

# **DIELECTRIC FREQUENCY RESPONSE ANALYSIS (DFR) TEST REPORT**

## **1). General Information**

|                                 |  |
|---------------------------------|--|
| Project Name                    |  |
| Location                        |  |
| Equipment Type                  |  |
| Equipment Identification Number |  |
| Manufacturer                    |  |
| Year of Manufacture             |  |

## **2). Test Equipment and Method**

|                                       |  |
|---------------------------------------|--|
| Test Instrument                       |  |
| Test Method (FDS / PDC /<br>Combined) |  |
| Measurement Mode                      |  |
| Test Voltage (FDS)                    |  |
| Test Voltage (PDC)                    |  |

## **3). Environmental Conditions**

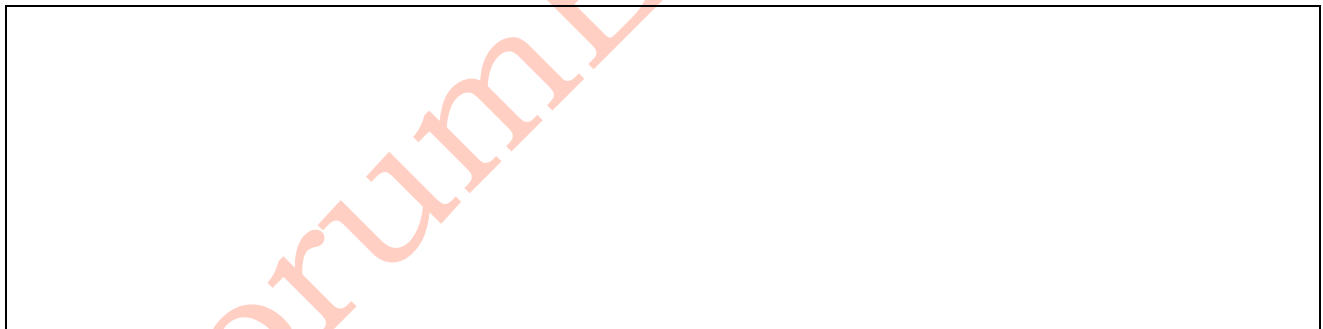
|                      |  |
|----------------------|--|
| Ambient Temperature  |  |
| Relative Humidity    |  |
| Oil Temperature      |  |
| Tap Changer Position |  |

#### 4). Measurement Results

|   |  |
|---|--|
| Calculated Moisture Content (%)             |  |
| Moisture Condition Category                 |  |
| Moisture Saturation (%)                     |  |
| Oil Conductivity                            |  |
| Capacitance at 50 Hz                        |  |
| Dissipation Factor (Tan $\delta$ ) at 50 Hz |  |
| Bubbling Inception Temperature              |  |

#### 5). Dielectric Response Curve

Attach dielectric response curve (Tan  $\delta$  vs Frequency) and supporting graphs here.



#### 6). Interpretation and Assessment

Provide analysis of the insulation condition based on moisture content, oil conductivity and dielectric response characteristics.

Indicate whether the insulation condition is satisfactory, moderate (or) requires corrective action.

**7). Recommendations**

Provide recommendations such as continued service, oil filtration, drying, monitoring (or) further diagnostics.

**8). Test Authorization**

|                          |  |
|--------------------------|--|
| <b>Test Performed By</b> |  |
| <b>Designation</b>       |  |
| <b>Signature</b>         |  |
| <b>Date</b>              |  |