RELOAD FOUNDRY

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LOAD SPECIFICATION · DEVELOPED HERE

6.5 Creedmoor

140 gr Hornady ELD-M

6.5 CM Match

POWDER **Vihtavuori N150**	**CHARGE** **41.2 gr**
PRIMER **CCI**	**BRASS** **Lapua**
COAL **71.37 mm**	**JUMP** **0.38 mm**
NECK TENSION **2 thou**	**BC** **G7 0.315**

2745 fps **MV MEAN**	**4.2 fps** **MV SD**	**9 mm** **BEST GROUP**

7 Oct 2026

VERIFY AGAINST PUBLISHED DATA BEFORE LOADING

SAMPLE

MEASURED VELOCITY VS RANGE

Distance (yd)	Measured velocity (fps)
600	2010

BC G7 0.315 (load spec)

MEASURED BALLISTIC DATA

Velocity & energy measured at the distances shot. Drop is predicted.

		Energy		Drop			
Distance (yd)	Vel (fps)	ft-lb	J	mil	MOA	in	cm
600	**2010**	**1256**	**1703**	*3.30*	*11.3*	*71.3*	*181.0*

RIFLE DETAILS

NAME 6.5 CM Match

CARTRIDGE 6.5 Creedmoor

MAKE Defiance

MODEL Deviant

ACTION MAKE —

ACTION SERIAL SYNTH-H003

BARREL LENGTH 30

TWIST RATE 1:7.5

ACTION Defiance

1. COMPONENTS

POWDER Vihtavuori N150

CHARGE 41.2 gr

BULLET Hornady ELD-M

BULLET WEIGHT 140 gr

BULLET TYPE ELD-M

BC MODEL G7

BC VALUE 0.315

BC USED BC G7 0.315 (load spec)

PRIMER CCI

PRIMER TYPE BR2

BRASS Lapua

2. SEATING

STARTING COAL (PHASE 1) 71.37 mm

CONFIRMED COAL (PHASE 2) 71.37 mm

CBTO 63.5 mm

JUMP TO LANDS 0.38 mm

NECK TENSION 2 thou

3. PERFORMANCE

MV MEAN 2745 fps

MV SD 4.2 fps

BEST GROUP 9 mm

SAMPLE

4. NOTES

Confirmed tight node — hero-grade SD.

SAMPLE

1. CASE PREPARATION

CASE SOURCE Once-fired Lapua, this rifle

TIMES FIRED ×3

NECK THICKNESS 14.5 thou

TRIM-TO LENGTH 48.6 mm

- [x] FLASH HOLE DEBURRING
- [x] INSIDE NECK DEBURRING
- [x] OUTSIDE CHAMFERING
- [x] PRIMER POCKET UNIFORMED
- [ ] NECK TURNED
- [x] CASE WEIGHT SORTED

2. CLEANING

METHOD Ultrasonic

MEDIA Stainless pin + Lemishine

DURATION 90 min

DRIED WITH Food dehydrator 60C

RINSED AFTER Yes

3. SIZING & NECK

SIZING DIE Whidden full-length bushing

SIZING TYPE Full-length bushing

CASE LUBE Imperial sizing wax

NECK LUBE Redding dry graphite

NECK TENSION 2 thou

EXPANDER BALL No

SHOULDER BUMP 1.5 thou

LOADED RUNOUT 1.2 thou

4. BULLET PREP

BULLET COATING Hexagonal BN (moly-free)

- [ ] MEPLAT TRIMMED
- [x] SORTED BY WEIGHT
- [x] SORTED BY BEARING SURFACE

5. ANNEALING

FREQUENCY Every firing

ANNEALER AMP Mk II

SETTING Program 148 (6.5CM Lapua)

