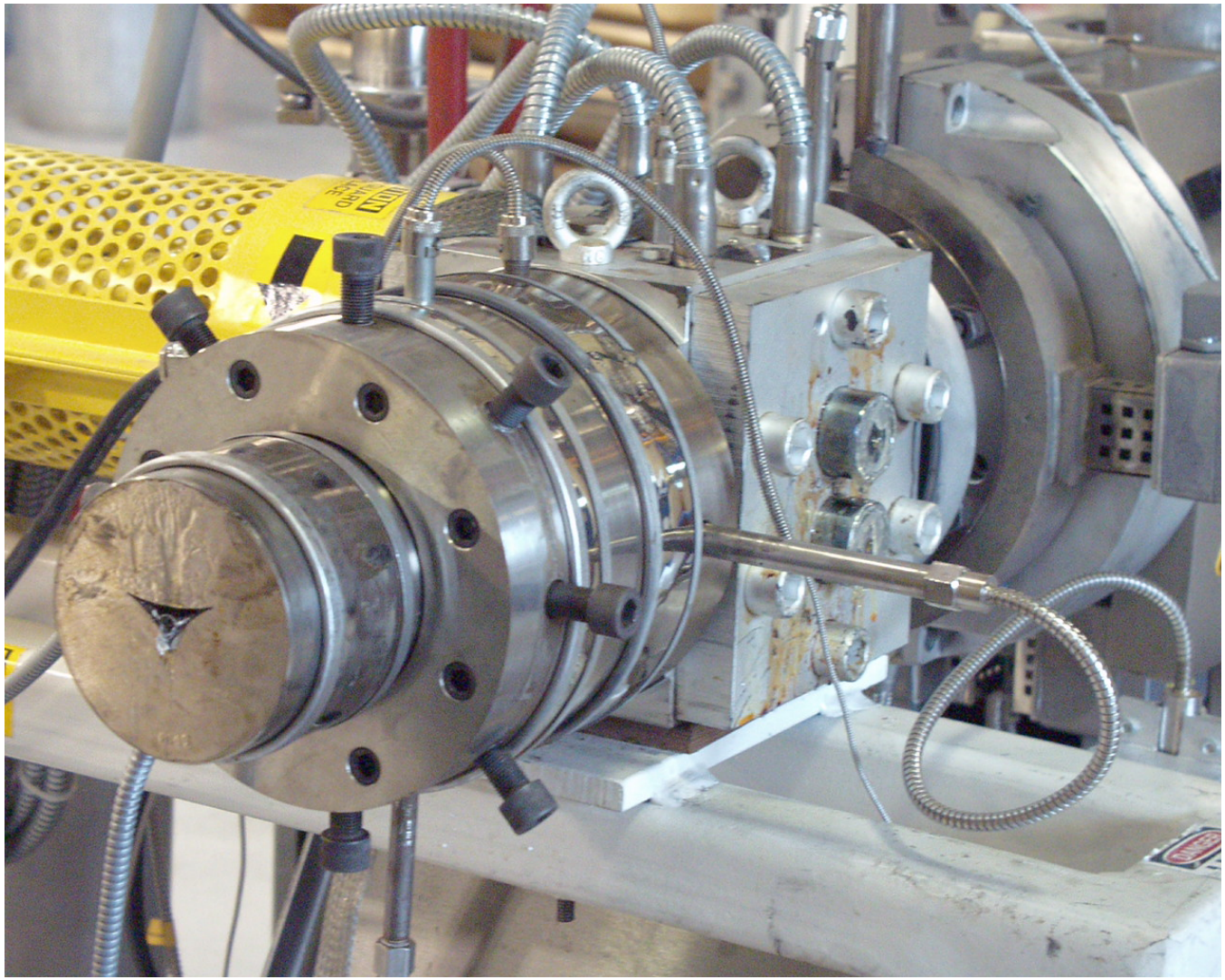
EXTRUDED SCINTILLATOR R&D FOR MINERVA

Anna Pla-Dalmau
