



## DRILLING FLUID LUBRICATION TECHNOLOGY FIELD PROVEN SOLUTIONS TO DRILLING CHALLENGES



**FRICTION REDUCTION   NPT REDUCTION   FILTRATION CONTROL**

POWERED BY:



TECHNOLOGY

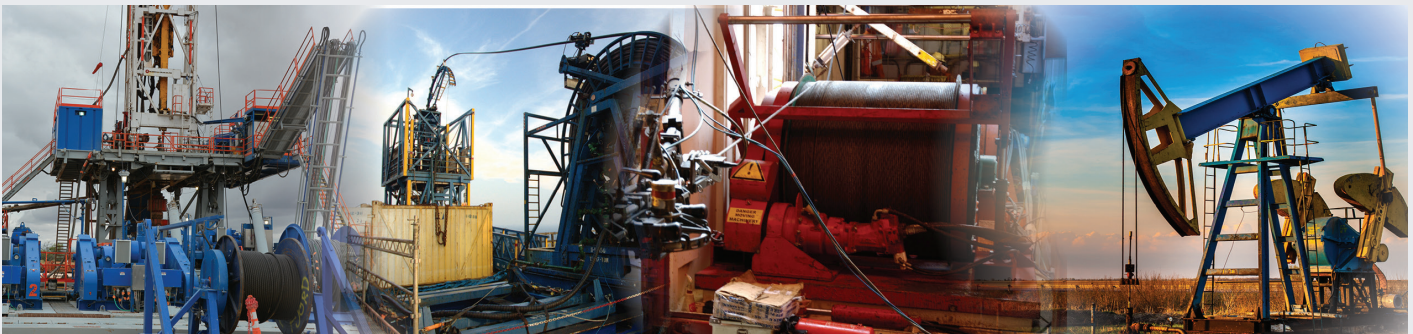


## THE ULTIMATE GAME CHANGER IN DRILLING TECHNOLOGY

With operations in the Bakken, Permian, Marcellus, and international oilfields, ProOne, Inc. has developed the most advanced problem-solving technology in lubrication today which dramatically reduces heat and friction and has over 50 times the film strength of conventional lubricants. ProOne's game changing drilling technology is the ultimate answer to Rig Efficiency.

ProOne's primary focus is on the oil & gas and industrial markets where its world renowned performance environmentally-friendly line of products takes lubrication to the next level of performance in the most challenging environments.

- XPL+ Technology has been tested and certified by leading laboratories.
- Blue chip corporations use this advanced lubrication technology to offer bottom-line savings.
- ProOne's game-changing drilling products have been used in over 1,500 wells by leading oil & gas operators in multiple oilfields, proving to reduce torque, drag, reduce NPT, and save money.



## XPL+ TECHNOLOGY

XPL+® has a **positively charged molecule structure** with a strong ionic (+) charge which allows it to **bond to metal** even under extreme heat and pressure, giving lubricants formulated with XPL+ unprecedented film strength and extreme pressure protection.

ProOne Downhole Drilling Fluid Treatment has been responsible for producing extraordinary results in horizontal and vertical drilling operations.





# ENGINEERED FIELD-PROVEN SOLUTIONS TO DRILLING CHALLENGES

## FRICITION REDUCTION TO SOLVE DRILLING PROBLEMS



**HIGH TORQUE & DRAG**



**NPT REDUCTION**



**MINIMIZE  
TWIST OFF RISK**



**LONG HORIZONTALS**



**REDUCE  
DRILL BIT WEAR**



**EXCESSIVE TRIPS**



**TOP DRIVE  
OVERHEATING**



**REDUCE  
MUD MOTOR FAILURE**



**DOGLEGS**



**LOW ROP**



**DEVIATED WELLS**



**STUCK PIPE**

## FILTRATION CONTROL:

ProOne's advanced shale stabilizers works to ensure a well balanced weight and density for all types of muds, reducing lost circulation events.

