The recognition of the effect of the test procedure on the test results must be carried into the examination of the data obtained from the test. The meaning of the data must be analyzed against the background of the procedure for obtaining it. In addition, some general considerations apply in examining the data.

The extent to which usable data can be selected from the test results is influenced by how well the log of the test has been kept. The original data sheet should be marked at all questionable data points. If the reason for questioning a data point can be determined, it should be noted in the test log. Causes for questioning a data point can include changing the operator or observer, exceeding the range on an indicator, replacing test leads that shook loose, or any other incident constituting a deviation from the planned test procedure.

Of equal importance to the test results and much more difficult to detect are questionable data points unaccompanied by a notation in the test log. Additionally, it is often useful to perform all calculations soon after conducting the test. When results are suspect, it is almost always easier to perform a root cause analysis during or immediately after the test. The problem is to distinguish between a divergent point caused by the specimen being tested and one caused by improper use of the test method. Only by an intensive re-examination of the test setup can this problem be answered. Some of the potential causes of divergence are:

- Instruments subjected to an environment for which they are not calibrated
- Thermocouple opening
- Instruments operated without sufficient warm up
- Incorrect sequencing of the test circuit
- Hook ups to the wrong circuit
- Operator error