Fermilab

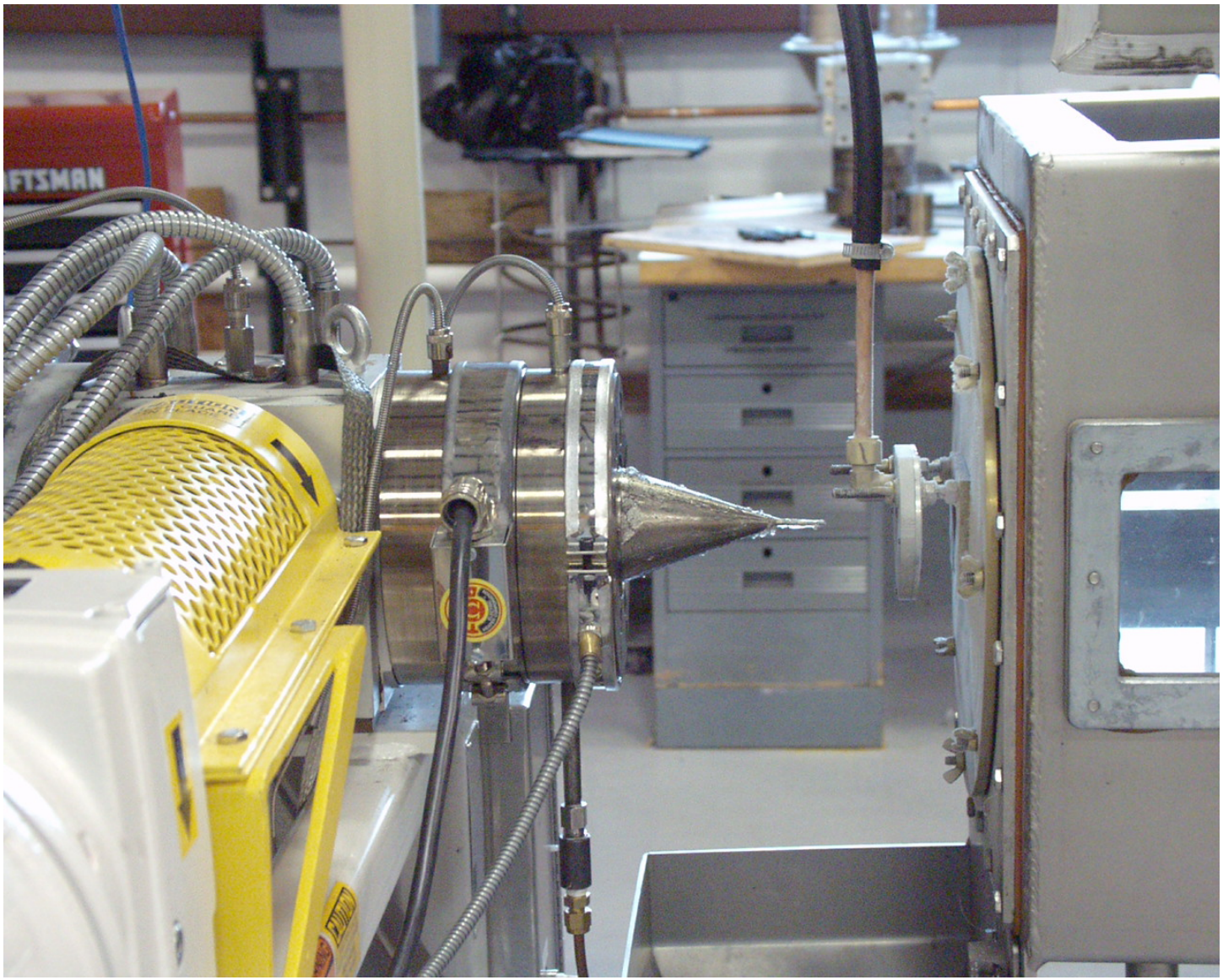
Victor Rykalin
NICADD, Northern Illinois University

