

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

WEATHERFORD U.S., L.P.,

Petitioner

v.

HALLIBURTON ENERGY SERVICES, INC.

Patent Owner

Case No. IPR2024-00990
U.S. Patent 11,333,007

PATENT OWNER'S REVISED CONTINGENT MOTION TO AMEND

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PATENT OWNER'S EXHIBIT LIST

Exhibit No.	Description
2001	Deposition Transcript of Dr. Michael R. Chambers re: IPR2024-00990 (February 21, 2025)
2002	Declaration of Dr. Robert Durham
2003	Curriculum Vitae of Dr. Robert Durham
2004	Second Declaration of Dr. Robert Durham
2005	U.S. Provisional Application No. 62/688,813
2006	Bourgoyne, Adam T., Jr., Keith K. Millheim, Martin E. Chenevert, and F.S. Young, Jr., <i>Applied Drilling Engineering</i> , Society of Petroleum Engineers (1986).
2007	Staff of Royal Dutch / Shell Group of Companies, <i>The Petroleum Handbook</i> , (1983).
2008	Rahman, S. S. and G. V. Chilingarian, <i>Casing design-theory and practice</i> (1995).
2009	IEEE RP 1017, "IEEE Recommended Practice for Field Testing Electric Submersible Pump Cable" (2004).
2010	Conaway, Charles F, <i>The Petroleum Industry: A Nontechnical Guide</i> . Pennwell Books (1999).
2011	Braek, A. M., R. A. Almehaideb, and R. Hughes, <i>Application of Eos to Optimize the Design of an Early Production Scheme of an Onshore Oil Field in Abu Dhabi</i> , Abu Dhabi International Petroleum Exhibition and Conference (1998).
2012	Omitted
2013	Deposition Transcript of Michael R. Chambers re: IPR2024-00990 (July 2, 2025)

I. INTRODUCTION

Patent Owner Halliburton Energy Services, Inc. (“Halliburton” or “PO”) moves under 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121 to amend U.S. Patent No. 11,333,007 (the “’007 Patent”). PO submits this revised motion to amend pursuant to 37 C.F.R. § 42.121(f). To more clearly define the scope of the claims, address the Board’s preliminary guidance, and address the invalidity grounds set forth by Petitioner, Patent Owner respectfully requests that the Board grant this Revised Contingent Motion to Amend (the “Revised Contingent Motion to Amend”) and issue the corresponding substitute claims presented herein, contingent on the Board finding unpatentable each original claim replaced by the corresponding substitute claims.

II. STATEMENT OF RELIEF REQUESTED

PO respectfully requests that the Board grant this contingent motion with respect to each corresponding substitute claim, proposed Claims 24-40, to replace original claims 3, 6-9, 11-12, and 14-23, respectively. The amendments in substitute claims are proposed contingent upon a conclusion of the Panel that the existing claim to which each amendment relates is unpatentable.

III. LEGAL STANDARD FOR AMENDING THE CLAIMS

“Before considering the patentability of any substitute claims, ... the Board first must determine whether the motion to amend meets the statutory and regulatory requirement set forth in 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121.” *Lectrosonics*,

Inc. v. Zaxcom, Inc., IPR2018-01129, -01130, Paper 15 at 4 (PTAB Feb. 25, 2019).

The substitute claims must be (A) presented in a claim listing; (B) reasonable in number; (C) responsive to a ground of unpatentability involved in the trial; (D) non-broadening; and (E) supported by the written description. *Id.* at 4-8. The substitute claims of this Revised Contingent Motion to Amend satisfy these requirements.

A. The Substitute Claims are Provided in a Claim Listing

PO submits substitute claims, as shown in Appendix A, as required by 37 C.F.R. §§ 42.121(b) and 42.121(f). The claim listing cancels original claims 3, 6-9, 11-12, and 14-23 and includes substitute claims 24-40. Substitute claims 24-25 replace previously presented substitute claims 24-25; substitute claim 26 replaces previously presented substitute claim 30; substitute claims 27-30 replace previously presented substitute claims 26-29; and substitute claims 31-40 replace previously presented substitute claims 31-40. *See* Paper 11; 37 C.F.R. § 42.121(f)(2).

B. The Number of Substitute Claims is Reasonable

Pursuant to 37 C.F.R. § 42.121(a)(3), the number of substitute claims is reasonable. “There is a rebuttable presumption that a reasonable number of substitute claims per challenged claim is one (1) substitute claim.” *Lectrosonics*, Paper 15 at 4. Patent Owner proposes one substitute claim for each original claim. Patent Owner also proposes one substitute claim for, and in place of, each previously presented substitute claim. *See* 37 C.F.R. § 42.121(f)(2).

C. The Amendments are Responsive to Patentability Grounds Involved in this Trial

Proposed Substitute Claims 24-40 respond to the grounds asserted in the Petition (*see* Pet.), the grounds asserted in Petitioner's Amended Opposition to Patent Owner's Motion to Amend (*see* Paper 17), and the Board's preliminary guidance (*see* Paper 19). *See* 37 C.F.R. § 42.121(f)(2). For example, this motion proposes contingent amendments to original independent claims 11, 14, and 21 to claim certain combinations of eccentric sand screens, distinguishing the amended claims from concentric sand screens described in *Yeh* (Ex. 1005) and *Yeh2* (Ex. 1006). Similarly, this motion proposes contingent amendments to original claims 3, 6-9, 12, 15-20, and 22-23 to recite elements not taught by the *Yeh*, *Yeh2*, or *Bonner* (Ex. 1016) references or otherwise rendered obvious by Petitioner's Grounds 1-4 or Motion to Amend Grounds 1-4. This motion seeks to amend these claims to address Petitioner's arguments and the Board's preliminary guidance. *Compare* Pet., Paper 17, and Paper 19 *with* Appx. A (Proposed Substitute Claims).

D. The Substitute Claims Do Not Broaden the Claim Scope

The substitute claims do not seek to enlarge the scope of the original claims. A claim enlarges the scope of the claims of the patent where the claim is broader than each and every claim of the patent. *E.g.*, MPEP § 1412.03 (9th ed. Revision 08.2017, Last Revised Jan. 2018). A claim "is broader in scope than the original claim[] if it contains within its scope any conceivable apparatus or process which

would not have infringed the original patent.” *Sisvel Int’l S.A. v. Sierra Wireless, Inc.*, 81 F.4th 1231, 1237 (Fed. Cir. 2023). Proposed amendments to original independent claims 11, 14, and 21 only add narrowing elements, and independent claim 1 retains its original scope. *See* Appx. A (Proposed Substitute Claims). No amendments result in a claim that contains within its scope any conceivable apparatus or process which would have not infringed the original patent. *See id.*

Each contingent amendment is made for the purpose of further distinguishing the claims over the prior art raised in the Petition and Amended Opposition to Patent Owner’s Motion to Amend and therefore narrows the claim scope in compliance with 37 C.F.R. § 42.121(a)(2)(ii). *See Lectrosonics* at 7 (noting that “a proposed substitute claim adding a novel and nonobvious feature or combination to avoid the prior art in an instituted ground of unpatentability will not enlarge the scope of the claims”).

