may also rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents.' "); *see Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1309 (Fed.Cir.1999) ("[U]nder *Vitronics*, it is entirely appropriate, perhaps even preferable, for a court to consult trustworthy extrinsic evidence to ensure that the claim construction it is tending to from the patent file is not inconsistent with clearly expressed, plainly apposite, and widely held understandings in the pertinent technical field."); *EMI Group North America, Inc.*, *supra*, 157 F.3d at 892 ("The Federal Circuit has admonished that claims should preferably be interpreted without recourse to extrinsic evidence such as expert testimony, other than perhaps dictionaries or reference books, and that expert testimony should be received only for the purpose of educating the judge."); *Bell & Howell Document Management Products Co.*, *supra*, 132 F.3d at 706 ("Patents should be interpreted on the basis of their intrinsic record, not on the testimony of such after-the-fact 'experts' that played no part in the creation and prosecution of the patent.... Use of expert testimony to explain an invention may be useful. But reliance on extrinsic evidence to interpret claims is proper only when the claim language remains genuinely ambiguous after consideration of the intrinsic evidence."); *Markman*, *supra*, 52 F.3d at 980 & 981 ("The court may, in its discretion, receive extrinsic evidence in order 'to aid the court in coming to a correct conclusion' as to the 'true meaning of the language employed' in the patent.... Extrinsic evidence is to be used for the court's understanding of the patent, not for the purpose of varying or contradicting the terms of the claims.... When, after considering the extrinsic evidence, the court finally arrives at an understanding of the language as used in the patent and prosecution history, the court must then pronounce as a matter of law the meaning of the language.").

### ***C. Construction of the Claim Terms in Dispute.***

1. "The portion of open pores in the material forming said plate is 85 to 95% based on total pore volume." Technip invites this Court to construct this term to mean that the pores making up the remaining 5 to 15% of the total pore volume are closed pores. (Doc. 33, at 23) In other words, Technip requests this Court to read into this term the corollary that the remaining 5 to 15% of the total pore volume are closed pores. However, this Court agrees with plaintiff that this term does not require construction by the Court as it is sufficiently clear on its face to a person of ordinary skill in the art and, as well, is sufficiently clear on its face to the undersigned. *See ITP, Inc. v. BP Corp. of North America, Inc.*, 2005 WL 3542577, \*8 ("This definition is subject to the more specific limitation of claim 9, in which the portion of open pores of the material 'is 85 to 95% based on total pore volume, with an average pore diameter less than or equal to 0.1 ( $\mu$ )m.' The court



finds this limitation sufficiently clear on its face.")), adopted by, 2005 WL 3542575 (S.D.Tex.2005). The cases set forth herein counsel courts to presume that a term means what it says; this Court, guided by that principle, finds that the above term needs no construction because it means what it says and is clear on its face.

2. "A free passageway to allow longitudinal gas flow, whereby low pressure is maintained throughout said annular space[.]" Plaintiff contends that this term means "***an open space that extends along the entire pipe section outside the microporous material and inside the outer tube to allow the movement of air in the annular space lengthwise along an entire pipe section, preserving a low pressure within the annular space.***" (Doc. 31, at 10) FN9 For its part, Technip contends that this term means "that the longitudinal gas flow along an entire pipe section in the free passageway maintains a low pressure throughout the annular space, which includes both the free passageway and the insulating material." (Doc. 33, at 4) In truth, this Court cannot discern a tremendous amount of difference in the two definitions; the real difference is semantics and the fact that Technip wants to put the cart before the horse in the definition and then give no real explanation of the "horse," that is, the free passageway. In light of the specification language ( see Doc. 33, Exhibit A, at Columns 1-2 ("In order to cut expenses and improve the standard and durability of heat insulation, there is provided according to the invention a pipe with a heat insulating double casing, **which is characterized in that, within a sealed annular space lying between an inner tube and an outer tube being coaxially arranged inside each other, it comprises a self-sustaining plate of an open pore-microporous material, which is flexible enough to be circumferentially wound along the inner tube, and in that there is provided outside said material in said annular space, a free passageway for longitudinal gas flow enabling low pressure to be maintained throughout said annular space.**"); *id.* at Column 5 ("According to still another feature of the invention, **there is provided with advantage spacers aimed at centering the inner tube inside the outer tube by maintaining an adequate minimal gap between the inner and the outer tube sequentially from one portion to another through the entire length of the pipe.** Such spacers typically consist of half-shells held together in position on the inner tube of the pipe.")) as well as the abstract of the invention ( see Doc. 33, Exhibit A, **ABSTRACT** ("A line pipe with a double casing is especially used in transporting oil products. **In a preferred embodiment, such a pipe is characterized in that, in a sealed annular space, located between an inner tube and an outer tube both coaxially arranged inside each other, there is included a self-sustaining plate made of open pore-microporous material, which is flexible enough to be externally wound around the inner tube. This plate is preferably less in thickness than said annular space such that a passageway is left free between the former and the outer tube whereby low pressure is maintained.**")), this Court finds that the definition favored by the plaintiff, derived as it is from the opinion of the Southern District of Texas in *ITP, Inc., supra*, is the correct definition of this disputed term. The *ITP* court's definition of "free passageway" as "the open space that extends along the entire pipe section outside the microporous material and inside the outer tube" is simply indisputable in light of the specification language, as well as the abstract, as is its definition of "longitudinal gas flow" as "the movement of air in the annular space lengthwise along an entire pipe section." 2005 WL 3542577, at \*8. Accordingly, this Court gives the disputed term that definition suggested by the plaintiff, derived as it is from the *ITP, Inc.* decision: "The open space that extends along the entire pipe section outside the microporous material and inside the outer tube to allow the movement of air in the annular space lengthwise along an entire pipe section, preserving a low pressure within the annular space." FN10

