**Pipe-Lax OB**

**Pipe-Lax OB** additive is a spotting fluid designed to free stuck drillstrings when using invert emulsion drilling fluids.

**Pipe-Lax OB** additive frees the drillstring by penetrating and cracking the filter cake to free differentially stuck pipe.

**Typical Physical Properties**

- Physical appearance: Liquid
- Odor: Slight
- Solubility in water: Dispersible
- Specific gravity: 0.98-1.0
- Flash point: 220°F (104°C)

**Applications**

Success in freeing differentially stuck pipe is greatest when the spotting fluid is applied as soon as possible after the pipe becomes stuck. A fluid that can be mixed and spotted quickly often frees the drillstring before fishing operations are required. Because **Pipe-Lax OB** additive is a singly-packaged, liquid blend made for fast mixing it is ideal for spotting situations.

<table>
<thead>
<tr>
<th>Density lb/gal (s.g.)</th>
<th>Mixing Formulation (per final barrel or per final m³)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Pipe-Lax OB additive bbl (m³)</td>
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<tr>
<td>9.0 (1.08)</td>
<td>0.975 (0.155)</td>
</tr>
<tr>
<td>10.0 (1.20)</td>
<td>0.938 (0.15)</td>
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<tr>
<td>11.0 (1.32)</td>
<td>0.900 (0.143)</td>
</tr>
<tr>
<td>12.0 (1.44)</td>
<td>0.863 (0.137)</td>
</tr>
<tr>
<td>13.0 (1.56)</td>
<td>0.825 (0.131)</td>
</tr>
<tr>
<td>14.0 (1.68)</td>
<td>0.788 (0.125)</td>
</tr>
<tr>
<td>15.0 (1.80)</td>
<td>0.750 (0.12)</td>
</tr>
<tr>
<td>16.0 (1.92)</td>
<td>0.713 (0.113)</td>
</tr>
</tbody>
</table>
Mixing Procedure

1. Calculate the volume of spotting fluid required and add at least 10% to compensate for any washout. In addition, include 25 bbl (3.97 m³) to remain in the drillstring.

2. In a clean, dry tank, mix the required amount of PIPE-LAX OB additive determined from the Mixing Formulation Chart.

3. If the slurry is to be weighted, add the correct amount of M-I BAR*, M-I WATE* or FER-Ox* weighting materials until thoroughly blended.

4. Displace the slurry to the zone where the differential sticking is suspected. Leave 25 bbl (3.97 m³) inside the pipe to displace at an hourly rate into the openhole.

5. Work the pipe while the spotting fluid is soaking. Pump 0.5–1.0 bbl (0.08 – 0.16 m³) every ½ hour to assure fresh soak solution is being displaced into the openhole.

6. Allow at least 24 hr for the PIPE-LAX OB additive to free stuck pipe. Unweighted spotting fluids are generally effective in a shorter period of time.

Note: When using PIPE-LAX OB additive in deviated wells with angles greater than 35°, the spotting fluid should be weighted 0.5 lb/gal (0.06 s.g.) heavier than the original fluid in the well to encourage the spotting fluid to migrate to the lower side of the hole.

Advantages
- Effective at cracking the filter cake in NAF systems
- Temperature-stable to >350° F (>177° C)
- PIPE-LAX OB additive is compatible with invert fluids; it can be incorporated to the system (1-5% V/V final concentration) without adversely affecting mud properties. Pilot testing to confirm compatibility is recommended
- Can be easily weighted with M-I BAR, M-I WATE or FER-Ox products

Limitations
- Addition of this product to a synthetic fluid may cause the system to fail bioassay testing

Toxicity and Handling
Bioassay information is available upon request.
Handle as an industrial chemical, wearing protective equipment and observing the precautions described in the Material Safety Data Sheet (MSDS).

Packaging and Storage
PIPE-LAX OB additive is packaged in 55 gal (208 l) drums.
Store in a dry, well-ventilated area. Keep container closed. Keep away from heat, sparks and flames. Store away from incompatibles. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping and/or stacking.