



- (51) **International Patent Classification:**
E21B 43/04 (2006.01) *E21B 33/12* (2006.01)
- (21) **International Application Number:**
PCT/US2012/049286
- (22) **International Filing Date:**
2 August 2012 (02.08.2012)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
13/217,869 25 August 2011 (25.08.2011) US
- (71) **Applicant (for all designated States except US):** HAL-LIBURTON ENERGY SERVICES, INC. [US/US]; 10200 Bellaire Boulevard, Houston, Texas 77072 (US).
- (72) **Inventors; and**
- (75) **Inventors/Applicants (for US only):** TECHENTIER, Bruce Wallace [US/US]; 14511 Circlewood Way, Houston, Texas 77062 (US). FITZPATRICK, JR., Harvey Joseph [US/US]; 22118 Bay Spring Drive, Katy, Texas 77450 (US).
- (74) **Agents:** PRATT, John S. et al.; Kilpatrick Townsend & Stockton LLP, 1100 Peachtree Street, Suite 2800, Atlanta, Georgia 30309 (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).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

[Continued on next page]

(54) **Title:** SYSTEMS AND METHODS FOR GRAVEL PACKING WELLS

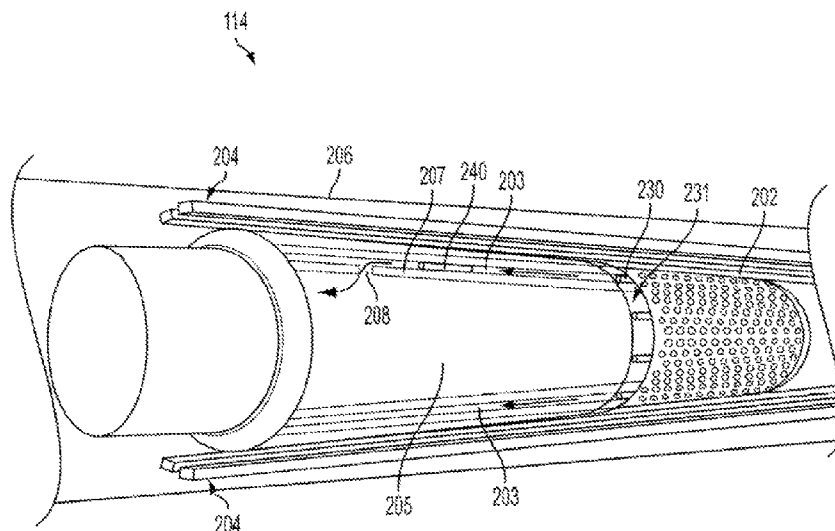


FIG. 2A

(57) **Abstract:** Assemblies, systems, and methods to facilitate gravel packing of a wellbore having a flow restricting device are described. The assemblies, systems, and methods can include a flow restricting device and an alternative-path gravel packing system to provide a gravel pack about the flow restricting device. The assemblies, systems, and methods can allow uniform and complete annular sand control pack placement together with reduced flow of unwanted fluids.





(88) Date of publication of the international search report:

18 April 2013