Minerva Collaboration Meeting
February 25-27, 2005

FNAL/NICADD EXTRUSION FACILITY



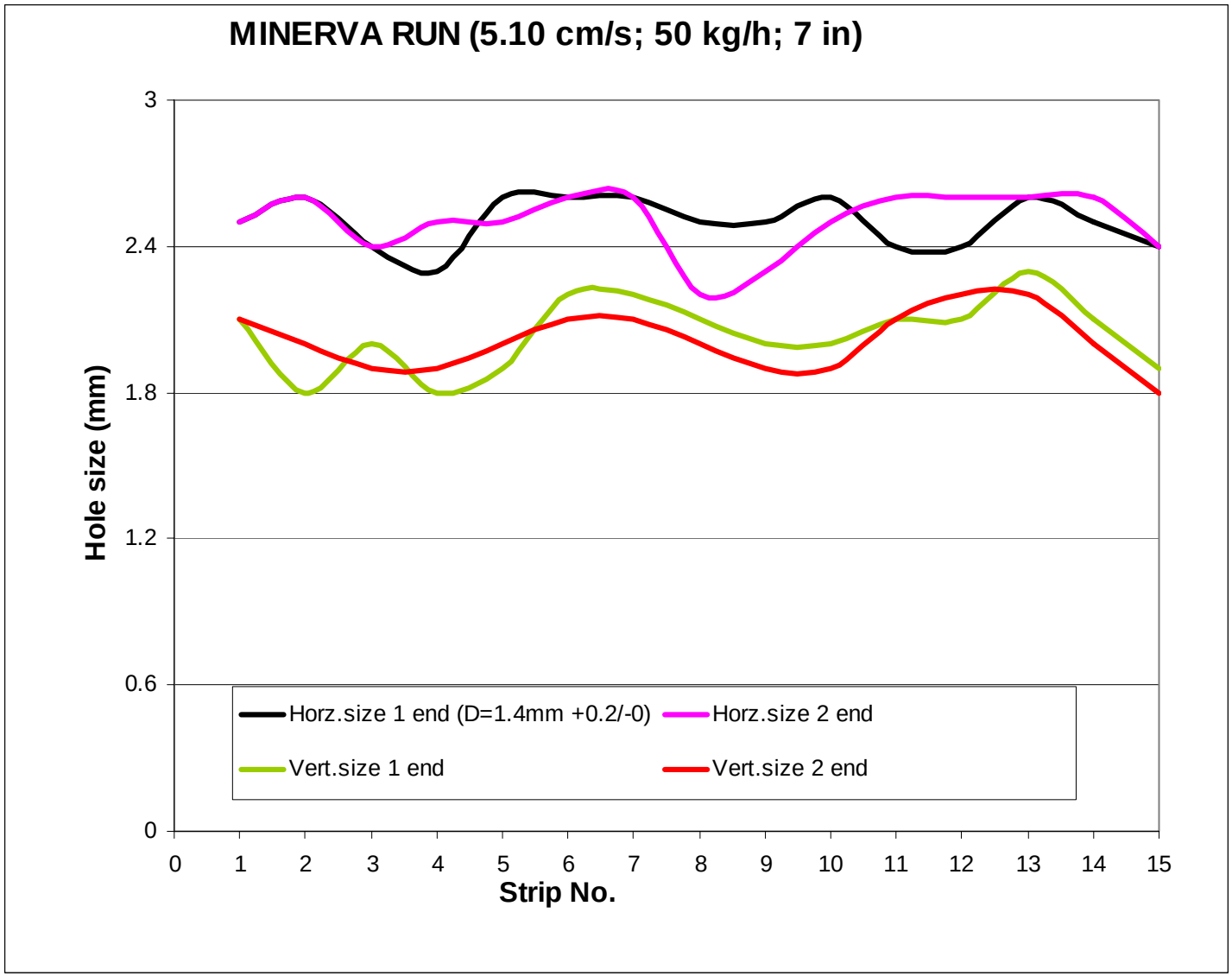
FNAL/NICADD EXTRUSION FACILITY



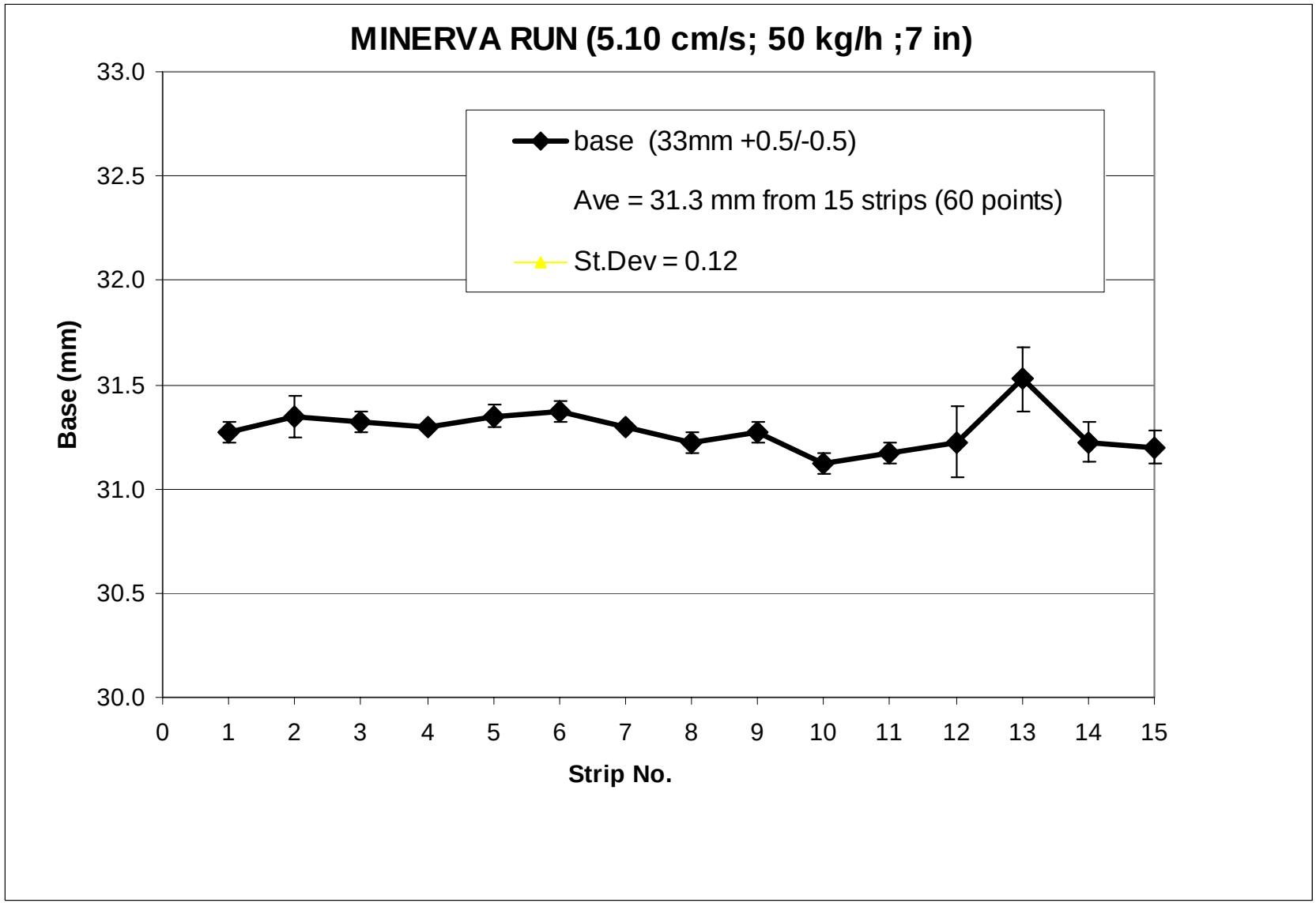
PROGRESS FROM OCTOBER MEETING

- Several R&D runs between December, January and February
  - GOAL: Minimize hole size and bowing
  - Good triangular shape
    - Base size is still slightly undersized
  - Little improvement in hole size
    - Small holes were achieved but for short periods of time
  - Tested extrusion rates of 50 kg/h and 75 kg/h
- Back to the die maker to address triangle size
  - To widen triangle base corners

