

ULTRA SEAL®

M & D Industries of Louisiana, Inc.

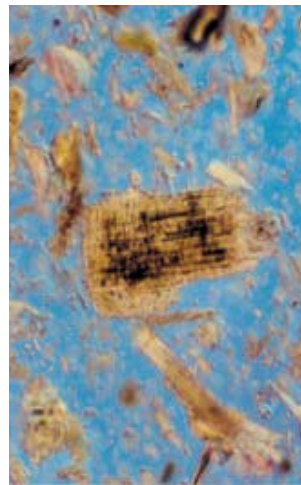
JANUARY 2005

PRODUCT DESCRIPTION

Unlike most fiber products, Ultra Seal® DFA is a blend of different types of cellulosic fiber groups, filtrate control agents and physical lubricants, not just one primary fiber type. Both laboratory testing and experience on the rigs continues to prove that the unique Ultra Seal® DFA blend provides consistently superior performance.

Every drilling situation is different, so there is no single answer to loss circulation problems.

That's one reason why Ultra Seal® DFA is available in four different product grades: [Ultra Seal-XP®](#) & [Ultra Seal-TG®](#) SCM is a fine-grade material often used as a preventative; [Ultra Seal-C®](#) LCM is a similar product manufactured in a coarse grade required for severe or total loss of returns; [Ultra Seal Plus®](#) LCM is a proprietary blend of fibrous, granular and flake materials designed specifically for massive loss circulation.



The key to our fiber-based lost circulation materials is consistency in both product quality and ease of application.

PRODUCT BENEFITS

Due to the extensive research required to develop the Ultra Seal® DFA product line, the quality of raw materials selected for the manufacturing process and the conducting of numerous quality control

tests, Ultra Seal® DFA is the most effective and cost efficient drilling fluid



As the oil and gas industry worldwide continues to demand more efficient, cost-effective operations, the need to minimize lost-time, such as differential sticking and loss circulation, has become imperative. Using Ultra Seal® DFA, many drilling-related problems can be prevented and controlled.

Product Data

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Special points of interest:

- **Excellent for Controlling Differential Sticking**
- **Seals Micro-Fractured Shale**
- **Reduces Torque & Drag**
- **Solves Loss Circulation**
- **90-100% Return Perm**
- **70% Soluble in Bleach**

ULTRA SEAL-XP® SCM(FINE)

DESCRIPTION: Ultra Seal-XP® is a blend of specific micro-sized cellulosic fibers, combined with a blend of organic polymers and lubricity enhancers.

APPLICATION: Ultra Seal-XP® is designed to aid in the control of fluid losses to the well bore, as well as promote the anti-friction characteristics of a drilling fluid.

Ultra Seal-XP® seals off low pressure zones, which in turn reduces rotary torque and drill string drag that is present in these differential pressure environments.

Ultra Seal-XP® is compatible with both OBM and WBM systems and is coated with a mineral oil.

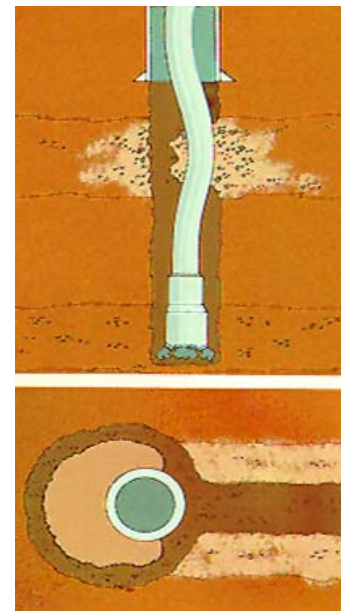
CONCENTRATIONS:

Differential Sticking Prevention:
For excessive torque and drag, sweeps of 8-25 lbs/bbl of Ultra Seal-XP® is recommended. For extended intervals, Ultra Seal-XP® can be added system wide in concentrations of 4-8 lbs/bbl.

Seepage Control:

Sweeps of 12.5-25 lb/bbl of Ultra Seal-XP® combined with up to 12.5 lb/bbl Ultra Seal-C® is recommended.

Packaging: 25 lb sacks, 48 per pallet.