E. The Substitute Claims Do Not Introduce New Subject Matter

As required by 37 C.F.R. § 42.121(b), the proposed substitute claims are supported by the original non-provisional and provisional applications and thus do not introduce new subject matter as required by 37 C.F.R. § 42.121(a)(2)(ii).

The ’007 Patent issued from U.S. Patent Application No. 16/347,711 (the “’711 Application”) and claimed priority to provisional application no. 62/688,813 (the “’813 Provisional”). Ex. 1002, pp.7-36. For the purposes of this motion, PO

identifies the following exemplary portions of the '711 Application (at Ex. 1002, pp.7-36) and '813 Provisional (at Ex. 2005) as providing support for both the proposed amendments and the existing limitations of the original claims. The cited portions of the '711 Application and '813 Provisional show that a person of ordinary skill in the art ("POSITA") would have understood, based on the disclosures of the '711 Application and '813 Provisional, that the inventor possessed the Substitute Claims as of June 22, 2018. The written description of '711 Application and '813 Provisional is sufficient to inform a POSITA how to both make and use the invention as recited in the proposed Substitute Claims.

Claim	Citation¹ to '711 Application	Citation to '813 Provisional
[1][p] ² A completion assembly for deployment in a wellbore, the completion assembly comprising:	See Abstract, 4:5-9, 5:18-22, 6:28-7:13, 8:14-16, 9:1-10:9, 15:28-16:28, 21:1-4, Figs. 1-3, 4A-4B, 5, Claim 1.	See 7:8-11, 14:14-15:8, 18:19-21, 21:18-23:6, Figs. 1-3, 4A-4B, 5, Claim 2.
[1][a] a first sand screen assembly comprising a base pipe having perforations	See 4:5-9, 16:12-28, Claim 1, Figs. 1-3, 4A-4B.	See 22:11-19, Figs. 1-3, 4A-4B, Claim 2.

¹ Citations to both the '711 Application and '813 Provisional are to the page and line number of the originally filed specification, the claim number, or the drawing number, rather than the page number as marked for this proceeding.

² PO does not propose amendments to claim 1 in this motion, but PO provides disclosure for claim 1 because Substitute Claims 24-28 depend from claim 1.

therein and extending between a first end and a second ends, a sand screen disposed around a portion of the base pipe, and a shunt tube assembly disposed outwardly of the sand screen, the shunt tube assembly having a transport tube and a packing tube, where each of the tubes has a passageway defined therein, the packing tube further including a plurality of nozzles spaced apart from each other, wherein each of the tubes and each nozzle has a cross-sectional flow area;		
[1][b] a second sand screen assembly comprising a base pipe having perforations therein and extending between a first end and a second ends, a sand screen disposed around a portion of the base pipe, and a shunt tube assembly disposed outwardly of the sand screen, the shunt tube assembly having a transport tube and a packing tube, the packing tube including a plurality of nozzles spaced apart from each other, wherein each of the tubes and each nozzle has a cross-sectional flow area;	<i>See</i> 4:5-9, 16:12-28, Claim 1, Figs. 1-3, 4A-4B.	<i>See</i> 22:19-23:2, Figs. 1-3, 4A-4B, Claim 2.
[1][c] a source of pressurized working fluid fluidly coupled to an upstream end of the transport tube of the first sand screen assembly;	<i>See</i> 5:18-22, 15:28-16:11 Claim 1, Figs. 1-3, 4A-4B, Fig. 5.	<i>See</i> 7:8-11, 21:18-22:9, Figs. 1-3, 4A-4B, Claim 2.

[1][d] wherein the first and second sand screen assemblies are arranged end to end relative to one another so that the base pipes are in fluid communication with one another and the transport tubes are in fluid communication with one another such that the transport tube of the second sand screen assembly is fluidly coupled to the source of pressurized working fluid downstream of the transport tube of the first sand screen assembly; and	See 15:28-16:28, Claim 1, Figs. 1-3, 4A-4B, Fig. 5.	See 7:8-11, 21:18-22:9, 23:1-5, Figs. 1-3, 4A-4B, Claim 2.
[1][e] wherein the transport tube of the first sand screen assembly has a first wall thickness and the transport tube of the second sand screen assembly has a second wall thickness, the first wall thickness being greater than the second wall thickness.	See Abstract, 13:16-18, 21:1-4, Claim 1, Figs. 4A-4B.	See 14:14-15:8, 18:19-21, Figs. 4A-4B.
[24][p] The completion assembly of claim 1,	See claim [1].	See claim [1].
[24][a] wherein the first sand screen assembly further comprises a junction block from which the transport tube and the packing tube extend,	See 4:5-9, 6:18-23, 9:9-11, 16:12-28, Figs. 1-3, Claim 3.	See 5:9-12, 8:13-19, Figs. 1-3, Claim 4.
[24][b] the plurality of nozzles being spaced apart from the junction block; and wherein the second sand screen assembly further comprises a junction block from which the transport tube and the packing	See 4:5-9, 6:18-23, 9:9-11, 16:12-28, Figs. 1-3, Claim 3.	See 5:9-13, 8:13-19, Figs. 1-3, Claim 4.

tube extend, the plurality of nozzles being spaced apart from the junction block,		
[24][c] wherein a [[the]] distance between the first sand screen assembly junction block and the packing tube nozzles is greater in the first sand screen assembly than a [[the]] distance between the second sand screen assembly junction block and the packing tube nozzles in the second sand screen assembly	See 4:5-19, 6:18-23, 9:9-11, 16:12-28, 18:29-32, Figs. 1-3, Claim 3.	See 5:20-22, 8:13-19, Figs. 1-3, Claim 4.
[24][d] ; wherein the second sand screen assembly further comprises a second shunt tube assembly in addition to the shunt tube assembly of the second sand screen assembly; and wherein a spacing between adjacent nozzles of the second shunt tube assembly is different than a spacing between adjacent nozzles of the shunt tube assembly of the second sand screen assembly.	See 4:5-9, 6:28-7:12, 9:1-11, 9:24-29, 10:22-11:6, 15:10-19, 24:4-9. “Likewise, the spacing D2 between nozzles 216 of shunt tube assemblies of the same sand screen assembly may be the same or different.” 9:28-29. See also Figs. 2-3, 4A-4B.	See 5:9-13, 9:3-17, 12:4-14, 13:5-10, 14:14-15:8, 20:21-21:7, 29:14-19. “Likewise, the spacing D2 between nozzles 216 of shunt tube assemblies of the same sand screen assembly may be the same or different.” 13:8-10. See also Figs. 2-3, 4A-4B.
[25][p] The completion assembly of claim 1,	See claim [1].	See claim [1].
[25][a] wherein the second end of the first sand screen assembly base pipe is connected to the first end of the second sand screen assembly base pipe forming a joint therebetween,	See 22:22-23:2, Figs. 2-3, Figs. 4A-4B, Claim 6.	See 28:3-8, Figs. 1-3, Claim 11.
[25][b] the completion assembly further comprising a	See 22:22-23:2, Figs. 2-3, Figs. 4A-4B, Claim 6.	See 28:3-8, Figs. 1-3, Claim 11.

