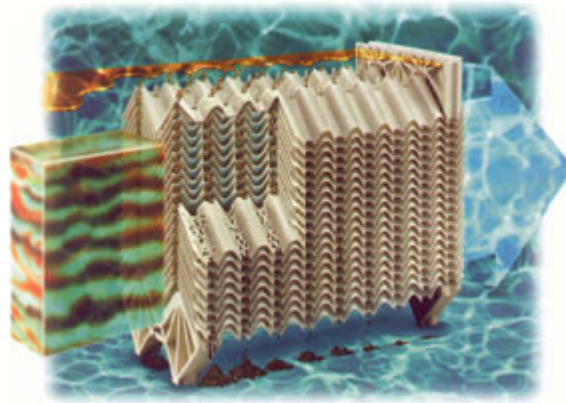# Figure 1: Park CMP Coalescing Media Pak

Coalescing Plate Pak

As the oil/water/solids mixture travels through the plates, oil rises to the top and solids drop to the bottom through dedicated surfaces and weep holes. Plate supports at the bottom allow for easy removal of the solids that collect beneath the plates. And, because of the steep angles and short travel distances, oils and solids are quickly released, making the media virtually self-cleaning.

Whether you're dealing with rainwater run-off, groundwater remediation, coolant tramp oil removal, or oil and grease removal from wash down and maintenance areas, StormTrooper Stormwater Interceptors and Park Oil/Water Separators can meet your needs ranging in size from 1 gpm to as large as 20,000 gpm – or larger as required.

Park application engineers are available to help you design stormwater and oil/water separator systems that not only meet regulatory requirements, but are cost-effective as well. And, through the Facet proprietary computer simulation process, The "MPak® Quality Prediction Program", we quickly and accurately predict your effluent quality based on your influent conditions - *guaranteed!*

STOKE'S LAW

V_R @ 68°F = 9/18μ ($\int_w$ - $\int_o$) D² where:

V_R = rising velocity of the oil droplet in cm/sec.

g = gravity constant (980 cm/sec²)

μ = viscosity of water in poises (about 0.01)

$\int_w$ = densities (gm/cm³) or specific gravities of water and oil
$\int_o$

D = diameter of the oil droplet in cm.

Like all gravity separators, Park's performance prediction is based on Stoke's Law. The formula on the left represents the physical law governing the rise rate of an oil droplet in a fluid stream.

CAPTURE EFFICIENCY: Oil droplet capture is maximized by the closely spaced (1/4") Mpak® polypropylene plates. For perspective, a 20-micron oil droplet takes 38 minutes to rise 3" or 9.5 minutes. By rising only ¼" before being captured on the oleophilic (oil attractive) undersurface plate, separation is very efficient in the coalescing media pack compartment (CMP).

CALCULATED PERFORMANCE: Park uses a Mpak® proprietary computer-modeling program, which utilizes Storke's Law, droplet size distribution, particle rise (TSS), and other relevant input to make accurate performance predictions.