ULTRA SEAL-C® LCM (MEDIUM)

DESCRIPTION: Ultra Seal-C® is a blend of cellulose vegetable fibers and is blended in a medium to coarse grade. The product is coated with a food grade mineral oil and is compatible with both WBM and OBM systems.

APPLICATION: Ultra Seal-C® is applied in the form of sweeps or spots within the active drilling fluid.

CONCENTRATIONS:

Partial Losses:

Sweeps/spots of Ultra Seal-C® in concentrations of 25-50 lbs/bbl is recommended across the loss zone.

Total Losses:

A 50-100 barrel pill of 25-50 lbs/bbl Ultra Seal-C® along with 12.5-25 lbs/bbl Ultra Seal-XP® should be mixed in the slugging tank and spotted across the loss zone.

“If ULTRA SEAL-C® or ULTRA SEAL-PLUS® is not successful in solving the loss circulation problem, consider the use of POLY PLUG®. See POLY PLUG® product data sheet for more information.”

Packaging: 25 lb sacks, 42 sacks per pallet.

ULTRA SEAL-PLUS® LCM (COARSE)

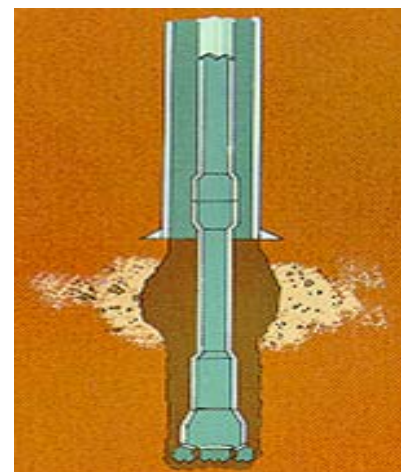
DESCRIPTION: A blend of Ultra Seal-XP®, Ultra Seal-C® and additional (larger) sealing agents. The large particle array is beneficial in establishing a stronger initial bridge across the thief zone. By the inclusion of these larger particles, effective control of rigid type fractures, vugular or unconsolidated formations can be achieved. Ultra Seal-Plus® is the LCM portion of POLY PLUG®

CONCENTRATIONS:

Loss Circulation:

A 50-200 barrel pill of 40-60 lbs/bbl Ultra Seal-Plus® should be mixed and spotted across the loss zone.

Packaging: 40 lb sacks, 28 sacks per pallet.





Texaco USA
Eastern E&P Region
Offshore Producing

P O Box 81050
New Orleans LA 70161-1050

July 24, 1990

American Overseas Petroleum Ltd.
P. O. Box 237
Orchard Point Post Office
Singapore 9123

Attention: Mr. Muhammad Nasir

Dear Sir:

I have been told that you have requested information on a Fibrous material called Ultraseal. Here in the Gulf of Mexico we have had favorable success with this product. We have used Ultraseal in several different areas and have found the following applications favorable. They are:

1. Lost Circulation Material: Helped seal off sections of the hole that were losing partial mud returns.
2. Torque and Drag Reducer: Has reduced torque and drag in high angle holes across sand zones.
3. Sealing of Depleted Sands: While drilling depleted sands and having differential sticking problems Ultraseal helped seal those sands and prevent from sticking.
4. Running Casing in High Angle Holes: Ran casing after spotting Ultraseal across sand zones. Had no problems running casing in a 78 degree deviated hole and got full cement returns which had not been seen in other similar jobs.

If you have any further questions please contact myself or Darryl Boyce (Drilling Engineer), Eastern Division, New Orleans, Louisiana USA.

Yours very truly,

C. P. English
Exploration Area Manager

JDB:ltl

24 MARCH 1994



SANTA CRUZ, BOLIVIA

[REDACTED]

Chevron International Limited (Bolivia)
Calle Seville 3244
P.O. Box 2256
Santa Cruz, Bolivia

Phone 591-4013-531314
Fax 591-4013-521721

DEAR SIR,

THIS LETTER SERVES TO CONFIRM THAT WE USED ULTRA-SEAL ON OUR BOLIVIAN DRILLING PROJECT WITH MEASUREABLE SUCCESS. THE ABILITY TO DRILL WITH HIGH MUD WEIGHTS WITH EXPOSED LOW PRESSURE SANDS WAS A MAJOR CONSIDERATION IN OUR DRILLING PROGRAM.