coupling interconnecting one end of a jumper tube to the transport tube of the first sand screen assembly, the other end of the jumper tube in fluid communication with a <u>[[the]]</u> junction block of the second sand screen assembly whereby the jumper tube straddles the joint between the first and second sand screen assemblies		
<u>[25][c] ; and wherein the cross-sectional flow area of the transport tube of the shunt tube assembly of the first sand screen assembly is less than the cross-sectional flow area of the transport tube of the shunt tube assembly of the second sand screen assembly.</u>	“a cross-sectional flow area of the transport tube passageway in the first sand screen assembly is less than a cross-sectional flow area of the transport tube passageway in the second sand screen assembly.” 17:28-30. <i>See also</i> 10:10-11:12, Figs. 2-3, 4A-4B.	“In one or more embodiments, the cross-sectional flow area A1 of the transport tube 410 of the first sand screen assembly 202 is less than the cross-sectional flow area A2 of the transport tube 420 of the second sand screen assembly 204. In other words, the downstream sand screen assembly transport tube which is closest to the distal end of the production zone, has a larger cross-sectional flow area than the upstream sand screen assembly transport tube closest to the proximal end of the production zone.” 15:10-15. <i>See also</i> 14:1-15:15, Figs. 2-3, 4A-4B.
[26][p] The completion assembly of claim 1,	See claim [1].	See claim [1].

[26][a] wherein the shunt tube assembly of the first sand screen assembly has a pressure rating between 5000 psi and 10000 psi, and the shunt tube assembly of the second sand screen assembly has a pressure rating of no more than 5000 psi;	<i>See</i> 6:18-23, 14:3-11, 23:9-11, Figs. 1-3, 4A-4B, Claims 8, 12-13, 18.	<i>See</i> 8:13-19, 19:1-7, 28:14-20, 30:16-21, Figs. 1-3, 4A-4B, Claims 13-14, 18-19, 25.
[26][b] <u>wherein a cross-sectional flow area of the base pipe of the first sand screen assembly is the same as a cross-sectional flow area of the base pipe of the second sand screen assembly; and wherein an outer diameter of the first sand screen assembly is the same as an outer diameter of the second sand screen assembly.</u>	<i>See</i> Figs. 2-3. <i>See also</i> 6:28-7:22, 9:1-7, 10:22-11:6, Figs. 4A-4B.	<i>See</i> Figs. 2-3. <i>See also</i> 9:3-10:4, 12:4-10, 14:14-15:8, Figs. 4A-4B.
[27][p] The completion assembly of claim 1,	<i>See</i> claim [1].	<i>See</i> claim [1].
[27][a] wherein the shunt tube assembly of the first sand screen assembly has a pressure rating of between 5000 and 10000 psi	<i>See</i> 6:18-23, 14:3-11, 23:9-11, Figs. 1-3, 4A-4B, Claims 8, 12-13, 18.	<i>See</i> 8:13-19, 19:1-7, 28:14-20, 30:16-21, Figs. 1-3, 4A-4B, Claims 13-14, 18-19, 25.
[27][b] <u>and the packing tube of the shunt tube assembly of the first sand screen assembly is interconnected to a junction block of the second sand screen assembly.</u>	“In particular, the packing tube of an upstream sand screen assembly is interconnected to the shunt tube junction block of a downstream sandscreen assembly.” 15:7-9.	“In particular, the packing tube of an upstream sand screen assembly is interconnected to the shunt tube junction block of a downstream sandscreen assembly.” 20:18-19.

	<i>See also</i> 15:4-7, Figs. 1-3.	<i>See also</i> 20:15-18, Figs. 1-3.
[28][p] The completion assembly of claim 1,	See claim [1].	See claim [1].
[28][a] wherein the shunt tube assembly of the first sand screen assembly has a pressure rating of over a select threshold and the shunt tube assembly of the second sand screen assembly has a pressure rating of no more than the select threshold	<i>See</i> 6:18-23, 10:22-11:6, 13:29-32, 23:12-14, 25:4-6, Figs. 1-3, 4A-4B, Claim 9.	<i>See</i> 8:13-19, 14:14-15:8, 18:21-19:1, 29:1-3, 31:1-3, Figs. 1-3, Claims 15, 26.
[28][b] , and wherein the first sand screen assembly and the second sand screen assembly are eccentric assemblies.	“The one or more shunt tubes 224 may be eccentrically aligned with respect to the base pipe 206 as best seen in FIG. 2. In each of FIGS. 4A and 4B, four shunt tubes 224 are arranged to one side of the base pipe 206. 20 While illustrated in FIGS. 2 and 4 as having an eccentric alignment, other alignments of the one or more shunt tubes about the base pipe 206 may also be possible.” 10:17-21. <i>See also</i> Figs. 2, 4A-4B.	“The one or more shunt tubes 224 may be eccentrically aligned with respect to the base pipe 206 as best seen in FIG. 2. In each of FIGS. 4A and 4B, four shunt tubes 224 are arranged to one side of the base pipe 206. 20 While illustrated in FIGS. 2 and 4 as having an eccentric alignment, other alignments of the one or more shunt tubes about the base pipe 206 may also be possible.” 14:8-12. <i>See also</i> Figs. 2, 4A-4B.
[29][p] A completion assembly for deployment in a wellbore, the completion assembly comprising:	See claim [1].	See claim [1].
[29][a] a source of pressurized working fluid;	See [1][c]. <i>See also</i> 5:18-22, 15:28-16:11, Fig. 1.	See [1][c]. <i>See also</i> 7:8-11, 21:18-22:11, Fig. 1.

