PLUMBLINE STAGE II:

// BACKTEST VERIFICATION — 156 TRADES ANALYSED // SCHEMA v3.0

OVERALL
PASS

POSITIVE EXPECTANCY	PASS
SIGN-FLIP P < 0.05	PASS
T-TEST P < 0.05	PASS
RUIN RISK < 5%	PASS
WFA OOS EDGE	PASS

01 / CURTIS FAITH FORMULA

POSITIVE EXPECTANCY

EXPECTANCY / TRADE
$13.5817
raw dollar per trade

EXPECTANCY / $ RISKED
0.2023
Faith normalized

WIN RATE
84.0%
16.0% loss · 156 trades

WIN / LOSS RATIO
0.4317
avg $28.99 / $67.15

Strategy wins **84.0%** of trades. Raw expectancy of **$13.5817** per trade is **positive — edge confirmed**.

02 / STATISTICAL SIGNIFICANCE

P-VALUE ANALYSIS

PRIMARY — SIGN-FLIP PERMUTATION

0.0000
THRESHOLD < 0.05
STATISTICALLY SIGNIFICANT

OBSERVED NET PROFIT
$2,118.75

PERMUTATIONS
10,000

Sign-flip permutation test estimates how often a zero-edge sign assignment matches or exceeds observed profit.

SECONDARY — ONE-SAMPLE T-TEST

0.0000
THRESHOLD < 0.05
STATISTICALLY SIGNIFICANT

T-STATISTIC
4.121

ONE-TAILED P
0.0000

The t-test asks whether mean trade P&L is significantly greater than zero.

03 / BOOTSTRAP EQUITY CURVE SIMULATION

MONTE CARLO

OBSERVED NET P&L $2,118.75	OBSERVED MAX DD $281.25	WORST-CASE DD (95%) $435
RUIN THRESHOLD $2,000	PROBABILITY OF RUIN 0.00%	OBSERVED SHARPE 0.331

DRAWDOWN PROFILE

Observed DD	$281.25
95th Pct DD	$435
Ruin Threshold	$2,000

Compares actual drawdown against stress drawdown and ruin limit.

NET PROFIT DISTRIBUTION

Observed	$2,118.75

Order-resampling preserves trade outcomes and stresses sequence risk.

Monte Carlo randomly reorders trades to stress-test drawdown and equity-curve sequence risk.

04 / ANCHORED WALK FORWARD

WALK FORWARD & OOS

MEDIAN EFFICIENCY
58.2%
OOS / IS expectancy ratio ≥ 50%

OOS PROFITABLE
100%
profitable OOS windows ≥ 60%

OOS TOTAL P&L
$1,678.75
combined out-of-sample profit

WINDOW 1
EFF 178%

IS	$16.9231/t
OOS	$30.1442/t

IS P&L	OOS P&L	IS TRADES	OOS TRADES
$440	$783.75	26	26

WINDOW 2
EFF 73%

IS	$23.5337/t
OOS	$17.2115/t

IS P&L	OOS P&L	IS TRADES	OOS TRADES
$1,223.75	$447.5	52	26

WINDOW 3
EFF 25%

IS	$21.4263/t
OOS	$5.4327/t

IS P&L	OOS P&L	IS TRADES	OOS TRADES
$1,671.25	$141.25	78	26

WINDOW 4
EFF 58%

IS	$17.4279/t
OOS	$10.1442/t

IS P&L	OOS P&L	IS TRADES	OOS TRADES
$1,812.5	$263.75	104	26

WINDOW 5
EFF 10%

IS	$15.9712/t
OOS	$1.6346/t

IS P&L	OOS P&L	IS TRADES	OOS TRADES
$2,076.25	$42.5	130	26

> **Walk Forward Analysis** uses anchored in-sample data and the next unseen fold as out-of-sample data. Median efficiency is **58.2%**; **100%** of OOS windows were profitable. Result: **PASS**.

SECTION 05

BUILDING ROBUST STRATEGIES

A practical guide to structuring strategies that survive live markets — not just backtests.