WE EXPERIENCED SERIOUS MECHANICAL PROBLEMS WHICH REQUIRED THAT WE SET OUR 13-3/8" CASING STRING SUBSTANTIALLY HIGHER THAN DESIRED. CONSEQUENTLY, IT BECAME OUR PLAN TO PUSH THE 9-5/8" CASING STRING TO ITS ORIGINAL PLANNED DEPTH. TO DO THIS WE HAD TO DRILL THROUGH NUMEROUS LOW PRESSURE SANDS (8.9 PPG EQUIV) AND THEN INTO THE HIGH PRESSURED LOS MONOS SHALE.

RELYING ON PAST CASE HISTORIES, WE DETERMINED THAT WE COULD SUCCESSFULLY DRILL WITH UP TO A 2500 PSI DIFFERENTIAL ACROSS THE SANDS BY USING ULTRA-SEAL XP IN OUR DRILLING FLUID. UNFORTUNATELY, WE WERE NOT ABLE TO GET THE 9-5/8" CASING AS DEEP AS DESIGNED HOWEVER WE HAD REACHED A MUD WEIGHT OF 12.4 PPG. THIS EQUALLED A DIFFERENTIAL OF 1200 PSI AT THE SANDS. WE EXPERIENCED NO LOST RETURNS AND NO STICKING PROBLEMS.

THE ULTRA SEAL WAS MAINTAINED IN THE MUD SYSTEM AFTER SETTING 9-5/8" CASING AS A PRECAUTION WHILE DRILLING THE HIGH PRESSURED LOS MONOS. OUR FINAL MUD WEIGHT REACHED 17.7 PPG HOWEVER WE NEVER DRILLED ANY SANDS IN OR BELOW THE LOS MONOS.

WE FEEL THAT THE USE OF THE PRODUCT WAS JUSTIFIED AND IT PERFORMED AS EXPECTED. IT IS OUR JUDGEMENT THAT THE USE OF ULTRA-SEAL ALLOWED US TO GET THE 9-5/8" STRING SET THROUGH THE PRESSURE TRANSITION ZONE WITHOUT LOSSES OR STICKING PROBLEMS IN THE HIGHER EXPOSED SANDS. THE SUCCESSFUL USE OF YOUR PRODUCT LEAD TO THE SUCCESSFUL COMPLETION OF OUR WELL.

VILLA H. PICHE'
PROJECT DRILLING MANAGER



DELTA DRILLING COMPANY
Gulf Coast Drilling Division
Post Office Drawer 80429 • Lafayette, Louisiana 70598-0429
(318) 837-2043

January 8, 1993

M & D Industries of Louisiana
P. O. Box 30606
Lafayette, Louisiana 70593

Attention: Mr. Don Burts

Dear Sir:

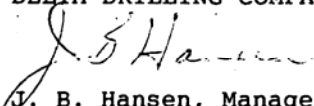
This is to apprise you of some of the results we have obtained by utilizing Ultra-seal products. These products have been proven beneficial in cases of mud seepage as well as cases of complete loss of returns. We have also noticed reduced torque and drag by utilizing sweeps of Ultra-seal XP in areas where differential sticking has been a problem.

Also, your service people have been most helpful in suggesting applications of these products.

We look forward to further successful applications of these products in the future.

Yours very truly,

DELTA DRILLING COMPANY


J. B. Hansen, Manager
Gulf Coast Drilling Division

**M & D Industries of
Louisiana, Inc.**

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Lafayette, Louisiana 70508
USA

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ULTRA SEAL®



US PATENTS

5,431,237
5,118,664
5,332,724
5,363,928
5,599,776
4,947,935
4,989,643
5,377,760

PATENTED TECHNOLOGY

BRITISH

2,254,091

NORWAY

P921220

VENEZUELA

8559-POOOVE

ADDITIONAL U.S. AND
CORRESPONDING FOR-
EIGN PATENTS AND/OR
OTHER PATENTS PEND-
ING.

STOCK POINTS:

Airdrie, Alberta, Canada
(Supply Rite)

Casper, Wyoming
(USA Trucking)

Midland, Texas
(Agri-Empresa)

Bridgetown/Alice, Texas
(Ainsworth, Trucking)