Gunsite Ranch November 21, 2021 1015 hours 45 degrees F

Conducted by Chuck Haggard and Mark Fricke

All rounds tested were fired into Clear Ballistics Gel and thru 4 layers of Denim unless noted

Firearm	Caliber	Load tested	Weight (grs.)	Bullet type	Penetration (inches)	Diameter (inches)	Recovered weight (grains)	Comments
Glock 19	9mm	Fed HST	124	JHP	16.0	0.645-0.657	124.7	Control test round, stopped in the end of the gel
Ruger LCR, 2"	.22 LR	Fed. Punch	29	LRN-FP	11.0	pending	pending	Remained point on, shallow penetration, #1
Ruger LCR, 2"	.22 LR	Fed. Punch	29	LRN-FP	11.0	pending	pending	Remained point on, shallow penetration
Ruger LCR, 2"	.22 LR	Fed. Punch	29	LRN-FP	10.75	pending	pending	Remained point on, shallow penetration
Ruger LCR, 2"	.22 LR	Fed. Punch	29	LRN-FP	11.5	pending	pending	Remained point on, shallow penetration
Ruger LCR, 2"	.22 LR	Fed. Punch	29	LRN-FP	12.25	pending	pending	Remained point on
Ruger LCR, 2"	.22 LR	CCI Velocitor	40	JHP	13.25	0.281	39.1	Yawed and expanded
Ruger LCR, 2"	.38 Sp	Fed. Am. Eagle	158	LRN	16+	NA	NA	Exited block, not recovered
Ruger LCR, 2"	.38 Sp	Fed. Am. Eagle	158	LRN	11.75	0.357	157.6	Inverted, base forward
Ruger LCR, 2"	.38 Sp	Western	200	LRN	12.5	0.357	199.7	Remain point on, no yaw or tumbling
Ruger LCR, 2"	.38 Sp	M-41, WCC 72	130	RNFMJ	14.5	0.354	130.1	Tumbled, stopping sideways, good wound track #7
Ruger LCR, 2"	.38 Sp	Fed. Am. Eagle	130	RNFMJ	14.5	0.354	130.6	Tumbled, inverted, base forward
Ruger LCR, 2"	.38 Sp	Remington	148	HBWC	16+	0.378	148.1	Expanded, bare gel, caught by denim backstop
Ruger LCR, 2"	.38 Sp	Winchester	148	HBWC	14.9	0.380	148.3	Expanded, bare gel
Ruger LCR, 2"	.38 Sp	Buffalo Bore	150	HCWC	16+	0.355	144.9	Stayed point on, bare gel, caught by denim layers
Ruger LCR, 2"	.38 Sp	Speer Gold Dot	135	JHP +P	13.4	0.357	134.6	No expansion, filled with denim, yawed
Ruger LCR, 2"	.38 Sp	Handload	148	HBWC	6.0 &7.25	0.450/0.476	142.3	Two wound tracks, shallow penetration (+P) #2
Ruger LCR, 2"	.38 Sp	GECO	148	HBWC	16+	NA	NA	Not Recovered, bare gel
Ruger LCR, 2"	.38 Sp	GECO	148	HBWC	16.0	0.359	147.2	Stayed point on, bare gel , stopped in the end of the gel
Ruger LCR, 2"	.38 SC.	Handload	158	FMJRN	16.0	0.356	158.0	Stayed point on, stopped at the end of the gel #3
Ruger LCR, 2"	.38 Sp	Handload	105	LRNFP	12.5	0.354	106.6	Remained point on
Ruger LCR, 2"	.38 Sp	Winchester	125	JHP +P	16.0	0.355	125.2	Slight expansion, filled with denim #4
Ruger LCR, 2"	.38 Sp	Fed HST	130	JHP +P	16.0	0.357	129.9	No expansion, HP filled with denim
Ruger LCR, 2"	.38 Sp	Fed HST	130	JHP +P	9.0	0.710-0715	130.1	Expansion, bare gel, shallow penetration
Ruger LCR, 2"	.38 Sp	Hornady CD	110	FTX	14.5	0.357	110.1	No expansion, yawed at 8 inches in gel
Ruger LCR, 2"	.38 Sp	Handload	148	DEWC	16+	0.362	148.8	Stayed point on, bare gel, caught by denim layers
Ruger LCR, 2"	.38 Sp	Cor-Bon	110	DPX	12.0	0.357-0.458	111.2	Partial expansion, yawed at end of track, #5
Ruger LCR, 2"	.38 Sp	Atomic	148	RHBWC	11.5	0.413	146.9	Shallow penetration filled with denim, +P load
Ruger LCR, 2"	.38 Sp	Atomic	148	RHBWC	11.0	0.413	147.2	Bare gel, shallow penetration, +P load
Ruger LCR, 2"	.38 Sp	Federal	158	LHP	15.0	0.356	157.9	No expansion, denim plugged HP (Non +P load)
Ruger LCR, 2"	.38 Sp	IMI	158	LHP +P	14.0	0.347	155.8	No expansion, denim plugged HP #6
Ruger LCR, 2"	.38 Sp	Black Hills	100	Solid	13.0	0.357	100.1	Stayed point on. Wound channel similar to