[29][b] a first <u>eccentric</u> sand screen assembly attached to a second <u>eccentric</u> sand screen assembly, wherein the first <u>eccentric</u> sand screen assembly comprises a shunt tube assembly with a first burst pressure and the second <u>eccentric</u> sand screen assembly comprises a shunt tube assembly with a burst pressure less than the first burst pressure, and wherein the shunt tube assembly with the first burst pressure is fluidly coupled between the source of pressurized working fluid and the shunt tube assembly with the burst pressure less than the first burst pressure.	See [28][b]. <i>See also</i> 5:18-22, 14:17-19, 15:28-16:11, 19:29-20:3, Figs. 1-3, Claim 11. “The one or more shunt tubes 224 may be eccentrically aligned with respect to the base pipe 206 as best seen in FIG. 2. In each of FIGS. 4A and 4B, four shunt tubes 224 are arranged to one side of the base pipe 206. 20 While illustrated in FIGS. 2 and 4 as having an eccentric alignment, other alignments of the one or more shunt tubes about the base pipe 206 may also be possible.” 10:17-21. <i>See also</i> Figs. 2, 4A-4B.	See [28][b]. <i>See also</i> 19:18-20, 26:14-18, Figs. 1-3, Figs. 4A-4B, Claim 17.
[30][p] The completion assembly of claim [[11]]29,	See claim [29].	See claim [29].
[30][a] wherein the shunt tube assembly of the first <u>eccentric</u> sand screen assembly is disposed to operate at pressures between 5000 psi and 10000 psi and the shunt tube assembly of the second <u>eccentric</u> sand screen assembly is disposed to operate at pressures of no more than 5000 psi	See [27][a], [28][b]. “The one or more shunt tubes 224 may be eccentrically aligned with respect to the base pipe 206 as best seen in FIG. 2. In each of FIGS. 4A and 4B, four shunt tubes 224 are arranged to one side of the base pipe 206. 20 While illustrated	See [27][a], [28][b]. “The one or more shunt tubes 224 may be eccentrically aligned with respect to the base pipe 206 as best seen in FIG. 2. In each of FIGS. 4A and 4B, four shunt tubes 224 are arranged to one side of the base pipe 206. 20 While illustrated

	in FIGS. 2 and 4 as having an eccentric alignment, other alignments of the one or more shunt tubes about the base pipe 206 may also be possible.” 10:17-21. <i>See also</i> Figs. 2, 4A-4B. <i>See also</i> 13:29-14:7, 23:9-11, Claims 7-8, 12, 18-19.	in FIGS. 2 and 4 as having an eccentric alignment, other alignments of the one or more shunt tubes about the base pipe 206 may also be possible.” 14:8-12. <i>See also</i> Figs. 2, 4A-4B. <i>See also</i> 18:21-19:12, 26:18-27:10, 28:18-20, Figs. 3, 4A-4B.
[30][b] ; and wherein a cross-sectional flow area of a packing tube of the shunt tube assembly of the first sand screen assembly is less than a cross-sectional flow area of a packing tube of the shunt tube assembly of the second eccentric sand screen assembly.	“a cross-sectional flow area of the packing tube passageway in the first sand screen assembly is less than a cross-sectional flow area of the packing tube passageway in the second sand screen assembly.” 16:28-30. <i>See also</i> 9:30-10:6, Figs. 3, 4A-4B.	“a cross-sectional flow area of the packing tube passageway in the first sand screen assembly is less than a cross-sectional flow area of the packing tube passageway in the second sand screen assembly.” 23:5-7; Claim 2. <i>See also</i> 18:21-19:12, 26:18-27:10, 28:18-20, Figs. 3, 4A-4B.
[31][a] A method of installing a completion assembly in a wellbore, the method comprising	<i>See</i> claim [1]. <i>See also</i> 14:20-15:27, 23:24-24:30, Figs. 1, 5, Claim 14.	<i>See</i> claim [1]. <i>See also</i> 19:21-22:9, 29:6-30:14, Fig. 5, Claims 23-24.
[31][b] identifying an elongated production zone having an upstream proximal end and a downstream distal end with respect to a source of pressurized working fluid;	<i>See</i> 5:18-22, 15:28-16:11, 24:9-11, 24:26-28, Figs. 1, 5, Claim 14.	<i>See</i> 7:8-11, 21:18-22:9 30:6-7, Figs. 1, 5, Claims 23-24.

[31][c] determining a shunt tube system operating pressure associated with the proximal end of the production zone and selecting a high pressure shunt tube system based on the proximal end determined pressure;	See 24:9-13, Figs. 1, 5, Claim 14.	See 19:21-22:9, 29:21-23, Figs. 1, 5, Claims 23-24.
[31][d] determining a shunt tube system operating pressure associated with the distal end of the production zone and selecting a low pressure shunt tube system based on the distal end determined pressure;	See 24:14-16, Figs. 1, 5, Claim 14.	See 19:21-22:9, 29:23-30:3, Figs. 1, 5, Claims 23-24.
[31][e] installing a first <u>eccentric</u> sand screen assembly in a wellbore adjacent the <u>downstream</u> distal ~~downstream~~ end of the elongated production zone;	See [28][b]. See also 24:17-19, Figs. 1, 4A-4B, 5, Claim 14.	See [28][b]. See 19:21-22:9, 29:6-30:14, Figs. 1-3, 4A-4B, 5, Claims 23-24.
[31][f] attaching a second <u>eccentric</u> sand screen assembly to the first <u>eccentric</u> sand screen assembly at the proximal upstream end of the elongated production zone, wherein the first <u>eccentric</u> sand screen assembly has the low pressure shunt tube system and the second <u>eccentric</u> sand screen assembly has the high pressure shunt tube system, such that a downstream end of the high pressure shunt tube system is coupled to an upstream end of the low pressure shunt tube system; and	See [28][b]. See also 15:20-27, 24:4-9, 24:17-19, Figs. 1-3, 4A-4B, 5, Claim 14.	See [28][b]. See 19:21-22:9, 29:6-30:14, Figs. 1-3, 4A-4B, 5, Claims 23-24.

[31][g] coupling the source of pressurized working fluid to an upstream end of the high pressure shunt tube system	See 15:28-16:11, 24:26-28, Figs. 1, 5, Claim 14.	See 7:8-11, 21:18-22:9, 29:21-23, Figs. 1, 5, Claims 23-24.
[32][p] The method of claim [[14]]31, further comprising:	See claim [31].	See claim [31].
[32][a] installing a plurality of interconnected first <u>eccentric</u> sand screen assemblies in a wellbore adjacent the production zone;	See [28][b]. <i>See also</i> 15:10-12, 23:24-24:9, Figs. 4A-4B, Claim 15. Claim 32 was amended solely for antecedent basis and to depend from claim number 31.	See [28][b]. <i>See also</i> 20:21-23, 29:14-19, Figs. 4A-4B, Claim 22. Claim 32 was amended solely for antecedent basis and to depend from claim number 31.
[32][b] and attaching a plurality of second <u>eccentric</u> sand screen assemblies to an uppermost first <u>eccentric</u> sand screen assembly upstream of the first <u>eccentric</u> sand screen assemblies.	See [28][b]. <i>See</i> 15:10-12, 23:24-24:9, Figs. 4A-4B, Claim 15. Claim 32 was amended solely for antecedent basis and to depend from claim number 31.	See [28][b]. <i>See also</i> 20:21-23, 29:14-19, Figs. 4A-4B, Claim 22. Claim 32 was amended solely for antecedent basis and to depend from claim number 31.
[33][p] The method of claim [[14]]31,	See [31].	See [31].
[33][a] further comprising introducing a working fluid into the shunt <u>tube</u> systems, wherein the working fluid is pressurized in accordance with the operating pressure of the high pressure shunt tube system;	See 15:28-16:11, Figs. 1, 3, Claim 16.	See 21:18-22:1, Figs. 1, 3, Claim 27.
[33][b] <u>and wherein a packing tube of the high pressure shunt tube system is interconnected to a shunt tube junction block of the low pressure shunt tube system.</u>	See [27][b]. “In particular, the packing tube of an upstream sand screen assembly is interconnected to the	See [27][b]. “In particular, the packing tube of an upstream sand screen assembly is interconnected to the

