

COURSE CONTENTS

1. Heavy crude oils-production trends in world / India, composition, handling / transportation and processing options in general – Including high acid crudes, shale oil, tar sands and emulsions
2. Flow characteristics and transportation of heavy oils including pretreatment
3. Heavy crude oil processing – existing refinery configuration – limitations in processing heavy crude oils / residues
4. Options for processing increased residue volumes from heavy oils
 - Visbreaking & Delayed Coking
5. Options for processing increased residue volumes from heavy oils
 - a) FCC / RFCC
 - b) Solvent Deasphalting
 - c) Resid hydro-processing (H oil, LC fining, VRDS etc.)
 - d) IGCC including syngas conversion to liquid fuels / waxes
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6. Options for processing increased residue volumes from heavy oils Bitumen
7. Impact of heavy crude oils on refinery – petrochemical integration