Gunsite Ranch November 21, 2021 1015 hours 45 degrees F

Conducted by Chuck Haggard and Mark Fricke

All rounds tested were fired into Clear Ballistics Gel and thru 4 layers of Denim unless noted

		Honey Badger		Copper				Wadcutters
Ruger LCR, 2"	.38 Sp	ARX Inceptor	80	ARX	10.5	0.356	76.4	Yawed at 1.75"., inverted, travelling base forward
Ruger LCR, 2"	.38 Sp	Remington GS	124	BJHP+P	13.0	0.353	125.8	HP just started to expansion, yawed
Ruger LCR, 2"	.38 Sp	Rem/UMC	158	RNFMJ	16+	0.354	157.8	WWII GI Steel Jacket ammo, Yawed and Curved
Ruger LCR, 2"	.38 Sp	Fiocchi	158	RNFMJ	16.0	0.354	158.7	Large Temporary Cavity, Tumbled, stayed in block
Ruger LCR, 2"	.38 Sp	PGU-12B LC79	130	RNFMJ	16+	0.354	128.7	Tumbled, exited block, stopped by denim backstop
								#7
Ruger LCR, 2"	.357	Leigh	140	Solid	16+	0.357	140.3	Exited the block and was caught by the denim
		Penetrator		Coper				backstop
Ruger LCR, 2"	.357	Speer Gold Dot	135	JHP	13.5	0.532-0.566	135.4	Expanded and inverted
Ruger GP-100	40S&W	Federal HST	180	JHP	16.0	0.648-0.701	179.3	Tumbled, inverted with end forward
Charter Arms	45ACP	Federal HST	230	JHP +P	16+	0.455	230.1	Yawed, HP filled with denim.
Ruger LCR	32Long	Buffalo Bore	115	LRNFP	12.5	0.311	114.3	Tumbled and inverted

Notes and comments:

- #1 The .22 LR Federal Punch is a new load, so 5 rounds were tested. Shallow penetration by all the loads. The bullets have yet to be examined but when they are this sheet will be updated.
- #2 This load was thought to be a duplex bullet as it always separated in flight. Upon examination it is really a 148 gr. HBWC that is loaded too hot and the bullet's hollow skirt is being blown off the nose of the bullet. As it was tested in a 2" barrel both part of the bullet exited the barrel, in a longer barrel the skirt might have stuck and damaged the gun if another round was fired.
- #3 Handloaded .38 Short Colt used for competition, small wound track
- #4 Winchester 125 gr. JHP Classic Super-X Law Enforcement duty load (X38S7PH) HP simply flattened flush like a WC
- #5 Corbon DPX, only one petal of the hollow point expanded, others collapsed as the bullet yawed
- #6 Bullet was badly undersized
- #7 USAF. 38 Special Military loads

