



PRODUCTION CHEMICAL GROUP



PC DURACAPS®

PRODUCT INFORMATION

'PC Duracaps®, the optimal treatment for downhole scale, bacteria, and corrosion problems'

PRODUCTION CHEMICAL GROUP

email@productionchemical.com

WHAT ARE THEY

Encapsulated

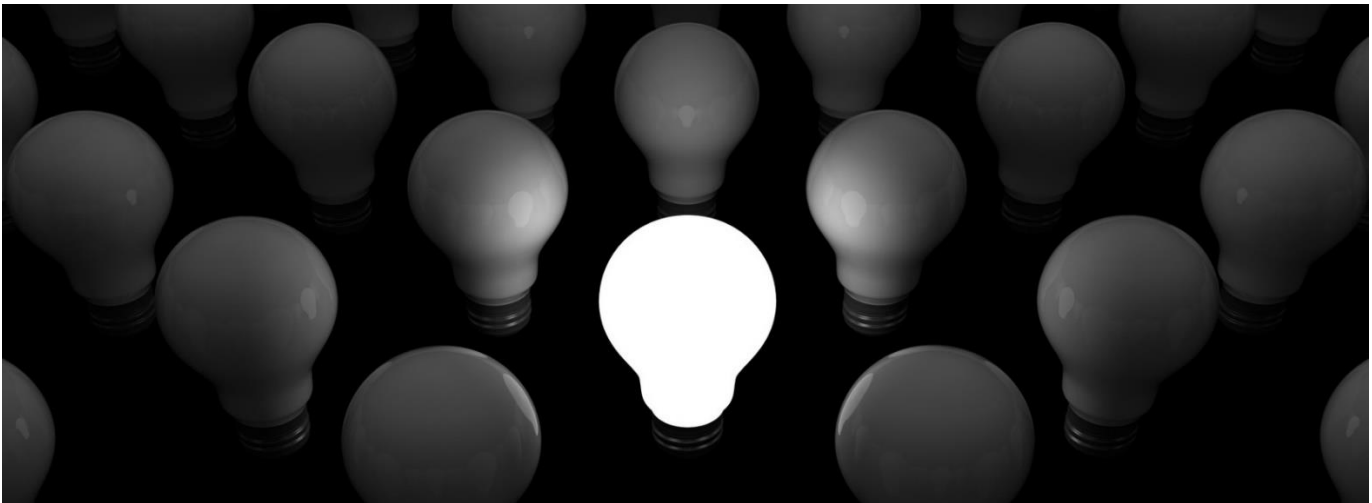
Scale – Phosphonate 50%

Corrosion Inhibitors – Imidazoline 80%

Biocide – Isothiazoline 14% / THPS 75%

Weighted – Specific Gravity 1.3

Non-Hazardous



HOW THEY WORK

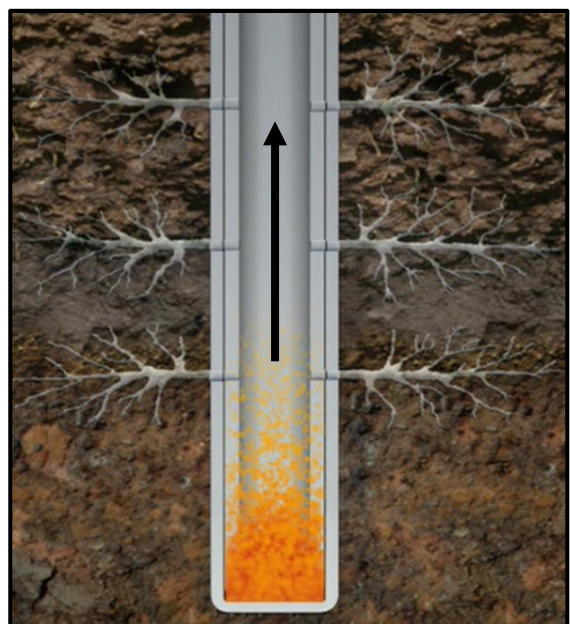
TIME RELEASE PRINCIPLE

The PC Duracaps® are weighted and therefore fall to the bottom of the well - rat hole.

The polymeric matrix slowly breaks down over time with production.

Releases active material through the concentration gradient, similar to the "Time-Release Principal" in the Pharmaceutical Industry

Giving protection from the bottom to the top of the well.



