



TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED
(An ISO 9001:2008 Certified Company)

OIL TESTING LABORATORY :: VIJAYAWADA
TRANSFORMER OIL TEST REPORT

SS Name : RENTACHINTALA-220/132KV-SUBSTATION

OTR No: VJA10002101

Ref: OTLVJA2303235

Equipment: 100MVA, 220/132KV, AUTO TRANSFORMER-II (MAIN TANK BOTTOM)

Equipment Details

SAMPLE Details

Make : T&R

Capacity : 100 MVA

Sample Dt : 14.03.2023

Oil Temp : 55.0°C

Sl.no : POM100078

Equipment : 10033725

Recpt Dt : 15.03.2023

Load@Sample : 46

YOM : 2012

HV level : 220KV

Test Dt : 15.03.2023

Total Quantity of Oil in(Litres)

Equipment : 0.00

Container : 2.00

Remarks : as per remarks of prvious test sample: BDV value is below the specified limits and not correlating with other properties.A fresh sample may be sent for confirmation

TEST RESULTS

Reference standard as per IS: 1866-2017

Sl.no	Parameter	Measured Value	UoM	Violation limit	Test method
01	Ethane(C ₂ H ₆)	ND	ppm		
02	Ethylene(C ₂ H ₄)	ND	ppm		
03	Acetylene(C ₂ H ₂)	ND	ppm		
04	Appearance & Colour	CLEAR			
05	Carbon Monoxide (CO)	687.135	ppm		
06	B.D.V@ 61.8Hz,with stirrer)	64.9	kV	>50.00	
07	Methane(CH ₄)	6.317	ppm		
08	Water content	6.0	mg/kg	<20.00	
09	Carbon Dioxide(CO ₂)	4973.54	ppm		
10	Oxygen (O ₂)	465.304	ppm		
11	Resistivity @ 90 °C	434.37	GOM	>3.00	
12	Nitrogen (N ₂)	1987.909	ppm		
13	Hydrogen (H ₂)	10.226	ppm		
14	Tan Delta @ 90 °C, 55Hz	0.001426		<0.200	

Environmental Conditions

Room temp

25.0° C

Rel Humidity

40

NT NOT TESTED

ND

NOT DETECTED

Test conditions for BDV:

Oil Temp: 26.0° C

freq:61.8 Hz,

Electrode type:Hemispherical brass,

6 test values: 81.4,70.1,69.2,67.2,51.2,50.1

Test conditions for DDF:

elec.stress: 1kv/mm,

freq: 55 HZ.

Test conditions for Resistivity:

elec.stress: 250kv/mm,

electrification time: 60 sec.