**American Gilsonite**

Improves performance, extends thermal life and reduces cost

---

**Proven safe and effective for deepwater operations**

Gilsonite® uintaite is a safe, naturally occurring hydrocarbon resin with unique chemical properties. Added to drilling fluids, it increases performance and reduces cost in deepwater drilling while minimizing risk.

---

**Gilsonite® meets all EPA requirements for Gulf of Mexico discharge**

<table>
<thead>
<tr>
<th></th>
<th>EPA Static Sheen</th>
<th>96 Hours LC50 Aquatic Bioassay ≥30,000 ppm SPP</th>
<th>EPA (RPE) Flourescence</th>
<th>GCMS Crude Oil &lt;1%</th>
<th>Sediment Toxicity &lt;1.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthetic-Based Mud (SBM)</td>
<td>Pass (No sheen)</td>
<td>Pass (929,380)</td>
<td>Pass (No flourescence)</td>
<td>Pass (0.06)</td>
<td>Pass (0.3)</td>
</tr>
<tr>
<td>SBM + 3 ppb Gilsonite®</td>
<td>PASS (No sheen)</td>
<td>PASS (933,350)</td>
<td>PASS (No flourescence)</td>
<td>PASS (0.06)</td>
<td>PASS (0.3)</td>
</tr>
<tr>
<td>SBM + 6 ppb Gilsonite®</td>
<td>PASS (No sheen)</td>
<td>PASS (890,670)</td>
<td>PASS (No flourescence)</td>
<td>PASS (0.06)</td>
<td>PASS (0.3)</td>
</tr>
</tbody>
</table>

---

**The deeper you look, the more benefits you’ll see**

Gilsonite® uintaite has been proven safe and effective in more than 60 years of oilfield performance. With natural bonding and plugging properties and a high softening point, it is a cost-effective, multi-purpose additive.

- Extends thermal life 10% or more
- Prevents lost circulation
- Minimizes differential sticking
- Stabilizes shales
- Performs in WBM and SBM
- Performs in HP/HT environments
- Reduces cost vs. polymers
- Delivers higher performance with no HSE risk

---

**Gilsonite® reduces costs more than 80%**

Gilsonite® uintaite is a fraction of the cost of premium polymers. With its high softening point, it delivers greater cost advantages at higher temperatures.

**Gilsonite® improves performance at a fraction of the price of synthetics alone.**

---

![Cost Comparison Chart](chart.png)

**Chart:**

- **Cost Per BBL**
  - **UHT Co-Polymer**
  - **Gilsonite®**
  - **Cost at 400°F**
  - **Cost at 415°F**
  - **Cost at 430°F**
  - **Cost at 450°F**

---

**EPA Tested Safe**
Gilsonite® uintaite extends thermal life

American Gilsonite Corporation's mines have yielded variations of uintaite with a range of softening points. Carefully selected varieties of pure Gilsonite® have been combined to perform to customers’ specifications, at temperatures as high as 500°. Adding Gilsonite® extends the thermal life of synthetic-based mud and water-based mud formulations by 10% or more.

Unique bonding and plugging properties prevent formation damage

Gilsonite® uintaite 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.

A case history: Gilsonite® eliminates deepwater differential sticking

An international oil company drilling below 16,000 ft. in the Gulf of Mexico encountered a major pressure regression, and the pipe became differentially stuck. Unable to free the stuck pipe, the oil company and the drilling fluids provider decided to sidetrack the well, re-drilling the section with a zero fluid loss WBM.

Onsite testing indicated that sized particles and calcium carbonate in combination with high concentrations of Gilsonite® uintaite resulted in < 0.5 cc HPHT fluid loss, and fluid loss was nil as measured with a permeability plugging apparatus. Using the reformulated WBM, drilling proceeded through the major pressure regression without any sticking tendencies in the problematic wellbore. Gilsonite® is proven under pressure.

Gilsonite® is naturally better

Gilsonite® uintaite is a naturally occurring hydrocarbon resin 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®

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