



(43) International Publication Date
6 March 2014 (06.03.2014)

(10) International Publication Number
WO 2014/035383 A1

- (51) **International Patent Classification:**
E21B 43/12 (2006.01) *E21B 43/16* (2006.01)
- (21) **International Application Number:**
PCT/US2012/052735
- (22) **International Filing Date:**
29 August 2012 (29.08.2012)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (71) **Applicant** (for all designated States except US): **HAL-LIBURTON ENERGY SERVICES, INC.** [US/US]; 10200 Bellaire Boulevard, Houston, TX 77072 (US).
- (72) **Inventors; and**
- (75) **Inventors/Applicants** (for US only): **BECK, Adam, Evan** [US/US]; 2104 Bellanca Ct., Flower Mound, TX 75028 (US). **SWAN, Tom** [US/US]; 5908 Wessex Ct., Parker, TX 75002 (US). **THURMAN, Robert, L.** [US/US]; 20133 Fiddlers Green Rd., Frisco, TX 75034 (US).
- (74) **Agent:** **JORDAN, Carey, C.**; McDermott Will & Emery LLP, 500 North Capitol Street, N.W., Washington, D.C. 20001 (US).
- (81) **Designated States** (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,

BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

- (84) **Designated States** (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

Published:

- with international search report (Art. 21(3))

(54) **Title:** A RECLOSABLE SLEEVE ASSEMBLY AND METHODS FOR ISOLATING HYDROCARBON PRODUCTION

(57) **Abstract:** Disclosed is reclosable sleeve assembly including a housing defining one or more flow ports that provide fluid communication between a wellbore annulus and an interior of the housing, an outer sleeve arranged within the housing and movable between a closed position, where the outer sleeve occludes the one or more flow ports, and an open position, where the one or more flow ports are exposed, and an inner sleeve concentrically arranged within the outer sleeve and defining a plurality of flow slots, the inner sleeve being movable between an open position and a closed position where, when in the open position, the plurality of flow slots are axially aligned with the one or more flow ports.



WO 2014/035383 A1