



**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: VJA10002100

Ref: OTLVJA2303234

Equipment: 100MVA, 220/132KV, AUTO TRANSFORMER-II(OLTC R-PH)

**Equipment Details**

**SAMPLE Details**

Make : T&R	Capacity : 100 MVA	Sample Dt : 14.03.2023	Oil Temp : 52.0°C
Sl.no : POM100078	Equipment : 10033725	Recpt Dt : 15.03.2023	Load@Sample : 45
YOM : 2012	HV level : 220KV	Test Dt : 15.03.2023	
Total Quantity of Oil in(Litres)		Equipment : 0.00	Container : 2.00

**Remarks :** PTR was tripped on OLTC Buchholz and TRE wing as well as system studies wing instructed for DGA testing and also previous test result shown BDV is below the specified limits

**TEST RESULTS**

Reference standard as per IS: 1866-2017

Sl.no	Parameter	Measured Value	UoM	Violation limit	Test method
01	Appearance & Colour	P.YELLOW			
02	Ethane(C <sub>2</sub> H <sub>6</sub> )	ND	ppm		
03	Hydrogen (H <sub>2</sub> )	8506.042	ppm		
04	Ethylene(C <sub>2</sub> H <sub>4</sub> )	833.263	ppm		
05	Acetylene(C <sub>2</sub> H <sub>2</sub> )	7259.793	ppm		
06	Nitrogen (N <sub>2</sub> )	662.770	ppm		
07	B.D.V@ 61.8Hz,with stirrer)	53.0	kV	>50.00	
08	Methane(CH <sub>4</sub> )	521.714	ppm		
09	Oxygen (O <sub>2</sub> )	295.384	ppm		
10	Resistivity @ 90 °C	154.51	GOM	>3.00	
11	Carbon Monoxide (CO)	146.730	ppm		
12	Carbon Dioxide(CO <sub>2</sub> )	1366.516	ppm		
13	Water content	12.6	mg/kg	<20.00	
14	Tan Delta @ 90 °C, 55Hz	0.005431		<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: 61.1,56.1,54.0,52.2,48.6,46.2

Test conditions for DDF:

elec.stress: 1kv/mm,

freq: 55 HZ.

Test conditions for Resistivity:

elec.stress: 250kv/mm,

electrification time: 60 sec.

**Remarks :** Another Sample may be submitted immediately .

Approver ID : 1029317

Name : VENKATA NAGESWARA RAO

Designation : EE/MRT&TRANSFORMERS/VIJAYAWADA

Appr. Dt : 15.03.2023