The volcano plot uses the p-values obtained from the t-test to find the genes that are differentially expressed at 5%. The results from the plot are expected. Calculating the p-values by using t-test and by using Euclidean distance between the two groups generated extremely similar results. The correlation between the two vectors of p-values was 0.9899998.

When comparing the two histograms, the p-value from t-test results occurred more frequently in the 0 to 0.05 range (first range in bar graph) than the p-value results from the Euclidean distance. I don't understand the reason behind this, but I would guess that eventually the p-value obtained from the Euclidean distance would eventually converge to perfect correlation with the p-values obtained through the t-test if enough permutations were provided.