	shunt tube junction block of a downstream sandscreen assembly.” 15:7-9. <i>See also</i> Figs. 1-3.	shunt tube junction block of a downstream sandscreen assembly.” 20:18-19. <i>See also</i> Figs. 1-3.
[34][p] The method of claim [[14]]31,	<i>See</i> [31].	<i>See</i> [31].
[34][a] further comprising injecting the working fluid into an [[the]] annulus adjacent the shunt tube systems so as to form a gravel pack in the annulus	<i>See</i> 16:7-11, Figs. 1-3, Claim 17.	<i>See also</i> 7:8-11, 21:18-22:9, 22:4-6, Claim 28.
[34][b] , wherein a cross-sectional flow area of a packing tube of the high pressure shunt tube system is less than a cross-sectional flow area of a packing tube of the low pressure shunt tube system.	<i>See</i> [30][b]. “a cross-sectional flow area of the packing tube passageway in the first sand screen assembly is less than a cross-sectional flow area of the packing tube passageway in the second sand screen assembly.” 16:28-30. <i>See also</i> 9:30-10:6, Figs. 1, 3, 4A-4B.	<i>See</i> [30][b]. “a cross-sectional flow area of the packing tube passageway in the first sand screen assembly is less than a cross-sectional flow area of the packing tube passageway in the second sand screen assembly.” 23:5-7; Claim 2. <i>See also</i> 18:21-19:12, 26:18-27:10, 28:18-20, Figs. 1, 3, 4A-4B.
[35][a] The method of claim [[14]]31, wherein the high pressure shunt tube system is disposed to operate at pressures of 5000 psi and the low pressure shunt tube system is disposed to operate at pressures of no more than 5000 psi;	<i>See</i> [31]. <i>See also</i> 13:32-14:7, Claim 18.	<i>See</i> [31]. <i>See also</i> 18:21-19:12, 26:18-22, Claims 18, 25.
[35][b] and wherein a cross-sectional flow area of a transport tube of the high	<i>See</i> 12:13-16, 13:10-16, 22:21 (“The cross-sectional flow areas of	<i>See</i> 17:5-8, 18:13-18, 28:1 (“The cross-sectional flow areas of

<u>pressure shunt tube system is oval shaped.</u>	the first and second transport tubes is oval shaped.”). <i>See also</i> Figs. 2-3.	the first and second transport tubes is oval shaped.”), Claim 10. <i>See also</i> Figs. 2-3.
[36][a] The method of claim [[14]]31, wherein the high pressure shunt tube system is disposed to operate at pressures above a select threshold and the low pressure shunt tube system is disposed to operate at pressures of no more than the select threshold;	See [31]. <i>See also</i> 13:29-32, 23:12-14, Claim 19.	See [31]. <i>See also</i> 8:13-19, 14:14-15:8, 18:21-19:1, 29:1-3, 31:1-3, Figs. 1-3, 4A-4B, Claims 15, 26.
[36][b] <u>and wherein the low pressure shunt tube system is disposed to allow a larger volume of fluid to flow therethrough than the high pressure shunt tube system is disposed to allow to flow therethrough.</u>	<i>See</i> 12:13-19, 13:10-21, 17:5-13, . <i>See also</i> Figs. 2-3, 4A-4B.	<i>See</i> 17:5-11, 18:13-21. <i>See also</i> Figs. 2-3, 4A-4B.
[37][a] The method of claim [[14]]31, wherein installing the first <u>eccentric</u> sand screen assembly and attaching the second <u>eccentric</u> sand screen assembly include disposing the first <u>eccentric</u> sand screen assembly and the second <u>eccentric</u> sand screen assembly in a horizontal portion of the wellbore;	See claim [31] & [28][b]. “The one or more shunt tubes 224 may be eccentrically aligned with respect to the base pipe 206 as best seen in FIG. 2. In each of FIGS. 4A and 4B, four shunt tubes 224 are arranged to one side of the base pipe 206. 20 While illustrated in FIGS. 2 and 4 as having an eccentric alignment, other alignments of the one or more shunt tubes about	See [31] & [28][b]. “The one or more shunt tubes 224 may be eccentrically aligned with respect to the base pipe 206 as best seen in FIG. 2. In each of FIGS. 4A and 4B, four shunt tubes 224 are arranged to one side of the base pipe 206. 20 While illustrated in FIGS. 2 and 4 as having an eccentric alignment, other alignments of the one or more shunt tubes about

	the base pipe 206 may also be possible.” 10:17-21. <i>See also</i> 3:26-4:1, 4:24-30, Figs. 1, 4A-4B, Claim 20.	the base pipe 206 may also be possible.” 14:8-12. <i>See also</i> Figs. 2, 4A-4B. <i>See also</i> 5:1-4, 8, 3-9, Fig. 1.
[37][b] and wherein a cross-sectional flow area of a base pipe of the first eccentric sand screen assembly is the same as a cross-sectional flow area of a base pipe of the second eccentric sand screen assembly; and wherein an outer diameter of the first eccentric sand screen assembly is the same as an outer diameter of the second eccentric sand screen assembly.	<i>See</i> [26][b]; Figs. 2-3. <i>See also</i> 6:28-7:22, 9:1-7, 10:22-11:6, Figs. 4A-4B.	<i>See</i> [26][b]; Figs. 2-3. <i>See also</i> 9:3-10:4, 12:4-10, 14:14-15:8, Figs. 4A-4B.
[38][p] A completion assembly for deployment in a wellbore, the completion assembly comprising:	<i>See</i> claim [1].	<i>See</i> claim [1].
[38][a] a source of pressurized working fluid;	<i>See</i> [1][c], [29][a].	<i>See</i> [1][c], [29][a].
[38][b] a first eccentric sand screen assembly comprising a base pipe having perforations therein and extending between a first end and a second ends, a sand screen disposed around a portion of the base pipe, and a shunt tube assembly disposed outwardly of the sand screen, the shunt tube assembly having a transport tube and a packing tube, where each of the tubes	<i>See</i> [1][a] & [28][b]. “The one or more shunt tubes 224 may be eccentrically aligned with respect to the base pipe 206 as best seen in FIG. 2. In each of FIGS. 4A and 4B, four shunt tubes 224 are arranged to one side of the base pipe 206. 20 While illustrated	<i>See</i> [1][a] & [28][b]. “The one or more shunt tubes 224 may be eccentrically aligned with respect to the base pipe 206 as best seen in FIG. 2. In each of FIGS. 4A and 4B, four shunt tubes 224 are arranged to one side of the base pipe 206. 20 While illustrated

