

Delivering VALUE through PERFORMANCE

horizontalwireline.com

EcoDrive™ WIRELINE UNIT

PERFORATING SERVICES

FAST[™] Perforating Systems FocusShot[™] Perforating System CoFrac[™] Perforating Tubing Conveyed Perforating

ExT[™] LATERAL SOLUTIONS

ExT[™] Wireline Cable ExT[™] Risk Deployment Models ExT[™] Downhole Tension Tool (ISI) ExT[™] Separation Tool (FST)

REMOTE DISCONNECT SYSTEMS

Crown Connect[™] Disconnect Forum[™] Hydraulic Latch Assembly Lee Lock Remote Connection

ENGINEERED COMPLETIONS

StageFinder[™] Engineered Completions

ADVANCED RESERVOIR EVALUATION & MONITORING

CEMENT EVALUATION





Operating in the major producing basins for more than ten years, Horizontal Wireline has built one of the leading performance records in the industry. Building a reputation such as this on reliability is not easy and even harder to maintain.

Horizontal Wireline is a long-time leader in implementing the safest and most efficient perforating technology and processes. Whether it be proprietary technology or those offered by our industry-leading partners, we use the right tool for the challenge.

While we utilize best-in-class technology, the essential ingredient in maintaining our performance record is more than technology... it is the right people.

Before arriving at a location, each crew member completes one of the industry's best training programs, called The Spartan Program. It gives them the confidence and knowledge of the technology to do the job right the first time, safely, and to the highest standards.

Combine our experience, highly trained crew members, leading technologies, and our dedication to safety; and you can see that Horizontal Wireline is here to offer you the most effective, fit-for-purpose solution in the industry.



EcoDrive™ Wireline Unit

Building a Cleaner, and More Efficient Well Site

Already a leader in safety and efficiency, Horizontal Wireline continues to introduce new and improved technologies that help lower your operation cost. Our EcoDrive[™] Wireline Unit uses electricity to control the deployment of our wireline services.

This advancement brings many performance improvements and contributes to a cleaner, more ecologically friendly well site. \$

10 Times Less Operational Cost



Remote Monitoring and Automation

~29% Emissions Reduction vs Conventional Units¹



- Minimal Noise and Emissions while Operating the Winch
- Eliminate Mechanical Downtime



HORIZONTAL Wireline Services

Reduction in Unintentional Pull-off with Precise Torque Control

HORIZONTAL

1000

~170,000 Gallons of Diesel Fuel Mitigated

EcoDrive

~**1,280** tCO2e Emissions Avoided in 2022



	EcoDrive™ Wireline Unit Key Benefits	Standard Hydraulic Unit
Safety	Low voltage, GFCI wiring	High pressure next to operator
Environmental	Significant emissions reduction & no oil spills	Potential oil leaks and spills
Noise	Less than 65dB.	85dB at 1m.
Efficiency	Only runs when needed	Continuous inefficient operation
Automation	Software control	Need manual input
Reliability	Bearings are the only moving parts	Hundreds of moving parts
Power Loss	Ride-through during pumpdown	System hydraulic lock



FAST[™] Perforating Systems

Fail-safe Addressable Switch Technology adds a new dimension to electrical wireline select-fire perforating, blocking all sources of inadvertent current from the electrical detonators in the tool string, including all sources of voltage (stray, RF signal, or human error).



Dramatically improving reliability and efficiency, FAST Perforating Systems provide real-time communication and control of the downhole assembly sections during the wireline run. Real-time feedback indicates whether the plugs are set, or the guns have fired. The addressable switches allow the operator to skip gun sections if any section fails to detonate.