FN9. According to plaintiff, this is the definition given this term by the district court in the Southern District of Texas. See *ITP, Inc., supra*, 2005 WL 3542577, at \*8 (defining longitudinal gas flow as "the movement of air in the annular space lengthwise along an entire pipe section[ ]" and free passageway as "the open

space that extends along the entire pipe section outside the microporous material and inside the outer tube.").

FN10. In its brief, Technip identifies as a term in dispute "both coaxially arranged" which it contends means that "both tubes share a single central axis." (Doc. 33, at 4) At the *Markman* hearing, the plaintiff indicated that this term was not really in dispute since the defendant's proposed definition is very similar to the definition given that term by the *ITP, Inc.* court. *Compare* id. with *ITP, Inc.*, 2005 WL 3542577, at \*4 ("The 1994 edition of a scientific dictionary defines 'coaxial' as '[s]haring the same axes.' McGraw-Hill Dictionary of Scientific and Technical Terms 394 (5[th]ed.1994). Similarly, a Webster's desk-reference dictionary defines 'coaxial' as '[h]aving or mounted on a common axis.' Webster's II New Riverside University Dictionary 275 (1984). The term 'arrange' is not defined in the scientific dictionary, but is given the following meaning by the Webster's dictionary: "[t]o put in a specific order or relation." *Id.* at 126. Combining the two, 'coaxially arranged' can be defined as associated in such a way as to share a common axis. The common axis in a pipe-in-pipe design is an imaginary line down the center of the inner pipe. Accordingly, the shared axis is 'central.' "). Given the plaintiff's position in this regard and the fact that it appears Technip has simply synthesized into a more cohesive definition the analysis of this term by the *ITP, Inc.* court, this Court finds that Technip's proposed interpretation of "both coaxially arranged" is the proper interpretation. Accordingly, "both coaxially arranged" means that "both tubes share a single central axis."

**3. "Low Pressure."** This Court accepts the construction of this claim term as set forth by the United States District Court for the Southern District of Texas in *ITP, Inc. v. BP Corp. North America, Inc.*, 2005 WL 3542577 (report and recommendation), adopted by 2005 WL 3542575 (S.D.Tex.2005). FN11

FN11. This case is a published decision which this Court properly relies upon as persuasive authority.

Plaintiffs focus on the term "low pressure" and define it as "any pressure below atmospheric pressure." Defendant's position is that the whereby clause is meaningful and is limiting.... Defendant originally argued that the term "low pressure" is a relative term that is vague in the context of claims 9 and 15 because it lacks a reference point. In its response brief, Defendant suggested that the specification and prosecution history dictate a meaning of "less than approximately 100 mbars."...