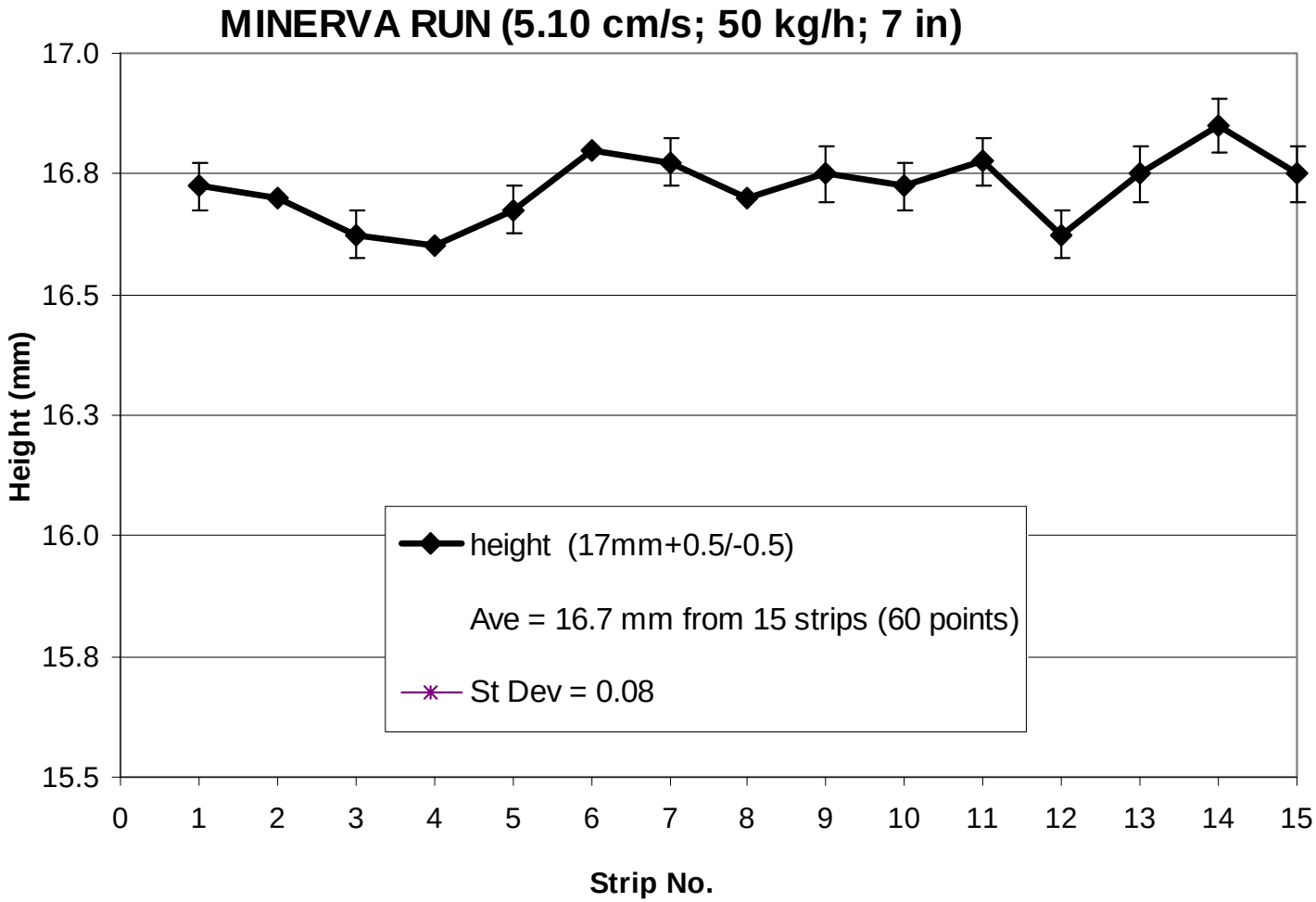
QC OF TRIANGULAR STRIPS: HOLE



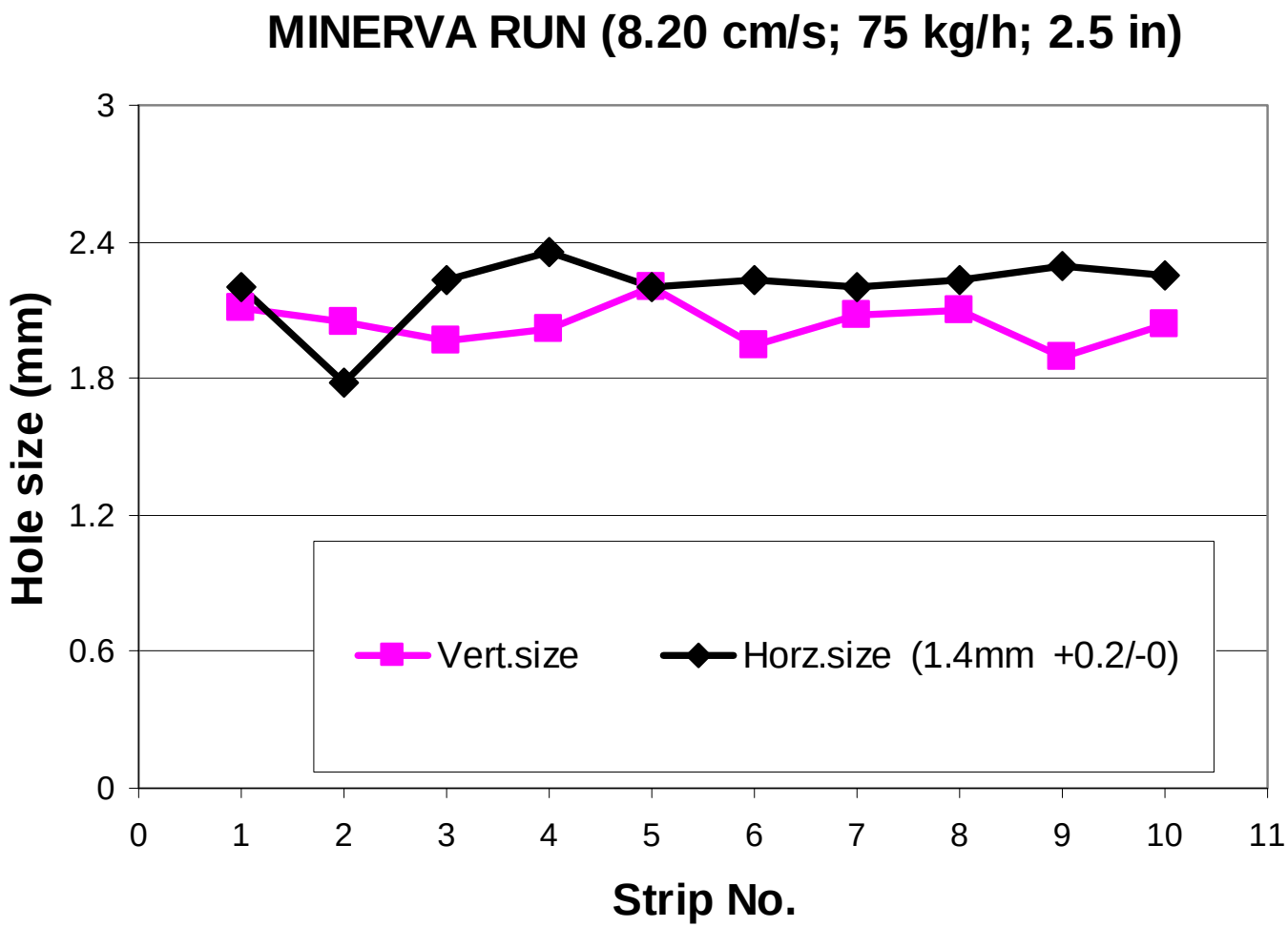
QC OF TRIANGULAR STRIPS: BASE



