



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

## THE ULTIMATE GAME CHANGER IN DRILLING LUBRICATION

Formulated with ProOne's **XPL+<sup>®</sup> Technology**, Nitro D+<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

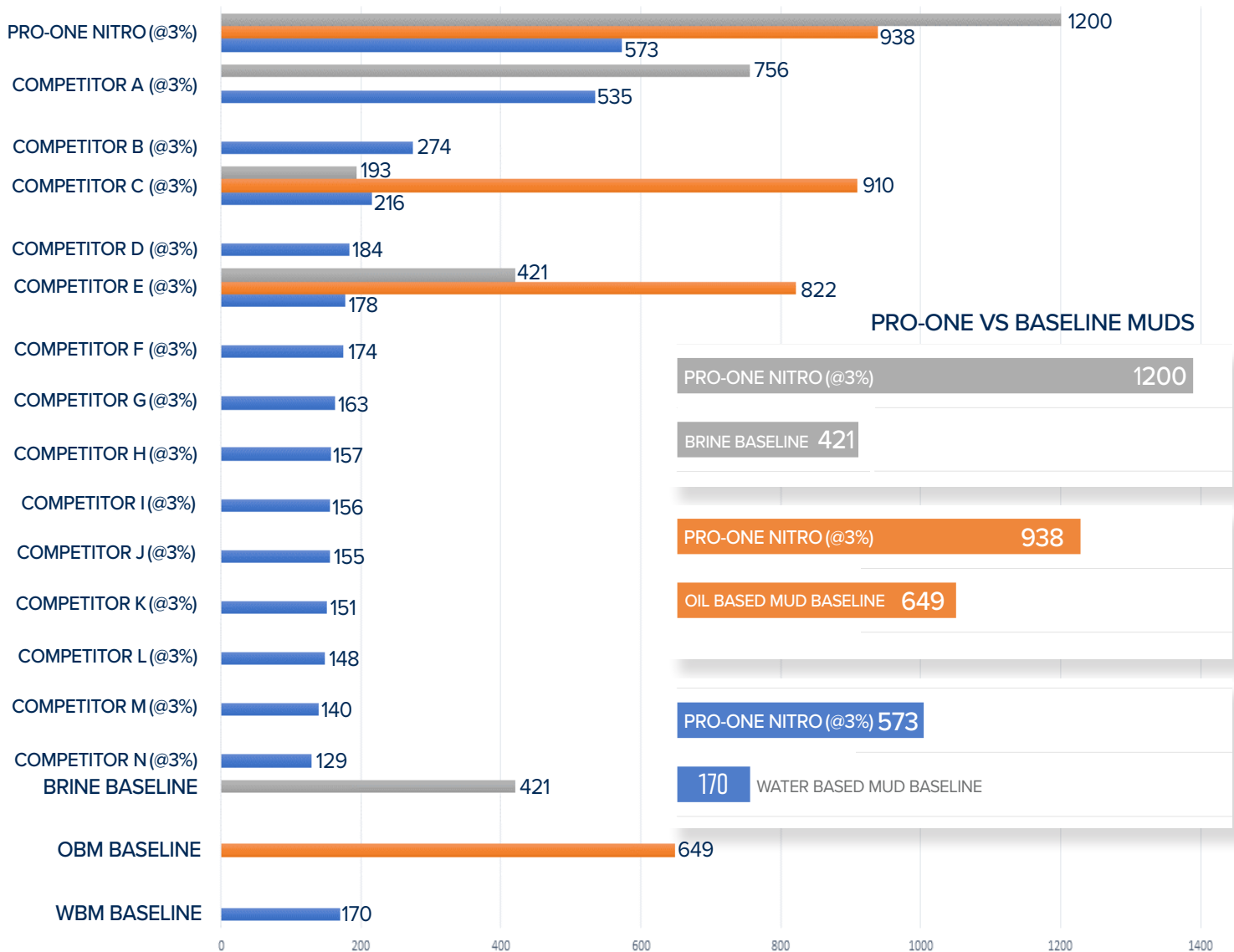
### PRODUCT DATA

Core technology	XPL+ <sup>®</sup>
Base oil/ Combination of	Organic / Mineral Oils
Color	Translucent Brown Fluid
Odor	Mild Petroleum
Ecological impact	Environmentally Friendly
Solubility in water	Complete
LC-50 test (30,000 ppm to pass)	700,000ppm
Temperature range	Performs above 350°F
Flash point	385°F (196°C)
Pour point	-15°F
Specific gravity	.873
Viscosity	17.9cSt @ 40°C
pH	N/A
VOC	Nil
Stability	Yes
Health	1
Flammability	1
Reactivity	0
Non-hazardous	Class 60
Oil based mud	Compatible
Water-based mud	Compatible
Brine	Compatible



# PRO-ONE VS TOP DRILLING FLUIDS

The test was conducted with a mud company who secured 14 competitive lubricants for testing. ProOne went head to head with samples of Water Based, Oil Based, and Brine muds going down the hole today. These tests continue to validate the added benefit and necessity of ProOne XPL+ Technology in rig efficiency and maximum savings.



## METHODOLOGY

MEASURED IN INCH/LBS

Using a Triple Cross Axis Friction Machine similar to what is used in laboratories to test film strength of oils and lubricants, an inch-pound torque wrench is used to apply pressure between a tapered roller bearing and a spinning race. The numbered values (measured in inch-lbs) represent the maximum amount of pressure the fluid is able to withstand at point-to-point contact.

## RESULTS:

- The addition of ProOne Nitro significantly increases lubricity of Brine (421 to 1200), Water-Based Mud (170 to 573), and Oil-Based Mud (649 to 938).
- Water-Based Mud with ProOne Nitro performs almost as well as Oil-Based Mud (573 vs 649)
- ProOne Nitro outperforms all other competitors on all three fluids .. Brine, Water-Based Mud and Oil-Based Mud.