CoFrac[™] Perforating System

The CoFrac Perforating System lowers operating costs by improving effectiveness and efficiency while increasing production. Combining the conventional shaped charge of high-speed explosives with slower burning propellant, CoFrac creates two explosive events. The first produces a perforating jet penetrating the gun body, casing, cement, and formation. Super high pressure is created within the gun body and eliminates the possibility of the propellant exploding. As the pressure in the perforation tunnel is low compared to the pressure inside the gun body, the propellant material pushes into the perforation tunnel following the jet. At this time, the second explosive event releases direct energy into the formation to break through the crushed zone and eliminate near-bore damage while generating multiple fractures.

Tubing Conveyed Perforating

Horizontal Wireline's Tubing Conveyed Perforating (TCP) completion process enables perforating extremely long intervals in single runs. In challenging applications, such as extended-reach horizontal and high-angle wells, our TCP solutions control cost and minimize NPT.

With a multitude of firing systems, gun release systems, and accessories, Horizontal Wireline can help design effective perforating applications needed for the completion in all well conditions.





ExT™ Lateral Solutions

Lowering Total Completion Costs for Extended, Challenging Wells

Horizontal Wirelines' ExT Lateral Solutions meets and exceeds today's challenges. It is a fit-for-purpose risk mitigation package explicitly designed to lower the total completion cost safely and efficiently.

ExT[™] Risk Deployment Models

With highly deviated and extended wells, pre-job planning is a necessity. Cerberus modeling software can accurately predict and analyze cumulative forces at each stage of the wireline job.

ExT[™] Downhole Tension Tool

The ExT Down Hole Tension Tool is specifically designed to reduce the risk of fishing operations during pump-down in extended lateral wells.

No field calibrations are necessary for this compact, low-maintenance system, and it gives the operator real-time cable tension and compression measurement.

ExT™ Wireline Cable System

An environment-friendly cable system, eliminates the need for grease injection and allows faster rig-up time at the wellsite.

The ExT Cable design drastically reduces cable friction, enabling tool strings deployment in difficult wellbores.

With reduced cable friction, higher running speeds are possible without the common torque issues that standard cables suffer and without the need for traditional grease pressure control equipment.







FAST Separation Tool

Designed for use in conditions with a risk of wireline tools or guns becoming stuck, Horizontal Wireline's FAST Separation Tool (FST) saves time and expense in the recovery process.

The Fast Separation tool has a maximum tension rating of 40,000 lbs, far greater than most ballistic release tools on the market, to reduce the potential of unintentional release at the surface and fewer release failures downhole.

Wireline

REMOTE DISCONNECT SYSTEMS

At Horizontal Wireline Services, we believe that nothing takes priority over safety. But how can you go wrong when you can improve safety, boost efficiency, and lower cost?

Our remote disconnect systems are operated from a safe distance to take the operator out of the high-pressure area.

Wireline Pressure Control Equipment (PCE) can be connected and disconnected from the well in a matter of seconds, drastically reducing operating time.

Frac and Wireline operations are no longer waiting on each other ... less downtime increases efficiency while keeping people safe away from the wellhead!



SEER Packoff

The Packoff utilizes hydraulic pressure to activate a seal around the jacketed cable, containing well pressure and preventing fluids and gases from escaping into the surface. With fewer rebuilds, the SEER offers the lowest cost of operation of any packoff on the market, while extending the life of the wireline cable by protecting its jacket.



- Injection-less system avoids unnecesary pressure
- No free-floating brass bushings
- · Designed for working pressures of up to 12,500 psi
- Designed with 3 velocity check valves
- · Slim body assembly with bell housing
- · Bell housing design prevents cable damaging during rig-up and rig-down and allows for easier zipper frac operations
- · Less operational mistakes due to ease and less frequency of rebuilds
- Designed for 200+ runs between rebuilds
- Improve operating efficiency by engineering out all common failure points associated with over 80% of current coated cable incidents
- Improve well control

Crown Connect - Mechanical Disconnect



- · Quick connect technology that is safer and less costly than current industry standards
- New alternative to manual and costly electric and/or hydraulic systems
- · Fastest and most efficient connection method available with safe hands free connection to wellhead
- Reliable. Sophisticated design, simple mechanism
- 10K & 12.5K pressure rated options available
- It is a revolutionary technology designed for safety and efficiency during hydraulic fracturing operations!