ADVANTAGES OF PC DURACAPS®



COST

Cheapest method of treating scale and corrosion. Including scale squeezes, capillary tubing injection and batch treatment



EASE

Fast and easy application process



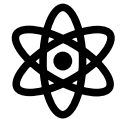
LONGEVITY

Works for an extended period



PREVENTS NORM

Can prevent NORM scale in Tubing whilst providing some protection on surface (still have to treat on surface to prevent the NORM precipitating in the surface facilities).



IMPROVES PRODUCTION

Reduces Well interventions – improves production rates



LESS MANPOWER

Increases productivity as less people are required to keep production running.



LESS MACHINERY

Application only necessary around once a year or longer depending on water volume and doesn't require any heavy machinery

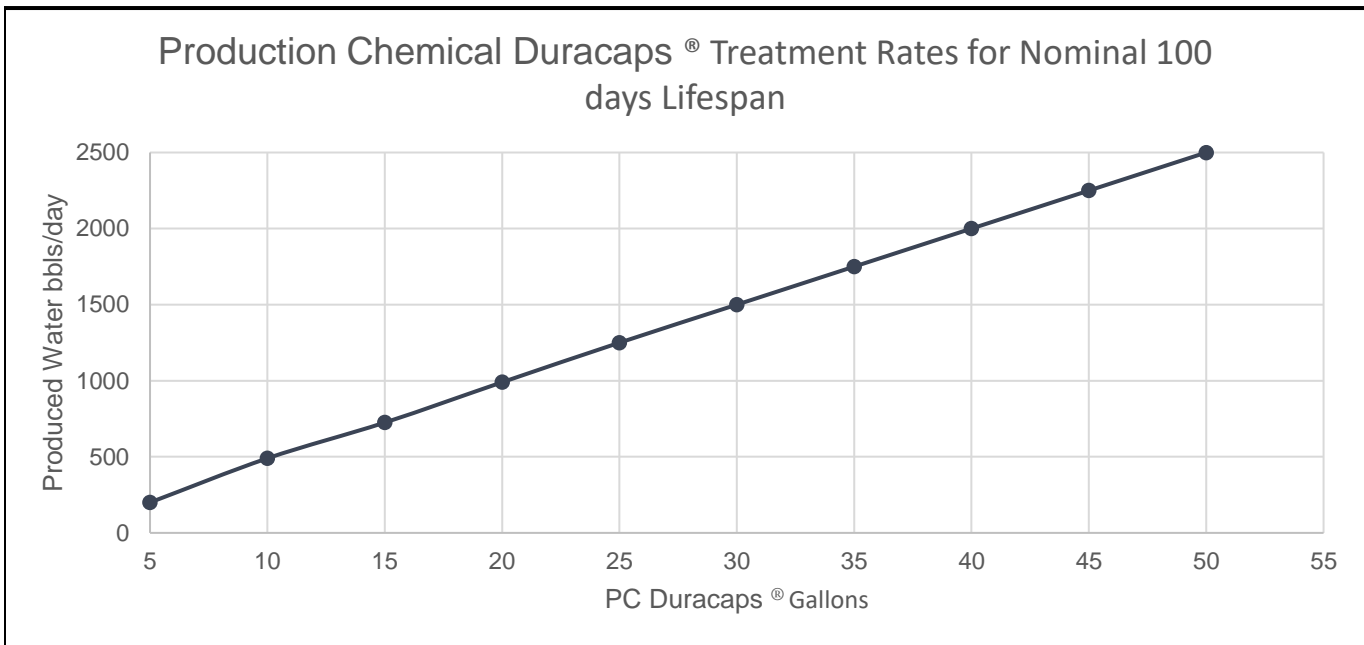


PREVENTS ACID JOBS

Can save millions of dollars on preventing acid jobs – which also corrodes tubing.



TREATMENT LONGEVITY



The above graph helps to visualize the effectiveness of PC Duracaps[®] CI in a well in North Africa

TIMELINE OF EVENTS

1. The Well is charged with Duracaps using bullhead or gravity application.
2. Extended treatment at least 9-12 months and even longer depending on volume of produced water
3. Recharge – using different methods to assess the depletion of the actives.
4. Protection against Scale/Corrosion/Bacteria
5. Different forms of application
 - ✓ Two main methods – Gravity or bullhead.
 - ✓ Gravity – can be used in natural producing wells with the use of a lubricator or secondary recovery wells by using double diaphragm to pump Duracaps into the well.Naturally flowing wells – Lubricator by gravity or bullhead depending on how quickly in getting the well back into production. Bull head much quicker in getting well back into production.