TIME 5.6s

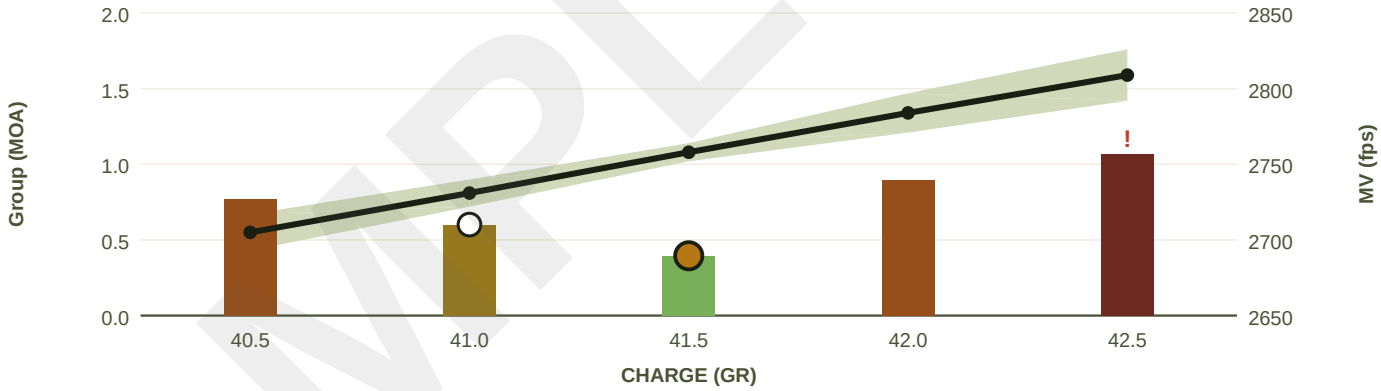
Aztec mode calibrated to this lot; annealed after every firing to hold neck tension consistent.

SAMPLE

PHASE 1 — CHARGE LADDER 7 Oct 2026

#	Charge (gr)	Shots	MV (fps)	ES (fps)	SD (fps)	Group (mm)	Pressure signs	Verdict
1	40.5	5	2705	30.0	12.0	22.5	None	
2	41.0	5	2731	24.0	9.0	17.5	None	Runner-up
3	**41.5**	**5**	**2758**	**15.0**	**6.0**	**11.5**	**None**	**Best**
4	42.0	5	2784	33.0	13.0	26.0	None	
5	42.5	5	2809	42.0	17.0	31.0	Light	—

PHASE 1 — CHARGE LADDER



Best group at 41.5 gr — 0.40 MOA. SD 6.0 fps backs it.

BEST 41.5 gr - 0.40 MOA - 11.5 mm - SD 6

RUNNER-UP 41.0 gr - 0.60 MOA - 17.5 mm

> *Each bar is the group that charge shot, graded in MOA. The line is muzzle velocity; the band around it is your SD — the tighter the band, the more consistent the string. You're looking for the charge that groups tightest and holds low SD. A charge that shoots well but sits alone between worse neighbours may be a lucky group; one that's tight with its neighbours tight too is a more trustworthy candidate node. Group size can be moved by wind, position and the shooter as much as by the charge — read the shape across the whole ladder, not any single bar.*

