

Abstract Submitted  
for the SHOCK09 Meeting of  
The American Physical Society

**PBX 9404 Cylinder Tests: A Comparison of New and Aged Material** ROBERT MIER, LARRY HILL, MATTHEW BRIGGS, Los Alamos National Lab. — Standard 1-inch diameter copper cylinder tests were performed on aged PBX 9404 (94 wt% HMX, 3 wt% NC, 3 wt% CEF) explosive. The material was about 35 years old at the time it was tested. The explosive was newly pressed from old molding powder that was stored in a magazine under nominal conditions during its entire history. The copper wall motion was measured using both streak camera and PDV. The two types of data are compared for consistency. We also compare the newly acquired data on old PBX 9404 with old data for new PBX 9404 (this is the best that can be done because no new PBX 9404 explosive exists) and compare the results.

Larry Hill  
Los Alamos National Laboratory

Date submitted: 20 Feb 2009

Electronic form version 1.4