Polynomial Preserving Recovery (PPR) is a very popular post-processing techniques for finite element methods. In this article, we propose and analyze an effective linear element PPR on a new pattern so called Hexagon. By giving an interior estimates for discrete Green function and expansion analysis for the superconvergence theory, we prove that liner element PPR on this new pattern can reach $O(h^4 \ln h^{1/2})$ superconvergence for recovering gradient of Poisson problems in 2-d. In addition, we supplements the quadratic element PPR on the uniform grid of the Chervon pattern with an application in wave equation, which further verifies the superconvergence theory. (Received September 17, 2018)