## OXIDATION REDUCTION:

ProOne is compatible with all API corrosion inhibitors.

## PERFORMANCE RESULTS

On a bench cross axis friction machine test, bearings are subjected to pressure from a spinning race.

Using a leading water based mud without XPL+®, the bearing sustains severe damage at only 4,000 pounds per square inch of pressure.

With ProOne's exclusive XPL+ Technology, there is minimal damage at 200,000 per square inch of pressure...over 50 times the pressure!

**Without XPL+®**

**With XPL+®**



4,000psi



200,000psi



POWERED BY:



TECHNOLOGY

# NITRO<sup>®</sup> DOWNHOLE DRILLING FLUID

## THE ULTIMATE GAME CHANGER IN DRILLING LUBRICATION

Formulated with ProOne's **XPL+<sup>®</sup> Technology**, **Nitro<sup>®</sup>** is the next evolution in drilling lubrication technology. It is the proven solution for drilling challenges and well cost savings.

This unmatched technology reduces heat and friction under the most extreme conditions and outperforms the competition even at low concentrations, and is compatible with all drilling fluids.

### CHARACTERISTICS:

- **HPHT**
- XPL+<sup>®</sup> Technology withstands high heat (beyond 500°F+)
- Has an unprecedented film strength of over 200,000psi.
- Begins to work the moment it enters the well.



### Nitro turns ordinary muds and fluids into **SUPER MUDS & FLUIDS!**

ProOne#	Size	Case Pack
51055	55 gallon/ 208L Drum	1
51275	275 gallon/ 1,040L Tote	1

### BENEFITS OF USE

- Reduces torque and drag
- Increases ROP
- Reduces drill bit wear
- Reduces mud motor failure
- Helps reduce trips
- Drills curves up to 50% faster
- Straighter verticals
- Minimizes twist off risk

### DRILLING ISSUES SOLVED

- High torque and drag
- Low ROP
- Excessive trips
- NPT
- Doglegs
- Deviated wells
- Top drive overheating
- Reduce wear in mud motors & pumps

