The last period of counting can be used as a background count since only 10 percent of the initial Ar^{37}, if present, would remain. The chronological occurrence of each pulse during this period is shown in Figure 5, and it may be noticed that the counts occurred linearly with time, but with a large statistical variation because of the small number of counts. A comparison can now be made of the counts observed within the half-width of the Ar^{37} peak position from the sample of argon from the tank, the initial background count, and the residual background count. These are: 11 counts for the sample from the tank, 8.6 counts for the initial background, and 11.6 counts for the residual background, scaled to a 33.6 day period. The counts observed for the intermediate periods are somewhat lower, 8 and 3.5 counts scaled again for the 33.6 day period.

The initial background count appropriately combined with the residual background count can be used to determine the background counting rate for the counter, namely 10.2 ± 2.3 counts in 33.6 days. Comparing this to the first 33.6 day count with the argon recovered from the tank in which 11 counts were observed, one can conclude that 0.8 ± 4 counts can be contributed by Ar^{37}. This experiment (run no. 12) is entirely consistent with the previously discussed experiment (run no. 9). The number of counts observed during the first counting period, and the background counting rates were essentially identical.

It may be concluded from these two experiments that the Ar^{37} production rate, or solar neutrino capture rate in the 3.8×10^5 liters of tetrachloroethylene is less than or equal to 0.5 per day, and therefore, neutrino capture rate per Cl^{37} atom $\lesssim 3 \times 10^{-36}$ sec^{-1}.