

# AMERICAN GILSONITE

Ensures wellbore stability, controls fluid loss and reduces costs with no HSE impact

**Gilsonite® is the most cost-effective multifunctional additive for any type of mud.**

With its unique chemical properties and physical characteristics, Gilsonite is scientifically proven to improve wellbore stability, plug micro-fractures, and bond and seal all types of formations. Multifunctional Gilsonite lowers costs by allowing you to use fewer additives.

## Gilsonite is the only additive that provides all of these benefits:

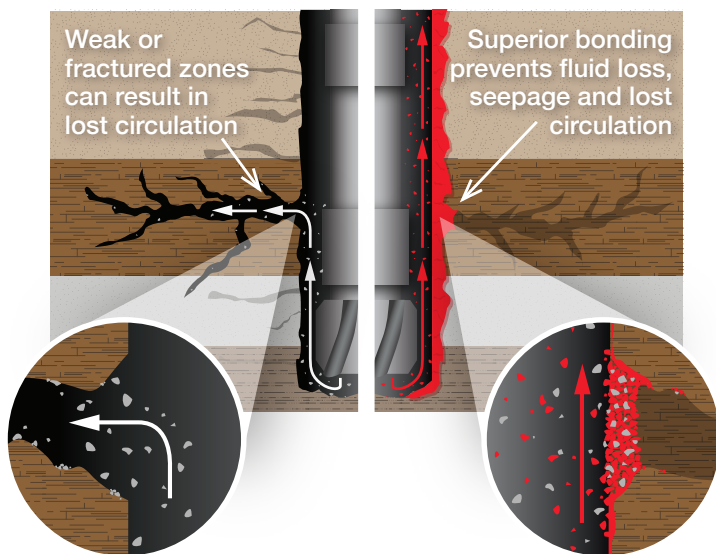
- > Controls fluid loss and seepage
- > Stabilizes shales
- > Prevents lost circulation
- > Strengthens the wellbore
- > Minimizes differential sticking
- > Performs in oil- and water-based drilling muds
- > Performs in HP/HT environments
- > Passes deepwater EPA regulations

## Unique bonding and plugging properties prevent formation damage

Gilsonite forms a physical and chemical bond with permeable formations, creating an effective seal to prevent the passage of drilling fluid. By uniquely functioning as both a malleable and solid plugging agent, Gilsonite controls fluid loss and seepage, prevents lost circulation and protects reactive and low-reactive shale surfaces, even at elevated bottomhole temperatures.

Without Gilsonite

With Gilsonite



## Proven to strengthen the wellbore

HP/HT wells, shales and underpressured zones require specialized drilling fluids and wellbore-strengthening techniques. Adding Gilsonite to an OBM or WBM strengthens the well by:

- > Reducing pore pressure transmission and sealing micro-fractures in shale and low-porosity sands
- > Keeping interbedding formations intact
- > Developing effective filter cake
- > Providing a “smear effect” that creates a continuous protective sealant along the wellbore wall

## The most effective additive to prevent differential sticking

Gilsonite minimizes the occurrence of stuck pipe and stuck logging tools by thoroughly sealing permeable formations – even in zones with a highly overbalanced pressure differential – and improving filter cake lubricity.

## American Gilsonite products perform in any application

Product	Softening Points	Mud Type
Gilsonite XM-P	>325° F	OBM
Gilsonite LM-P	>350° F	OBM
Gilsonite GM-P	>350° F	OBM
Gilsonite HT Series	400-500° F	OBM
Gilsonite AquaSol Series	325-500° F	WBM

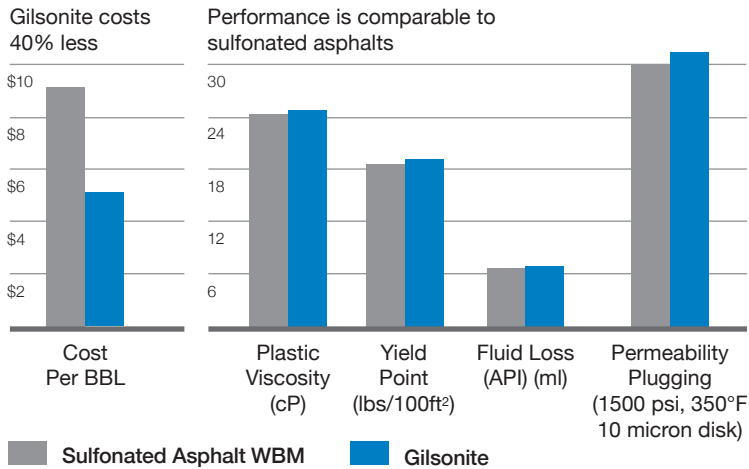
## Gilsonite has overwhelming performance advantages over alternatives

	Cost-effective	High Temperature	Controls Fluid Loss	Minimizes Differential Sticking	Stabilizes Wellbore	Non-Clumping	Strengthens Wellbore	Smear Effect	Coats & Bonds	Minimal Odor
<b>GILSONITE</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lignite	✓	✓	✓	X	X	✓	X	X	X	✓
Oxidized / Sulfonated Asphalts	X	X	✓	X	✓	X	✓	✓	X	X
Bitumen	✓	X	✓	X	X	X	X	✓	X	X
Petroleum Coke	✓	✓	✓	X	X	✓	X	X	X	X
Coal	✓	X	✓	X	X	✓	X	X	X	X
Grahamite	X	✓	✓	✓	X	✓	✓	✓	X	✓
Glance Pitch	✓	X	✓	✓	✓	✓	X	✓	X	X

## Gilsonite offers significant cost advantages in both OBM and WBM applications

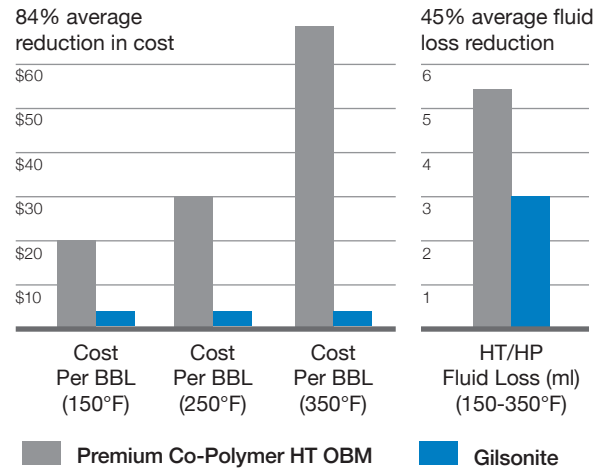
### Water-Based Mud Applications:

Gilsonite is comparable to sulfonated asphalts, but priced 40% less.



### Oil-Based Mud Applications:

Gilsonite reduces fluid loss at a fraction of the price.



## Gilsonite is naturally better®

Gilsonite is a naturally occurring asphalt-like solid hydrocarbon rock (uintaite) found only in northeastern Utah. Gilsonite has significant health advantages over synthetic products.

- > Gilsonite is:
  - Non-toxic (unlike coal or fly ash)
  - Non-carcinogenic
  - Non-mutagenic
- > No extreme safety measures are needed to handle Gilsonite
- > Passes Gulf of Mexico EPA discharge requirements for deepwater operations

## Proven in more than 60 years of oilfield performance

The effectiveness of Gilsonite as a versatile additive has been documented in over 50 SPE and other peer-reviewed presentations.



There's only one source of Gilsonite. **Proven under pressure.®**

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