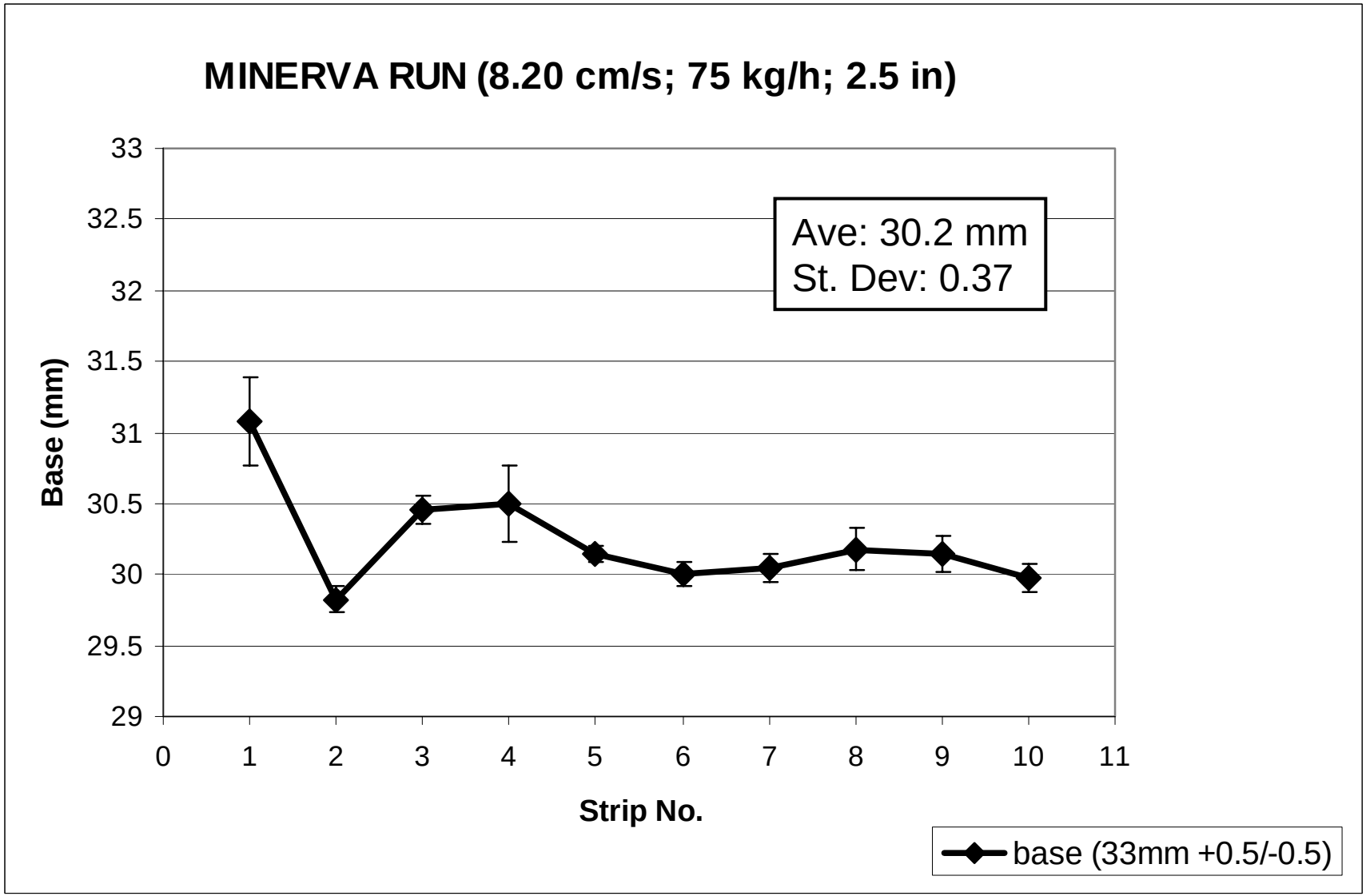
QC OF TRIANGULAR STRIPS: HEIGHT



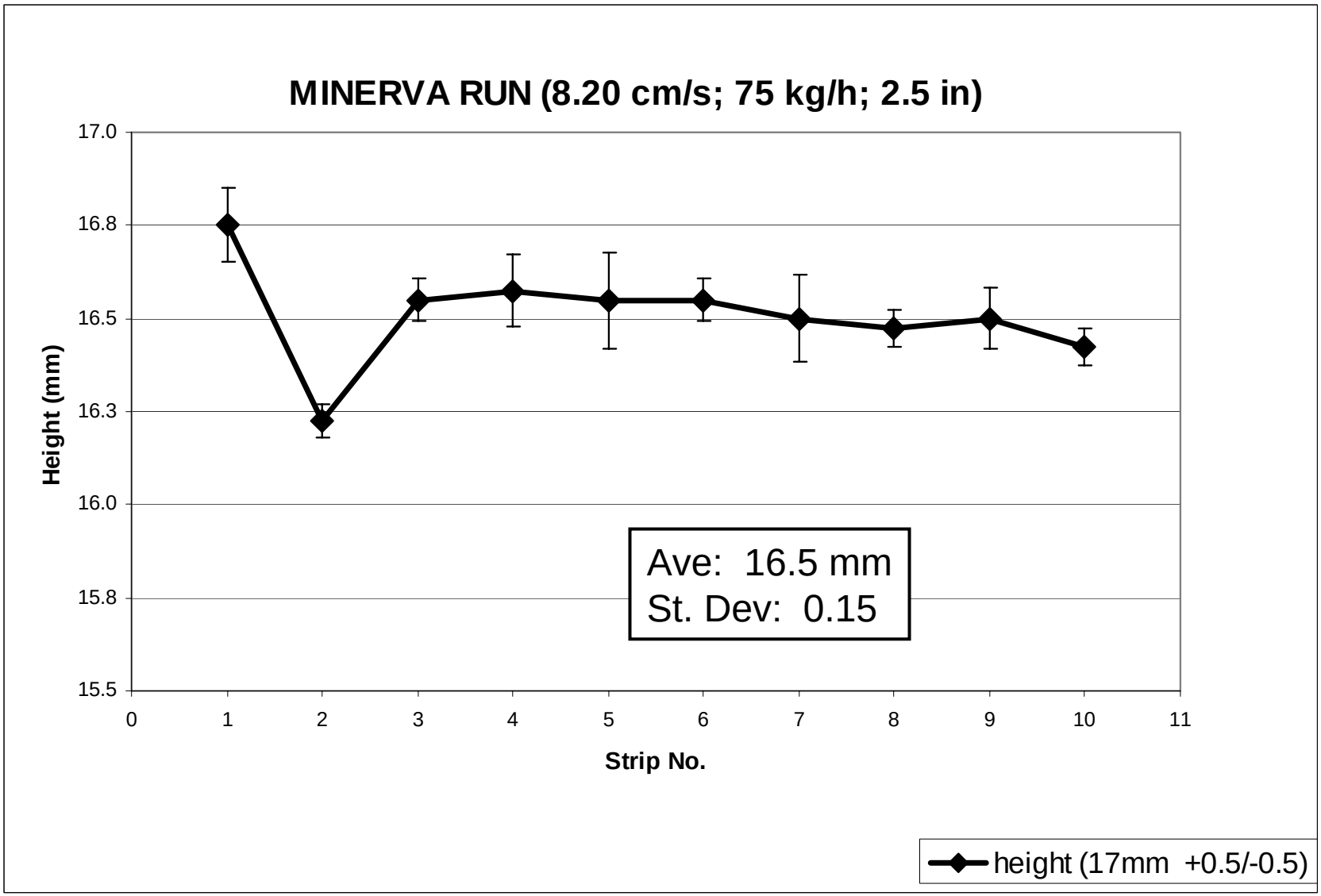
QC OF TRIANGULAR STRIPS: HOLE



QC OF TRIANGULAR STRIPS: BASE



QC OF TRIANGULAR STRIPS: HEIGHT



NEAR FUTURE R&D

- Continue triangle extrusions at 75 kg/h
  - Improve overall size (hole + triangle)
- Pursue square extrusions
  - Polystyrene has been purchased
  - P.O. for dopants is almost ready
  - Help with drawing is needed
- Gather more information on co-extruder