

NEWSCO GHOST

Gyro Hybrid Oriented Survey Tool

Gyro While Drilling System

The answer to magnetic interference problems

“Newsco has expanded their suite of tools to include a wireline-retrievable, real-time gyro, integrated with their field-proven MWD system, for accurate down-hole measurements while drilling.

This system provides highly accurate survey and tool-face information that is unaffected by magnetic interference.”

Our Challenge

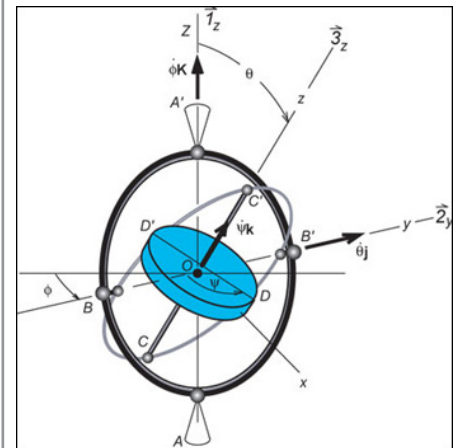
Operating in close proximity to existing cased wells or existing tools or on multiple well pads can cause interference with typical MWD magnetometers. A gyro system can eliminate these problems.

Our Solution

We integrated our rugged, field-proven MWD positive-pressure mud-pulse system (ask for our brochure on this system) with Gyrodata’s state-of-the-art gyro, with the two components operating in tandem. This allows operation in close proximity to existing cased wells or other electronic tools. The system can provide accurate directional orientation when drilling through casing or off a whipstock, since it is unaffected by ferrous materials that hamper MWD magnetometers.

These tools are wireline retrievable and operate independently, utilizing the positive-pressure MWD pulser to transmit information to the surface.

Newsco Gyro While Drilling provides full survey and steering information. We can also provide experienced personnel to ensure a perfectly drilled well every time.



GHOST Specifications

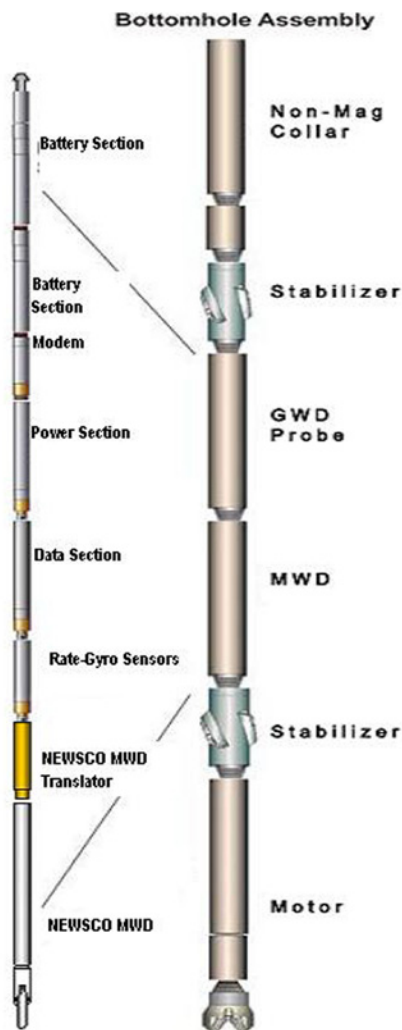
Gyro sensor accuracy	<20° Inc ±1.0° Azimuth >20° Well profile dependant
Inclination accuracy	±0.1° Inclination
Tool face accuracy	±1.0° Tool face
Probe OD	1.87"
Probe length	22.5 feet / 6.8 metres
Temperature rating	150° C / 302° F
Pumps off surveying time	3 min normal, 8 min riser-less drilling applications
Tool face update rate	5-60 seconds (user defined)
Collar sizes	9.5" to 4.75" (MWD supplier dependant)
Flow rates	MWD supplier dependant
Wireline retrievable	Yes
Pressure rating	20kpsi
LCM	Designed for high tolerance to LCM
Operating temperature	302 °F (150 °C)

A Union of Two Proven Systems

This hybrid system is the union of two technologically-advanced, trusted and rugged systems on the market today—the Gyrodata gyro tool and the Newsco MWD system.

The GHOST System

- Not affected by magnetic interference
- Retrievable
- Rugged enough to withstand the harshest drilling environments
- Tight boundary drilling
- Critical well-bore placement (e.g. pad drilling)
- Coil-tubing surveys
- Proactive equipment when concerned with deviation
- Correction runs



- To steer to KOP in collars
- Drill to TD with conventional directional or Gyro
- Directional drilling
- Eliminates multiple wireline related operations
- Any time quicker surveys will save time and money

The Newsco MWD Pulser

Durable and reliable operation:

The revolutionary positive-pressure, pulser driver assembly we developed in house is typical of the innovative thinking of our R&D team. By re-engineering off-the-shelf components and developing new mechanisms, we substantially extended the MTBF of the mechanical components while increasing the battery life of the pulser assembly from 125 hours to more than 700 hours--a 500% increase and a huge cost savings. This is the best retrievable MWD system on the market for efficiency, durability and reliability. Improved centralization and carbide components ensure that the tool will resist wash out in harsh mud environments and can remain in continuous operation down hole for 300 hours or longer.

This is a rugged and reliable system. It has proven itself in some of the harshest environments on the planet: the Peruvian jungle, British Columbia, Saskatchewan, upper and lower USA, and off shore. It has operated reliably on more than 1000 wells, some as deep as 4420 meters (14,500 feet). The entire tool is wireline retrievable and reseatable if problems occur down hole.

Re-engineered Components

Newsco never rests in its drive for improved performance and dependability, so we can continue to exceed our customers' expectations. Our proactive approach means that we take each failure seriously, carefully analyze the cause, and re-engineer parts to higher tolerances to increase strength and reliability.

NEWSCO

The Leader in Innovative Drilling Solutions

7000 Railway Street SE
Calgary, AB
Canada T2H 3A8

Office: 403.243.2331
Fax: 403.243.2563

E-mail: sales@newsco.ca
www.newsco.ca