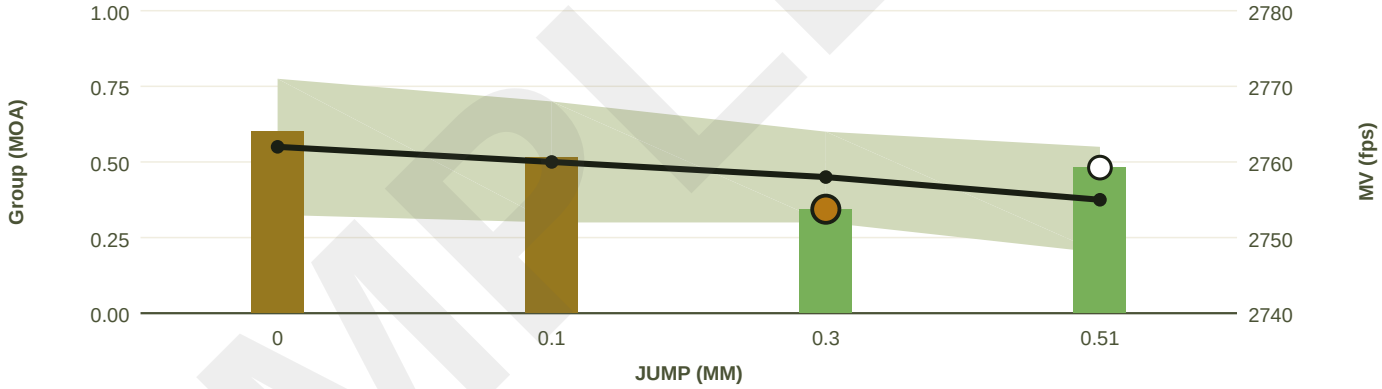
SAMPLE

PHASE 2 — SEATING DEPTH

7 Oct 2026

#	Jump (mm)	COAL (mm)	CBTO (mm)	Charge (gr)	Shots	MV (fps)	SD (fps)	Group (mm)	Verdict
1	0.51	71.2	63.3	41.5	5	2755	7.0	14.0	Runner-up
2	**0.3**	**71.37**	**63.5**	**41.5**	**5**	**2758**	**6.0**	**10.0**	**Best**
3	0.1	71.55	63.7	41.5	5	2760	8.0	15.0	
4	0	71.75	63.9	41.5	5	2762	9.0	17.5	

PHASE 2 — SEATING DEPTH



BEST 0.3 mm - 0.34 MOA - 10 mm - SD 6

RUNNER-UP 0.51 mm - 0.48 MOA - 14 mm

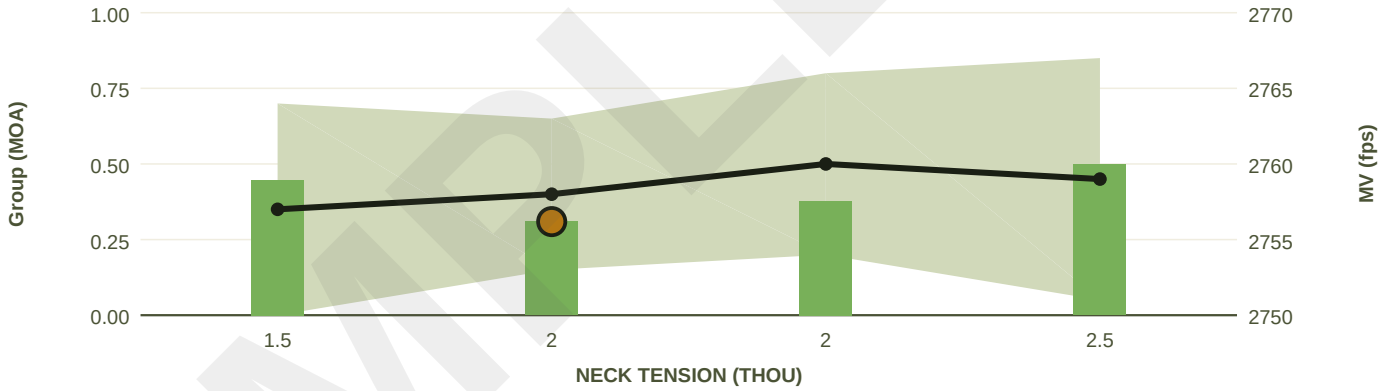
> *Same read, but the variable is jump to the lands. Bullets often shoot best in a band of seating depths rather than at one exact figure, so a smooth trend matters more than one standout. If two depths grade almost the same, the difference may be normal group-to-group spread rather than a real preference — pick the one that's easiest to load consistently.*

SAMPLE

PHASE 3 — NECK TENSION / PRIMER 7 Oct 2026

#	Neck (thou)	Primer	Charge (gr)	Shots	MV (fps)	SD (fps)	Group (mm)	Verdict
1	1.5	Federal 210M	41.5	5	2757	7.0	13.0	
2	**2**	**Federal 210M**	**41.5**	**5**	**2758**	**5.0**	**9.0**	**Best**
3	2.5	CCI BR2	41.5	5	2759	8.0	14.5	
4	2	CCI BR2	41.5	5	2760	6.0	11.0	**Runner-up**

