





**WARNING!** The data predicted by QuickLOAD CANNOT be used as a substitute for information gained from standard handloading manual references; further, it CANNOT BE BELOW the MAXIMUM, but never below the MINIMUM suggested load in a modern data manual, then work up to a (maximum) SAFE load while carefully watching for signs of vagaries: or production tolerances in powder, bullets, primers, and cases; or resulting from peculiarities in handloading and techniques. If you read this and agree to the

## QuickLOAD© V.3.9 Cartridge Dimensions

Selected Bullet: File:\qloadfw Selected Cartridge: File:\qloadfw

.474, 500, Woodleigh SN WeldCore .470 N.E.

☐ Ldlr / Base Chased ☐ Friction-proofed

	Inches	mm		psi	bar
Seating Depth	0.550	13.97	Pmax (MAP)	39160	2700.0
Shank Seat Depth	0.550	13.97	Meas. Method	Piezo CIP	
Bullet Length	1.280	32.51	Grains	500.0	32.399
Bullet Diameter	0.474	12.04	Sq. inches	0.174778	112.76
Cartridge Length	3.980	101.09	Grains H2O	146.00	9.480
Case Length	3.250	82.55	Volume Occupied by Seated Bullet	24.648	1.600
Groove Caliber	0.475	12.07	Useable Case Capacity	121.352	7.879
Barrel Length	24.0	609.6	Weighting Factor	0.75	Apply&Calc
Bullet Travel	21.3	541.02			

## QuickLOAD© V.3.9 Charge

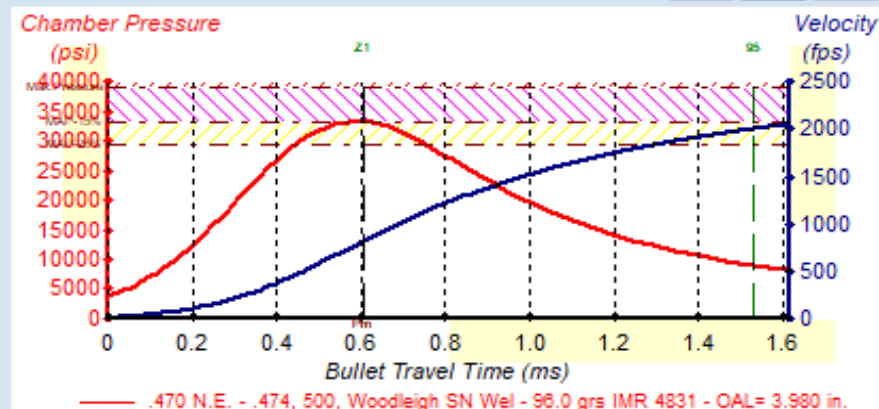
Selected Propellant: File:\qloadfw

IMR 4831

Heat of Explosion / Potential	3720	kJ/kg
Ratio of Specific Heats	1.2390	
Burning Rate Factor Ba	0.4421	1/bar <sup>1/2</sup>
Pro- or Degressivity Factor a0	2.0500	
Progressive Burning Limit z1	0.465	x 100%
Factor b	1.9107	
Propellant Solid Density	1.600	g/cm <sup>3</sup>
Shot Start (Initiation) Pressure	3626	psi
Filling/L.R.	89.6	%
Charge Weight	96.0	Grains
	6.221	Grams

Apply&Calc

## QuickLOAD© V.3.9 Diagram



## QuickLOAD© V.3.9 Results

Maximum Chamber Pressure (Pmax)	2303 bar	Bullet Travel at Pmax	53.0mm
Load Density	0.790 g/cm <sup>3</sup>	Energy Density	2937J/cm <sup>3</sup>
Values when Bullet Base Exits Muzzle...click here for more data			
Muzzle Pressure	481 bar	Muzzle Velocity	626 m/s
Barrel Time, 10% Pmax to Muzzle	6976psi		2054 fps
Amount of Propellant Burnt	1.626ms	Projectile Energy	6351 Joule
	96.05 %	Ballistic Efficiency	4685 ft.-lbs.
			27.4 %

Results without any guarantee on usability ! WARNING: Near Maximum Average Pressure - tolerances may cause dangerous pressures ! End of combustion after the projectile exits muzzle.