



Compressor Oil Emulsions now Economically Treatable

Problem

Compressor oils are fluids used for lubrication of moving metal parts of gas compressors. The raw gas pumped contains water vapor, which becomes emulsified in the oil, and stabilized due to the presence of several contaminants including glycols and soaps.

Such emulsions, often viscous and high in water, pose serious management and disposal problems to generators and reclaimers.

Solution

Samples of compressor oil emulsions from the Western USA were tested, both at ambient temperature and with heat. A unique line of RECOVEROL * demulsifiers was found to resolve the emulsions completely, economically and produce a high quality oil, without affecting the quality of the separated water.

Results

Case I

A reclaimer in the South starts with 40-70% BS&W, heats the oil to 180° F and uses 4 gallons of ECO* 60BC per 1000 gallons. Overnight, the oil with negligible contaminants is recovered for ~ 4 cents per gallon.

Case II

An oil field service company in the Mountain States starts with 40-80% BS&W, treats the oil at ambient temperature and uses 3.5 gallons of ECO 60BC (or ECO* 70BC) per 1000 gallons. Overnight, the oil analyzes at < 1% BS&W for a treatment cost of ~ 4 cents per gallon. When used at 140° F comparable results are obtained for ~ 3 cents per gallon.

Case III

A reclaimer in New Mexico starts with 40-60% BS&W, treats the oil at ambient temperature and uses 5 gallons of ECO* 53-60BC per 1000 gallons. Overnight, the bright black oil has negligible contaminants, for a treatment cost of ~ 5 cents per gallon.

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