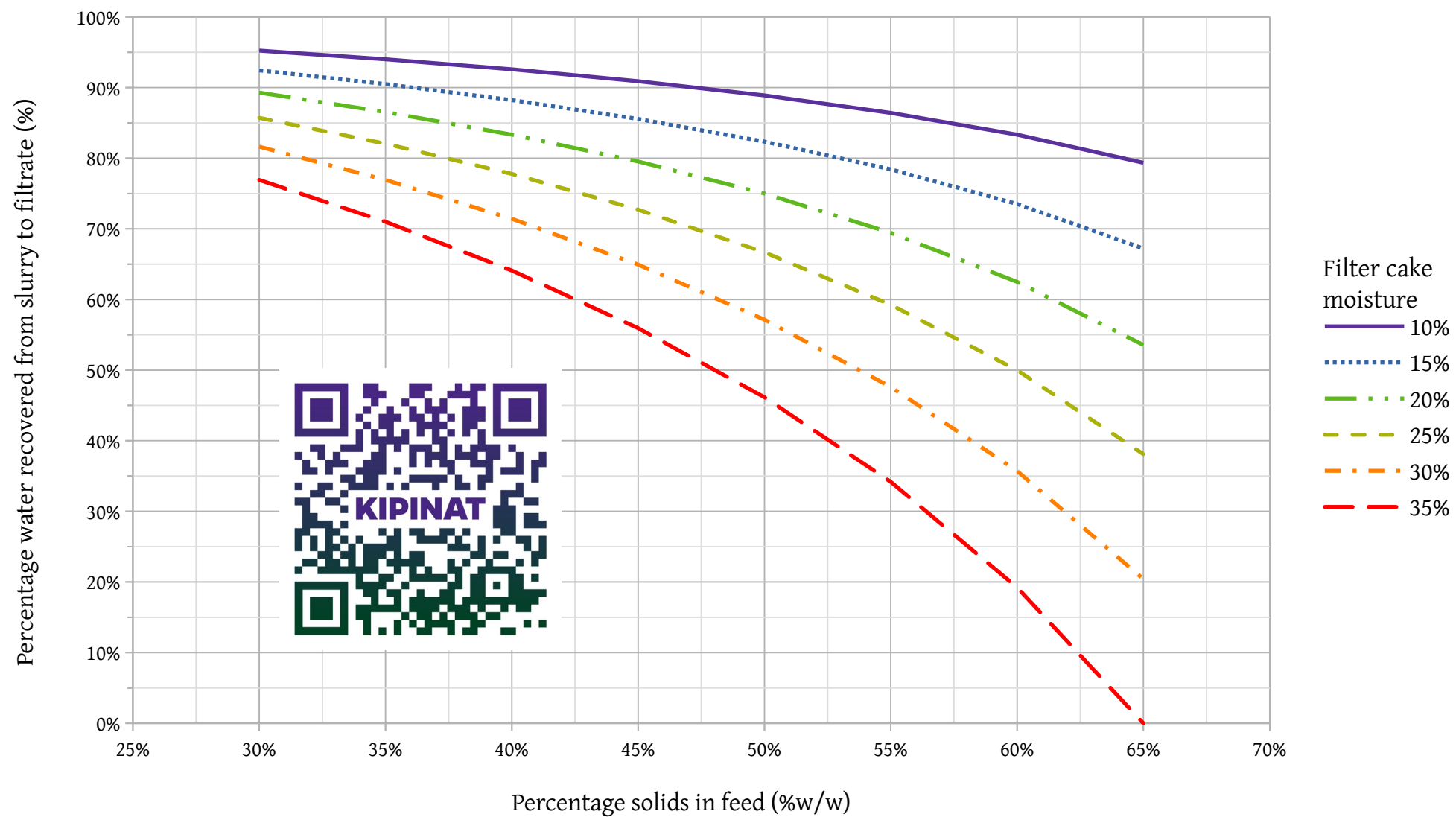
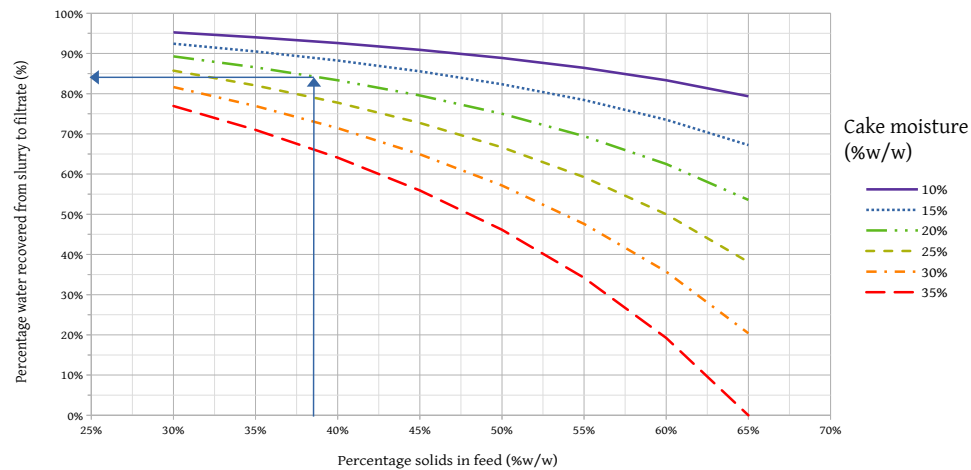




Operating Manual

1. Find **Percentage solids in feed** on horizontal x-axis. This may be ~35%w/w for unthickened tailings or >60% w/w
2. Select Curve that best matches **Cake moisture**
3. Read **Percentage water recovered** from z-axis line.



4. For example, above. Starting with 39%w/w slurry and, via thickening and filtration, reaching 20% cake moisture, gives (maximum) water recovery of 84%.

Note: This tool is intended to help perform quick assessments of the maximum amount of water that could be recovered from a tailings stream through dewatering. It does not take into account losses to leakage or any water that may be consumed in running the filtration plant.

s	Mass Fraction of solids in slurry	%w/w
M_s	Mass of solids in sample of slurry or filter cake	kg
M_l	Mass of liquid in sample of slurry or filter cake	kg
$slurry$	...in slurry	
$cake$	...in cake	
M	Moisture content of a filter cake (mass ratio)	%w/w
R	Recovery of liquid in slurry to filtrate	%

$$s = \frac{M_{s,slurry}}{M_{s,slurry} + M_{l,slurry}}$$

$$M = \frac{M_{l,cake}}{M_{s,cake} + M_{l,cake}}$$

$$R = 100 \times \left(1 - \frac{s \cdot M}{(1 - s)(1 - M)} \right)$$