



**LIGHTER | STRONGER | SMARTER**

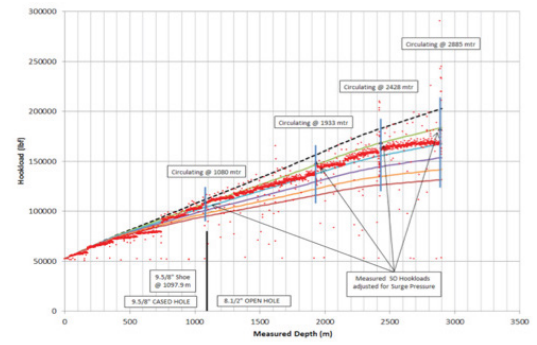
**OUTCOME**

For all 13 wells the 7" 23-29# casing was run in synthetic based mud with a typical SG of 1.3-1.4. Well bore inclinations were up to 64° with azimuthal changes up to 230°, resulting in dogleg severities in excess of 5°/30m. Centralizer placement was designed to not only provide stand-off, but also to limit drag through the kick-off and build sections which are typically relative large contributors to the total drag experienced. Each string was fitted with Max-R Low Friction centralizers at typical six to eight metre spacing over the entire length of the open hole section (up to 2,575 metre in length). All strings were successfully run to planned shoe depth.

The evaluated friction factors varied between 0.09 and 0.19 with an average of less than 0.14. These values correlate well with experimental results, and validate the superior performance of Max-R centralizers.

Because the friction factor determined in this way contains all sources of drag, the true Coefficient of Friction between centralizer and borehole will be equal or lower than those evaluated values. Field performance data provide Operators with additional confidence to design future wells that provide an even higher Return on Investment.

The Max-R Low Friction Centralizer is a high quality engineered well construction tool proven to reduce torque and drag values allowing operators to unlock additional reserves, faster and at lower overall cost.



	OH Length (m)	Max Incl (Deg)	Max Dogleg (Deg/30m)	CoF @ TD
Well 1	2042	53	3.6	0.18
Well 2	1844	51	3.9	0.15
Well 3	1473	62	4.0	0.16
Well 4	1492	64	4.8	0.13
Well 5	1841	55	4.7	0.10
Well 6	Incomplete Data Set			
Well 7	1789	48	3.9	0.09
Well 8	2647	56	5.4	0.19
Well 9	1800	47	4.6	0.11
Well 10	2575	59	5.2	0.16
Well 11	2277	60	5.2	0.14
Well 12	2126	44	3.5	0.12
Well 13	2192	50	5.2	0.10