StageFinder[™] Engineered Completions

StageFinder service provides a cost-effective formation evaluation method to improve the selection of frac stages and perforation clusters for higher production and eliminate stages in both vertical and horizontal wells without the need for the expensive-to-obtain open-hole logs.



StageFinder uses pulsed neutron measurements from our multi-detector Reservoir Analysis Sonde (RAS) to determine rock porosity, identify hydrocarbon bearing intervals (oil and gas) and compute water saturation. At the same time, the Spectral Gamma Ray tool, run in combination with the RAS, delivers critical information for fracing/ stimulation design: clay content and typing.

Based on these measurements, StageFinder makes it possible to assess total pay through the casing and determine fracability based on clay-matrix content.



CEMENT EVALUATION

Our Radial Cement Bond Tool utilizes a single transmitter, an eight-segment receiver at 3-foot spacing, and a single receiver at a 5-foot spacing to accurately measure the quality of the cement bond. The segmented receiver provides a radial distribution map of the cement bond quality and indicates channeling behind the casing.

To reduce the number of logging passes, the digital signal section transmits data to the surface from tools run below, such as a Gamma Ray/CCL, In-line Neutron, Compensated Neutron, or other tools with one or two pulse channels running below the CBL tool.



Health, Safety & Training

Horizontal is committed to maintaining a safe and healthy workplace for our employees. We regularly engage with our team members at all levels of our organization to highlight the importance of our policies and best practices, and we continue to invest significant time and resources in education, training, competency, and awareness.

Horizontal maintains an internal Safety Council that serves as a task force for health, safety, reporting, and compliance, while also evaluating the effectiveness of our communication and competency programs. Looking ahead, we will strive to maintain an incident-free workplace and continue to invest in programs that focus on the safety, health, and welfare of our most vital resource – our employees.

Horizontal Wireline has developed more qualified wireline crews than any other independent wireline company.



ADVANCED RESERVOIR EVALUATION & MONITORING

Reduce the risk of overlooking potential pay zones and improve your ability to evaluate, monitor, and manage reserve production.

Utilizing Horizontal Wireline's multi-detector pulsed-neutron Reservoir Analysis System (RAS), you now have access to measurements to identify smaller volumes of formation hydrocarbons than ever before accurately.

Unlike conventional pulsed neutron systems on the market, our RAS uses state-of-the-art detectors that yield high-resolution measurements, providing better information for evaluating reservoir dynamics and changes over time as the wells produce.

Spartan Program

The Spartan Program equips candidates with the specific skills required to excel. It is focused on areas that have historically posed challenges, providing employees with the knowledge and expertise necessary for success.



Our intensive BootCamp delves into the intricacies of complex equipment and maintenance procedures frequently encountered in the field. By creating a controlled environment, we can efficiently train and mentor candidates on field-related topics that would typically take years to learn through on the job training alone.

The program then comprises field mentoring and monitoring where they have the opportunity to acquire hands-on experience in a field setting. This immersive approach facilitates accelerated learning compared to traditional methods of advancement. Our training program draws upon the combined experience of our trainers and support staff.

Throughout the program, candidates will learn troubleshooting skills, equipping them with the tools to address and mitigate issues that may arise in the field. We aim to develop our crews to become leaders where awareness, accountability, teamwork and a strong sense of ownership are at their core!

WIRELINE

Our objective is to provide the safest and most efficient wireline services in the industry. This is more than a simple statement, it is the foundation of our business. We aspire to achieve this objective everyday through a rigid focus on providing only the best: *People, Process, Equipment and Technology.*



Contact Your local Horizontal Wireline Representative or Visit Us Online at:

horizontalwireline.com





381 Colonial Manor Road, Irwin, PA 15642 | horizontalwireline.com