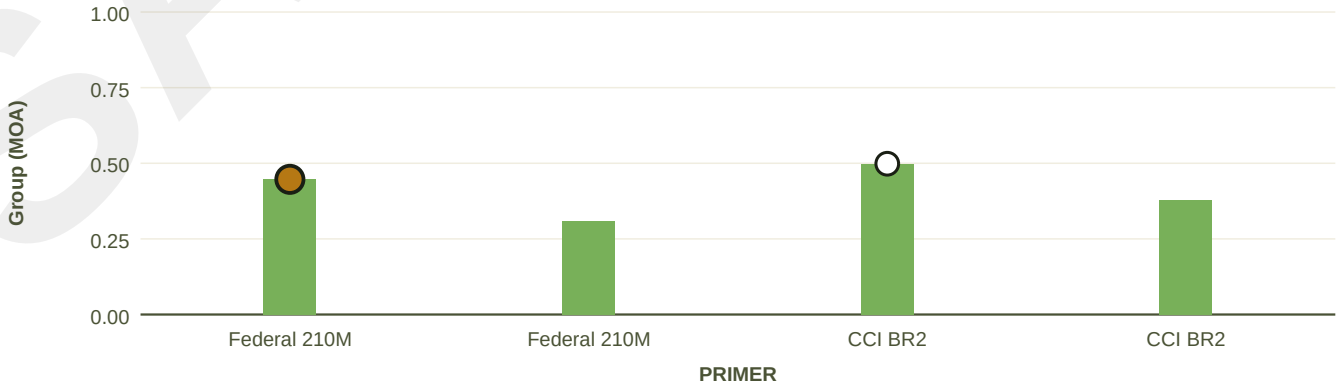
PHASE 3 — NECK TENSION



BEST 2 thou - 0.31 MOA - 9 mm - SD 5

RUNNER-UP 2 thou - 0.38 MOA - 11 mm

PHASE 3 — PRIMER



BEST Federal 210M - 0.31 MOA - 9 mm - SD 5

RUNNER-UP CCI BR2 - 0.38 MOA - 11 mm

> *Neck tension and primer both change how consistently the powder lights and the bullet releases. Watch SD as much as group here — a primer or tension that drops your SD is doing real work even if the group change is small. Component lots vary, so treat a narrow win as a lead to confirm, not a settled fact.*

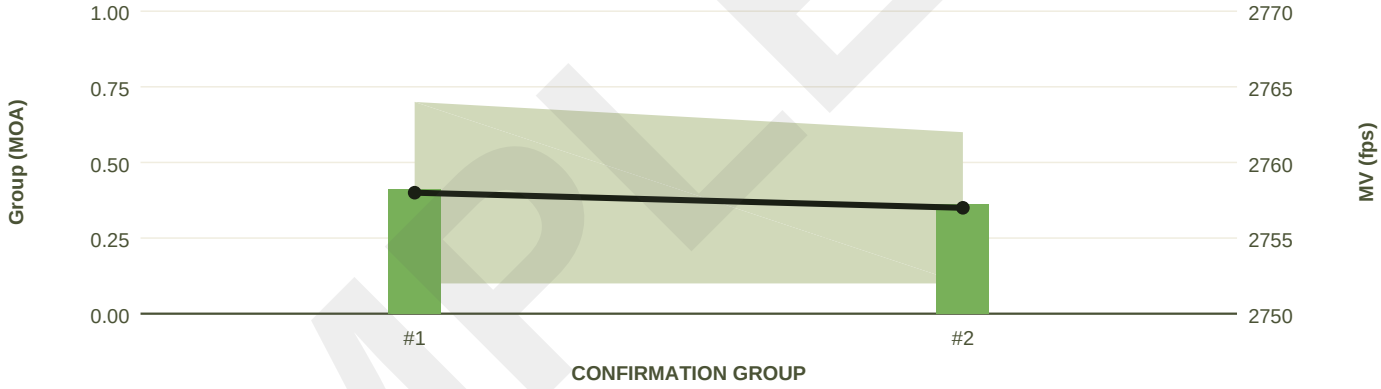
SAMPLE

PHASE 5 — CONFIRMATION GROUPS

7 Oct 2026

#	Date	Range (yd)	Conditions	Charge (gr)	Shots	MV (fps)	ES (fps)	SD (fps)	Group (mm)	Temp (°C)	Wind
1	25 Jul 2026	109	Clear	41.5	10	2758	15.0	6.0	12.0	—	L2R 5mph
2	**26 Jul 2026**	**109**	**Overcast**	**41.5**	**10**	**2757**	**14.0**	**5.0**	**10.5**	**—**	**Calm**

PHASE 5 — CONSISTENCY



Load holds — all 2 groups grade good. SD 5.0–6.0 fps.

> *This isn't a test — it's the same finished load shot more than once to prove it repeats. You want every group in the same grade band and SD holding steady. Some spread between groups is normal and expected; it's the shooter, the conditions and the day, not the load failing. A load that stays in-band across groups is confirmed; wide swings mean shoot more before trusting it.*

SAMPLE