



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

OIL TESTING LABORATORY :: VIJAYAWADA
TRANSFORMER OIL TEST REPORT

SS Name : BRAHMADEVAM-132/33KV-SUBSTATION

OTR No: VJA10003026

Ref: OTLVJA23121106

Equipment: 50MVA 132/33KV POWER TRANSFORMER-III (BOTTOM)

Equipment Details

SAMPLE Details

Make : BBL	Capacity : 50 MVA	Sample Dt : 01.12.2023	Oil Temp : 53.0°C
Sl.no : 5695 /27	Equipment : 10066710	Recpt Dt : 02.12.2023	Load@Sample : 12.3
YOM : 2020	HV level : 132KV	Test Dt : 02.12.2023	
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	Acidity	NT	mg/g	<0.200	
02	2-furfuryl (2FAL)	ND	ppb	<0.05	
03	5-hydroxymethyl-2-furaldehyde	ND	ppb	<0.05	
04	2-furaldehyde (2FOL)	ND	ppb	<0.05	
05	2-acetyl furan (2ACF)	ND	ppb	<0.05	
06	Hydrogen (H2)	ND	ppm		
07	Methane(CH4)	ND	ppm		
08	Ethane(C2H6)	ND	ppm		
09	Ethylene(C2H4)	ND	ppm		
10	Acetylene(C2H2)	ND	ppm		
11	Appearance & Colour	CLEAR			
12	B.D.V@ 61.8Hz,with stirrer)	72.7	kV	>40.00	
13	Water content	5.6	mg/kg	<30.00	
14	Oxygen (O2)	474.15	ppm		
15	Inter Facial Tension	38.02	mN/m	>22.00	
16	Resistivity @ 90 °C	357.64	GOM	>0.20	
17	Carbon Monoxide (CO)	236.32	ppm		
18	Carbon Dioxide(CO2)	2325.91	ppm		
19	5-methyl-2-furaldehyde (5MEF)	166.444	ppb	<0.05	
20	Flash point	160.1	°C	>135.00	
21	Nitrogen (N2)	1475.96	ppm		
22	Viscosity @ 40°C	10.758	mm2/s	<12.00	
23	Density @20 °C	0.8344	g/cm3	<0.895	
24	Tan Delta @ 90 °C, 55Hz	0.002700		<0.500	

**TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED**

(An ISO 9001:2008 Certified Company)

OIL TESTING LABORATORY :: VIJAYAWADA**TRANSFORMER OIL TEST REPORT****SS Name : BRAHMADEVAM-132/33KV-SUBSTATION**

OTR No:VJA10003026

Ref:OTLVJA23121106

Equipment:50MVA 132/33KV POWER TRANSFORMER-III(BOTTOM)

Equipment Details**SAMPLE Details**

Make : BBL

Capacity : 50 MVA

Sample Dt : 01.12.2023

Oil Temp : 53.0^oC

Sl.no : 5695 /27

Equipment : 10066710

Recpt Dt : 02.12.2023

Load@Sample : 12.3

YOM : 2020

HV level : 132KV

Test Dt : 02.12.2023

Total Quantity of Oil in(Litres)

Equipment : 0.00

Container : 2.00

Environmental Conditions

Room temp

25.0^o C

Rel Humidity

40

NT NOT TESTED**ND**

NOT DETECTED

Test conditions for BDV:

Oil Temp: 24.0^o C

freq:61.8 Hz,

Electrode type:Hemispherical brass,

6 test values: 86.0,76.2,74.9,74.4,72.8,51.7

Test conditions for DDF:

elec.stress: 1kv/mm,

freq: 55 HZ.

Test conditions for Resistivity:

elec.stress: 250kv/mm,

electrification time: 60 sec.

Remarks : Test results are with in the specified limits.