has a passageway defined therein, the packing tube further including a plurality of nozzles spaced apart from each other, wherein each of the tubes and each nozzle has a cross-sectional flow area; and	in FIGS. 2 and 4 as having an eccentric alignment, other alignments of the one or more shunt tubes about the base pipe 206 may also be possible.” 10:17-21. <i>See also</i> 20:17-35, Claim 21.	in FIGS. 2 and 4 as having an eccentric alignment, other alignments of the one or more shunt tubes about the base pipe 206 may also be possible.” 14:8-12. <i>See also</i> Figs. 2, 4A-4B. <i>See also</i> 22:11-23:5, Figs. 1-3, Claim 2.
[38][c] a second <u>eccentric</u> sand screen assembly comprising a base pipe having perforations therein and extending between a first end and a second ends, a sand screen disposed around a portion of the base pipe, and a shunt tube assembly disposed outwardly of the sand screen, the shunt tube assembly having a transport tube and a packing tube, the packing tube including a plurality of nozzles spaced apart from each other, wherein each of the tubes and each nozzle has a cross-sectional flow area;	See [1][b] & [28][b]. “The one or more shunt tubes 224 may be eccentrically aligned with respect to the base pipe 206 as best seen in FIG. 2. In each of FIGS. 4A and 4B, four shunt tubes 224 are arranged to one side of the base pipe 206. 20 While illustrated in FIGS. 2 and 4 as having an eccentric alignment, other alignments of the one or more shunt tubes about the base pipe 206 may also be possible.” 10:17-21.	See [1][b] & [28][b]. “The one or more shunt tubes 224 may be eccentrically aligned with respect to the base pipe 206 as best seen in FIG. 2. In each of FIGS. 4A and 4B, four shunt tubes 224 are arranged to one side of the base pipe 206. 20 While illustrated in FIGS. 2 and 4 as having an eccentric alignment, other alignments of the one or more shunt tubes about the base pipe 206 may also be possible.” 14:8-12. <i>See also</i> Figs. 2, 4A-4B. <i>See also</i> 22:11-23:5, Figs. 1-3, Claim 2.

[38][d] wherein the first and second <u>eccentric</u> sand screen assemblies are arranged end to end relative to one another so that the base pipes are in fluid communication with one another and the transport tubes are in fluid communication with one another and the source of pressurized working fluid,	See [1][c], [1][d], & [28][b]. “The one or more shunt tubes 224 may be eccentrically aligned with respect to the base pipe 206 as best seen in FIG. 2. In each of FIGS. 4A and 4B, four shunt tubes 224 are arranged to one side of the base pipe 206. 20 While illustrated in FIGS. 2 and 4 as having an eccentric alignment, other alignments of the one or more shunt tubes about the base pipe 206 may also be possible.” 10:17-21.	See [1][c], [1][d], & [28][b]. “The one or more shunt tubes 224 may be eccentrically aligned with respect to the base pipe 206 as best seen in FIG. 2. In each of FIGS. 4A and 4B, four shunt tubes 224 are arranged to one side of the base pipe 206. 20 While illustrated in FIGS. 2 and 4 as having an eccentric alignment, other alignments of the one or more shunt tubes about the base pipe 206 may also be possible.” 14:8-12. <i>See also</i> Figs. 2, 4A-4B.
[38][e] the transport tube of the second <u>eccentric</u> sand screen assembly fluidly coupled to the source of pressurized working fluid downstream of the transport tube of the first <u>eccentric</u> sand screen assembly; and wherein the transport tube of the first <u>eccentric</u> sand screen assembly is formed of a first material and the transport tube of the second <u>eccentric</u> sand screen assembly is formed of a second material, the first material having a greater tensile strength than the second material.	See [1][c], [1][d] & [28][b]. “The one or more shunt tubes 224 may be eccentrically aligned with respect to the base pipe 206 as best seen in FIG. 2. In each of FIGS. 4A and 4B, four shunt tubes 224 are arranged to one side of the base pipe 206. 20 While illustrated in FIGS. 2 and 4 as having an eccentric alignment, other alignments of the one or	See [1][c], [1][d], & [28][b]. “The one or more shunt tubes 224 may be eccentrically aligned with respect to the base pipe 206 as best seen in FIG. 2. In each of FIGS. 4A and 4B, four shunt tubes 224 are arranged to one side of the base pipe 206. 20 While illustrated in FIGS. 2 and 4 as having an eccentric alignment, other alignments of the one or

	more shunt tubes about the base pipe 206 may also be possible.” 10:17-21. <i>See also</i> 13:21-31, 15:28-16:28, 20:17-35, 21:7-15, Figs. 1-3, 4A-4B, 5, Claims 1, 21.	more shunt tubes about the base pipe 206 may also be possible.” 14:8-12. <i>See also</i> Figs. 2, 4A-4B. <i>See also</i> 17:5-11, 29:1-3, Figs. 1-3, 4A-4B, 5, Claims 15, 26.
[39][p] The completion assembly of claim [[21]]38,	See [38].	See [38].
[39][a] wherein the transport tube of the first <u>eccentric</u> sand screen assembly has a first wall thickness and the transport tube of the second <u>eccentric</u> sand screen assembly has a second wall thickness, the first wall thickness being greater than the second wall thickness	See [1][e].	See [1][e]. <i>See also</i> 18:19-21.
[39][b] ; and wherein a <u>cross-sectional flow area of the packing tube of the shunt tube assembly of the first eccentric sand screen assembly is less than a cross-sectional flow area of the packing tube of the shunt tube assembly of the second eccentric sand screen assembly.</u>	See [30][b]. “a cross-sectional flow area of the packing tube passageway in the first sand screen assembly is less than a cross-sectional flow area of the packing tube passageway in the second sand screen assembly.” 16:28-30. <i>See also</i> 22:1-3.	See [30][b]. “a cross-sectional flow area of the packing tube passageway in the first sand screen assembly is less than a cross-sectional flow area of the packing tube passageway in the second sand screen assembly.” 23:5-7; Claim 2. <i>See also</i> 23:5-7.
[40][p] The completion assembly of claim [[21]]38,	See claim [38].	
[40][a] wherein the first <u>eccentric</u> sand screen assembly	See [28][b].	See [28][b].

