Abstract Submitted for the DNP13 Meeting of The American Physical Society

A study of quark energy loss via Drell-Yan process in p+A collisions at Fermilab KUN LIU, Los Alamos Natl Lab, E906/SEAQUEST COLLAB-ORATION — E906/SeaQuest is a new fixed-target experiment being operated at Fermi National Accelerator Laboratory. Using the 120 GeV proton beam from the main injector, E906/SeaQuest measures the Drell-Yan productions in the dimuon mass range 4-8 GeV in p+p and p+A collisions over a wide xF range, with A =D, C, Fe, W. These new measurements will help us to clarify the nature of parton energy loss mechanisms in nuclear medium. Parton energy loss in QGP is considered the dominant contributor to the observed jet quenching phenomena at RHIC and LHC. Since the center of mass energy of p+A collisions at E906/SeaQuest is low and out of the nuclear shadowing region, the measurements will provide the clean determination of parton energy loss effect in cold nuclear medium. E906/SeaQuest conducted a short commissioning run in 2012 and will resume data taking in September 2013. I will present the current status and the prospect of the parton energy loss measurements with the E906/SeaQuest experiment at Fermilab.

Kun Liu Los Alamos Natl Lab

Date submitted: 01 Jul 2013 Electronic form version 1.4