Abstract Submitted for the DPP07 Meeting of The American Physical Society

Preliminary high-energy x-ray measurements performed on the TRIDENT 250-TW laser¹ JONATHAN WORKMAN, J. COBBLE, K. FLIPPO, D.C. GAUTIER, S. LETZRING, M. SHERRILL, E.S. DODD, Los Alamos National Laboratory — We present preliminary measurements of K-alpha x-ray emission from foil and wire targets using copper, molybdenum and silver. Experiments are performed on the recently enhanced TRIDENT laser using 1-ps pulses at energies up to 100-J during this commissioning phase. 2-D images from static grids will be presented along with pinhole measurements of emission and single photon measurements from CCD cameras. Copper emission will be recorded on time-integrated crystal spectrometers. We will also present the design for a transmission crystal based high-energy spectrometer.

 $^1\mathrm{Work}$ performed under the auspices of the Dept. of Energy under contract # DE-AC52-06NA25396

Jonathan Workman Los Alamos National Laboratory

Date submitted: 20 Jul 2007

Electronic form version 1.4