



# PAC™-L

## **Modified Natural Cellulosic Polymer**

**Description** PAC-L, modified natural cellulosic polymer, provides filtration control in most water-based drilling fluids without substantially increasing viscosity. PAC-L, when added to a QUIK-GEL® or BORE-GEL™ slurry, yields a drilling mud system suitable for drilling in sandy formation. PAC-L can be added to vegetable or mineral oil to provide an oil-based fluid suspension, which can be poured into drill string directly.

- Applications/Functions**
- Y Provide filtration control in fresh or brackish water-based drilling fluids
  - Y Reduce fluid loss without significantly increasing fluid viscosity
  - Y Encapsulate shale to prevent swelling and disintegration
  - Y Promote borehole stability in water sensitive formations
  - Y Minimize rod chatter, rotational torque and circulating pressure
  - Y Improve hole cleaning and core recovery

- Advantages**
- Y Effective in fresh water, salt water and brackish water-based drilling fluids
  - Y Effective in small quantities for filtration control
  - Y Non-fermenting
  - Y Compatible with other Baroid drilling fluid additives
  - Y Resistant to harsh environments and contaminants

**Typical Properties**

|                             |                            |
|-----------------------------|----------------------------|
| • Appearance                | White, free-flowing powder |
| • pH ( 1% aqueous solution) | 7.75                       |

- Recommended Treatment**
- Y Using a Venturi Mixer, or into vortex of a high-speed stirrer, add slowly and uniformly to the entire circulating system.

**Recommended Treatment**

| <b>Approximate Amounts of PAC™-L Added to Water Based Fluids</b>                                    |                   |                         |
|---|-------------------|-------------------------|
| <b>Desired Condition/Result</b>   |                   |                         |
| <b><i>Added to fresh or salt water</i></b>  | <b>lb/100 gal</b> | <b>kg/m<sup>3</sup></b> |
| ‡ To stabilize water sensitive formation  | 3 – 7             | 4 – 8.5                 |
| ‡ To reduce torque and lower circulating pressure   | 0.5 - 2           | 0.6 – 2.4               |
| <b><i>Added to QUIK-GEL® slurry<br/>(25 lb/100 gallons) or (30 kilograms per m<sup>3</sup>)</i></b> | <b>lb/100 gal</b> | <b>kg/m<sup>3</sup></b> |
| ‡ To reduce filtration rate and improve borehole stability  | 0.5 - 2.0         | 0.6 – 2.4               |
| <b><i>Added to BORE-GEL™ slurry<br/>(35 lb/100 gallons) or (42 kilograms per m<sup>3</sup>)</i></b> | <b>lb/100 gal</b> | <b>kg/m<sup>3</sup></b> |
| ‡ To reduce filtration rate and improve borehole stability  | 0.5 – 2.0         | 0.6 – 2.4               |

*Note:*

Very salty waters may require twice as much PAC-L as fresh water. Preferably, PAC-L should be mixed in fresh water before it is added to very salty water.

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**Packaging**

PAC-L is packaged in 50-lb (22.7 kg) bags.

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**Availability**

PAC-L can be purchased through any Baroid Industrial Drilling Products Distributor. To locate the Baroid IDP distributor nearest you contact the Customer Service Department in Houston or your area IDP Sales Representative.

**Baroid Industrial Drilling Products**

**A Product and Service Line of Halliburton Energy Services, Inc.**

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