(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
13 December 2001 (13.12.2001)

PCT

(10) International Publication Number
WO 01/94740 A1

(51) International Patent Classification[7]: E21B 21/08 21/00

(21) International Application Number: PCT/US01/18493

(22) International Filing Date: 8 June 2001 (08.06.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/210,419 8 June 2000 (08.06.2000) US
09/874,179 5 June 2001 (05.06.2001) US

(71) Applicant: MAURER TECHNOLOGY INCORPORATED [US/US] Suite 800 13135 South Dairy Ashford, Sugar Land TX 77478 (US)

(72) Inventors: MAURER, William, C., 10811 Everwood Lane, Houston, TX 77024 (US) MEDLEY, George, H., Jr., 3626 Lost Oak Drive Spring, TX 77388 (US) MCDONALD, William, J., 211 Bylane, Houston, TX 77024 (US)

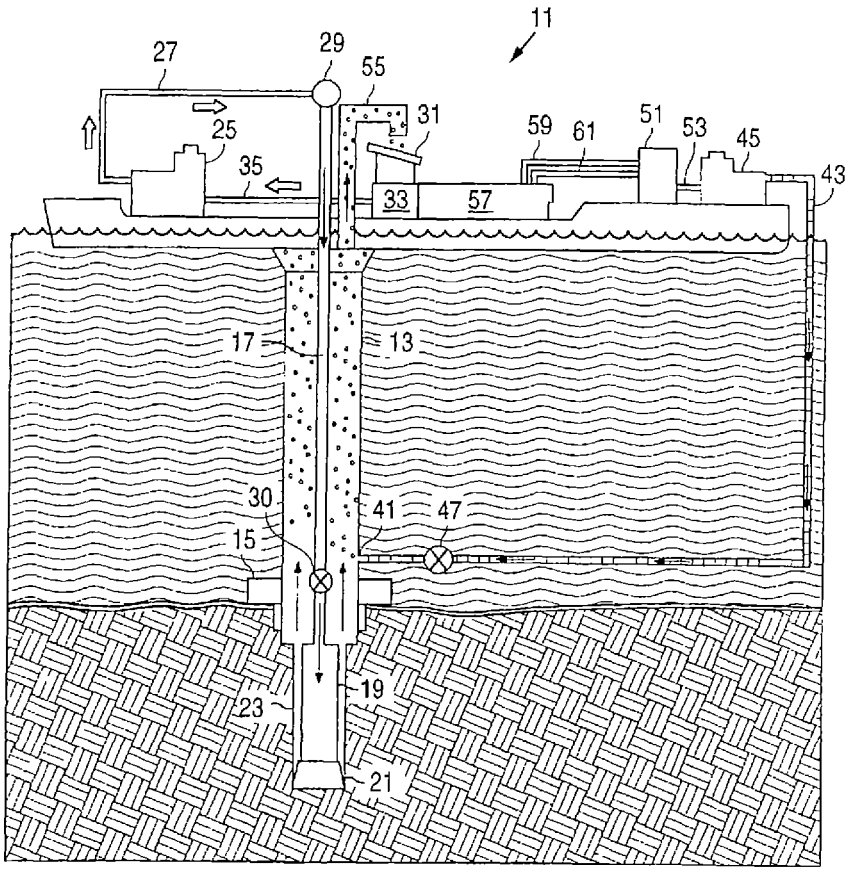
(74) Agents: JOBE, Jonathan, E., Jr. et al., Pillsbury Winthrop LLP, 50 Fremont Street, San Francisco CA 94105 (US)

(81) Designated States (national): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CO CR CU CZ DE DK DM EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(84) Designated States (regional): ARIPO patent (GH GM KE LS MW MZ SD SL SZ TZ UG ZW) Eurasian

[Continued on next page]

(54) Title: MULTI-GRADIENT DRILLING METHOD AND SYSTEM



(57) Abstract: A multi-gradient system for drilling a well bore from a surface location into a seabed includes an injector for injecting buoyant substantially incompressible articles into a column of drilling fluid associated with the well bore. Preferably, the substantially incompressible articles comprises hollow substantially spherical bodies

WO 01/94740 A1

patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG)

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette