



M&D Industries of La, Inc. DRILLING SOLUTIONS

Date: 01-January 2009



INTRODUCING

“NEW AND IMPROVED CONTONE”

PRO BLEND®



SOLUTIONS FOR:

SHALE CONTROL

WELL BORE STABILITY

TOURQUE & DRAG REDUCER

SEEPAGE CONTROL

INCREASE ROP

WILL NOT SHEEN

☰ To Order Call: 1-800-772-6833

NEW and IMPROVED Contone
Exclusively offered by
M&D Industries of LA, Inc.
PRO BLEND®

Description:

Dry flowing insoluble powder composed of a combination of platy aluminum silicate minerals, processed hydrocarbons and graphite ground to a very fine consistency to form tight suspension in water base drilling fluids, oil base drilling fluids and invert emulsion mud's.

Properties:

APPEARANCE: Gray-Black Powder
PARTICLE SIZE: 74-75 microns
SPECIFIC GRAVITY: 2.5-2.7
TEMPERATURE TOLERANCE: 500° F +

Principal Uses:

Shale inhibition and control
Torque and drag reduction
Seepage control
Sealing micro fractured shale
Reducing HTHP in oil base mud systems

Application:

Initial treatment----- 2-8 ppb
Maintenance treatment----- 0.25-3.0 ppb daily

Packaging:

Pro Blend® is packaged in 50 lb multi-walled sacks and has 50 sacks per pallet.

 **To Order Call: 1-800-772-6833**

NEW and IMPROVED Contone
Exclusively offered by
M&D Industries of LA, Inc.
PRO BLEND®

PRO BLEND® works mechanically by blocking micro fissures in water sensitive shale with minute insoluble particles. It has been noted in many shale problem areas of the world that some shale's are simply water sensitive. Whether it is water with a high chloride, calcium, or potassium content, the shale will still slough. With the addition of **2-8 ppb** of **PRO BLEND®** better results are achieved in drilling troublesome shale. **PRO BLEND®** can be used with any type of water or oil base fluid.

PRO BLEND® has superior lubricating qualities that will work unfailingly for torque and drag problems. When extreme torque and drag are encountered, it has been noted that 6 ppb is a good starting point. For lubricity the engineer on location should calculate what torque and drag numbers are suitable to his situation and adjust the concentration of **PRO BLEND®** accordingly.

PRO BLEND®, being a dry powder, should be added through the mud hopper. **PRO BLEND®** mixes well with any drilling fluid mud system. Optimum blend time of five minutes per sack is recommended.

With water base drilling fluids the addition of 2 to 8 ppb of Pro Blend® has yielded exceptional results and achieved the same superior quality drilling troublesome shale's as seen in oil base drilling fluids. Pro Blend®, a simple compound that is chemically inert, will impart shale control and lubricating qualities superior to anything on the world market today. It will not harm producing zones or impair interpretations in any way and will not shoen in offshore applications.

 **To Order Call: 1-800-772-6833**

NEW and IMPROVED Contone
Exclusively offered by
M&D Industries of LA, Inc.
PRO BLEND®

SHALE INHIBITION

For troublesome shale sections with seepage problems or sloughing shale problems a minimum of 2-8 ppb of Pro Blend® for each barrel of active mud should be added prior to entering the suspect zone. This should be maintained by the minimum daily additions of 0.25 ppb of treated active drilling fluid. Any new hole drilled requiring the building of additional drilling fluid should be treated with 2-8 ppb of Pro Blend® and 0.25 ppb additions resumed thereafter. New drilling fluid built consists of fluid for lost returns, dilution, and solids control equipment.

TORQUE & DRAG / ROP ENHANCEMENT

For decrease in torque and drag or increase in ROP, additions of Pro Blend® may be added initially in the form of a sweep. For sweeps isolate 50 to 100 bbls of active drilling fluid in the slugging tank. Add 8 ppb of Pro Blend® to the slugging tank and sweep the well bore with the desired amount of the sweep needed for immediate results. While sweeping the well bore begin additions of 2-8 ppb of Pro Blend® to the active system followed by a maintenance plan for continued results.

SEEPAGE CONTROL / MICRO FRACTURES

Pro Blend® has a micron particle size distribution of 34-75. Pro Blend® is a non-soluble product and is non-florescent. For seepage control and the sealing of micro fractures the addition of 2-8 ppb of Pro Blend® added directly to the system provides excellent coverage and has proven to be a superior sealant. Daily maintenance at original application should be maintained.

HPHT REDUCTION

Pro Blend® in field applications has provided phenomenal reduction in hard to reduced HPHT's. The optimum application for reduction varies from 2-6 ppb with no more than 6 ppb being needed. Pro Blend® has proven to reduce the HPHT in OBM as well as WBM's as much as 99.9% from original HPHT.

 **To Order Call: 1-800-772-6833**

NEW and IMPROVED Contone
Exclusively offered by
M&D Industries of LA, Inc.
PRO BLEND®

EXAMPLE WELLS

Example 1: Chevron False River Field, Louisiana
Reported by Andy Mayeux

Well: Paul O. Bourgeois #1

Added 4 ppb **Contone/Pro Blend®** while drilling the interval 12,145'-12,280' immediately above the Midway Shale. The entire Midway Shale section was drilled with some minimal sloughing through the first 100' and none thereafter. The **Contone/Pro Blend®** concentration was maintained throughout the drilling of the Midway Shale.

Example 2: Chevron False River Field, Louisiana
Reported by Bo Billeaud

Well: P.S. Dorgan #1

Soon after entering the Midway Shale section at 13,000', the drill string encountered severe torque problems associated with sloughing shale fouling the BHA, often requiring the back reaming of one or more joints before successfully completing a new connection. Connection time averaged 1 to 2 hours each. Four ppb of **Contone/Pro Blend®** was added to the 10.0 lb/gal gel-water based mud and the first subsequent connection required 30 minutes. The **Contone/Pro Blend®** concentration was increased to 6 ppb and mud density was increased to 10.2 lb/gal. Thereafter, connections were made with no problems and no obvious torque/drag problems attributable to sloughing shale were experienced. The **Contone/Pro Blend®** concentration was maintained with daily additions of ¼ ppb.

Example 3: Exxon Mobile Bay Block III, Alabama State Lease. 536 #1
Reported by K.A. Richardson

While tripping from 18,725', the drill string became stuck, with the bit at 15,965' and the BHA across an in-gage section of sandstone below a reactive shale interval at 15,500-15,800. The interval 15,900-16,200 had been "tight" on previous trips.

Sidetracked the fish. **Contone/Pro Blend®** was added to the seawater based gel mud system @ 4.2 ppb concentration while kicking off the cement plug @ 14,980' (above the reactive shale). Immediately after adding **Contone/Pro Blend®** the rotating torque decreased from 22,000 Ft.-Lbs to 14,500 Ft.-Lbs. The HTHP filtration rate of the 10.6 lb/gal mud decreased from 16.2-14cc. A proprietary program used to predict drilling drag and torque indicated that the coefficient of friction for this sidetrack hole was the lowest COF of any of the 9 directional Mobil Bay wells drilled by Exxon at that time. The 4-arm caliper showed the reactive shale interval @ 15,500-15,800' to be uniform in size with an average diameter of 9 ½ "(8 ¾" bit). Caliper logs in this same shale from offset Mobile Bay wells drilled with seawater gel based mud ranged from 27" to "off-scale" in diameter.

☰ To Order Call: 1-800-772-6833

NEW and IMPROVED Contone
Exclusively offered by
M&D Industries of LA, Inc.
PRO BLEND®

Lubricity Test 30-June 2004
MILLER & ASSOCIATES

16.0 lb/gal Oil Base Mud With Contone/PRO BLEND®

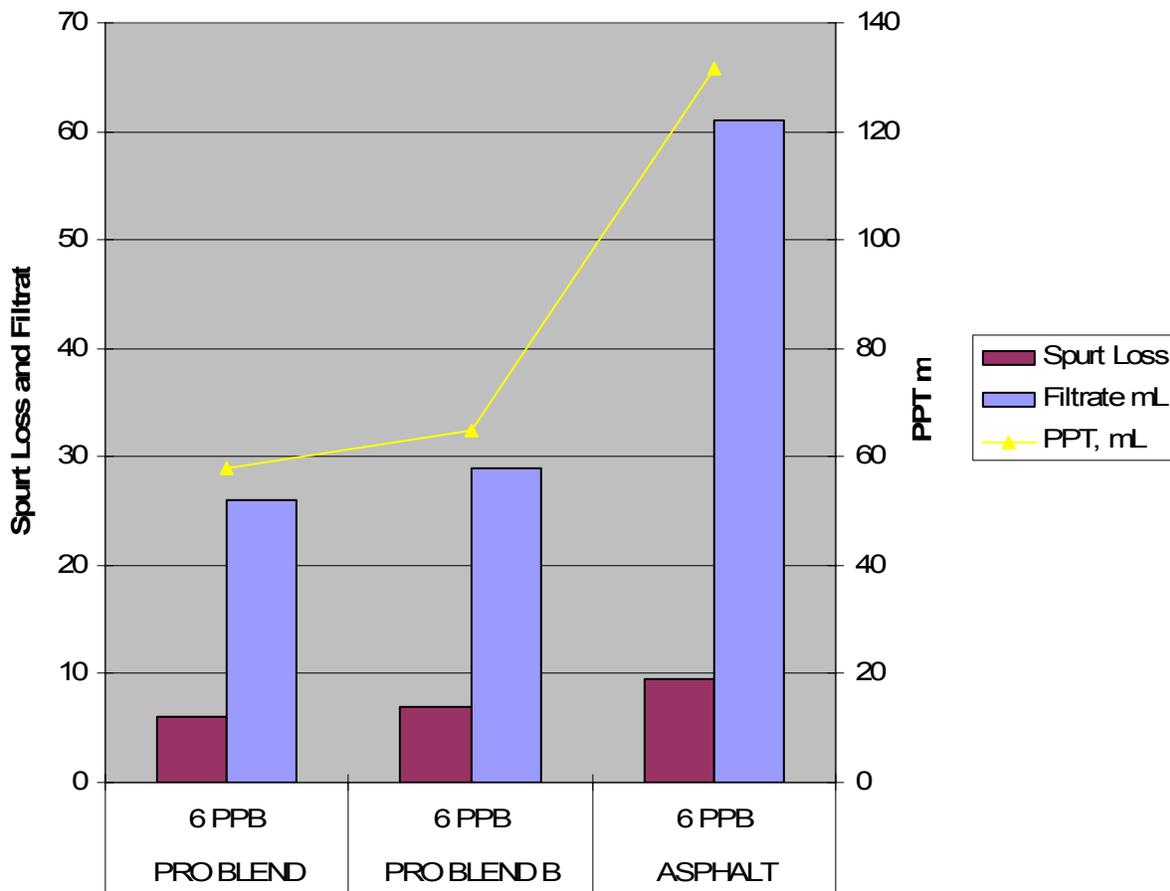
TOURQUE	<u>Base Mud</u>	<u>2 ppb</u>		<u>4 ppb</u>	
	AMPS	AMPS-Reduction		AMPS-Reduction	
100	6.4	5.6	<12.5%	5.5	<14.1%
200	8.6	7.1	<17.5%	7.2	<16.3%
300	10.8	9.6	<11.2%	9.4	<13.0%
400	15.1	13.4	<11.3%	13.1	<13.3%
500	16.4	13.6	<17.1%	13.4	<18.3%
600	18	16.2	<u><10.0%</u>	15.9	<u><11.7%</u>
	Average total reduction		<13.3%		<14.5%

TOURQUE	<u>Base Mud</u>	<u>6 ppb</u>		<u>8 ppb</u>	
	AMPS	AMPS-Reduction		AMPS-Reduction	
100	6.4	5.0	<21.9%	5.1	<20.4%
200	8.6	6.8	<21.0%	6.2	<28.0%
300	10.8	9.1	<15.8%	8.8	<18.6%
400	15.1	13.0	<14.0%	12.9	<14.6%
500	16.4	12.9	<21.4%	12.4	<24.4%
600	18	15.0	<u><16.7%</u>	14.8	<u><17.8%</u>
	Average total reduction		<18.5%		<20.6%

☰ To Order Call: 1-800-772-6833

NEW and IMPROVED Contone
Exclusively offered by
M&D Industries of LA, Inc.
PRO BLEND®

PPT
PRO BLEND / PRO BLEND B / ASPHALT
17.5 PPB Bentonite -
December 16, 2003



5 Darcy Disk , 20 Micron - 2,000 psi - 200 Degrees F

Note: Stable Over 500 Degrees F

 **To Order Call: 1-800-772-6833**

NEW and IMPROVED Contone
Exclusively offered by
M&D Industries of LA, Inc.
PRO BLEND®

ENDORSEMENT

F.J. BROWN & ASSOCIATES, INC.

MEMORANDUM TO: Hubert Young

FROM: Murphy J. Hebert DATE: March 12, 2002 SUBJECT: Shale Inhibition-Main Pass Block 35

I recommend the use of **Contone/Pro Blend®** for inhibition of shale's in pressure transition intervals or any shale's that are not water wet; not for gumbo. I currently use **Contone/Pro Blend®** in lieu of Soltex for wells that I plan for clients in the Gulf Coast region. It has been my experience that **Contone/Pro Blend®** will stabilize a well bore better than any competitive product when the problem is associated with unstable shale's.

My first use of **Contone/Pro Blend®** was on a deep well for Chevron in Main Pass Block 35 and it was on this well that I observed the most dramatic results. While drilling a 6¹/₂" hole below 12,000' the gas units were high and the amount of shale across the shaker was considerably more than drilled cuttings. Periodic increases in mud density resulted in short term decreases in gas units but the volume of shale continued to be excessive. During a logging run, the caliper on the logging tool was fully extended and indicated a hole size too large to measure. Obviously, Chevron's Geology Group were displeased with the hole size and Chevron's Drilling Superintendent decided to add **Contone/Pro Blend®**, a new product at the time, to the mud. The remaining 6¹/₂" hole, several hundred feet, was in perfect gauge.

As a well site-drilling engineer, I was amazed with the results. But had no idea why this dramatic result occurred. Because of a production engineering assignment, I forgot about **Contone/Pro Blend®**. Upon returning to a drilling assignment, I found the industry using blown asphalt, Soltex, for shale inhibition. Although the results with Soltex were good on all wells I was associated with, there was none to compare with the results obtained with **Contone/Pro Blend®**. **Contone/Pro Blend®** does not go into solution as readily as Soltex, which explains the more favorable results from **Contone/Pro Blend®**. If the material has to seal the micro-fractures, the last soluble-the better the results.

Some of our well site supervisors are high on **Contone/Pro Blend®** as a lubricant and recommend it for decreasing torque and drag. However, I do not use it for that purpose, but accept the fact that there is an additional benefit.