has a shunt tube assembly with a first pressure rating and the second <u>eccentric</u> sand screen assembly has a shunt tube assembly with a second pressure rating less than the first pressure rating	See also 6:18-23, 14:7-11, 20:13-17, Claim 23.	<i>See also</i> 8:13-19, 19:8-12, Claims 15-16.
[40][b] , and the <u>packing tube of the shunt tube assembly of the first eccentric sand screen assembly is interconnected to a shunt tube junction block of the second eccentric sand screen assembly.</u>	See [27][b]. “In particular, the packing tube of an upstream sand screen assembly is interconnected to the shunt tube junction block of a downstream sandscreen assembly.” 15:7-9. <i>See also</i> 15:4-7, Figs. 1-3.	See [27][b]. “In particular, the packing tube of an upstream sand screen assembly is interconnected to the shunt tube junction block of a downstream sandscreen assembly.” 20:18-19. <i>See also</i> 20:15-18, Figs. 1-3.

IV. THE LEVEL OF ORDINARY SKILL IN THE ART

For purposes of this Revised Contingent Motion to Amend, PO applies the same level of skill proposed by Petitioner. Pet., p.31.

V. CLAIM CONSTRUCTION

For purposes of this Revised Contingent Motion to Amend, Patent Owner interprets the claims “in accordance with the ordinary and customary meaning” as understood by a POSITA. 37 C.F.R. §42.100(b).

VI. THE SUBSTITUTE CLAIMS ARE PATENTABLE OVER THE ART

Although PO does not bear the burden regarding the patentability of the substitute claims, PO nevertheless summarizes here why the art does not teach or suggest the amended subject matter. *See Aqua Prods., Inc. v. Matal*, 872 F.3d 1290, 1296 (Fed. Cir. 2017).

Substitute Claims 29, 31, and 38 for original independent claims 11, 14, and 21, respectively, as well as Substitute Claim 28 for original claim 9, are amended to require an upstream eccentric screen and a downstream eccentric screen. Petitioner's grounds all rely on either (1) the *Yeh* reference, or a combination of the *Yeh* and *Yeh2* references, that teach use of concentric screens (*see* Pet.); or (2) a combination of the *Yeh* and *Bonner* references (*see* Paper 17). Petitioner relies on an embodiment of *Yeh* describing an upstream concentric screen and a downstream eccentric screen, and *Bonner* does not teach different pressure for upstream and downstream screens; accordingly, Petitioner's grounds fail as to Substitute Claims 28-40 for failure to teach upstream and downstream eccentric screens having the characteristics of Substitute Claims 28-40. Similarly, Substitute Claims 24-27 for original claims 3 and 6-8 are each amended to recite elements that are not rendered obvious by the *Yeh*, *Yeh2*, or *Bonner* references that Petitioner relies on in its Amended Opposition to Patent Owner's Motion to Amend.

VII. CONCLUSION

PO requests the Board to grant this Revised Contingent Motion to Amend to the corresponding substitute claims for each of the Original Claims 3, 6-9, 11-12, and 14-23.

Respectfully submitted,



Dated: July 11, 2025

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CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(d), the undersigned hereby certifies that this motion complies with the type-volume limitation of 37 C.F.R. §42.24 because this motion is less than 25 pages, excluding the parts of the brief exempted by 37 C.F.R. § 42.24(a)(1) and 37 C.F.R. § 42.121(b).

Dated: July 11, 2025

By:



Chad C. Walters
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*Lead Counsel for Patent Owner
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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing **PATENT OWNER'S REVISED MOTION TO AMEND** and Exhibit 2013 were served electronically on July 11, 2025, on counsel of record for the Petitioner as follows:

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APPENDIX A - SUBSTITUTE CLAIMS

Patent Owner presents the following listing of contingent substitute claims.

Claims 3, 6-9, 11-12, 14-23. (Canceled)

24. (Substitute for Claim 3) The completion assembly of claim 1, wherein the first sand screen assembly further comprises a junction block from which the transport tube and the packing tube extend, the plurality of nozzles being spaced apart from the junction block; ~~and~~ wherein the second sand screen assembly further comprises a junction block from which the transport tube and the packing tube extend, the plurality of nozzles being spaced apart from the junction block, wherein a [[the]] distance between the first sand screen assembly junction block and the packing tube nozzles is greater in the first sand screen assembly than a [[the]] distance between the second sand screen assembly junction block and the packing tube nozzles in the second sand screen assembly; wherein the second sand screen assembly further comprises a second shunt tube assembly in addition to the shunt tube assembly of the second sand screen assembly; and wherein a spacing between adjacent nozzles of the second shunt tube assembly is different than a spacing between adjacent nozzles of the shunt tube assembly of the second sand screen assembly.

25. (Substitute for Claim 6) The completion assembly of claim 1, wherein the second end of the first sand screen assembly base pipe is connected to the first end of the second sand screen assembly base pipe forming a joint therebetween, the completion assembly further comprising a coupling interconnecting one end of a jumper tube to the transport tube of the first sand screen assembly, the other end of the jumper tube in fluid communication with ~~[[the]]~~ a junction block of the second sand screen assembly whereby the jumper tube straddles the joint between the first and second sand screen assemblies; and wherein the cross-sectional flow area of the transport tube of the shunt tube assembly of the first sand screen assembly is less than the cross-sectional flow area of the transport tube of the shunt tube assembly of the second sand screen assembly.

26. (Substitute for Claim 7) The completion assembly of claim 1, wherein the shunt tube assembly of the first sand screen assembly has a pressure rating between 5000 psi and 10000 psi, and the shunt tube assembly of the second sand screen assembly has a pressure rating of no more than 5000 psi; wherein a cross-sectional flow area of the base pipe of the first sand screen assembly is the same as a cross-sectional flow area of the base pipe of the second sand screen assembly; and wherein an outer diameter of the first sand screen assembly is the same as an outer diameter of the second sand screen assembly.

27. (Substitute for Claim 8) The completion assembly of claim 1, wherein the shunt tube assembly of the first sand screen assembly has a pressure rating of between 5000 and 10000 psi and the packing tube of the shunt tube assembly of the first sand screen assembly is interconnected to a junction block of the second sand screen assembly.

28. (Substitute for Claim 9) The completion assembly of claim 1, wherein the shunt tube assembly of the first sand screen assembly has a pressure rating of over a select threshold and the shunt tube assembly of the second sand screen assembly has a pressure rating of no more than the select threshold, and wherein the first sand screen assembly and the second sand screen assembly are eccentric assemblies.

