

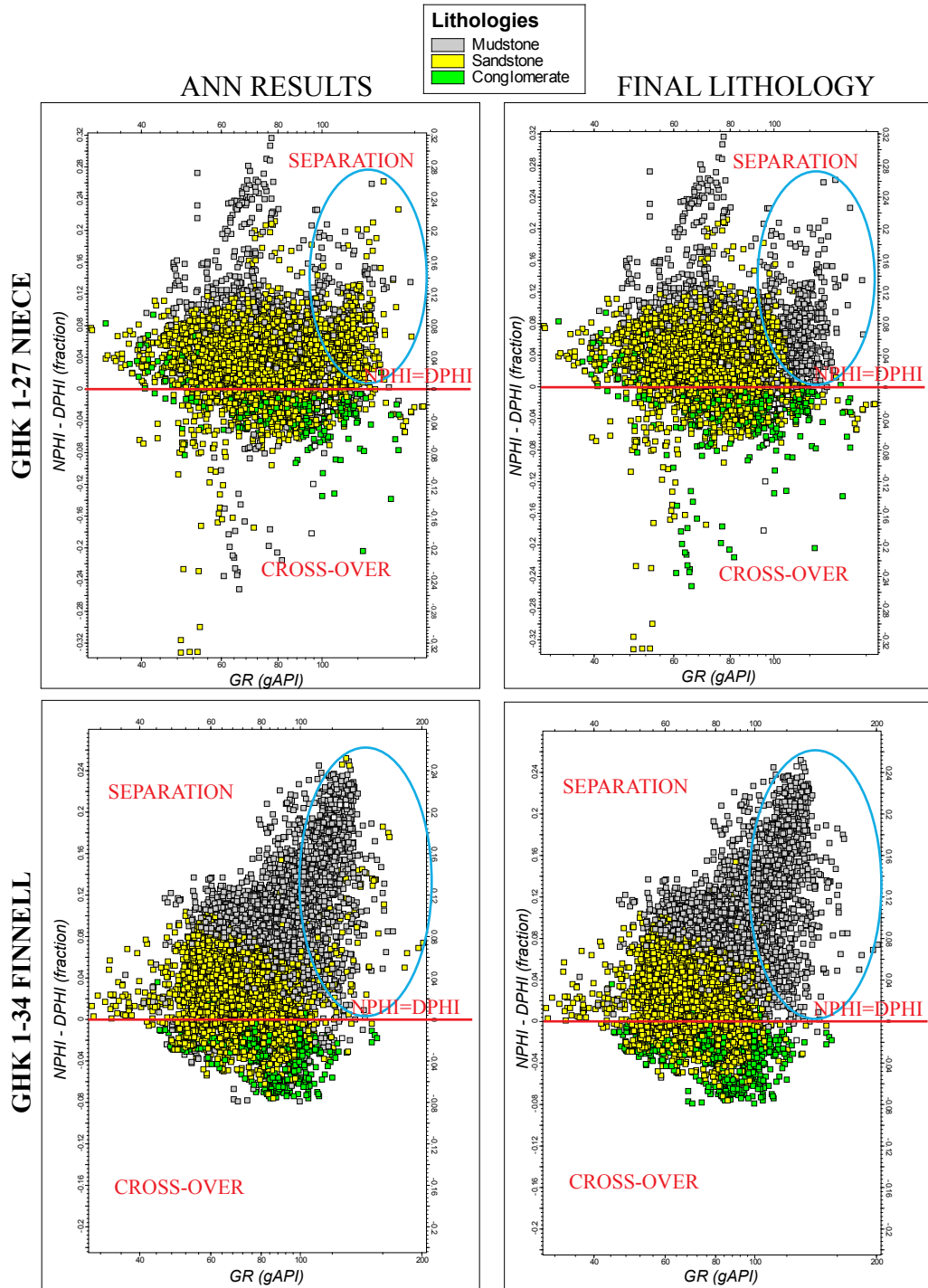


Figure 12. Cross plots of gamma-ray vs. the difference between neutron and density porosities before and after applying constraints to the Artificial Neural Network (ANN) results. Note that lithologies with high gamma-ray and separation in neutron and density porosity were assigned as mudstone in the final lithology (blue). Also, lithologies estimated as mudstone by ANN were changed to conglomerate whenever they have cross-over ($DPHI > NPHI$) of porosity logs.