Although the court does not agree with Defendant's reasoning, the court does agree that the whereby clause has meaning as a limiting clause. Of the three terms in that clause on which Defendant focused, only one, "low pressure," requires much discussion. The court begins there. One dictionary definition of the word "low" is "[b]elow a standard or average." Webster's II New Riverside University Dictionary 706 (1984).FN12 The court is convinced that atmospheric pressure (1000 millibars or 1 bar) is a standard recognized by persons skilled in the art of the patent. Accordingly, the definition proposed by Plaintiffs, "any pressure below atmospheric pressure," provides the term with its ordinary meaning. The term is easily understood and is not vague.

FN12. This Court notes that another definition of "low" is "[a] region of depressed barometric pressure." *Id.*

"[U]nless compelled otherwise, a court will give a claim term the full range of its ordinary meaning as understood by persons skilled in the relevant art." A court should not narrow a claim term simply based on

descriptions of the invention in the specification and prosecution history. Rather, the ordinary meaning applies unless the patentee expressly narrows it, for example, by providing his own definition, by distinguishing the claim term from a prior invention, or by disclaiming certain subject matter. The party seeking to narrow the definition bears the burden of overcoming the presumption in favor of the term's ordinary meaning.

Defendant's efforts to narrow the meaning to cover only pressures below 100 millibars are unavailing for several reasons. First, the doctrine of claim differentiation supports the conclusion that different claims have different scopes. "Our court has made clear that when a patent claim does not contain a certain limitation and another claim does, that limitation cannot be read into the former claim in determining either validity or infringement ." In this case, only claim 1 is limited to pressures below 100 millibars. If not for this difference, claims 9 and 15 could have been written as dependent claims on claim 1.

Second, the specification supports a broad reading of "low pressure." In one place, the specification calls for pressure in the range of .5 millibars to 100 millibars, stating: "[O]ne result achieved by the invention is that a partial vacuum will prove sufficient resulting advantageously in a reduced pressure of between 0.5 mbars and 100 mbars." However, in another embodiment, it is contemplated that "depression on the order of 1 to 100 mbars, which optionally might not exceed a low pressure value of about 900 mbars" could be used under certain circumstances. In light of this second embodiment, the first does not evidence an intention to depart from the full range of ordinary meaning. Rather, the two references together support a finding that the patentee intended for low pressure to carry a broad meaning.

Third and last, the prosecution history indicates that the patentee relinquished a portion of the full range of meaning attributable to the term "low pressure" with regard only to claim 1. Upon application, the examiner rejected claims 1-3 over U.S. Patent No. 4,718,459 ("Adorjan"). Interestingly, the rejected claim 3 included a pressure requirement of 0.5 to 100 millibars. The examiner explained that Adorjan discloses a double-casing pipe for subsea pipelines, an annular sealed space, coaxially arranged pipes, flexible open-pore microporous material, and a free passageway for gas flow. With regard to low pressure, he noted that Adorjan "described that the gas can be at 0.896 Pascals in certain water depths, which suggests at lesser depths lesser pressure is needed, and that this pressure falls between the range set forth in claim 3."

In his responsive amendment, the patentee made several changes to claim 1, but did not amend the low pressure requirements. Instead, he argued that Adorjan requires that high pressure, not low pressure, be maintained in the annular space, in order to keep water out. In response to this attempt to traverse his rejection by distinguishing Adorjan, the examiner stated:

With respect to the gas pressure, applicant only claims low pressure, which is a relative term, and therefore the pressure set forth in Adorjan is considered to be a low pressure. Also, due to the fact that the pressure of Adorjan is dependent upon depth of the pipe in water, a pipe used for shallow water depths would have a relatively low gas pressure needed, and would still meet applicant's claim language.

Thereafter, the patentee acquiesced and added the limitation to claim 1 requiring that pressure below 100 millibars be maintained. This amendment also contained two previously dependent claims rewritten into what eventually became claims 9 and 15. Neither contained the 100 millibar limitation. The patentee explained the changes to claim 1, "In order to overcome [the] rejection, Claim 1 has been amended to make it clear that the self-sustaining plate is made of an open-pore microporous insulating material and that low pressure below 100 mbars is maintained throughout the annular space in which the self-sustaining plate is located." In addition, the patentee again argued against the examiner's position that Adorjan employs low

pressure in the annulus:

[C]ontrary to the present invention, *Adorjan* teaches that a *high* pressure should be maintained throughout the annular space.

... [T]he Examiner relies upon a typographical error ... wherein *Adorjan* states, 'at 300 feet (91.4 meters), the external pressure on a pipeline will be 129.9 pounds per square inch (0.896 Pa). Thus, gas in the annulus must be pressurized to a value greater than 129.9 psi (0.896 Pa).'