Gunsite Ranch November 21, 2021 1015 hours 45 degrees F

Conducted by Chuck Haggard and Mark Fricke

All rounds tested were fired into Clear Ballistics Gel and thru 4 layers of Denim unless noted





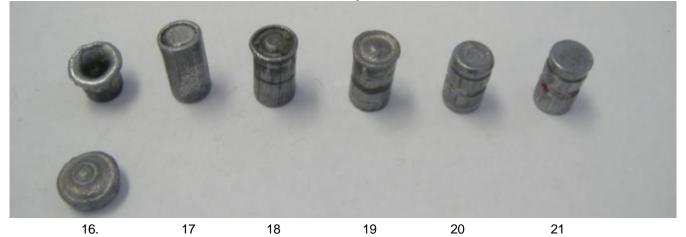
- 1. Control load, 124 gr.9mm HST
- 2. .38 Special Cor-Bon, 110 gr. DPX
- 3. .38 Special Hornady Critical Defense 110 gr FTX +P
- 4. .38 Special Winchester Super-X ,125 gr. JHP +P
- 5. .38 Special Remington Gold Saber, 125 gr. JHP +P
- 6. .38 Special Federal HST 130 gr. JHP +P (Bare Gel)
- 7. .38 Special Federal HST 130 gr. JHP +P (4 Layer Denim)
- 8. .38 Special Speer Gold Dot, 135 gr. JHP +P (Short Barrel Load)

- 9. .38 Special Handload, 105 gr. LRN-FP
- 10. .38 Special Handload, 105 gr. LRN-FP
- 11. .38 Special Atomic Ammo, 148 gr. LHP (Bare Gel)
- 12. .38 Special Atomic Ammo, 148 gr. LHP (4 Layer Denim)
- 13. .38 Special Federal American Eagle, 158 gr. LRN
- 14. .38 Special Federal, 158 gr. LSWHP (non +P)
- 15. .38 Special Western Super Police, 200 gr. LRN

Gunsite RanchNovember 21, 20211015 hours45 degrees F

Conducted by Chuck Haggard and Mark Fricke

All rounds tested were fired into Clear Ballistics Gel and thru 4 layers of Denim unless noted





- 16. .38 Special Handload, 148 gr. HBWC (bullet skirt and nose, see notes #2)
- 17. .38 Special Geco, 148 gr. HBWC
- 18. .38 Special Remington, 148 gr. HBWC
- 19. .38 Special Winchester, 148 gr. HBWC
- 20. .38 Special Buffalo Bore, 150 gr. HC DEWC
- 21. .38 Special Handload, 148 gr. DEWC

- 22. .38 Special WCC 72, M-41, 130 gr. RNFMJ (USAF load)
- 23. .38 Special LC 79, PGU-12B, 130 gr. RNFMJ (USAF load)
- 24. .38 Special Federal, 130 gr. RNFMJ
- 25. .38 Special Fiocchi, 158 gr. RNFMJ
- 26. .38 Special IMI, 158 gr. Steel Jacketed RNFMJ (WWII GI load)
- 27. .38 Short Colt, Handload, 158 gr. RNFMJ

Gunsite RanchNovember 21, 20211015 hours45 degrees F

Conducted by Chuck Haggard and Mark Fricke

All rounds tested were fired into Clear Ballistics Gel and thru 4 layers of Denim unless noted





36

- 28. .22 Long Rifle, CCI Velocitor, 40 gr. JHP
- 29. .32 S&W Long, Buffalo Bore, 115 gr. HCLRN-FP
- 30. .38 Special, ARX Inceptor, 80 gr. ARX
- 31. .38 Special, Black Hillis, 100 gr. Honey Badger Solid Copper Bullet
- 32. .357 Magnum, Leigh Penetrator, 140 gr. Solid Copper Bullet
- 33. .357 Magnum, Speer Gold dot, 135 gr. JHP
- 34. .40 S&W, Federal HST, 180 gr. JHP
- 35. .45 ACP, Federal HST, 230 gr. JHP +P
- 36. .22 Long Rifle, Federal Punch, 29 gr. LRN-FP