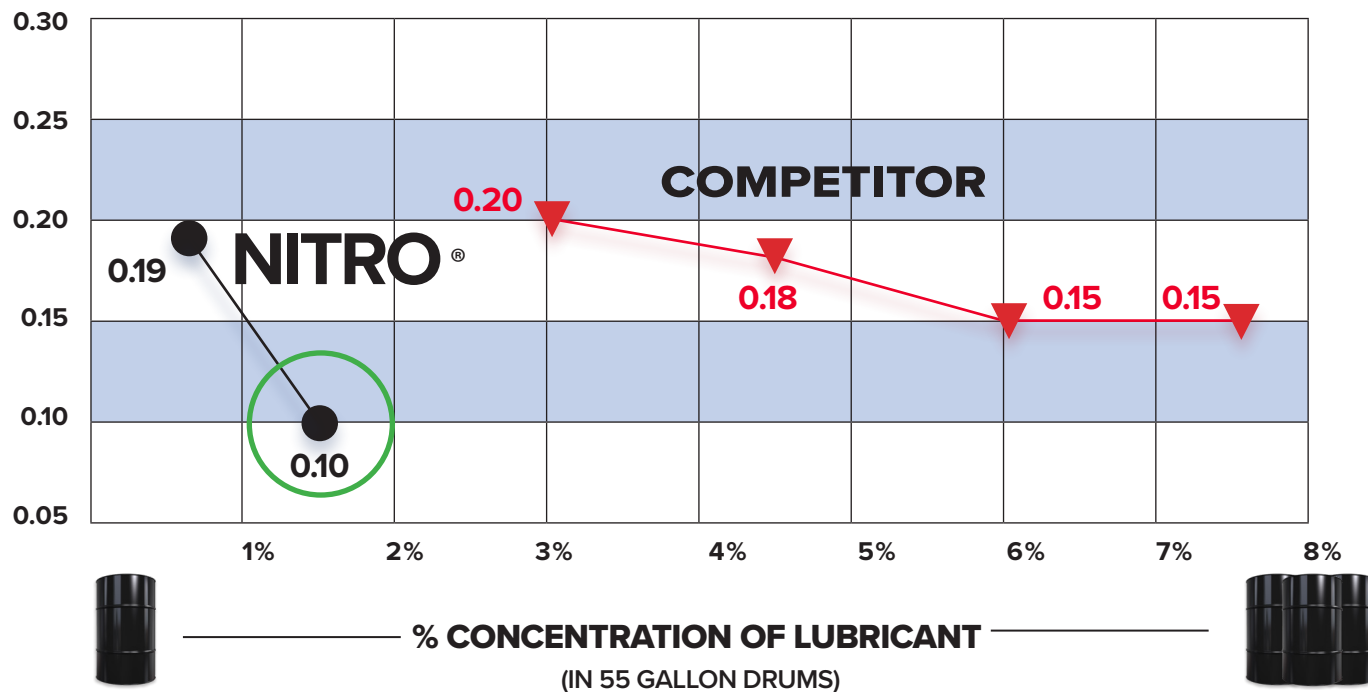
### PRODUCT DATA

Core technology	XPL+ <sup>®</sup>
Base oil	Mineral Oil Based
Color	Light Amber
Odor	Mild
Ecological impact	Environmentally Friendly
Solubility in water	Complete
LC-50 test (30,000 ppm to pass)	719,300ppm
Temperature range	N/A
Flash point	400°F (204°C)
Pour point	-27°F
Specific gravity	0.93 @ 60°F (15.6°C)
pH	7.1
VOC	Nil
Stability	Yes
Health	1
Flammability	1
Reactivity	0
Non-hazardous	Class 60
Oil based mud	Compatible
Water-based mud	Compatible
Brine	Compatible

## TESTED & PROVEN

An independent laboratory Dynamic Lubricity test shows that NITRO used at only 1.5% reduces the metal-to-metal coefficient of friction significantly better than a major competitor's product used at 7.5%.

### LEM II Computer Controlled Dynamic Lubricity Testing WTC-14-004685 OUTPERFORMS COMPETITION...AT 1.5% VS 7.5%



## ENVIRONMENTALLY FRIENDLY

Nitro not only helps reduce drilling costs but also helps operators reduce environmental risks and cleanup costs.

### COMPATIBLE WITH:

- WATER BASED MUD
- OIL BASED MUD
- BRINE

Safe for use  
by drilling  
personnel.







## MAJOR OPERATOR - CANADIAN, TEXAS

*"We would not have been able to complete this well without ProOne."* - Company Man

### DIRECT RESULTS:

- Prior to adding ProOne, torque was maxed out at 15,500 ft./lbs.
- ProOne reduced torque 37% from 15,500 ft./lbs. to 9,700 ft./lbs.
- ProOne increased ROP 12% from 22.75 fph to 25.50 fph.
- Reduced drill curve time from 64 to 30 hours
- Operator reached TD with ProOne

2 trip outs @ 60,000 each	\$120,000
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2 drill bits @ \$15,500 each	\$31,000
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Reduced drill curve time	\$85,000
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34 Hours Faster (64 to 30 hours) @ \$2,500 per hour

ROP @ curve to TD 4,437 ft. @ 25.50 fph	\$52,500
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(Increase of ROP 12% Savings 21 hours x \$2,500)

No hard-banding needed!	\$12,047
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(Magnets Stayed Clean)

<b>GROSS SAVINGS</b>	<b>\$300,547</b>
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## MAJOR OPERATOR - EDDY, NEW MEXICO

*Longest Lateral in New Mexico History at the time. - 19,770 ft.*

*"In 25 years in the oilfield, I have never seen anything like ProOne. We noticed a significant torque reduction and increase in ROP"* - Company Man