This statement contains an error because the text should read, '0.89 MPa' and not merely 0.896 Pa. If one thinks about it, the value of 0.896 Pa is completely absurd since a person of ordinary skill in this technology knows that 91.4 meters of water produce a pressure of about 9 bars which is 0.9 MPa. Thus, the apparent inadvertent deletion of the M creates an error by a factor of approximately 1 million.

Ultimately, the examiner approved the '547 patent with the additional low pressure limitation in claim 1, but not in claims 9 and 15. The discourse between patentee and examiner suggests at least two plausible reasons for approval; either the two clarifications to claim 1 satisfied the examiner or the patentee convinced the examiner that he had misread *Adorjan*. Either way, the examiner allowed the patentee's choice of words in claims 9 and 15, which facially did not include the limitation that the pressure be below 100 millibars. The court concludes from this fact that claims 9 and 15 were patentable (because of other limitations they contained), without narrowing the bounds of "low pressure." Defendant conceded as much during the *Markman* hearing.

From a close review of the prosecution history, the court concludes that the only clear disavowal of subject matter in the prosecution history relates to claim 1. Even though prosecution history estoppel affects claim 1, it does not preclude the construction of "low pressure" advanced by Plaintiffs and recommended by this court or otherwise limit claims 9 and 15 in any way.

...

In summary, the court recommends that "whereby low pressure is maintained throughout said annular space" be construed to refer to pressure below atmospheric pressure that is preserved within the annular space, which includes both the free passageway and the microporous insulation. 2005 WL 3542577, at \*9-12 (internal citations and footnotes omitted; footnote added); *see also* ITP, Inc. v. BP Corp. North America, Inc., 2005 WL 3542575, (S.D.Tex.2005) ("Contrary to BP's position, the Court finds that the recommended interpretation reflects the claim construction principles outlined in *Phillips*. That is, although Magistrate Judge Johnson consulted a dictionary definition in arriving at the ordinary meaning of the word "low," the recommended interpretation of the entire phrase was tested against the intrinsic evidence in the '547 patent. Specifically, the M & R addresses the language of the claims themselves and applies the doctrine of claim differentiation. Judge Johnson then considered in depth the patent's specification and found that it supported the recommended interpretation. Finally, the M & R explains that the prosecution history of the patent supports the recommended result. Thus, it is clear to this Court that intrinsic evidence was the primary source for generating the proposed construction. In light of the M & R's reliance on the intrinsic evidence, the Court finds that the proposed claim construction is appropriate and fully consistent with the guidance provided by the Federal Circuit in *Phillips*."). When one considers that atmospheric pressure is pressure caused by the weight of the atmosphere and, at sea level, has a mean value of one atmosphere, FN13 *see* Webster's II, New Riverside University

Dictionary, 135 (1984) (defining atmospheric pressure as "[a]n exerted pressure of 1 atmosphere."), it is understandable that the district court in *ITP, Inc.*, *supra*, would construe the claim term "low pressure" as any pressure below atmospheric pressure since such definition is obviously broad enough to encompass the limitation in claim 1 of pressures below 100 millibars as well as the specification reference to "a low pressure value of about 900 mbars [.]". FN14 Given that claims 9 and 15 are not dependent on claim 1 and further given that claims 9 and 15 refer simply to low pressure, this Court finds that the definition given "low pressure" by the *ITP, Inc.* court in the Southern District of Texas appropriately underscores the claim construction principle of reading the claims in view of the specification in order to give proper context to claim language. Accordingly, this Court, consistent with the *ITP, Inc.* court, defines "low pressure" as "any pressure below atmospheric pressure[.]"

FN13. One skilled in the art of the patent would recognize that one atmosphere equals exactly 1013.25 millibars (mb). [www.unc.edu/rowlett/units/dict.A.html](http://www.unc.edu/rowlett/units/dict.A.html); see also [http://ww2010.atmos.uiuc.edu/\(Gh\)/guides/mtr/prs/def.rxml](http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/prs/def.rxml) ("**1013.25 mb = 29.92 "Hg = 1.0 atm** ... Average pressure at sea level is 1013.25 millibars.").

