

MagTraC MWD RANGING™

The Ultimate Wellbore Separation and Intercept Solution

DRILL WITH CERTAINTY

Scientific Drilling's MagTraC MWD Ranging™ is the preeminent solution to the industry's toughest Wellbore Separation and Intercept challenges.

By isolating the earth's naturally occurring magnetic field from its magnetic interference signature, the distance and direction to the target well or casing is determined. MagTraC utilizes raw data obtained from MWD telemetry ensuring there are no disruptions to your operation.

DELIVERING THE ULTIMATE VALUE

MagTraC delivers the ultimate value by targeting what's important to you, as it:

- Improves operational efficiency by pairing with all industry's survey, steering and MWD systems capable of deriving raw data
- Provides remote ranging capabilities enabling data transfer without operational shutdown
- Supports SDI's proprietary Continuous Btotal™ measurement for real-time magnetic monitoring for early detection
- Mitigates risk and improves safety by reducing the need for on-site personnel
- Ensures there are no disruptions to your operations with our Remote Data Centers

PROVEN PERFORMANCE

MagTraC's extensive resume of proven performance spreads across the globe. It has delivered customer successes in over 500 successful jobs, with nearly 60% being completed in just the past 5 years.

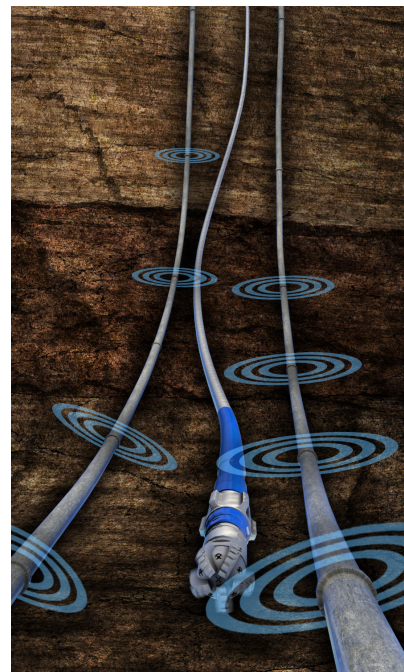
To view our recent successes, or to learn more, go to scientificdrilling.com/MagTraC

For immediate support please contact:

MagTraCrept@scientificdrilling.com

TARGET APPLICATIONS

- Close Proximity
 - Twinning
 - Handrailing
 - Frac Recovery
 - Multi-Well Drilling
- Wellbore Separation
 - Collision Avoidance
 - Ghost Hole Detection
 - Close Proximity Drilling
 - Kickoff Assurance
- Wellbore Intercept
 - Fish Bypass
 - Relief Well
 - Production Recovery
 - Plug and Abandon



TECHNICAL SPECIFICATIONS

Range of Accuracy	± 10% of distance to target
Tool Face Direction	± 5 Degrees
Data Requirements	10-15 MWD check shots - full set of sensory values (check shot spacing dependent upon distance to target)
MWD Ranging Time	Results are typically available 15-30 min after our specialists obtain the data (preliminary results usually less than 15 min)
Detection Range	Dependent on a variety of factors. Please ask for details.
Ranging Basis	Magnetic (not electrical) therefore independent on formation type, fluid type, and fracture density
Dependent Factors	Casing weight, casing condition (corrosion), MWD System
Additional Factors	High Magnetic Interference in final stages intercept may require gyroMWD surveys for accurate directional corrections EM gyroMWD significantly reduces rig time requirement for data acquisition SDI's Electronic Multishot (EMS) tool improves detection capability with its higher sensitivity; recommended for near bit ranging

**MagTraC MWD Ranging™ specifications are contingent on MWD system compatibility

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