

WITH CONVENTIONAL PERFORATING, WHAT MAKES YOU THINK THAT PROPPANT AND FLUID

TRAVEL TOGETHER TO ALL CLUSTERS?





PARTICLE TRANSFER AT HIGH FLUID VELOCITY IS COMPLEX

FEATURES

SHAPED CHARGE TECHNOLOGY

- Provides an "off ramp" for more efficient diversion of proppant
- Perforating tunnels are tilted in direction of fluid flow
 - Additional angles are available
- Angled holes are engineered to create a physical diversion on toe side of casing for proppant to naturally flow into the formation
- Shaped charge technology engineered to produce precision holes in casing size, weights, and grades which are used in unconventional wells
- Customized entry hole selection on request

CARRIER TECHNOLOGY

- Integrated redundant grounding & charge tube retention
- Zero tension quick connect at the switch pin
- Shorter gun strings
- Faster loading process for service providers
- Easy troubleshooting

BENEFITS

- Constant entry hole size in eccentered conditions
- Allows the operator to accurately determine the number of open perforations via step rate testing
- More uniform placement of proppant in all perf clusters within the stage
- Subsequent stages and wells can then be further optimized for limited entry fracture stimulation

APPLICATIONS

- Limited entry perforating design
- Unconventional reservoirs
- · Conveyable on wireline, slickline, and tubing

Carrier O.D.	Shaped Charge	Part Number	Perforating Condition	Explosive	Phasing / Charge Tilt Angle	API 19B Targeted Pipe*	Performance in Stressed Berea (API RP19B Sec. 2)		
							EHD^ at 45° (in)[cm]	EHD Variation Decentralized	TTP (in)[cm]
3-1/8"	SandIQ B	EC2-33A1371-SB	Fluid	13.0g, RDX	60° / 45°	5.5" OD, P-110	0.28 [0.71]	4.2 %	5.0 [12.70]
	SandIQ C	EC2-33A1671-SC		16.0g RDX			0.31 [0.79]	3.8 %	
	SandIQ D	EC2-33A1671-SD		16.0g, RDX			0.38 [0.97]	2.6 %	
		EC2-33A1672-SD		16.0g, HMX			0.35 [0.89]	1.7 %	
	SandIQ E	EC2-33A2071-SE		20.0g, RDX			0.42 [1.07]	3.7 %	
		EC2-33A2072-SE		20.0g, HMX			0.41 [1.04]	4.8 %	
	SandIQ F	EC2-33A2371-SF		23.0g, RDX			0.44 [1.12]	1.0 %	
		EC2-33A2372-SF		23.0g, HMX			0.43 [1.09]	6.0 %	
	SandIQ G	EC2-33A2371-SG		23.0g, RDX			0.51 [1.30]	5.2 %	

^{*3-1/8&}quot; SandIQ charge performance is compatible in 4.5" 11.6-15.1# and 5.5" 17-23# P-110 casing.

FLUID: Qualified for shooting in FLUID only with perforating systems qualified by GEODynamics.

IN FLUID or DRY: Qualified for shooting in FLUID or DRY GAS with perforating systems qualified by GEODynamics.

Performance in concrete represents API RP43 or API RP19B Section I testing results with the shot density/phasing, casing OD, and casing grade specified.

^EHD performance in stressed berea represents API RP19B Section 2 testing results with casing flat metal plate equivalent to 0.500" 120KSI yield and penetration (TTP) in stressed berea rock.

Specify SandIQ® on Your Next Well INFO@PERF.COM