FN14. The defendant has supplied this Court with the declaration of Dr. Douglas Smith, same reading, in relevant part, as follows: "For microporous insulation, pressures of less than 100 mbar are required to eliminate 90% of the gas phase conduction and pressures less than 10 mbar are required to eliminate essentially all of the gas phase conduction. For this reason, a person of ordinary skill in the art of microporous insulation, such as myself, would understand that the term 'low pressure' in the context of microporous insulation means 100 mbar or less." (Doc. 33, Exhibit G, Declaration of Douglas Smith, Ph.D., at para. 5) This Court declines, however, to define "low pressure" as "100 mbar or less" inasmuch as such definition does not take into account the specification reference to "a **low** pressure of about 900 mbars" and, therefore, would be contrary to the claim construction principle that the specification is to give proper context to the claim language (i.e., the claim language in Claims 9 and 15).

4. "Maintained." Technip contends that the low pressure must be "actively" maintained by the longitudinal gas flow. To be sure, nothing in the intrinsic evidence directly supports the defendant's position that the pressure need be actively maintained by the longitudinal gas flow inasmuch as that word ("actively") is used nowhere in the intrinsic evidence and maintained is nowhere defined in the intrinsic evidence. Looking to extrinsic evidence, it is clear that "maintain" means "[t]o continue," "carry on" or "[t]o preserve or keep in a given existing condition[.]" WEBSTER'S II, New Riverside University Dictionary, 717 (1984); see also BLACK'S LAW DICTIONARY, 973 (8th ed. 2004) ("To continue (something)"). Given this definition, and the language in the specification which speaks to vacuum generation, the varying of vacuum strength and pressure, and the achievement FN15 of reduced pressure, FN16 it is clear to this Court that adding the modifier "actively" in front of maintained does nothing more than recognize the very purpose of the invention; if low pressure is not actively maintained by longitudinal gas/air flow along the microporous insulation, the pipeline will inevitably form solid deposits and lead to replacement of the pipeline. In other words, it is the intrinsic characteristic of this invention that low pressure is actively maintained by longitudinal gas/air flow along the microporous insulation. Accordingly, this Court must agree with the defendant that the low pressure must be actively maintained.

FN15. Achievement means "[s]omething that has been accomplished successfully, esp. by means of persistent endeavor." WEBSTER'S II, New Riverside University Dictionary, at 73. Similarly, "achieve"

means "[t]o accomplish successfully" or "[t]o attain with effort[ .]" *Id.*

FN16. ( *See* Doc. 33, Exhibit A, at Columns 3, 7 & 8 ("A striking feature of the invention is that the space occupied by the microporous material within the annular space between the two coaxial tubes maintains a free passageway for laminar airflow thus promoting suction and generating reduced pressure from one section to another through the entire pipe as applied from one end thereof.... Partial vacuum aimed at dislodging air contained in open pores of the microporous material through the encasing tissue is conveniently accomplished by longitudinal gas flow in this empty space. Vacuum is generated until a reduced pressure on the order of 50 millibars is obtained, through suction by a temporary flow tap communicating with a hole drilled at one end of the pipe, which hole is subsequently plugged by a weld joint.... One proceeds then with vacuum generation using the layer of 3 mm mean thickness that has maintained free nearby the outer tube, to achieve a reduced pressure of 50 millibars, as mentioned previously.... Once such a pipe is installed, the gas flow passageway may still be accessed from either end of the pipeline to vary the vacuum strength during service lifetime thereof, and hence vary the efficiency of insulation.... In such an example, there is contemplated according to the invention a method for using a pipe thus made, essentially characterized in that pressure maintained within said annular space is varied between values as high as 50 bars early in service, and values in the range of 1 mbars and 900 mbars late in service for a pipeline formed from said pipes."))

### ***CONCLUSION***

In consideration of the foregoing, this Court construes the claim terms in dispute as follows: (1) "the portion of open pores in the material forming said plate is 85 to 95% based on total pore volume" needs no construction; (2) "a free passageway to allow longitudinal gas flow, whereby low pressure is maintained throughout said annular space" means "the open space that extends along the entire pipe section outside the microporous material and inside the outer tube to allow the movement of air in the annular space lengthwise along an entire pipe section, preserving a low pressure within the annular space;" (3) "low pressure" means "any pressure below atmospheric pressure;" (4) "maintained" means the low pressure must be "actively" maintained; and (5) "both coaxially arranged" means that "both tubes share a single central axis."

**DONE and ORDERED.**

S.D.Ala.,2007.

ITP Interpipe, Inc. v. Technip Offshore, Inc.

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