



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

OIL TESTING LABORATORY :: VIJAYAWADA
TRANSFORMER OIL TEST REPORT

SS Name : PRATHIPADU-220/132KV-SUBSTATION

OTR No: VJA10002140

Ref: OTLVJA2303273

Equipment : 220/132KV-160MVA-POWER TRANSFORMER-III(BOTTOM)

Equipment Details		SAMPLE Details	
Make : BHEL	Capacity : 160 MVA	Sample Dt : 24.03.2023	Oil Temp : 58.0°C
Sl.no : 2038219	Equipment : 10070921	Recpt Dt : 25.03.2023	Load@Sample : 72.17
YOM : 2014	HV level : 220KV	Test Dt : 27.03.2023	
Total Quantity of Oil in(Litres)		Equipment : 0.00	Container : 2.00

TEST RESULTS

Reference standard as per IS: 1866-2017

Sl.no	Parameter	Measured Value	UoM	Violation limit	Test method
01	Ethane(C2H6)	ND	ppm		
02	Acetylene(C2H2)	ND	ppm		
03	Appearance & Colour	CLEAR			
04	Methane(CH4)	9.599	ppm		
05	Oxygen (O2)	771.685	ppm		
06	B.D.V@ 61.8Hz,with stirrer)	72.2	kV	>50.00	
07	Water content	7.6	mg/kg	<20.00	
08	Ethylene(C2H4)	6.636	ppm		
09	Carbon Monoxide (CO)	543.743	ppm		
10	Carbon Dioxide(CO2)	4434.539	ppm		
11	Nitrogen (N2)	2636.723	ppm		
12	Resistivity @ 90 °C	253.44	GOM	>3.00	
13	Hydrogen (H2)	11.442	ppm		
14	Tan Delta @ 90 °C, 55Hz	0.000551		<0.200	

Environmental Conditions		Room temp	25.0°C	Rel Humidity	40
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NT	NOT TESTED	ND	NOT DETECTED		
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Test conditions for BDV:

Oil Temp: 26.0°C

freq: 61.8 Hz,

Electrode type: Hemispherical brass,

6 test values: 84.9, 84.0, 73.7, 73.5, 70.1, 46.9

Test conditions for DDF:

elec.stress: 1kv/mm,

freq: 55 HZ.

Test conditions for Resistivity:

elec.stress: 250kv/mm,

electrification time: 60 sec.