### DIRECT RESULTS:

- Torque reduced by 50% (maxed out from 30,000 ft./lbs. to 15,000 ft./lbs.)
- ROP increased by 28% (from 41 fph to 57.5 fph)



## MAJOR OPERATOR - ALICE, NEW MEXICO

*Longest Lateral for Drilling Company at Location - 20,300 ft. TD*

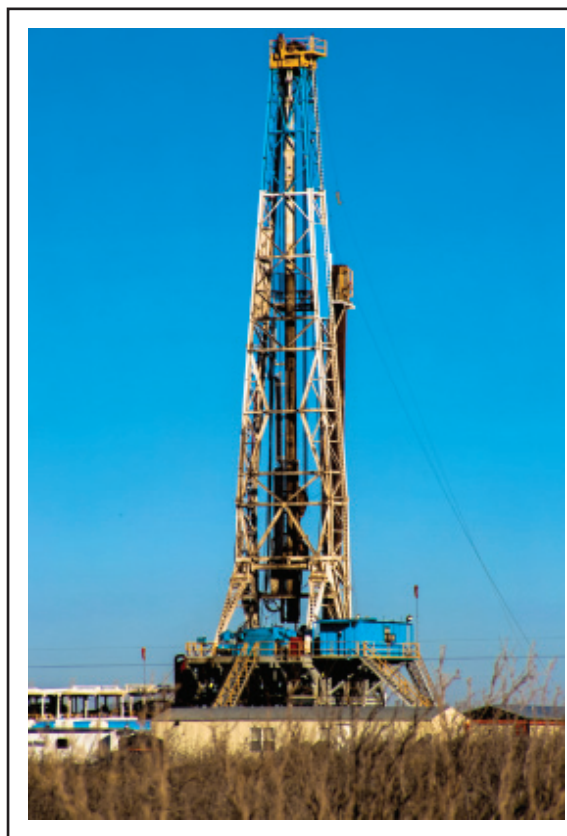
Company experienced significant lubricity issues on formation and used 18 totes of competitor lubricant from EOC to 13,280 ft. without any results.

### OVERVIEW:

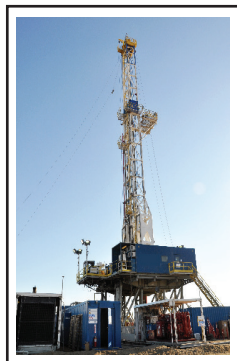
- Nitro introduced at 13,280 ft.
- Applied at 0.75% on first tote
- Added at 2.5gpm of mud pump volume of 610gpm for remainder of 12, 290 ft. lateral and reached TD.

### DIRECT RESULTS:

Torque never exceeded 28,000 ft./lbs. (operated between 26k to 28k)  
At EOC (end of curve) rig was right on AFE (authority for expenditure)  
Maintained ROP of 1630 ft. per day putting rig 2 days ahead of schedule  
Well TD'd at 22,300ft.



## MAJOR OPERATOR - LAREDO, TEXAS



"Stuck drill string at 11,400ft. Leading spotting fluid was unsuccessful in recovery. After four sweeps of ProOne the string was extracted from the hole...amazing!"

- Company Man

## MAJOR OPERATOR - BAKKEN, ND



"Saved 4 to 6 days at \$90,000 per day over previous 3 holes drilled using a different lube."

- Company Man

## MAJOR OPERATOR - JAL, NEW MEXICO



"Could not set casing for 24 hours. ProOne was used in 2 to 8 barrel sweeps. After the 4th drum, the casing fell to the bottom. ProOne saved us \$250,000 and 4-5 days drilling. "

- Company Man

## MAJOR OPERATOR - PECOS, TEXAS



"Reduced torque by 44%, cut the curve in 17 hours vs 22 saving us \$49,583"

- Company Man



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