Calculation of Differential Sticking-Potential

Example Well - rih 3 1/2"-liner at 1,5 kg/l (- approx. 2950 m MD)

1) Drillstring Configuration — 4 1/8" -Phase

Drillstring Compone from "bit to bottom")		number pcs.	length m/joint	length tool joint* m	rel.	eff. OD inch	L section m	Hole Diameter inch	eff. thickn. ²) of filtercake [mm]	contact length m	contact width mm	eff. delta p bar
down	csg	6	9,2	0,5	5,4%	3,866	55,2	**4,125**	**0,5**	3,0	56,6	**12**
	csg	12	9,2	0,5	5,4%	3,866	110,4	**4,125**	**0,5**	6,0	56,6	**20**
top	csg	20	9,2	0,5	5,4%	3,866	184,0	**4,125**	**0,5**	4,6	56,6	**45**
							349,6					

**with "slick" DC = L DC; with HWDP incl. center upset*

²)= fk thickness - roughness of borehole wall

2) Length of Wall Contact and "Sticking Drag"

friction coefficient μ (estim.): 0,3

estimated length of hole section with differential sticking potential: 250 m