

CALCULATED CETANE INDEX

Based on Equation:

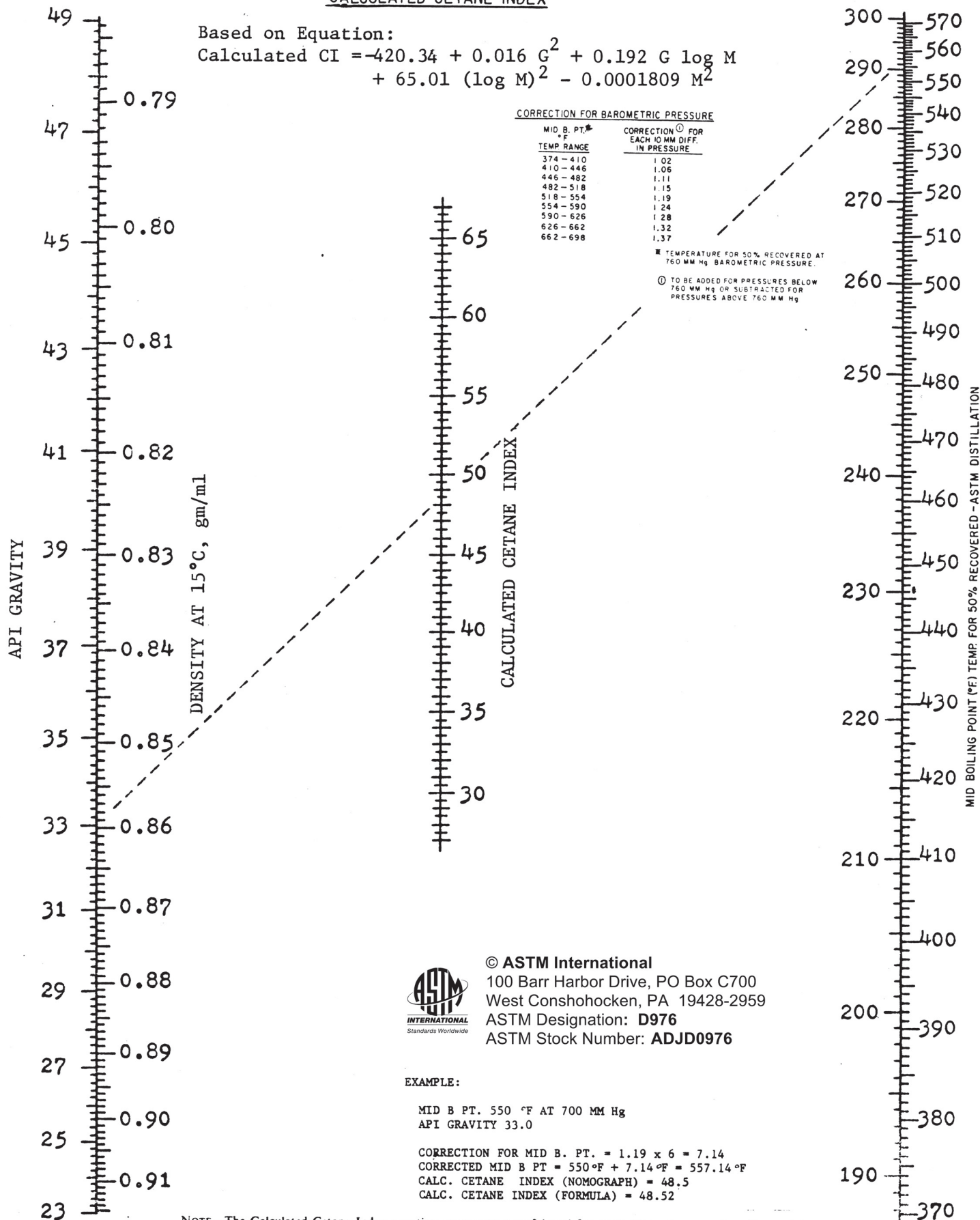
$$\text{Calculated CI} = -420.34 + 0.016 G^2 + 0.192 G \log M + 65.01 (\log M)^2 - 0.0001809 M^2$$

CORRECTION FOR BAROMETRIC PRESSURE

MID. B. PT. °F	TEMP. RANGE	CORRECTION ① FOR EACH 10 MM DIFF. IN PRESSURE
374 - 410		1.02
410 - 446		1.06
446 - 482		1.11
482 - 518		1.15
518 - 554		1.19
554 - 590		1.24
590 - 626		1.28
626 - 662		1.32
662 - 698		1.37

① TEMPERATURE FOR 50% RECOVERED AT 760 MM Hg BAROMETRIC PRESSURE.

② TO BE ADDED FOR PRESSURES BELOW 760 MM Hg OR SUBTRACTED FOR PRESSURES ABOVE 760 MM Hg



NOTE—The Calculated Cetane Index equation represents a useful tool for *estimating* cetane number. Due to inherent limitations in its application, Index values may not be a valid substitute for ASTM Cetane Numbers as determined in a test engine.

FIG. 1 Nomograph for Calculated Cetane Index (ECS-1 Meter Basis—Method D 613)