

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
26 October 2023 (26.10.2023)



(10) International Publication Number
WO 2023/204764 A3

- (51) **International Patent Classification:**
E21B 25/00 (2006.01) *E21B 7/04* (2006.01)
- (21) **International Application Number:**
PCT/SG2023/050261
- (22) **International Filing Date:**
19 April 2023 (19.04.2023)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
10202204047U 19 April 2022 (19.04.2022) SG
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(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, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, 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, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ,

(54) **Title:** DIRECTIONAL SOIL CORING AND SAMPLING APPARATUS AND METHOD

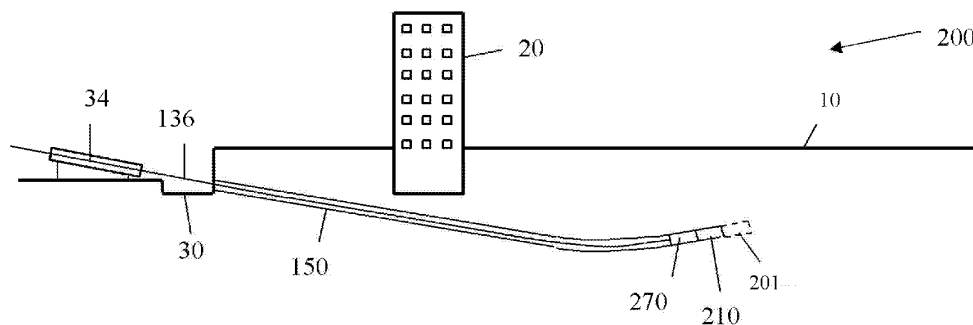


FIG. 3

(57) **Abstract:** The present invention describes a horizontal directional soil coring and sampling apparatus and method. With this invention, a location of a desired soil sample (201, 301) is determined and a drill profile is plotted from an entrance pit (30). A drill head is driven along the drill profile by drill pipes (136) to create a pilot drill-path (140); the pilot drill-path (140) is then enlarged to a bored path (150) with a forward reamer (160). In one embodiment, a coring head (210) and a soil extractor (270) are driven into the bored path (150) to obtain an undisturbed soil sample (201). In another embodiment, outer tubes (336) are driven along the bored path (150) with a coring head (310), and a wireline soil extractor (370) is sent down an interior bore of the outer tubes to obtain an undisturbed soil sample (301).

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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, ME, 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:

— *of inventorship (Rule 4.17(iv))*

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))*

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

30 November 2023 (30.11.2023)