29. (Substitute for Claim 11) A completion assembly for deployment in a wellbore, the completion assembly comprising:

a source of pressurized working fluid;

a first eccentric sand screen assembly attached to a second eccentric sand screen assembly, wherein the first eccentric sand screen assembly comprises a shunt tube assembly with a first burst pressure and the second eccentric sand screen assembly comprises a shunt tube assembly with a burst pressure less than the first burst pressure, and wherein the shunt tube assembly with the first burst pressure is fluidly coupled between the source of pressurized working fluid and the shunt tube assembly with the burst pressure less than the first burst pressure.

30. (Substitute for Claim 12) The completion assembly of claim ~~[[11]]~~29, wherein the shunt tube assembly of the first eccentric sand screen assembly is disposed to operate at pressures between 5000 psi and 10000 psi and the shunt tube assembly of the second eccentric sand screen assembly is disposed to operate at pressures of no more than 5000 psi; and wherein a cross-sectional flow area of a packing tube of the shunt tube assembly of the first sand screen assembly is less than a cross-sectional flow area of a packing tube of the shunt tube assembly of the second eccentric sand screen assembly.

31. (Substitute for Claim 14) A method of installing a completion assembly in a wellbore, the method comprising:

identifying an elongated production zone having an upstream proximal end and a downstream distal end with respect to a source of pressurized working fluid;

determining a shunt tube system operating pressure associated with the proximal end of the production zone and selecting a high pressure shunt tube system based on the proximal end determined pressure;

determining a shunt tube system operating pressure associated with the distal end of the production zone and selecting a low pressure shunt tube system based on the distal end determined pressure;

installing a first eccentric sand screen assembly in a wellbore adjacent the downstream distal ~~downstream~~ end of the elongated production zone;

attaching a second eccentric sand screen assembly to the first eccentric sand screen assembly at the proximal upstream end of the elongated production zone, wherein the first eccentric sand screen assembly has the low pressure shunt tube system and the second eccentric sand screen assembly has the high pressure shunt tube system, such that a downstream end of the high pressure shunt tube system is coupled to an upstream end of the low pressure shunt tube system; and

coupling the source of pressurized working fluid to an upstream end of the high pressure shunt tube system.

32. (Substitute for Claim 15) The method of claim ~~[[14]]~~31, further comprising:
installing a plurality of interconnected first eccentric sand screen assemblies in a wellbore adjacent the production zone;
and attaching a plurality of second eccentric sand screen assemblies to an uppermost first eccentric sand screen assembly upstream of the first eccentric sand screen assemblies.

33. (Substitute for Claim 16) The method of claim ~~[[14]]~~31, further comprising introducing a working fluid into the shunt tube systems, wherein the working fluid is pressurized in accordance with the operating pressure of the high pressure shunt tube system; and wherein a packing tube of the high pressure shunt tube system is interconnected to a shunt tube junction block of the low pressure shunt tube system.

34. (Substitute for Claim 17) The method of claim ~~[[14]]~~31, further comprising injecting the working fluid into ~~[[the]]~~ an annulus adjacent the shunt tube systems so as to form a gravel pack in the annulus, wherein a cross-sectional flow area of a packing tube of the high pressure shunt tube system is less than a cross-sectional flow area of a packing tube of the low pressure shunt tube system.

35. (Substitute for Claim 18) The method of claim [[14]]31, wherein the high pressure shunt tube system is disposed to operate at pressures of 5000 psi and the low pressure shunt tube system is disposed to operate at pressures of no more than 5000 psi; and wherein a cross-sectional flow area of a transport tube of the high pressure shunt tube system is oval shaped.

36. (Substitute for Claim 19) The method of claim [[14]]31, wherein the high pressure shunt tube system is disposed to operate at pressures above a select threshold and the low pressure shunt tube system is disposed to operate at pressures of no more than the select threshold; and wherein the low pressure shunt tube system is disposed to allow a larger volume of fluid to flow therethrough than the high pressure shunt tube system is disposed to allow to flow therethrough.

37. (Substitute for Claim 20) The method of claim [[14]]31, wherein installing the first eccentric sand screen assembly and attaching the second eccentric sand screen assembly include disposing the first eccentric sand screen assembly and the second eccentric sand screen assembly in a horizontal portion of the wellbore; and wherein a cross-sectional flow area of a base pipe of the first eccentric sand screen assembly is the same as a cross-sectional flow area of a base pipe of the second eccentric sand screen assembly; and wherein an outer diameter of the first eccentric sand screen

assembly is the same as an outer diameter of the second eccentric sand screen assembly.

38. (Substitute for Claim 21) A completion assembly for deployment in a wellbore, the completion assembly comprising:

a source of pressurized working fluid;

a first eccentric sand screen assembly comprising a base pipe having perforations therein and extending between a first end and a second ends, a sand screen disposed around a portion of the base pipe, and a shunt tube assembly disposed outwardly of the sand screen, the shunt tube assembly having a transport tube and a packing tube, where each of the tubes has a passageway defined therein, the packing tube further including a plurality of nozzles spaced apart from each other, wherein each of the tubes and each nozzle has a cross-sectional flow area; and

a second eccentric sand screen assembly comprising a base pipe having perforations therein and extending between a first end and a second ends, a sand screen disposed around a portion of the base pipe, and a shunt tube assembly disposed outwardly of the sand screen, the shunt tube assembly having a transport tube and a packing tube, the packing tube including a plurality of nozzles spaced apart from each other, wherein each of the tubes and each nozzle has a cross-sectional flow area;

wherein the first and second eccentric sand screen assemblies are arranged end to end relative to one another so that the base pipes are in fluid communication with one another and the transport tubes are in fluid communication with one another and

the source of pressurized working fluid, the transport tube of the second eccentric sand screen assembly fluidly coupled to the source of pressurized working fluid downstream of the transport tube of the first eccentric sand screen assembly; and wherein the transport tube of the first eccentric sand screen assembly is formed of a first material and the transport tube of the second eccentric sand screen assembly is formed of a second material, the first material having a greater tensile strength than the second material.

39. (Substitute for Claim 22) The completion assembly of claim [[21]]38, wherein the transport tube of the first eccentric sand screen assembly has a first wall thickness and the transport tube of the second eccentric sand screen assembly has a second wall thickness, the first wall thickness being greater than the second wall thickness; and wherein a cross-sectional flow area of the packing tube of the shunt tube assembly of the first eccentric sand screen assembly is less than a cross-sectional flow area of the packing tube of the shunt tube assembly of the second eccentric sand screen assembly.

40. (Substitute for Claim 23) The completion assembly of claim [[21]]38, wherein the first eccentric sand screen assembly has a shunt tube assembly with a first pressure rating and the second eccentric sand screen assembly has a shunt tube

assembly with a second pressure rating less than the first pressure rating, and the packing tube of the shunt tube assembly of the first eccentric sand screen assembly is interconnected to a shunt tube junction block of the second eccentric sand screen assembly.