



(51) International Patent Classification:
E21B 17/01 (2006.01)

(21) International Application Number:
PCT/US2014/055694

(22) International Filing Date:
15 September 2014 (15.09.2014)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/891,134 15 October 2013 (15.10.2013) US

(71) Applicant (for all designated States except US): **EXXON-MOBIL UPSTREAM RESEARCH COMPANY** [US/US]; CORP-URC-SW359, P.O.Box 2189, Houston, TX 77252-2189 (US).

(72) Inventors; and

(71) Applicants (for US only): **KOKKINIS, Theodore** [US/US]; 4010 Tennyson, Houston, TX 77005 (US). **MATSKEVITCH, Dmitri, G.** [US/US]; 18314 Eden

Trails Lane, Houston, TX 77094 (US). **YOUNAN, Adel, H.** [US/US]; 4603 Meadow Green Drive, Sugar Land, TX 77479 (US). **FENZ, David, M.** [US/US]; 2620 Yoakum Blvd., Houston, TX 77006 (US).

(74) Agents: **FICK, C., Milton** et al.; Exxonmobil Upstream Research Company, CORP-URC-SW359, P.O.Box 2189, Houston, TX 77252-2189 (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, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, 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,

[Continued on next page]

(54) Title: ARCTIC RAPID DISCONNECT AND RECONNECT FLOATING DRILLING UNIT

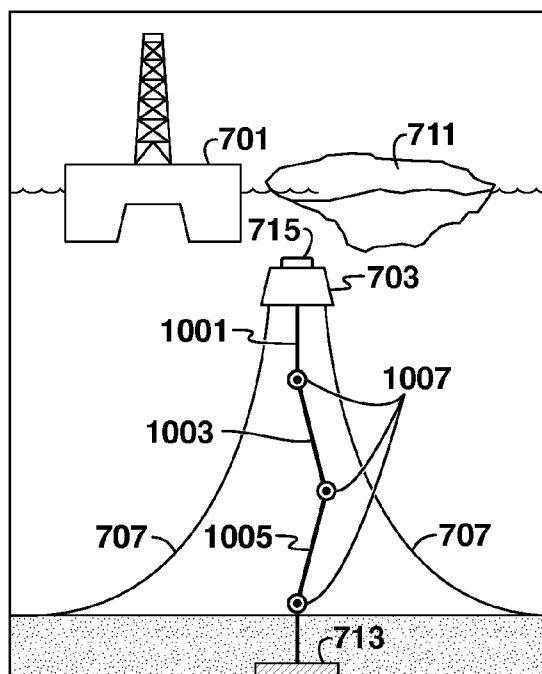


FIG. 10

(57) Abstract: A system, including: a floating drilling unit (701); a buoyancy hull plug (703) releasably connected to the floating drilling unit; mooring lines (707) with first ends secured to a seafloor and second ends secured to the buoyancy hull plug; and a riser (1001, 1003, 1005) that is collapsible through a water column, wherein the buoyancy hull plug supports the riser and the mooring lines while disconnected from the floating drilling unit.



GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, 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, KM, 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))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

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