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[21] Application No.: GCC/P/2000/637 [22] Filing Date: 26/04/2000 [30] Priority: [31] Priority No. [32] Priority date [33] State 99303307.5 28/04/1999 EP [72] Inventor: Jan Jette Blange [73] Owner: Shell Internationale Research Maatschappij B.V., Carel van Bylandtlaan 30, The Hague, 2596 HR, The Netherlands [74] Agent: Suleiman Ibrahim Al-Ammar	[51] Int. Cl. ⁷ : E21B 7/18 [56] Cited Documents: - US 5862871 A (CURRETT) 26 January 1999 - US 4534427 A (WANG et al.) 13 August 1985 - US 3838742 A (JUVKAM-WOLD) 01 October 1974

[54] ABRASIVE JET DRILLING ASSEMBLY

[57] Abstract: A drilling assembly for drilling a borehole into an earth formation is provided, comprising drill string extending into the borehole and a jetting device arranged at a lower part of the drill string, the jetting device being provided with a mixing chamber having a first inlet in fluid communication with a drilling fluid supply conduit, a second inlet for abrasive particles and an outlet which is in fluid communication with a jetting nozzle arranged to jet a stream of abrasive particles and drilling fluid against at least one of the borehole bottom and the borehole wall. The jetting device is further provided with an abrasive particles recirculation system for separating the abrasive particles from the drilling fluid at a selected location where the stream flows from said at least one of the borehole bottom and the borehole wall towards the upper end of the borehole and for supplying the separated abrasive particles to the second inlet.

No. of claims: 14

No. of figures: 5

