PSD Interpretation — Field Worksheet

Compare particle-size percentiles across the system to see which machine is actually cutting — and where fines are building.

Rig / unit: _____	Date: _____	Shift: ■ Day ■ Night	Inspector: _____

1 · Sample points (same time, same tour)

Sample point	D10 (µm)	D50 (µm)	D90 (µm)	Solids vol% (retort)
Suction pit (into the well)	_____	_____	_____	_____
Flowline (out of the well)	_____	_____	_____	_____
Centrifuge feed	_____	_____	_____	_____
Centrifuge centrate	_____	_____	_____	_____

2 · Read the deltas

Comparison	What it means	Your finding
Flowline vs suction	D50 flowline should be COARSER (new cuttings). If suction D50 keeps drifting FINER week over week → grinding/regrind — removal losing.	____
Centrate vs centrifuge feed	Centrate D90 should collapse toward the machine cut (~2–7 µm region). Centrate ≈ feed → the centrifuge is passing, not cutting.	____
Fines fraction (D10)	D10 shrinking system-wide with PV rising = colloids building — chemistry & dilution territory, no machine removes < ~2 µm.	____

3 · Action

Match your findings to the size-to-machine table (see the free PSD Quick Reference) and write ONE action per finding: screen change, cone check, centrifuge duty change, or inhibition/dilution. Remember: a “2-micron” machine claim is D50, not D100 — it does not remove everything above 2 µm. Deep dive: scdrilltech.com/particle-size-distribution.html